



*Capps*

VOL. 5 No. 26

JULY 1, 1955

*SB*

*823*

*C77*

*Ent.*

*Cooperative*

**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**



# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPER damage to crops increasing in Missouri, continues problem in many areas of Kansas, and still of major concern in New Mexico on rangeland and crops. Outbreak numbers in Sanpete County, Utah; abundant in alfalfa in Delaware and Tennessee; heavy spotted infestations in Iowa and Illinois; crop damage in some Texas and Arkansas counties; heavy populations in areas of Nevada, Montana, Minnesota, and Nebraska. (pp. 589, 612-14).

Weather has affected EUROPEAN CORN BORER situation in some States: activity retarded in Minnesota, first-brood oviposition extended in Iowa and situation changed in Illinois. Controls beginning in Illinois and more general use of control practices in Iowa than in preceding years. Borers more abundant in southwestern Kentucky, and in Clarksville, Tennessee area, than for past several years. Heavy egg-laying in northeast Nebraska. Oklahoma and Alabama report new county records. (pp. 589, 612-13).

SOUTHWESTERN CORN BORER not as abundant in Oklahoma as in past two years. (p. 590). CORN EARWORM damaging whorls of corn in several States, especially Missouri, Delaware and Virginia. (p. 590). ARMYWORM of concern in some counties of Delaware, Wisconsin, Minnesota and Iowa; heavy moth flight in central Iowa. (p. 591). PALE WESTERN CUTWORM damaging grains in several Montana counties. (p. 591). YELLOW-STRIPED ARMYWORM showing up in corn in Illinois and Missouri. (p. 592).

CHINCH BUG outbreak continues in Kansas with migration increasing, 50-800 per square foot in some grain. General infestation in eastern North Carolina, damage to late-planted corn in Alabama. (p. 592).

HESSIAN FLY is major insect problem in Indiana with serious losses in wheat many sections. (p. 593). PEA APHID populations increasing or persisting on alfalfa in several States. (p. 593). High count on peas in Minnesota, increasing on late peas at Walla Walla, Washington, but declining in Wisconsin. (p. 598). YELLOW CLOVER APHID damage continues in New Mexico. Also problem in Cochise County, Arizona. Several other States report infestations but no serious damage. (pp. 594, 612).

ALFALFA WEEVIL larval population at peak in western Nevada, moderate in northwest Nebraska, and some damage in Utah. New county records for Virginia. (p. 594). Potato leafhopper abundant in Wisconsin and Delaware (p. 594), building up on potatoes in some New York counties (p. 601). MEADOW SPITTLEBUG heavier than usual in Vermont; adults very abundant in Wisconsin. (p. 595).

(Continued next page)

First-brood CODLING MOTH activity declining in most areas. (p. 596). APPLE MAGGOT flies emerging in Michigan and New York. (p. 596). EUROPEAN RED MITE showing increase in some eastern and western New York orchards and in southern Indiana. (p. 596). No CITRUS BLACKFLY found in Brownsville, Texas area, since initial find May 31. (p. 597).

MEXICAN BEAN BEETLE adults and eggs numerous in south central Pennsylvania, beetles appearing in Larimer and Weld Counties, Colorado. (p. 598). APHIDS heavy on tomatoes in eastern Nebraska and in Kansas City, Missouri area, and exceptionally heavy in northern Illinois. (p. 598). Only low populations of BEET LEAFHOPPER expected to migrate to crops in southwestern and southcentral Idaho. (p. 599). SQUASH BUG and SQUASH VINE BORER adults out in Rhode Island. (p. 599). COLORADO POTATO BEETLE eggs common in early potatoes in southcentral Idaho, more reports than usual in Indiana, damage general in Delaware. (p. 600). FLEA BEETLES unusually abundant on potatoes and tomatoes in Indiana, and generally abundant in Wisconsin. (p. 600). Unusually large number of GREEN PEACH APHID in tobacco in Florence County, South Carolina. (p. 601). CABBAGE LOOPER damaging tobacco in Florence County and other areas of South Carolina; also in Columbus and New Hanover Counties, North Carolina. (p. 601).

BOLL WEEVIL showing considerable increase in several areas of Texas, but most infestations still too low to warrant treatment in Arkansas. Square infestation from 7 to 43 percent in Louisiana, 7.5 percent in delta counties of Mississippi, 2.6 percent in treated and 10.9 in untreated fields in south Georgia, 5 percent in treated and 16 percent in untreated fields in Florence County, South Carolina. Counts very low in Tennessee and North Carolina. (p. 603). BOLLWORMS increasing in east, southwest and southcentral Texas but infestations mostly light in other States. (p. 603). Damaging numbers of APHIDS in cotton in New Mexico. (p. 605). FLEAHOPPERS increased in central, north central and northeast Texas but remain light in other States. (p. 605).

EUROPEAN PINE SHOOT MOTH is heavy in southeastern Wisconsin and in Crawford County, Pennsylvania. (p. 606). Damage by PINE WEEVILS severe in pine plantings in Arkansas. (p. 606). ELM LEAF BEETLE abundant and destructive in several States. (p. 607). A SPRING-TAIL recorded for first time in Oregon. (p. 612).

Status of WHITE-FRINGED BEETLES in United States. (Map). (After p. 614).

WEATHER SUMMARY. (p. 614).

States reporting this week - 45.



CEREAL AND FORAGE INSECTS

GRASSHOPPERS - IDAHO - Light populations of Aulocara elliotti, Oedaleonotus enigma and Melanoplus mexicanus in Picabo area. (Evans, June 13). NEVADA - Camnula pellucida infestations in White Pine County range from 15 to 300 per square yard over 2000 acres; development ranges from second instar to adult. Control underway. (Galloway). MONTANA - Nymphs very abundant in Pryor Gap area. (Twilde). Ten to 40 per square yard in Reno Creek area, Big Horn County; 90 percent second to fourth instar Melanoplus confusus. (Wolff, June 11). Camnula pellucida up to 500 per square yard in hatching beds in Beaverhead County. (Roemhild). WYOMING - Average 20 per square yard in Hot Springs County. (Spackman). NEW MEXICO - Still major problem on rangelands and becoming more abundant on cultivated crops. Proper timing of insecticide application difficult because of uneven hatch. (Durkin, June 18). KANSAS - Crop species continue problem in many areas. Small nymphs of M. differentialis in most areas of eastern counties, but most grasshoppers are late-instar or adult M. mexicanus, M. femur-rubrum and M. bivittatus. Counts from 18-120 per square yard in field margins and 4-45 per square yard throughout infested fields. (Matthew).

UTAH - Outbreak numbers over 30,000 acres of crop and rangelands in Sanpete County. (Knowlton, Funk). OKLAHOMA - Oviposition for second-generation M. mexicanus expected to get underway soon at Stillwater. (Bieberdorf). TEXAS - Medium widespread infestations in alfalfa, pastures and corn in Cooke County. (York). Very heavy widespread in pastures, corn and cotton in Collin County. (Mann). MISSOURI - Melanoplus spp. damage to crops increases throughout State in spite of heavy rains that are keeping natural vegetation succulent. No fungus disease noted. (Kyd, Thomas). ILLINOIS - Heavy in spots. (Petty et al). WISCONSIN - Grasshoppers from partial hatches prior to rain during first part of June are diminishing generally. Some treatment in Adams County. About 75 nymphs per square yard in one location in Dane County. Hatching may occur over a longer than normal period. (Smith). MINNESOTA - Heavy infestations of the red-legged grasshopper (Melanoplus femur-rubrum) in area of sandy soils in Anoka and Chisago Counties. (Minn. Ins. Rept. Serv., June 20). TENNESSEE - Abundant in alfalfa fields. (Dozier). DELAWARE - Melanoplus spp. numerous some areas on alfalfa and clover. (Milliron). ALASKA - M. mexicanus building up in large numbers in Butte area near Palmer. (Washburn).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Infestations in corn common in Kent and Sussex Counties. Damaging whorls and tassels of early corn. (Milliron). PENNSYLVANIA - Larvae in tassels about ready to pupate in Lancaster County. Infestation in wheat field in Franklin County. (Pepper). VIRGINIA - Estimated 5 percent

damage to wheat in local area of New Kent County. (Perry, Matheny). Five of 100 stalks damaged in 3 Madison County corn fields. (Morris). Severe infestation on about 80 acres in Princess Anne County. (Brubaker, Greenwood, Hofmaster). KENTUCKY - Appears to be largest infestation in southwestern counties since 1950-51. Corn planted about May 1 is 94-100 percent infested. Larvae entering stalks June 20. (Rodriguez). ALABAMA - Three fields in Lawrence County and one in Lauderdale County found infested. Southern cornstalk borer also involved in Lawrence County. European corn borers have been found in ten northern counties this month: Blount, Cullman, DeKalb, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marshall and Morgan. (Moore). TENNESSEE - More abundant in Clarksville area than for several years. Infestation from 25-90 percent, larvae about half-grown. (Scott). ILLINOIS - Cool weather of early June greatly changed situation over much of State. In central and north-central Illinois, corn 50 inches tall averaged 250-300 egg masses, corn 40-45 inches had about 150, and corn under 35 inches had varied counts. Approximately 1 percent of acreage in first two categories, 5 percent in third, and about 10 percent in fourth. Insecticide applications beginning. Moth emergence practically complete. (Petty et al).

WISCONSIN - Some eggs laid on smaller corn resulting in high mortalities and very low infestation. (Smith). MINNESOTA - Pupation complete with 40-50 percent adults in southern area to 12 percent in east central area. (Minn. Ins. Rept. Serv., June 20). SOUTH DAKOTA - Moths reaching peak of egg-laying in central east counties where corn is in critical stage. Heavy infestation expected. (Lofgren, June 20). OKLAHOMA - Larvae taken in Canadian County, which is at least 100 miles from other infestations in State. (Arbuthnot).

CORN BORERS (Diatraea spp.) - KANSAS - From 4-24 percent infestations Allen, Woodson, Greenwood and Lyon Counties. Larvae have entered stalks. (Matthew). OKLAHOMA - First-generation southwestern corn borers pupating in Canadian, Garvin and Muskogee Counties, June 22, 23. Not as abundant as in 1953 and 1954. (Arbuthnot).

CORN EARWORM (Heliothis armigera) - NEW JERSEY - In tassels in Burlington County. (Merrill). DELAWARE - Nearly full-grown larvae from volunteer corn south of Dover. Infesting whorls and tassels many areas. (Milliron). VIRGINIA - Heliothis sp. heavily damaging corn in most areas. (Morris). NORTH CAROLINA - Average of 1.4 eggs per silk on corn at Faison, Duplin County, and 7.3 at Clayton, Johnston County. Highest counts this season. (Townes). TENNESSEE - Noticeable injury to corn foliage in Clarksville area. (Scott). FLORIDA - One larva per 3 ears of corn infested 20 acres in Marion County. (Denmark). MISSOURI - From 4-60 percent of stands damaged by larvae working in buds in northern two-thirds of State. (Kyd, Thomas). OKLAHOMA - Damage to buds of corn less in Canadian County region than in recent

years. (Arbuthnot). TENNESSEE - Ten to 20 percent damage to plants of corn. (Dozier). NEW MEXICO - Abundant some fields alfalfa Dona Ana County. (Durkin).

CORN FLEA BEETLE (Chaetocnema pulicaria) - MISSOURI - Populations from 3-14 per plant on small corn in central area. (Kyd, Thomas).

ARMYWORM (Pseudaletia unipuncta) - MAINE - Moths taken at light trap at Monmouth and Scarborough May 23-June 20. (Me. Ins. Pest Surv.). DELAWARE - Timothy severely injured east of Mt. Pleasant, some full-grown larvae still active. Migrations to corn some areas. (Milliron). PENNSYLVANIA - Spot infestations of armyworms in corn near cut barley or hay fields in Lancaster, York, Franklin and Westmoreland Counties. (Pepper, Udine). WISCONSIN - Third and fourth instars in southern part of Columbia County; treatment in some rye and corn. (Smith). MINNESOTA - Reports received from thirty counties in east central area and occasional light infestations in more western and northern counties. Corn fields have been severely damaged next to infested grass in some cases. Most larvae in fourth and fifth instar in southern area and expected to end feeding by June 25. (Minn. Ins. Rept. Serv., June 20).

MORMON CRICKET (Anabrus simplex) - IDAHO - Scattered bands in Payette County. Secondary to Idiostatus variegatus and Steiroxys spp. A. simplex in seventh instar and adult in Washington County. (Evans).

CUTWORMS - DELAWARE - Agrotis ypsilon and gladiaria damaging corn in some areas. (Milliron). MONTANA - Pale western cutworm (Agrotis orthogonia) damaging spring grains in Hill, Liberty, Pondera, Toole, Dawson, Cascade and Big Horn Counties. Attacking rape in Hill County. Thousands of acres reseeded due to damage. (Roemhild). MISSOURI - Small corn from 1 to 3 percent damaged by Agrotis ypsilon, A. gladiaria and Feltia subgothica. (Kyd, Thomas).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - SOUTH CAROLINA - Damage to soybeans at Manning. (Johnson, Grainger). GEORGIA - Heavy damage to experimental corn and grain sorghum at Athens, June 17. Moderate infestation in 20 acres grain sorghum in Putnam County. (Milner).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - ALABAMA - Found in 21 of 34 corn fields examined in 8 northwestern counties. (Moore).

GARDEN WEBWORM (Loxostege similalis) - MISSOURI - A very few fields of corn lightly to moderately injured in central area. Infestation in alfalfa remains extremely light. (Kyd, Thomas).

WHEATHEAD ARMYWORMS - KANSAS - Light infestation on wheat in several counties. (Gates).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - ILLINOIS - Occasional larvae in corn fields. (Petty et al). MISSOURI - Larvae, all instars, general throughout State. Light, about one per square yard. Corn and gardens most heavily damaged. (Kyd, Thomas).

STALK BORER (Papaipema nebris) - PENNSYLVANIA - Light general infestation in corn and other plants in south central area. (Pepper). WISCONSIN - Moderately abundant in corn in southern counties. (Smith).

FALL ARMYWORM (Laphygma frugiperda) - LOUISIANA - Average 10 per 1500 linear feet of row on seedling corn in East Baton Rouge Parish. (Oliver).

ENGLISH GRAIN APHID (Macrosiphum granarium) - WISCONSIN - Populations considerably reduced. Parasites and predators greatly increased. (Smith).

CORN ROOT APHID (Anuraphis maidi-radicis) - SOUTH DAKOTA - Destroying corn in Sanborn and Bon Homme Counties. Injury requiring replanting of soybeans. (Lofgren). KANSAS - Moderate to severe damage in a few fields in Nemaha County. (Matthew). MISSOURI - Light to moderate injury in widely scattered fields. (Kyd, Thomas). DELAWARE - Common in corn fields in some areas. (Milliron).

CHINCH BUG (Blissus leucopterus) - NORTH CAROLINA - Infestation general but not too severe throughout coastal plain and into Piedmont Counties. Moving from grain into corn. (Jones, Scott). GEORGIA - Moderate infestation moving from wheat to corn in Putnam County, June 15. (Milner). ALABAMA - Has damaged late-planted corn in many fields near harvested small grain. Insecticides required to save stands of corn. (Moore). MISSISSIPPI - Migrating into corn from oats in large field in Noxubee County. (Hunsucker, Hutchins). ILLINOIS - Abundant on small corn where wheat, rye or other grass crop plowed under. (Petty et al). KANSAS - Outbreak in central and Flint Hill areas continues as increasing threat to many fields of corn and sorghum. Light to severe damage to milo, sorghum and corn fields adjacent to small grain in this area. Migration is increasing. Infestation mostly in first 10-15 rows. From 50-800 per square foot in some grain fields and 50 to over 1000 nymphs per plant in some corn and sorghum. (Matthew).

APHIDS - COLORADO - Damaging barley and other spring grains in western area in San Juan Basin. (Colo. Ext. Serv.).

GRASS THRIPS (Anaphothrips obscurus) - DELAWARE - Injurious numbers persist in corn, yellowing of lower leaves in some places. (Milliron).

LEAFHOPPERS - INDIANA - Draeculacephala mollipes very abundant on corn. (Davis).

HESSIAN FLY (Phytophaga destructor) - INDIANA - Major insect problem in State. Serious losses in many sections, especially in southwestern quarter. Condition due to two situations: considerable volunteer wheat in some sections resulting in carryover to develop spring infestation; flies did not emerge until spring in other areas due to dry conditions. Very little damage has been caused by this insect in Indiana since 1930 when farmers were adopting fly-free date. It is highly important that fly-free date be strictly adhered to this year. (Davis). KANSAS - Light infestation with some lodging in Marshall County. (King).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - KANSAS - From 3-11 per 25 sweeps of 15-inch net some alfalfa fields. Light numbers in corn in central and east central areas. (Matthew).

SAP BEETLES - PENNSYLVANIA - Fairly abundant on silks of sweet corn in Lancaster County. (Pepper).

SEED-CORN MAGGOT (Hylemya cilicrura) - COLORADO - Causing reduced stands in corn in Morgan County. (Colo. Ext. Serv.). MISSOURI - Light to moderate infestation in soybean, corn and garden seeds in central area. Damaged seed in 3-20 percent of stand. (Kyd, Thomas).

FALSE WIREWORMS - KANSAS - Eleodes suturalis numerous in fields from Dickinson County in central area on west. (Gates).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Attacking corn and soybeans in King George County; damage light. (Hall). Emerging Madison County. (McLearen). Infestation appears very heavy in Hampton area. (Adams).

SUGARCANE BEETLE (Euethoela rugiceps) - NORTH CAROLINA - Light in most fields in Chatham County, but becoming severe in some. (Scott).

WIREWORMS - PENNSYLVANIA - Severe in low spots in field and sweet-corn in York County. (Pepper). Considerable damage to corn in Wyoming County. (Gesell). MONTANA - Abundant and doing damage to grains in Lincoln, Toole, Pondera, Daniels and Big Horn Counties. (Roemhild). MISSOURI - Stand reduced 2-4 percent in widely-scattered fields in northern two-thirds of State. (Kyd, Thomas). MINNESOTA - Damage heavy but spotted in Mower County. (Minn. Ins. Rept. Serv., June 20).

PEA APHID (Macrosiphum pisi) - NEW JERSEY - Building up on second growth of alfalfa. (Merrill). DELAWARE - Increasing some on second-growth alfalfa in Cedar Creek area. (Milliron). KANSAS - Very high numbers in a few local central and eastern areas. From 40 to as high as 1000 per sweep of 15-inch net some fields. (Matthew).

YELLOW CLOVER APHID (Myzocallis trifolii) - NEVADA - Now occurring in southern Lincoln County. (Bunker). UTAH - Found in Kane, Iron and Beaver Counties. Generally moderate to numerous, seldom causing conspicuous damage. Lady beetles and other predators very numerous some locations. Much lower in most Washington County fields than 4 weeks ago. (Knowlton). NEW MEXICO - Considerable damage in many alfalfa fields. Control difficult because of rapid reinfestation. (Durkin, June 18). KANSAS - Heavier infestations of alfalfa still appear concentrated in south central areas. Specimens taken in Riley, Lyon, Allen, Woodson, Greenwood, Butler, Marion, Ellis, Russell and Saline Counties. (Matthew). OKLAHOMA - Increasing slightly in central area. (Stiles). LOUISIANA - Taken from white clover in Bossier Parish for first time, 2 per 100 sweeps. (Oliver).

ALFALFA WEEVIL (Hypera postica) - NEW JERSEY - Delaying regrowth of alfalfa; numerous. (Merrill). MARYLAND - Damage apparently over for season. According to county agents this is most serious insect pest in State in their experience. (U. Md., Ent. Dept.). VIRGINIA - Found in Shenandoah and Appomattox Counties; light infestations. (Morris). PENNSYLVANIA - Mostly adults and pupae in south central area. (Pepper). UTAH - Some damage in a few counties. (Knowlton). NEVADA - Larval populations reaching peak in western area; requiring control. (Galloway). Infestation in Lincoln County highest of past few years. (Bunker). NEBRASKA - Moderate infestation northwest area; 27 larvae per 25 sweeps on alfalfa; few adults. (Andersen).

A WEEVIL (Miccotroqus picirostris) - PENNSYLVANIA - Collected in alsike clover in Union County. Det. by R. E. Warner. (App, Negley).

THRIPS - NEW MEXICO - Very abundant on alfalfa and migrating to cotton when hay cut. (Durkin, June 18).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Per 100 sweeps alfalfa and clover by parish: Bossier 81 adults, 3 nymphs; Rapides 148 adults; Ascension 51 adults, 2 nymphs. (Oliver).

POTATO LEAFHOPPER (Empoasca fabae) - NEW JERSEY - Beginning to appear in alfalfa. (Merrill). MARYLAND - Specimens collected on alfalfa at Ellicott City and potatoes at Woodbine June 14 determined as this species by D. A. Young. No damage yet to alfalfa. (U. Md., Ent. Dept.). DELAWARE - Numerous on alfalfa and clover at some points, increasing on alfalfa in Kent County. (Milliron). VIRGINIA - Some yellowing of alfalfa in Chesterfield County. (Matheny). As high as 175 per 100 sweeps in one Appomattox County field. (Morris). WISCONSIN - Abundant. (Smith).

PLANT BUGS - DELAWARE Lygus lineolaris unusually abundant on forage and legumes. Adelphocoris lineolatus common near Middletown. (Milliron). VIRGINIA - Fifty to 60 per 100 sweeps in alfalfa in 3 fields in Shenandoah and Appomattox Counties. (Morris). LOUISIANA - Lygus lineolaris averaged 32 per 100 sweeps in alfalfa in Bossier Parish and 84 per 100 sweeps in Rapides Parish; 19 per 100 sweeps in white clover in Ascension Parish. (Oliver). MONTANA - Lygus sp. showing up in economic numbers in alfalfa in central and northeastern areas. (Roemhild).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - VERMONT - Heavier than previous years on grasses and legumes. (Scott). WISCONSIN - Adults very abundant. (Smith).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - IDAHO - Larvae infesting about 50 percent of heads of red clover in south central area in fields left for seed second or third season. (Douglass). Populations low in southwestern area. (Walz, June 18). MISSOURI - Adults and larvae continue to damage red clover. Approximately 20-25 percent of stems and buds show larval injury in central area. (Kyd, Thomas).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - UTAH - Has spread into Washington, Iron and Sanpete Counties. (Knowlton).

A GRAPE COLASPIS (Colaspis sp.) - NORTH CAROLINA - About 10 percent of soybean plants showing damage in Washington County. (Perry, Pruden). LOUISIANA - Eighty-six per 100 sweeps of white clover in East Baton Rouge Parish, 47 per 100 sweeps in Ascension Parish. (Oliver).

CLOVER ROOT BORER (Hylastinus obscurus) - IDAHO - In all second and third-year red clover in southwest area. (Walz, June 18).

CLOVER ROOT CURCULIO (Sitona hispidula) - IDAHO - In all second- and third-year red clover in southwest area. (Walz, June 18). MISSOURI - Adults continue to damage alfalfa and red clover, 1-10 adults per square foot. (Kyd, Thomas). INDIANA - Serious losses to second-year alfalfa in several central areas. (Davis).

BLISTER BEETLES - NEW MEXICO - Large numbers in alfalfa in Lea County. (Durkin, June 18). VIRGINIA - Fifteen and 30 Epicauta cinerea per 100 sweeps in alfalfa in Shenandoah County. (Morris).

ALFALFA CATERPILLAR (Colias philodice eurythyme) - MARYLAND - A few larvae on alfalfa, Howard County. (U. Md., Ent. Dept.). DELAWARE - Unusually numerous in alfalfa at Middletown. (Milliron).

SALT-MARSH CATERPILLAR (Estigmene acrea) - LOUISIANA - Infestations light and widespread in Acadia and St. Landry Parishes. (Oliver).

ROSE CHAFER (Macrodactylus subspinosus) - MINNESOTA - Adults active in Swift and Anoka Counties. Two acres of small corn defoliated Anoka County with 25-30 beetles on some plants. (Minn. Ins. Rept. Serv., June 20).

RED-NECKED PEANUTWORM (Stegasta bosquella) - FLORIDA - Eighty to 90 percent of buds of peanuts injured at Gainesville. First report of season for this pest. (Kuitert).

### FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - NEW YORK - At low level generally; 66 percent emergence of spring brood moths and 24 percent pupated in eastern area. (Wkly. News Lett.). Emerged in large numbers Wayne County. (Small). NEW JERSEY - Peak of entry passing in southern area. (Merrill). DELAWARE - Emergence of spring brood about ended; fresh stings evident. (Late News). OHIO - Big increase in entries begun June 13. (Cutright). INDIANA - First-brood activity practically ceased in Vincennes area. (Hamilton). ILLINOIS - Very few entries as of June 21. (Chandler). MISSOURI - Stragglers of first brood continuing to hatch in several counties in unsprayed orchards; increased activity in the Independence area. (Wkly. Rept. Fr. Grow.).

APPLE APHID (Aphis pomi) - DELAWARE - Scattered infestations present. (Late News). OHIO - Numerous starting-colonies. (Cutright). NEW YORK - Increasing in Monroe, Saratoga and Niagara Counties. (Wkly. News Lett.).

APPLE MAGGOT (Rhagoletis pomonella) - MICHIGAN - Adults at South Haven; June 14 at Pawpaw; June 15 at Sturgis; over one week earlier than usual. (Hutson). NEW YORK - Flies began appearing June 14 and increasing in activity in eastern area (Dean), in Monroe County (Corey).

ORCHARD MITES - MASSACHUSETTS - Two-spotted spider mite (Tetranychus bimaculatus) moving into trees. (Crop Pest Cont. Mess.). NEW YORK - European red mite (Metatetranychus ulmi) building up in some orchards eastern area and in Niagara County. (Wkly. News Lett.). INDIANA - European red mite predominates in most orchards; warranting control in some orchards. Some orchards with no fruit show bronzing, Vincennes area. Counts ranged to 4976 mobile forms per leaf in area. (Hamilton). Increasing in Orleans area. (Marshall). UTAH - Clover mite (Bryobia praetiosa) damaging and two-spotted spider mite appearing in many northern and central area orchards. (Knowlton).

WALNUT CURCULIO (Conotrachelus juglandis) - MARYLAND - Black walnuts from Baltimore with stings. (U. Md., Ent. Dept.).



SHOT-HOLE BORER (Scolytus rugulosus) - MISSISSIPPI - Reported injuring peach trees in Monroe County. (Goodgame).

PEACH TREE BORERS - MISSOURI - Pupal skins of emerged moths in Boone County. (Wkly. Rept. Fr. Grow.). MICHIGAN - Lesser peach tree borer (Synanthedon pictipes) hatching at Hart, Paw Paw and Grand Rapids. (Hutson). FLORIDA - Peach tree borer (Sanninoidea exitiosa) infesting black cherry trees in Duval County. Causing more damage than usual this year. (Denmark).

AN APHID (Monellia caryae) - ILLINOIS - Increasing on pecans and causing much honeydew Carbondale area. (Chandler).

FALL WEBWORM (Hyphantria cunea) - LOUISIANA - Light infestation on pecans generally. (Oliver).

STALK BORER (Papaipema nebris) - PENNSYLVANIA - Light infestation in new shoots of currants in Erie County. (Adams).

LEAFHOPPERS - NEW JERSEY - Activity heavy in undusted cranberry fields. (Merrill).

CITRUS BLACKFLY (Aleurocanthus woolumi) - TEXAS - Since finding of blackfly in Brownsville May 31, 4000 trees have been inspected on 500 properties in the area, and no further infestations found. (Cit. Blackfly Control Project, June 1-15).

#### Citrus Insect Conditions in Florida for Third Week in June

PURPLE SCALE (Leiodosaphes beckii) continuing to increase with further increase expected. Groves infested, 95 percent. Highest activity in Brooksville, Gainesville and west coast areas. FLORIDA RED SCALE (Chrysomphalus aonidum) peak of hatch reached. Activity highest in Ridge and Indian River areas. Groves infested, 60 percent. CITRUS RED MITE (Metatetranychus citri) activity increased. Population reduction expected. Activity highest in Ridge and Brookville areas. Groves 75 percent infested. CITRUS RUST MITE (Phyllocoptruta oleivora) increased activity on leaves and fruit and increase expected during July. Highest activity in Ridge and Indian River areas. Groves infested, 53 percent. MEALYBUG infestations increasing. Expected to reach peak in July. (Pratt, Thompson, Johnson).

TRUCK CROP INSECTS

MEXICAN BEAN BEETLE (Epilachna varivestis) - COLORADO - Reported for first time this season in Larimer and Weld Counties; none on western slope. (Exp. Sta. & Ext. Serv.). VIRGINIA - Light to moderate injury to snap and lima beans with heaviest damage on older plantings in eastern area. (Brubaker, Greenwood, Hofmaster). PENNSYLVANIA - Adults and eggs numerous with a few larvae on beans in south central area. (Pepper). DELAWARE - Attacking lima beans in Kent and Sussex Counties. (Milliron). RHODE ISLAND - Light to medium infestation in gardens; light damage common. (Caroselli).

PALE STRIPED FLEA BEETLE (Systema blanda) - MARYLAND - Damaging bean foliage in Baltimore County. (U. Md., Ent. Dept.).

PEA APHID (Macrosiphum pisi) - WASHINGTON - Populations increasing on late peas. (Cook). UTAH - About 700 acres of canning peas in Cache Valley may require control. (Knowlton, Allen). NEBRASKA - Very severe infestations throughout the Platte Valley. (Roselle). MINNESOTA - Pan counts remain high in central and south central area, June 14; warranting control. (Minn. Ins. Rept. Serv., June 20). WISCONSIN - Populations declining. (Smith).

PEA WEEVIL (Bruchus pisorum) - IDAHO - Control operations in south central area underway. (Douglass).

SEED-CORN MAGGOT (Hylemya cilicrura) - IDAHO - Some first plantings of beans destroyed in south central area. (Douglass, June 18). MONTANA - Attacking beans in Yellowstone County. (Roemhild).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Causing light to moderate damage to snap, lima and soybeans in eastern area. (Brubaker, Greenwood, Hofmaster).

APHIDS - NEBRASKA - Potato aphid (Macrosiphum solanifolii) infestations heavy on tomatoes in eastern counties. (Roselle). MISSOURI - Causing much injury to tomatoes in the K. C. area. (Wkly. Rept. Fr. Grow). TEXAS - Melon aphid (Aphis gossypii) light, local infestation in cantaloup in Zavala County and a heavy local infestation causing damage to water-melons in Dimmit County. (Richardson). ILLINOIS - Tomato aphids exceptionally abundant in northern area, requiring treatment. (Petty et al). NEW YORK - Potato aphids increasing in Nassau County, on tomatoes in Rockland County, building up on potatoes in Saratoga County, with threatening numbers on tomatoes and potatoes in Wayne County. (Wkly. News Lett.).

RED-BACKED CUTWORM (Euxoa ochrogaster) - IDAHO - Still causing some losses to sugar beet stands in south central area. (Douglass, June 18).

BEET LEAFHOPPER (Circulifer tenellus) - IDAHO - Low populations of nymphs in southwestern and south central areas. Unseasonable weather reduced size of spring generation. Weed hosts attractive to migrants. Only low populations expected to migrate into southwestern area and Magic Valley. (Douglass, June 18). UTAH - Curly top in tomatoes in St. George area showing 44 to 58 percent dead or dying. Leafhoppers numerous on summer hosts. From 10 to 34 percent curly top of tomatoes at Kanab. (Knowlton).

BEET WEBWORM (Loxostege sticticalis) - COLORADO - Peak exceeding 400 moths per night in traps in Boulder and Weld Counties. Moths abundant in other northern counties. (Exp. Sta.).

SUGAR-BEET ROOT MAGGOT (Tetanops myopaeformis) - COLORADO - Continue to damage some sugar beets to extent that replanting to other crops underway in Weld County. (Ext. Serv.).

SUGAR-BEET CROWN BORER (Hulstia undulatella) - IDAHO - Medium infestation in a few sugar beet fields in south central area. (Douglass, June 18).

SQUASH BUG (Anasa tristis) - RHODE ISLAND - Adults common in gardens East Greenwich area. (Caroselli). NORTH CAROLINA - Light infestation on squash in Duplin County. (Brett).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - NORTH CAROLINA - Abundant on various truck in Duplin County. (Brett).

SQUASH VINE BORER (Melittia cucurbitae) - RHODE ISLAND - Adults taken in East Greenwich. (Caroselli).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - RHODE ISLAND - Adults very heavy in small gardens throughout northern and eastern areas. (Caroselli). DELAWARE - Injuring cucumbers and squash in several areas. (Milliron). NORTH CAROLINA - Abundant on truck in Duplin County. (Brett).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Increasingly injurious to cabbage generally. (Milliron).

CELERY LOOPER (Anagrapha falcifera) - DELAWARE - Adults common at lights and on potatoes in Dover area. (Milliron).

HARLEQUIN BUG (Murgantia histrionica) - NORTH CAROLINA - Heavy infestations on collards and on radishes in Duplin County. (Brett).

TURNIP MAGGOT (Hylemya floralis) - ALASKA - Ovipositing on crucifers during week of June 14-21. (Washburn).

SPINACH LEAF MINER (Pegomya hyoscyami) - COLORADO - Damaging sugar beets in Weld, Mesa and Montrose Counties. (Exp. Sta. and Ext. Serv.). IDAHO - Eggs common; light infestation of larvae in sugar beets south central area. (Douglass, June 18).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - IDAHO - Adults moving into potato fields; eggs common in early potatoes in south central area. (Douglass, June 18). NEBRASKA - In early potato fields in western area. (Andersen). ILLINOIS - Damaging some potatoes in northern area. (Petty). INDIANA - More reports than usual of abundance and destructiveness. (Davis). NORTH CAROLINA - Moderate infestation on eggplant Duplin County. (Brett). VIRGINIA - Infestation in eastern area mostly adults and eggs, but injury to potatoes expected later if fields not treated. (Brubaker, Greenwood, Hofmaster). DELAWARE - Injuring potatoes generally; damaging tomatoes from Summit Bridge southward. (Milliron). NEW YORK - Causing some damage to tomatoes in Rockland County. (Wkly. News Lett.). CONNECTICUT - Observed for first time this year June 23 in Connecticut Valley. (Johnson, Kring).

EUROPEAN CORN BORER (Pyrausta nubilalis) - MARYLAND - About 5 percent of potatoes injured in Worcester County. Reported from Montgomery County. (U. Md., Ent. Dept.).

FLEA BEETLES - MONTANA - A flea beetle doing severe damage to mustard in Teton, Toole, Pondera and adjoining counties. Larvae severely damaging sugar-beet roots in Yellowstone County. (Roemhild). UTAH - Causing some damage to sugar beets near Gunnison and to some potatoes at Richfield. (Knowlton). WISCONSIN - Abundant generally. (Smith). COLORADO - Damaging tomatoes, beans and potatoes in western area. (Ext. Serv.). MICHIGAN - Potato flea beetle (Epitrix cucumeris) numerous on potatoes and tomatoes at Haslett, Mason and East Lansing. (Hutson). INDIANA - Unusually abundant on potatoes and egg plant. (Davis). KENTUCKY - General on newly-transplanted tobacco plants, ranging from 2 to 8 per plant. (Boush). PENNSYLVANIA - Heavy infestation on potatoes in Erie County. (Adams). VIRGINIA - Light injury to potatoes in eastern area. (Brubaker, Greenwood, Hofmaster). DELAWARE - Sweetpotato flea beetle (Chaetocnema confinis) injuring sweetpotatoes at Lincoln and Georgetown. (Milliron). CONNECTICUT - Potato flea beetle (Epitrix cucumeris) on tobacco doing some damage in Connecticut Valley. (Kring).

PLANT BUGS - DELAWARE - Tarnished plant bug (Lygus lineolaris) causing much injury to potatoes generally. Injury to tomatoes at Dover and on lima beans at Houston. (Milliron).

TOMATO FRUITWORM (Heliothis armigera) - SOUTH CAROLINA - Some losses on early tomatoes. (Nettles). Continues severe where fields untreated in Florence County. (Kirk).

POTATO LEAFHOPPER (Empoasca fabae) - VIRGINIA - Severe injury in some parts of Chesterfield County and vines showing some burn. (Matheny). DELAWARE - Increasing on untreated potatoes in Lincoln-Ellendale-Georgetown area. (Milliron). NEW YORK - Building up on potatoes in Monroe and Niagara Counties. (Wkly. News Lett.).

POTATO PSYLLID (Paratrioza cockerelli) - UTAH - Severely damaged most of potato patches in Dixie area of Washington County and some patches at Kanab. (Knowlton). COLORADO - None observed in potatoes or tomatoes. (Ext. Serv.). WYOMING - Requiring control in early-planted potatoes and tomatoes in Goshen County. (Spackman).

STALK BORER (Papaipema nebris) - MASSACHUSETTS - Migrating into corn, tobacco and tomatoes. (Crop Pest Cont. Mess.). PENNSYLVANIA - About 10 percent of tomatoes infested in a five-acre field in Lackawanna County. (Gesell).

TOBACCO BUDWORM (Heliothis virescens) - TENNESSEE - None have appeared in north central area. (Mullett). NORTH CAROLINA - Light infestations in Wilkes County; populations low elsewhere. (Scott, Mitchell).

GRASSHOPPERS - TENNESSEE - Nymphs damaging tobacco. (Scott). NORTH CAROLINA - Rather high populations in southeastern area. (Mitchell). VIRGINIA - Causing moderate damage to edges of tobacco fields in Pittsylvania County. (Dominick).

GREEN PEACH APHID (Myzus persicae) - SOUTH CAROLINA - Unusually large number in tobacco in Florence County; in many fields generally. (Allen). VIRGINIA - Spotted light to heavy infestations in tobacco in Pittsylvania County. (Dominick).

HORNWORMS - KENTUCKY - First of season on tobacco in Fayette and Woodford Counties June 22. Reported from Glasgow area June 12. (Boush). TENNESSEE - New brood of moths expected in early July. (Scott). NORTH CAROLINA - Very few larvae or eggs in tobacco. (Mitchell). VIRGINIA - Moths in six light traps near Chatham, Pittsylvania County, for week ending June 18: Protoparce sexta 39; P. quinque maculata 57. (Dominick). PENNSYLVANIA - Eggs and small larvae on tomatoes in south central area. (Pepper).

CABBAGE LOOPER (Trichoplusia ni) - SOUTH CAROLINA - Damaging tobacco in many fields in Florence County; reports received from other areas. (Allen). NORTH CAROLINA - Reported injuring tobacco in

Columbus and New Hanover Counties. (Jones), DELAWARE - Increasing on untreated cabbage in Kent and Sussex Counties. (Milliron).

THRIPS - NEVADA - Reaching economic numbers in most onion fields, averaging 12 adults per plant. (Galloway).

CARROT RUST FLY (Psila rosae) - NEW YORK - Serious damage in some fields of Orange County and some damage in Madison County. (Wkly. News Lett.).

GOLDEN TORTOISE BEETLE (Metricna bicolor) - DELAWARE - Adults common on sweetpotatoes at Lincoln and Georgetown. (Milliron).

CUTWORMS - IDAHO - Red-backed cutworm (Euxoa ochrogaster) still injuring beets in south central area. (Douglass). UTAH - Causing extensive damage to home gardens in Sanpete County and in some areas of Sevier County. (Funk, Knowlton). WISCONSIN - Moderately abundant. (Smith). KENTUCKY - Severe damage to tobacco by black cutworm (Agrotis ypsilon) in Fayette County. Damage by variegated cutworm (Peridroma margaritosa) severe on leaves and buds. (Boush). DELAWARE - Diamondback moth (Plutella maculipennis) continues in unusual numbers on cabbage generally. (Milliron). CONNECTICUT - Damaging restock plants of tobacco in Connecticut Valley. (Kring). ALASKA - Damage practically non-existent compared with last year, except on rhubarb and other perennials. (Washburn).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) VERMONT - Heavier than last year on strawberries. (Scott).

RED-NECKED CANE BORER (Agriilus ruficollis) - WISCONSIN - Very abundant in some raspberry plantings. (Smith).

WIREWORMS - ALASKA - Damaging potato seed pieces in several fields for the first time near Palmer; numerous at Eagle in home gardens. (Washburn).

SLUGS - MICHIGAN - A slug (Limax agrestis) troublesome in beans and corn at Grand Lodge, Lake Odessa, Lansing, St. Johns, Stanton and Port Huron. Some beans required replanting. (Hutson).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - MICHIGAN - Adults present in untreated strawberries at Hart. (Hutson).

COTTON INSECTS

BOLLWORMS (Heliothis spp. et al) - TEXAS - Activity considerably less than usual during June in McLennan and Falls Counties due to lateness of corn. (Parenica et al). Increasing in east, southwest, and south central areas. (Gaines). ARIZONA - Small numbers of H. armigera on cotton in several fields in Pima County June 17. (Ariz. Coop. Rept.). ARKANSAS - Found in 364 of 2137 fields scouted. Percentage lighter and counts lower than last week. Natural control seems to be building up, and still no need for insecticides. (Warren, Turney). LOUISIANA - Average of .7 percent infestation in 4 fields in Tensas Parish, 1.5 percent in 5 fields in Ouachita Parish and 1.2 percent in 2 fields in Red River Parish. (Oliver). Seven of 12 fields found infested in Tallulah area at rate of .6 egg per 100 terminals. Larvae found in 5 fields at rate of .4 per 100 terminals. (Gaines, Pfrimmer et al). GEORGIA - Moderate infestation of small larvae damaging squares in Coweta County, June 20. (Beckham). Rather severe infestation for so early in season in field in Jasper County, June 21. (Jordan). Average of 5 eggs, no larvae, per 100 terminals in 4 untreated fields in south Georgia area. Injured squares averaged .9 in untreated and .2 in treated fields. (J. C. and C. R. Jordan). SOUTH CAROLINA - Larvae found in two fields in Florence County at rate of 1 per 100 terminals. Total of 195 H. armigera moths taken in light trap. (Walker et al). MISSISSIPPI -\*

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Percent survival in hibernation cages to June 24 at Waco was 10.9, to same date in 1954, 2.9. Square infestation averaged 26.4 percent in 17 untreated fields and 6.6 percent in 27 treated fields examined in McLennan and Falls Counties. (Parenica et al). Slight increase in upper coastal, coastal bend areas; considerable increase in south central, lower valley, east, central, north central and northeast areas. (Gaines). In lower valley fields where control begun late or improperly treated fields, 50 percent or more loss. (Deer). OKLAHOMA - Punctured squares found in Caddo, Choctaw, McCurtain, and Stephens Counties. Heaviest infestation was 24 percent in one field in Choctaw County, other infestations fairly light. (Stiles). ARKANSAS - Infestations not changed much from last week. Of 2137 fields scouted, 444 found infested. Weevils concentrated in squaring fields. One field in Conway County had 85 percent punctured squares; however, most infestations still too low to warrant insecticides. Infestations higher and more general in southwest with southeast next; lighter farther north. (Warren, Turney). LOUISIANA - Average of 5.4 percent punctured squares in 8 fields in Tallulah area. Weevils per acre in four fields averaged 551, for corresponding week last year 321. (Gaines, Pfrimmer et al). Four fields in Tensas Parish averaged 7.5 percent square infestation, 2 in Red River had 27 percent, 3 in Bossier had 36 percent, 5 in Ouachita had 17.6 percent, 3 in Pointe Coupe had 34 percent, 3 in Rapides had 14 percent, and 5 in St. Landry

\*Average 1.2 eggs and 1.4 larvae per 100 terminals in infested fields in delta counties. (Merkl et al).

had 8 percent infestation. (Oliver). MISSISSIPPI - Reported from most fields of fruiting cotton in delta counties. Average of 56 per acre for all fields, and average of 7.5 percent punctured squares. (Merkl et al). ALABAMA - Correction: In last week's report, CEIR 5 (25):575, the boll weevil counts in 2 infested fields in Alabama should be 75 weevils per acre and 50 weevils per acre. (Arant). GEORGIA - Seventy-six fields inspected in 19 south Georgia counties and 75 found infested. Fourteen untreated fields examined and all infested at rate of 10.9 percent punctured squares. Sixty-one of 62 treated fields examined were infested at average of 2.6 percent punctured squares. Last week's counts: 6.2 percent in untreated fields and 2.1 percent in treated fields. (J. C. and C. R. Jordan). TENNESSEE - Very little evidence of weevils in fields in west Tennessee. Conditions favorable for development. (Locke). SOUTH CAROLINA - Survival in cages at Florence to June 24 was 5.6 percent, to same date in 1954 - .14 percent. Total of 1403 weevils found in trap plot to June 24 also compared with 75 to this date in 1954. Average of 5 percent square infestation found in 13 treated fields in Florence County and 16 percent in 11 untreated fields. Eight percent square infestation in 22 treated fields in Darlington County. (Walker et al). NORTH CAROLINA - Only 65 fields of 162 surveyed in 20 counties showed infestations. Weevil counts very low where found and square counts, with a few exceptions, averaged much below 10 percent. Three fields in Wayne County had infestation of 10-15 percent, one in Scotland County had 32 percent. (Jones).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Bloom inspection complete in two groups of counties in south Texas. Inspections in 398 fields in Bee, Brooks, Duval, Jim Wells, Kleberg, Live Oak, Nueces, and San Patricio showed 59 percent infested at rate of 154 pink bollworms per 100,000 blooms. This compares with 5 percent of fields infested in 1954. In 1954, 5 percent of fields were infested in this area at rate of 7 larvae per 100,000 bolls. Inspection in 33 fields in Dimmit, La Salle, Zavala, Maverick and Uvalde Counties revealed 68 percent infested at rate of 266 pink bollworms per 100,000 blooms. In 1954 in this area, 87 percent of 40 fields were infested at rate of 626 per 100,000 blooms. (PBW Cont. Proj., June 1-15).

LYGUS BUGS - ARIZONA - Small numbers in Maricopa, Pinal and Pima Counties June 17. (Ariz. Coop. Rept.).

SPIDER MITES - TEXAS - Injurious infestation in Hudspeth County. (Gaines). GEORGIA - Infestations reported in Bartow and Jackson Counties. (J. C. and C. R. Jordan). TENNESSEE - Predators numerous in west Tennessee. (Locke). ARIZONA - Noted in many fields of cotton in Pinal County June 17. Tetranychus bimaculatus identified from two 40-acre fields. (Ariz. Coop. Rept.).



APHIDS - NEW MEXICO - Damaging numbers of Aphis medicaginis and A. gossypii on cotton in Dona Ana, Socorro, Roosevelt and Lea Counties. (Durkin, June 18). TEXAS - Infestation continues light to medium in Lubbock area. (Davis, Owen). LOUISIANA - General in St. Landry Parish but very few in other parishes surveyed. (Oliver). TENNESSEE - Predators numerous in west Tennessee. (Locke).

FLEAHOPPERS - NEW MEXICO - Psallus seriatus in small numbers in Lea County. (Durkin, June 18). TEXAS - Fleahoppers increased in central, north central and northeast areas. (Gaines). In scattered fields in Lubbock area. (Davis, Owen). LOUISIANA - Average of 7.8 per 100 terminals in 12 fields in Tallulah area. Infestation remains low. (Gaines, Pfrimmer et al). Cotton fleahopper infesting 11 percent of terminal buds in 2 fields in Red River Parish, 24 percent in 2 fields in Bossier Parish. Have about moved out of cotton in Pointe Coupe, St. Landry and Rapides Parishes. (Oliver). MISSISSIPPI - Light general infestation in most fields. Some damage in untreated fields. (Merkl et al). TENNESSEE - Present in many fields in west Tennessee but light. (Locke).

GRASSHOPPERS - TEXAS - Injurious to cotton in northeast, north central and north plains. (Gaines).

FALSE WIREWORMS - TEXAS - Spotted damage to stands of cotton in Borden, Dawson, Deaf Smith, Castro, Garza and Howard Counties. (Davis, Owen).

THRIPS - TEXAS - Injurious to late-planted cotton in central, north central and northeast areas. (Gaines). TENNESSEE - Considerable damage in most of the western area. (Locke). ALABAMA - Of eight cotton fields examined in northwestern counties, 3 had heavy infestation, 3 medium and 2 light. (Moore).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

SAWFLIES - WISCONSIN - Balsam-fir sawfly (Neodiprion abietis) reported light in several counties but heavier than last year. Introduced pine sawfly in all stages in Trempealeau County on Norway pine windbreaks; infestations light. Red-headed pine sawfly (Neodiprion lecontei) ovipositing on Norway pine in Langlade County. European spruce sawfly (Diprion hercyniae) reported attacking white spruce near Pound. (Smith).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - WISCONSIN - Heavy infestations reported on 150 acres of Norway pine in Oneida County; nymphs in fourth instar. (Smith).

PITCH TWIG MOTHS (Petrova spp.) - WISCONSIN - Heavy on jack pine over most of State. (Smith).

PINE SPITTLEBUGS (Aphrophora spp.) - VERMONT - Frequent on pine in southwest section. (Walker). MINNESOTA - Very heavy infestation on Scotch pine at Lake Vadnais by pine spittlebug (A. parallela). (Minn. Ins. Rept. Serv., June 20).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - NEBRASKA - Moderate to heavy infestation on ponderosa in Pine Ridge area. (Andersen).

NANTUCKET PINE MOTH (Rhyacionia frustrana) - NEBRASKA - Very abundant on ponderosa along pine ridge in northwest section. (Andersen).

PALES WEEVIL (Hylobius pales) - PENNSYLVANIA - Light to heavy infestation on red pine; feeding mainly on seedlings in Crawford County. (Adams).

PINE LEAF APHID (Pineus pinifoliae) - VERMONT - Winged forms on pine needles in most sections. (Scott).

A JACK PINE BUDWORM (Choristoneura pinus) - WISCONSIN - Medium infestation in Jackson and Eau Claire Counties. (Smith).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Heavy infestation in southeastern area. (Smith). PENNSYLVANIA - Light to heavy infestation in Crawford County. Many emerged. (Adams). RHODE ISLAND - Very heavy infestation in a planting in Little Compton. (Mathewson).

PINE WEEVILS (Pissodes nemorensis and Hylobius pales) - ARKANSAS - Damage severe on some pine plantings. Up to 70 percent loss of stand in some plantings. (Warren, Turney).

TENT CATERPILLARS (Malacosoma spp.) - OREGON - Heavy infestation in Klamath and Josephine Counties. (Every).

SPIDER MITES - INDIANA - A mite infestation combined with aphids defoliating soft maples in Vincennes vicinity. (Hamilton). VIRGINIA - Severe damage to Norway spruce near Richmond, killing many trees where not treated. (Matheny). Damaging arborvitae in Warren County. (Weddle, Rowell). PENNSYLVANIA - Bronzing of evergreens in southeast area. (Pepper).

A ROUNDHEADED BORER (Prionus sp.) - NEW MEXICO - Emerging from heavily infested willows in Mesilla Park. (Ins. Lett).

MIMOSA WEBWORM (Homadaula albizziae) - VIRGINIA - Damaging mimosa trees in Spotsylvania County. (Kash). ARKANSAS - Infestations have appeared in Lawrence County. (Warren, Turney).

MAGNOLIA SCALE (Neolecanium cornuparvum) - PENNSYLVANIA - On magnolias moderate infestation in Crawford County (Adams) and a heavy infestation in Bedford County (Udine).

A MINER (Nepticula sericopeza) - DELAWARE - Very destructive to Norway maple seed in northern New Castle, causing early drop of keys. (Milliron).

FALL CANKERWORM (Alsophila pometaria) - MONTANA - Defoliating shade trees in Fergus County. (Roemhild).

GREAT BASIN TENT CATERPILLAR (Malacosoma fragilis) - MONTANA - Defoliating shade trees in central area. (Roemhild).

EUROPEAN ELM SCALE (Gossyparia spuria) - NEVADA - Abundant on many trees in Reno area. (Gallaway). NEBRASKA - Hatching in eastern area indicates heavy infestation. (Roselle).

ELM LEAF BEETLE (Galerucella xanthomelaena) - PENNSYLVANIA - Larvae abundant on elm in Pike County. (Gesell). MARYLAND - Reported from Baltimore, Prince Georges, Anne Arundel and Queen Annes Counties. (U. Md., Ent. Dept.). TENNESSEE - Defoliating Chinese elms. (Scott). KENTUCKY - Numerous and destructive over most of State. (Price). INDIANA - Destructive numbers. (Davis). ARKANSAS - Appearing in central area, defoliation light. (Warren, Turney). IDAHO - Adults and larvae active on untreated elms in southwest area. (Walz, June 18).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - OREGON - More abundant than usual this year. (Every). UTAH - Damaging blue spruce at Huntsville. (Knowlton). PENNSYLVANIA - Rather heavy infestation on 15 acres of Christmas trees (firs) in Susquehanna County. (Gesell). MONTANA - Injuring spruce in southern and eastern area. (Roemhild). BLISTER BEETLES - VIRGINIA - Black blister beetle (probably Epicauta pennsylvanica) stripping leaves of mimosa in Wythe County. (Bird, Rowell).

A BIRCH LEAF MINER (Probably Fenusa pusilla) - VERMONT - General infestation throughout the State. (Walker, Scott).

BARK BEETLES - TEXAS - Severe infestation on ash trees in Swisher County. Damage to twigs. (Roach).

ROSE APHID (Macrosiphum rosae) - MINNESOTA - Infestation general. (Minn. Ins. Rept. Serv., June 20).

APHIDS - ALASKA - Birch aphid increasing on white birch used as ornamentals. (Washburn). KENTUCKY - Exceptionally abundant on maple and tuliptrees in the bluegrass area. (Price). MONTANA - Particularly bad on elms in eastern area. (Roemhild).

BAGWORMS - INDIANA - Occurring in destructive numbers. (Davis). MISSOURI - Causing injury to junipers in some areas. (Wkly. Rept. Fr. Grow.).

ROSE LEAF BEETLE (Nodonota puncticollis) - MARYLAND - Injuring rose leaves and flowers in Frederick County. (U. Md., Ent. Dept.).

ROSE CHAFER (Macrodactylus subspinosus) - RHODE ISLAND - Unusually heavy populations generally. Damage to untreated roses heavy. Injury to beans in Wakefield area. (Caroselli).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Adult taken at Providence June 18. (Caroselli). MARYLAND - Abundant at Lexington Park, June 12, in St. Marys County. (U. Md., Ent. Dept.). DELAWARE - First adults of season at Newark and Dover June 20. (Milliron). VIRGINIA - Light spotted infestation in Culpepper County. (Heltzel).

EUROPEAN EARWIG (Forficula auricularia) - RHODE ISLAND - Moderate to heavy on roses in Kingston, East Greenwich and Providence areas. (Kantack, Mathewson).

#### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - ALASKA - Infestation on livestock from June 10-20 worst in past five years in Matanuska Valley. (Washburn). KENTUCKY - Salt marsh mosquito (Aedes sollicitans) appeared in swarms for the first time June 19 in Henderson, Hopkins and Webster Counties, where strip-mining and oil-drilling are underway. (Price). TEXAS - Heavy widespread infestation in San Augustine County. (Sowell).

HORN FLY (Siphona irritans) - UTAH - Becoming more numerous on cattle in warmer parts of Washington, Kane, Grand and Wayne Counties. (Knowlton).

TABANIDS - OKLAHOMA - Increasing on cattle in north central area. Ensenbeckia incisuralis averages two per animal; Tabanus equalis 3-4 and T. mularis and T. lineola variable; T. atratus rare. (Jones, Howell).

TICKS - MICHIGAN - American dog tick (Dermacentor variabilis) beginning to appear at Haslett. Uncommon in central area. (Hutson).

HOUSE FLIES - UTAH - Becoming a problem in many areas. (Knowlton).  
TEXAS - Heavy widespread infestation reported in San Augustine County.  
(Sowell).

DOG FLEA (Ctenocephalides canis) - MICHIGAN - Common at Lansing,  
Mason and Okemos. (Hutson).

### BENEFICIAL INSECTS

LADY BEETLES - NORTH CAROLINA - Hippodamia convergens and  
other lady beetles abundant on truck crops in Duplin County. (Brett).  
IDAHO - Fewer than other years in southwest area. (Walz, June 18).

A PARASITIC FLY (Sarcophaga aldrichi) - MINNESOTA - Abundant in  
east central area of infestation by forest tent caterpillar. (Minn. Ins.  
Rept. Serv., June 20).

### RECENT INTERCEPTIONS AT PORTS OF ENTRY

One living larva identified as Leucinodes orbonalis Guen., the eggplant  
fruit borer, was intercepted recently in Solanum melongena from the  
Gold Coast by Plant Quarantine Inspector, M. G. Vinzant, at the port  
of Baltimore, Maryland. This pyraustid has been reported from the  
Belgian Congo, Burma, Ceylon, China, East Africa, India, Java, Malaya,  
Philippine Islands, Sierra Leone, Union of South Africa, Sumatra, and  
Thailand. In addition to the garden eggplant, L. orbonalis attacks wild  
eggplant, potato, tomato, Cape-gooseberry, black nightshade, Physalis  
minima, and Solanum xanthocarpum.

Eggs are laid on the leaves and terminal buds. They hatch in three to  
four days (in India) and the larvae bore through the petioles and shoots,  
causing them to wilt. Fruits and stems are frequently bored and fruits  
that show holes are common. After feeding from eight to twenty-six  
days, the larvae form cocoons on stems, in the folds of leaves, or in  
the ground. Adults emerge five to thirteen days later. About three  
broods develop annually.

L. orbonalis has been intercepted on three occasions during recent years;  
in eggplant from Indonesia at Honolulu, T. H.; in eggplant from the Cape  
Verde Islands at Baltimore, Maryland; and in an unidentified fruit re-  
sembling a tomato from Liberia at Detroit, Michigan. In addition,  
larvae identified as Leucinodes probably orbonalis have been intercepted  
in eggplant from India at Boston, Massachusetts; from Ceylon at Charles-  
ton, South Carolina; from the Gold Coast at Philadelphia, Pennsylvania;  
and from the Straits Settlements at San Francisco, California. The egg-  
plant fruit borer, L. orbonalis, is not known to occur in the United States.

(Compiled - Plant Quarantine Branch)

LIGHT TRAP COLLECTIONS

Pseudal. unipun. Prod. ornith. Agrotis Ypsilon Perid. Feltia subter. Heliiothis armig. vires. sexta Proto. quin.

	9	5	2	6	54
TEXAS					
Waco	6/18-24				
LOUISIANA					
Eaton Rouge*	6	152		501	9
St. Joseph	2	41		7	4
Curtis		4	1		4
Tallahah*	9	64	17	57	29
					3
					27
					6
ARKANSAS					
Hope	2		3		13
Stuttgart			3		1
Van Buren	5		10		8
Varner	5		18		28
Fayetteville	248		41		80
Clarksville	6		16		3
MISS. (Counties)					
Pearl River	14	14	1	9	
Coahoma	18	15	2	9	22
Humphreys	13	22	4	5	7
Oktibbeha	42	218	6	8	7
Washington *	41	185	49	76	184
					3
					15 sp.
ALABAMA					
Auburn	4	16		16	4

\* Two traps Eaton Rouge; three at Tallulah; and two in Washington

LIGHT TRAP COLLECTIONS

	Pseudal. unipun.	Prod. ornith.	Agrotis ypsilon	Perid. marq.	Feltia subter.	Heliothis armig. vires.	Proto. sexta quin.
<u>GEORGIA</u>							
Clarke	4	18			67	36	
Spalding	9	40	3		14	145 sp.	
Tift	4	7			79 sp.	2	10
<u>TENNESSEE (Counties)</u>							
Madison	16	4	12		4	4	3
Lawrence	62	20					82 sp.
Maury	776	40		16	32		20
Robertson	16	8	16				38 sp.
Cumberland	432	24	64	24		8	11 4 12 4
Greene							
<u>SO. CAROLINA</u>							
Oconee	3	8					3
Charleston		2		2	12	1	4 sp. 66
<u>NO. CAROLINA</u>							
Duplin		2					1

MISCELLANEOUS INSECTS

OLD HOUSE BORER (Hylotrupes bajulus) - PENNSYLVANIA - A few adults emerging from beams in a house in Lackawanna County. (Gesell). FLORIDA - Adults in home in St. Petersburg. (Denmark).

BOXELDER BUG (Leptocoris trivittatus) - NEW MEXICO - Numerous in San Miguel County and becoming a nuisance in homes and streets. (Ins. Lett.). OKLAHOMA - Annoying in Oklahoma City area. (Jones, Howell).

CRICKETS - KANSAS - Black field cricket appearing in many towns and problem in homes in central area. (Matthew).

DERMESTIDS - MONTANA - Showing up generally in houses. (Roemhild).

A PARASITIC FLY (Sarcophaga aldrichi) - VERMONT - A nuisance in parts of the State where forest tent caterpillars present latter part of May and first of June. (Scott).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - VERMONT - Adults reported in considerable numbers in houses in central section in early June. (Scott).

A SPRINGTAIL (Sminthurides bifidus) - OREGON - Adults collected from tropical aquarium in Portland. New record for State. (Roth).

TEXAS LEAF-CUTTING ANT (Atta texana) - TEXAS - Large swarms of queens and males observed in Young County. (Dunkle).

ADDITIONAL NOTES

ARIZONA - YELLOW CLOVER APHID continues problem on alfalfa in Cochise County, June 18. Generally light but a few heavy infestations at Yuma June 23. Heliothis armigera severe on 100 acres of alfalfa at Bowie, some defoliation. Also severe one field at Eloy, Pinal County. SOUTHWESTERN CORN BORER medium on corn in one area of Maricopa County. MELON APHID heavy in spots on 200 acres of cantaloup near Mesa June 17. GRASSHOPPERS severe, about 200 per square yard, on 100 acres in Alpine-Nutriosa area of Apache County. Mainly Melanoplus mexicanus and bivittatus and Camnula pellucida, with some Melanoplus femur-nigrum. (Ariz. Coop. Rept.).

IOWA - EUROPEAN CORN BORER - much more general use of recommended control practices than in preceding years. First-brood oviposition long drawn out because of unusual weather. As of June 25, corn 30-40 inches in southern third of State with egg mass count ranging up to 100 per 100 plants. In central Iowa moth flight about over with few new egg masses. Northern Iowa 30-35 inch corn with 10-110 masses



per 100 plants. Fields showing from 10-50 percent of stalks with evidence of leaf feeding. ARMYWORMS found in varying numbers in oats in Jasper County. Larvae varying in size with heavy moth flight in central area. CORN ROOT APHID damaging in 14 counties in western and southwestern area. Populations range from 10-50 or more per plant. GRASSHOPPERS continue conspicuous by numbers in spotty areas over State. SQUASH VINE BORER adults active. POTATO LEAF-HOPPERS damaging in garden beans generally over State. (Harris).

NEBRASKA - EUROPEAN CORN BORER activity decreased by cool weather. Early eggs have hatched and second instar larvae damaging developing tassels. Egg deposition continues entire eastern portion of State. Some counts as high as 500 egg masses per 100 plants. Heavy egg deposition on 12-inch corn in Northeast. (Roselle). GRASSHOPPERS up to 100 per square yard unaffected by wet weather. Melanoplus femur-rubrum in third and fourth instar. M. mexicanus reaching adult stage in numbers. WHEAT STEM MAGGOT (Meromyza americana) infesting about 5 percent of scattered fields of Hayes County. CORN ROOT APHID infestations heavy in east central counties. (Roselle). BROWN WHEAT MITE - Severe infestation on wheat in northwest area. SIX-SPOTTED LEAFHOPPER (Macrostoteles fascifrons) ranging from 20 to 25 per 25 sweeps in wheat and oats. (Andersen).

ARKANSAS - CORN LEAF APHIDS up to 750 per plant in some fields. GRASSHOPPERS causing some local damage to several crops especially in southwest area and in local areas in central and northeast sections. Light infestation of SOUTHWESTERN CORN BORER in Arkansas River Valley. (Warren, Turney).

MINNESOTA - GRASSHOPPERS - Infestations light to heavy of Melanoplus sp. in Todd, Morrison, Cass and Crow Wing Counties. Heavy infestations in Pine, Wilkin and Chisago Counties. Infestation generally light in south-east area. ARMYWORM infestation heavy in reed canary grass in two townships of Pine County. Small larvae noted in Itasca and Beltrami Counties. Earlier infestation in southern counties diminished. SWEET CLOVER WEEVIL adults migrating from plowed down sweet clover into new seedings in northwest area. Damage more severe than in 1954. EUROPEAN CORN BORER retarded. Corn in favorable height for deposition. Egg deposition of first generation expected to continue for some time. APHIDS on apples in some orchards numerous. Aphids in grain reported generally. BILLBUGS causing extensive damage in three corn fields in Minnesota River bottom in Scott County. STALK BORER moderately heavy in oats in east central area and causing damage to tomatoes in Twin Cities area. (Minn. Ins. Rept. Serv.).

SOUTH DAKOTA - STALK BORER damaging corn, garden plants, flowers and small grain in many sections. LYGUS and other plant bugs extremely abundant, 10-15 per sweep some fields near Redfield. ENGLISH GRAIN APHIDS seem to be building up in small grain, especially oats and late barley. Few scattered ARMYWORMS in corn field in Brookings County. (Lofgren). GRASSHOPPER development June 20 as follows: Melanoplus bivittatus, first to fifth instar, hatch 80 percent; M. mexicanus, first to fifth instar, hatch 75 percent; M. differentialis, first to fourth instar, hatch 60 percent; M. femur-rubrum, first to fourth instar, hatch 55 percent. (Burge).

#### WEATHER FOR THE WEEK ENDING JUNE 27, 1955

Temperatures for last week averaged a few degrees above normal in the Rocky Mountain States and slightly below normal elsewhere. Precipitation, occurring mainly as scattered thundershowers, was light over most of the Nation although moderate to heavy amounts fell along the Atlantic coast, in southeastern Texas, in a narrow belt extending from eastern Wyoming to Tennessee, and in some sections along the northwestern border.

The first two or three days were unusually warm in the Rocky Mountain States with maxima of 90° to 100° extending to the Canadian border and highs of 116° at El Centro, Calif., and Gila Bend, Ariz. This hot spell, which was responsible for the warmest week of the season to date in the Rocky Mountain area, was ended on Friday in northern sections by an influx of cooler air which reduced maxima by 20°.

East of the Rocky Mountains a slow moving cool air mass, the leading edge of which was over extreme northern areas at the beginning of the week, overspread this entire area except the lower Great Plains by the end of the period. Daily maximum temperatures generally ranged in the 90's in the Gulf States, although at several stations in Texas maxima exceeded 100° on several days.

With the passage of a cold front in the northern Great Plains near the end of the period, severe thunderstorms and extremely heavy local showers were reported. One station in southeastern Wyoming reported 20 inches of rain in a 24-hour period. Tornadoes also were reported in Wyoming and the Nebraska Panhandle. (Summary Supplied by U.S. Weather Bureau).

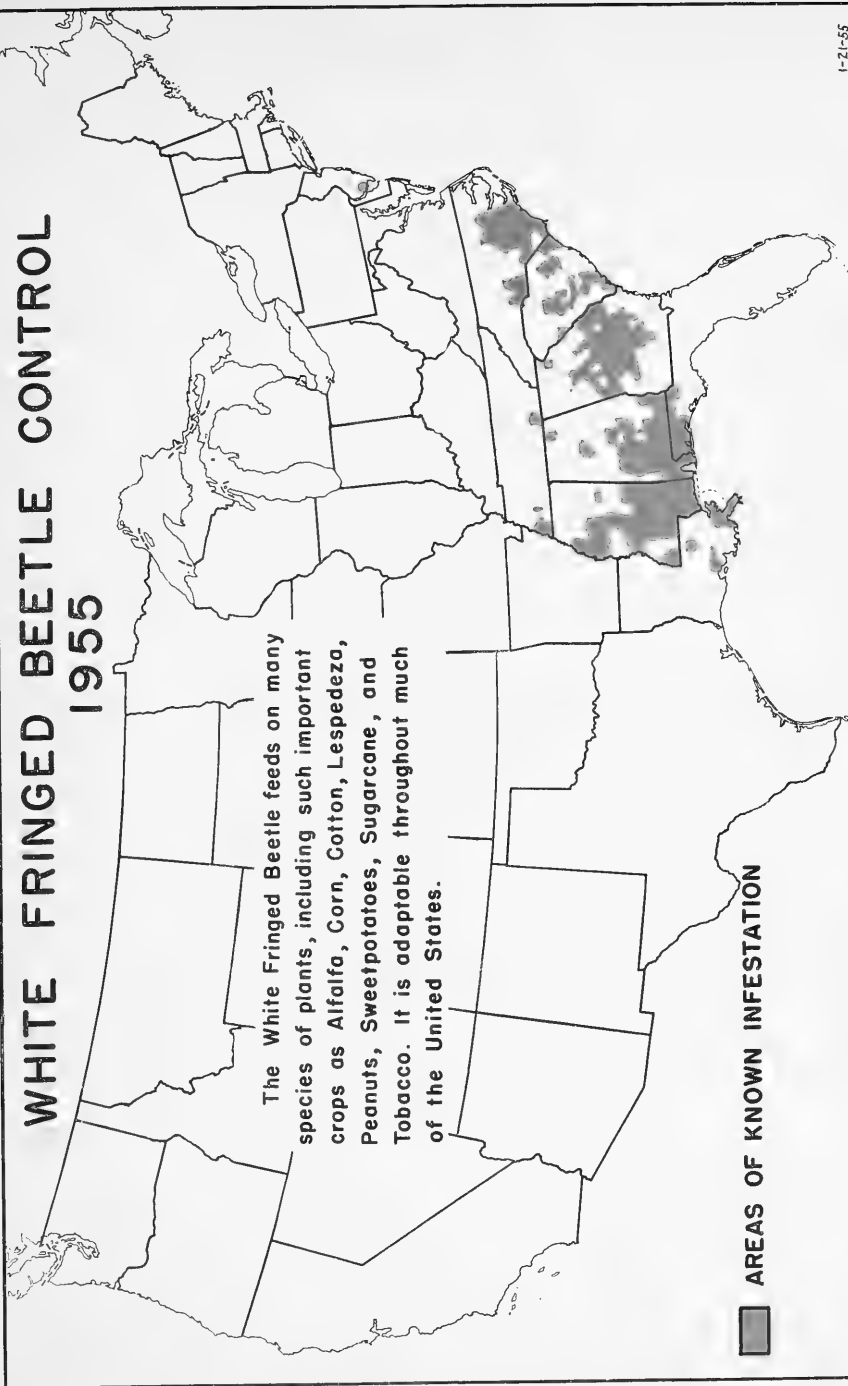
\*\*\*\*\*

Reports in this issue are for the week ending June 24, 1955, unless otherwise designated.

# WHITE FRINGED BEETLE CONTROL 1955

The White Fringed Beetle feeds on many species of plants, including such important crops as Alfalfa, Corn, Cotton, Lespedeza, Peanuts, Sweetpotatoes, Sugarcane, and Tobacco. It is adaptable throughout much of the United States.

 AREAS OF KNOWN INFESTATION









VOL. 5 No. 27

JULY 8, 1955

SB

823

C77

Ent.

*Cooperative*

**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.



## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPERS continue serious in New Mexico and Missouri, but the situation is much improved in Colorado and South Dakota where wet weather has been effective. Spraying has also been important in South Dakota. In Missouri legumes and pastures heavily infested with 5 to 55 per square yard. Populations threateningly numerous in many locations in Utah and heavy widespread on corn and grain sorghum in several north central Texas counties. Minnesota and Wisconsin may have some trouble in sand areas. (p. 617).

The EUROPEAN CORN BORER situation in Illinois is more serious than anticipated earlier; moth emergence complete. Egg mass counts are low generally in Minnesota and some areas of North Dakota, but weather has been favorable for egg deposition in former State. Leaf damage more severe than last season in Delaware and prevalent in southern Wisconsin. Egg-laying prolonged by cool weather in South Dakota and continues in northern Nebraska. Hatch over in northwest Missouri. (pp. 618, 638).

CORN EARWORM abundant on corn in areas of North Carolina, Virginia and Delaware, but generally light in northwestern and north central Arkansas and lower than last year on sweet corn at Stillwater, Oklahoma. (p. 618). Rhode Island and Massachusetts have had some trouble with ARMYWORMS, but parasites have been effective in Wisconsin. (p. 619). ENGLISH GRAIN APHID could damage late barley in South Dakota; 40-45 per linear foot in small grains in Minnesota, some damage in Utah. (p. 619). FALL ARMYWORM moths taken in North Carolina, eggs on corn in Arkansas. (p. 619). Large numbers of SAY STINK BUG in barley and wheat in some New Mexico counties. (p. 620).

Heavy populations of PEA APHID persist in Nebraska alfalfa, South Dakota reports increasing infestations in this crop, and Wisconsin has had heaviest populations in years. (p. 621). Heavier on canning peas in Minnesota than in past several years. (p. 625). YELLOW CLOVER APHID light to heavy on alfalfa in New Mexico; generally moderate in Utah; light to medium in wide areas of Texas, may be building up again; increasing in central Oklahoma; Minnesota reports damage to sweet-clover. (p. 621). ALFALFA WEEVIL taken in Otero County, Colorado and Allegany County, Maryland; new county records. (p. 622).

APHIDS of concern on apples in Minnesota; some increase in Ohio. (p. 623). ORCHARD MITES increasing and warranting control in Carbondale area of Illinois, but lower than last year at Orleans, Indiana and much below normal at Kearneysville, West Virginia. Destructive populations could build up rapidly in Missouri with hot dry weather. European red mite very severe in Ohio orchards. (p. 623).

(Continued next page)

CODLING MOTH between broods southern Illinois and Indiana, but second brood underway in Missouri. (p. 624).

TOMATO FRUITWORM causing considerable injury to tomatoes in eastern Virginia; eggs appearing in Arkansas Valley, Colorado. (p. 625). POTATO PSYLLID continues in high populations in Arkansas Valley, Colorado; serious damage to potatoes some areas Utah. (p. 625). TOBACCO BUDWORMS damaging tobacco in several northern and eastern North Carolina counties. (p. 629). JAPANESE BEETLE causing light damage to tobacco in some fields in eastern North Carolina. (p. 629). Other areas also report damage from this pest. (pp. 620, 624, 635). BEET LEAFHOPPER-transmitted curly top serious on horseradish in Delta County, Colorado. (p. 627). FLEA BEETLES damaging potatoes in Red River Valley, Minnesota, and considerable injury to untreated potatoes on Eastern Shore of Virginia. (p. 626). COLORADO POTATO BEETLE hatching in Red River Valley of North Dakota and Minnesota. (p. 626).

BOLL WEEVIL very heavy for time of year in several areas of Texas; some increase in Choctaw and Caddo Counties, Oklahoma; controls not needed in most fields in Arkansas; low counts in Mississippi but increasing in Stoneville area. Nine percent punctured squares in Tallulah, Louisiana area, five percent in southeastern Alabama, 20 percent in untreated fields in Florence County, South Carolina where survival is unusually high, 12 percent infestation in untreated fields in middle and south Georgia and 3 percent in treated fields. (p. 630). BOLLWORMS increasing in Texas and in some fields of Arkansas; Mississippi has heavy infestations in Claiborne and Walthall Counties. (p. 631). SPIDER MITES active in lower valley of Texas, increasing in Pinal and Pima Counties, Arizona. (p. 632).

A SUBTERRANEAN TERMITES (Reticulitermes virginicus) reported from New York. (p. 636).

SPITTLEBUGS damaging pine in some areas of Wisconsin. (p. 633). FALL WEBWORM active in Delaware. (p. 634). ROSE CHAFER very heavy in Rhode Island. (p. 635).

WEATHER OUTLOOK and SUMMARY (p. 639).

States reporting this week - 38.

## CEREAL AND FORAGE INSECTS

GRASSHOPPERS - NEW MEXICO - Still serious on ranch lands and becoming more and more numerous on cultivated crops. Approximately 750,000 acres infested in Lea County with 120,000 acres treated. Sandoval County reports heavy infestation on grass lands and 3000-5000 acres of crops infested. Large areas in Rio Arriba, Curry, Santa Fe and San Miguel Counties also seriously infested. (Durkin, June 25). UTAH - Threateningly numerous in many localities throughout State. Total of 13,350 acres treated in northern Sanpete County. Large outbreaks needed attention in Juab County. Aulocara elliotti largely adults and common in dry grain areas. Heavy infestation on 71,000 acres in San Juan County largely died out apparently due to weather. (Thornley, Knowlton et al). WYOMING - Heavy storms in Fort Laramie and Guernsey area have reduced requirement for control from 30,000 acres to 19,000 acres in this area. (Spackman). COLORADO - Situation greatly improved throughout State due to recent rains. Very few reported in early critical spots. (Colo. Ext. Serv.). SOUTH DAKOTA - Situation appears much improved. Spraying and cool wet weather have been effective; however, still some scattered spots with heavy populations. (Lofgren, July 1).

TEXAS - Melanoplus differentialis light to medium on corn, alfalfa and maize in Ellis County. (Dorman). Heavy widespread on corn and grain sorghum in Dallas, Denton, Collin, Grayson, Tarrant and Cooke Counties. (Chada). Medium infestations on grain sorghums and pastures in west Polk County (O'Brien) and light to medium infestations of range species on alfalfa and pastures in Collingsworth County (Thomas). MISSOURI - Melanoplus spp. damage continues on crops and pastures throughout State. Alfalfa, red clover and pastures heavily and generally infested with from 5 to 55 per square yard. Marginal damage increasing on cotton, corn and soybeans. Scattered fields of late spring oats heavily damaged. A very few small spots of fungus diseased grasshoppers in west central area. Melanoplus bivittatus dominant species. Spraying continues with excellent control. (Kyd, Thomas). MINNESOTA - Very light to non-economic infestation in south central area. From Washington County north into Pine County and west into central area in light, sandy soils, light to medium-heavy infestation of adult Melanoplus bivittatus, M. mexicanus and M. femur-rubrum. M. femur-rubrum hatching in alfalfa. Half-grown grasshoppers abundant in Wilkin County near Fertile. (Minn. Ins. Rept. Serv.). WISCONSIN - Continuing to hatch but still slowed by cold rains and heavy grass growth. Beginning to hatch in large numbers in sand areas. (Chambers). ARKANSAS - Infestations continue local. Impossible to forecast situation since late hatching in some areas has confused picture. Melanoplus bivittatus adults appearing. Nymphs of other Melanoplus spp. range from first to third instar. Heaviest infestations, from 5-50 per square yard, in Carroll, Boone, Marion and Izard Counties. (Warren, Turney).

PENNSYLVANIA - Small nymphs to nearly adults in many alfalfa fields in Franklin and Cumberland Counties. (Pepper). DELAWARE - Melanoplus spp. abundant in alfalfa and red clover some areas. (Milliron).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Leaf damage noticeably more severe at most places in Sussex and Kent Counties than last season. Spotty infestations in potatoes in many locations. (Milliron). VIRGINIA - Average of 5 per 100 corn plants in area of Nansemond County. (Davich). ILLINOIS - Treatment well underway. Approximately 4 or 5 percent of fields in northern area, 10 percent in north central and 11 percent in central counties could profitably be treated. Borer survival just beginning last week of June. Leaf feeding extensive. Moth emergence complete throughout State. General situation more serious than anticipated early this spring but about as expected a week ago. This section between a line from Champaign to Quincy north to a line from Joliet to Morrison is most likely to have damage from first generation. (Petty et al). MINNESOTA - In general egg mass counts low, but recent weather favorable for egg deposition and corn growth advanced enough to allow good borer survival in southern half of State. Insecticidal control should be applied first week or 10 days of July. Shot-holing of leaves becoming general in southern third of State. NORTH DAKOTA - Average of 1 egg mass per 75 plants on corn 36 inches tall through southern Cass and northern Richland Counties. (Goodfellow). WISCONSIN - Egg-laying continuing and feeding very prevalent in several southern counties. Seventy-five percent of field corn in one planting showed injury in Rock County. (Chambers). SOUTH DAKOTA - Cool nights prolonging egg-laying period. Some early fields have over 100 egg masses per 100 plants with some eggs hatched and some newly laid. (Lofgren, July 1). MISSOURI - Hatch apparently over in northwest area. Infestations range from 12 to 60 percent and average 2-3 borers per stalk. (Kyd, Thomas). ALABAMA - Found in Cherokee County; makes total of 11 counties known infested in State. (Arant).

CORN EARWORM (Heliothis armigera) - NEW JERSEY - Large larvae still in tassels in Burlington County. Moth flights noted in southern area. (Merrill). DELAWARE - Numerous in tassels of sweet corn in northern Sussex and southern Kent Counties. Damage to whorls of field corn several areas. (Milliron). NORTH CAROLINA - Average 2.6 eggs per silk at Faison (Duplin County) and 6.5 at Clayton (Johnston County). (Townes). VIRGINIA - Severely damaging corn in Sussex County; unusually serious. (Parson). Fifty percent of plants infested in area of Nansemond County; European corn borer involved. (Davich). ARKANSAS - Infestations generally light in northwestern and north central areas; from 1 to 25 per 100 plants. (Warren, Turney). OKLAHOMA - Eggs on sweetcorn silks at Stillwater from 20-25 percent below counts for same period in 1954. (Walton). PENNSYLVANIA - Feeding in whorl, Huntingdon County. Control necessary. (Udine).

MORMON CRICKET (Anabrus simplex) - UTAH - Controls applied to 6900 acres in San Juan and Uintah Counties. (Thornley, Knowlton).

CHINCH BUG (Blissus leucopterus) - MISSOURI - Light to moderate infestations of nymphs in scattered fields of corn and grain sorghum. From 0-11 per stalk of corn and 2 to over 200 per foot of grain sorghum row. Nymphs apparently not affected by recent heavy rains. (Kyd, Thomas). MISSISSIPPI - Corn, sorghum and pasture grasses severely damaged in southeast Grenada and northeast Montgomery Counties. (Douglass). SOUTH CAROLINA - Damaging young corn in Greenville County. (Chastain). Considerable infestation on corn in Oconee County. (Morgan). Destroying corn in Pickens County. (Collins). Infesting grain sorghum and millet in Chester County. (Wylie). NORTH CAROLINA - A few reports of infestations in corn still being received. (Jones).

ARMYWORMS - WISCONSIN - Pseudaletia unipuncta outbreaks few and limited in extent. Parasites have controlled in each case. (Chambers). RHODE ISLAND - Armyworms (apparently P. unipuncta) damaging wheat and pasture grasses in Little Compton area; moderate infestation. (Kantack). MASSACHUSETTS - Found in Bristol, Plymouth, Franklin and Essex Counties. May lead to destructive brood later in July or August. (Crop Pest Cont. Mess.).

BROWN WHEAT MITE (Petrobia latens) - UTAH - Generally low in northern area. (Lieberman, Knowlton).

ENGLISH GRAIN APHID (Macrosiphum granarium) - WISCONSIN - Still present in northern area but parasites controlling. (Chambers). SOUTH DAKOTA - Infestations continue to build up. Some damage could occur to late barley. (Lofgren). MINNESOTA - Forty to 45 per linear foot of row on small grains in southwestern, south central and southeastern areas. (Minn. Ins. Rept. Serv.). UTAH - Damaging irrigated wheat in Salt Lake County. Damage to barley and wheat in Utah and Toole Counties. (Knowlton, Lieberman).

FALL ARMYWORM (Laphygma frugiperda) - ARKANSAS - Eggs noted on corn in Izard and Independence Counties. (Warren, Turney). NORTH CAROLINA - First adults of season in light trap in Duplin County. (Mitchell).

GARDEN WEBWORM (Loxostege similalis) - MISSOURI - A few fields of late corn moderately to heavily infested in west central area. Infestations on alfalfa remain extremely light. (Kyd, Thomas).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - SOUTH CAROLINA - Infesting corn at Camden. (Marshall). MISSISSIPPI - Damage to cowpeas in Forrest County. (Bennett). ARIZONA - One per 5 plants in one field of sorghum in Maricopa County. (Ariz. Coop. Rept.).

STALK BORER (Papaipema nebris) - WISCONSIN - Attacking oats and corn along fence rows and ditches in southern counties. (Chambers). MINNESOTA - Reported from most counties in southern third of State, particularly common in south central counties. (Minn. Ins. Rept. Serv.).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Considerable damage to 12 acres of corn and to lespedeza in Patrick County. (Olinger). Severe damage to corn in one area in Henry County. Number so large appear to be swarming. (Pollard). Spotted on corn in Isle of Wight County; infestation unusually severe. (Grizzard).

SEED-CORN MAGGOT (Hylemya cilicrura) - IDAHO - Causing damage to corn in gardens in Moscow area. (Barr).

A SOD WEBWORM (Pachyzancla phaeopteralis) - FLORIDA - Beginning to cause severe damage to St. Augustine grass in Fort Lauderdale area. (Kerr).

SAP BEETLES - DELAWARE - Carpophilus lucubris adults congregating in increasingly large numbers throughout Kent and Sussex Counties, particularly in corn damaged by other insects. (Milliron).

SAY STINK BUG (Chlorochroa sayi) - NEW MEXICO - Large numbers on barley and wheat in Socorro, Curry and Grant Counties. Also numerous on oats in Chaves County. (Durkin, June 25).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - ARKANSAS - Infestations range from 0-12 percent in corn in northwestern and north central areas. Heaviest in Madison County. No infestation found east of Boone County. (Warren, Turney). ARIZONA - Found in one-third of stalks of corn on 40 acres and in three-fourths of stalks in 80 acres in Maricopa County. (Ariz. Coop. Rept.).

WHEAT HEAD ARMYWORM (Proteoleucania albilinea) - MISSOURI - Light infestations, 1-2 per square yard, damaging head of timothy in northern half of State; 50-70 percent parasitism by tachina flies. (Kyd, Thomas).

WIREWORMS - MISSOURI - Late-planted corn in northern half of State has 1 to 7 percent of stand killed. (Kyd, Thomas).

RICE STINK BUG (Solubea pugnax) - LOUISIANA - Increasing in grasses bordering rice fields in Acadia and Jefferson Davis Parishes. (Oliver).

APHIDS - NEW MEXICO - Infesting alfalfa, cotton and black-eyed peas in Quay County, barley in Socorro County. (Durkin, June 25). UTAH - Aphids (largely Rhopalosiphum maidis) damaging barley in some areas. (Lieberman, Knowlton et al). Severe damage to wheat in Salt Lake County. (Knowlton, Maughan). COLORADO - High population on cereals and alfalfa throughout eastern area. (Colo. Exp. Sta.). TEXAS - No greenbug found on over-summering survey in north central, central

and south central areas. (Chada). NORTH DAKOTA - Causing considerable concern to small grain growers over much of State. Most numerous species is corn leaf aphid with English grain aphid next. Some greenbug also present, but very scarce and no damage anticipated from this species. Natural enemies building up rapidly. (Goodfellow).

CORN LEAF APHID (Rhopalosiphum maidis) - ARIZONA - Spotty, not serious, on sorghum in Pima County; light at Peoria, Maricopa County. (Ariz. Coop. Rept.). TEXAS - Light local infestations on corn and sorghums throughout north central, central and south central areas. (Chada). ARKANSAS - Infesting grain sorghum in southwest area but natural control effective. (Warren, Turney). LOUISIANA - Infesting sorghum in Tensas Parish and corn in Ouachita and Bossier Parishes. Excellent control by lady beetles and syrphids. (Oliver). MINNESOTA - Over 100 per linear foot of row on barley and control being carried out in some fields in northwestern area. Natural enemies active in some fields. (Minn. Ins. Rept. Serv.).

PEA APHID (Macrosiphum pisi) - DELAWARE - Increasing on alfalfa in Slaughter Beach area. (Milliron). LOUISIANA - Moderate in alfalfa in Bossier and Red River Parishes. (Oliver). WISCONSIN - Natural enemies controlling, but have been much more abundant than for several years. (Chambers). MINNESOTA - Average 200 per sweep in southern counties and parts of northwestern area. (Minn. Ins. Rept. Serv.). SOUTH DAKOTA - Increasing in alfalfa. (Lofgren). NEBRASKA - Heavy populations still exist; too numerous to count throughout the Platte Valley and southeastern area. Controls used. (Andersen).

YELLOW CLOVER APHID (Myzocallis trifolii) - UTAH - Now infests alfalfa throughout Washington, Iron and Beaver Counties. Found in Kane and Millard Counties. Also taken in Juab and Tooele Counties on sweetclover. Populations generally moderate and severe damage seldom. Lady beetles and other predators numerous in most infested fields. (Knowlton, Lieberman et al). NEW MEXICO - Light to heavy on alfalfa throughout State. Severe in 100 acres in Socorro County, heavy on 1500 acres in Quay County, and medium in De Baca and Grant Counties. (Durkin, June 25). TEXAS - Light to medium infestations in most alfalfa in north central, central and south central areas. Appear to be building up again. (Chada). One to 5 per leaf in many alfalfa fields with considerable honeydew in Reeves County. (Cowger). OKLAHOMA - Increasing throughout central area; 15-25 per leaf common. Damage apparent in many areas. (Stiles). Sixty-four per 25 terminals of alfalfa in one field at Stillwater. (Fenton). NEBRASKA - Still persists on red and sweetclovers; from 25-35 per 25 sweeps. (Andersen, Connin). MINNESOTA - This aphid (identified by A. A. Granovsky) in combination with heavy mite population is severely damaging sweetclover in Crookston

area. Prior to 1953, when it was first collected on sweetclover in Minnesota, M. trifolii had been taken only on red clover in the State. (Minn. Ins. Rept. Serv.).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - DELAWARE - Small larvae conspicuous on alfalfa at Cedar Creek. (Milliron). MISSISSIPPI - Small damage to young corn in Oktibbeha County, June 25. (Hunsucker).

ALFALFA WEBWORM (Loxostege commixtalis) - WYOMING - Damage to alfalfa in Big Horn County. (Ashment).

SWEETCLOVER WEEVIL (Sitona cylindricollis)-UTAH - Damage conspicuous south of Tooele. Pest taken in several new areas in Utah this season. (Knowlton).

ALFALFA WEEVIL (Hypera postica) - NEW JERSEY - Now occurs in all counties that grow alfalfa. Severe damage occurred this season on all counties south of Camden. Prospects for spotty commercial damage in 1956 in Camden, Atlantic and Burlington Counties are good. (Merrill). MARYLAND - Larvae swept from alfalfa in Allegany County, new county record. Garrett County only county in State not known to be infested. (U. Md., Ent. Dept.). COLORADO - Larvae taken for first time in Otero County (Arkansas Valley). Forty larvae per 100 sweeps. The weevil has never been taken in this important alfalfa-producing area. (Colo. Exp. Sta.). WYOMING - Larvae causing damage on seed alfalfa in Big Horn County. (Ashment).

A CLOVER SEED WEEVIL (Miccotrogus picrostris) - WASHINGTON - Adult population on white clover at Pullman built up last 2 weeks in June to 34 per 100 sweeps; mating observed June 27. (Johansen).

CLOVER ROOT CURCULIO (Sitona hispidula) - VIRGINIA - Adults emerging in moderate numbers in Montgomery County. (Turner).

POTATO LEAFHOPPER (Empoasca fabae) - MARYLAND - Average of 3, 8 per 10 sweeps in 20 alfalfa fields from Prince Georges to Allegany County. Damage extremely light. (U. Md., Ent. Dept.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - From 85 per 100 sweeps of alfalfa in Red River Parish to 104 per 100 sweeps in Bossier Parish. (Oliver).

LEAFHOPPERS - VIRGINIA - Severe in alfalfa in Scott County. (Delp).

A LEAF MINER (Liriomyza sp.) - ARIZONA - Very numerous on alfalfa one area Maricopa County and worse than usual in Pima County. (Ariz. Coop. Rept.).



GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Numerous in alfalfa in Kent County and at Middletown. (Late News).

PLANT BUGS - DELAWARE - Lygus lineolaris continues unusually prevalent. Many adults of Adelphocoris rapidus on blooming alfalfa near Middletown. Trigonotylus brevipes abundant on late sweet corn in Bridgeville area. (Milliron). MARYLAND - One per sweep in alfalfa in Allegany County. (U. Md., Ent. Dept.). LOUISIANA - Lygus lineolaris ranges from 32 per 100 sweeps of alfalfa in Red River Parish to 52 per 100 in Bossier Parish. (Oliver). TEXAS - Two to three lygus per 25 sweeps in alfalfa in Collingsworth County. (Thomas). NEBRASKA - Moderate infestation of Lygus lineolaris still occur in alfalfa, from 35-55 per 25 sweeps in southeastern area. Populations of Adelphocoris lineolatus declining in southeast. (Andersen).

### FRUIT INSECTS

APHIDS - MINNESOTA - Feeding on new terminal growth of apple trees throughout fruit-growing areas. Heavy populations of concern to most growers. (Minn. Ins. Rept. Serv.). UTAH - Myzus cerasi seriously damaging in some smaller sweet cherry orchards. (Knowlton). OHIO - Some increase of apple aphid. (Cutright). NEW JERSEY - Apple aphid present in some orchards. (Merrill).

ORCHARD MITES - PENNSYLVANIA - Active and seem to be increasing on apple in Adams County. (Asquith). WEST VIRGINIA - Some increase in a few orchards in Kearneysville area but general population much below normal. (Hamstead). OHIO - European red mite very severe in many orchards.\* INDIANA - Populations vary greatly in Vincennes area. (Hamilton). Mobile forms, mostly two-spotted spider mite (Tetranychus bimaculatus) average .79 per 100 leaves on several varieties compared with 104 per 100 leaves same date last year in Orleans area. (Marshall). ILLINOIS - European red mite (Metatetranychus ulmi) and two-spotted spider mite increasing and warranting control in Carbondale area. (Chandler). MISSOURI - Spider mites causing increasing concern in all areas of State despite the fact that relatively few are present. With dry hot weather destructive populations could build up in a short time. (Wkly. Rept. Fr. Grow.). UTAH - Clover mites generally damaging in orchards where dormant spray missed. Build-up on apples recently. (Davis, Knowlton). Occasional European red mite infestations in Utah County. (Davis). ARIZONA - Average to severe infestation of a red spider on apple in Oak Creek Canyon area, Yavapai and Coconino Counties. (Ariz. Coop. Rept.).

GRASSHOPPERS - MISSOURI - Numerous in orchards in all areas of State. (Wkly. Rept. Fr. Grow.).

\*(Cutright).

CAT-FACING INSECTS - OHIO - First brood Euschistus servus, E. servus euschistoides and E. tristigmus now maturing in southern area. E. variolarius mostly in fourth brood, and many fourth instar collected in northern Ohio June 29 and 30. Adults of Acrosternum hilare abundant in northern area. Neolygus quercalbae on decline in peach orchards. (Rings).

CODLING MOTH (Carpocapsa pomonella) - NEW JERSEY - Entry from central area south probably over. Amount of injury in partially sprayed trees heavy in central area. (Merrill). VIRGINIA - Activity very low in Augusta County to July 1. (Woodside). PENNSYLVANIA - Caged material on apples in Adams County completed emergence but not complete in orchards. (Asquith). ILLINOIS - Definitely between broods in the Carbondale area. Very few entrances. (Chandler). INDIANA - Larval activity, between broods, generally light for period. Increased activity expected about July 5 in Vincennes area. (Hamilton). OHIO - Very light infestations to July 1. First larvae leaving apples, June 25. (Cutright). WEST VIRGINIA - Fruit entries common; populations normal. (Hamstead). MINNESOTA - Larvae feeding within fruit. High populations in neglected orchards. Second generation larvae expected to enter fruit late in July or early in August. (Minn. Ins. Rept. Serv.). MISSOURI - New entries reported from Independence area. All stages of larvae found in unsprayed orchards in central area. Second brood underway. (Wkly. Rept. Fr. Grow.). UTAH - Infesting fruits in a few Utah County orchards despite treatments. (Davis).

GREEN JUNE BEETLE (Cotinis nitida) - VIRGINIA - First adults of season in tidewater area. (Davich).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - MISSOURI - New brood started near Boonville. (Wkly. Rept. Fr. Grow.).

PEAR SLUG (Caliroa cerasi) - OHIO - Unusual number of reports of the species damaging sour cherries in northern area. (Rings).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Still between broods in the Carbondale area. (Chandler). MISSOURI - No feeding signs reported. (Wkly. Rept. Fr. Grow.).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - INDIANA - Numerous larvae hatched by June 27. (Hamilton). PENNSYLVANIA - Second-generation moths at peak of oviposition on apple in Adams County. (Asquith).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Medium on grape vines in King William County (Kelley), on grapes in Henry and Isle of Wight Counties (Pollard, Grizzard) and on small fruits in Fairfax County. (Beard).

IMPORTED CURRANTWORM (Nematus ribesii) - WYOMING - Heavy on currants and gooseberries in Converse County. (Nicholls).

UNSPOTTED TENTIFORM LEAF MINER (Callisto geminatella) - MISSOURI - Infestation near Columbia last week. Two new infestations, one near Boonville and other in St. Joseph area, this week. (Wkly. Rept. Fr. Grow.). WEST VIRGINIA - Control more satisfactory in Kearneysville area than anticipated. (Hampstead).

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - UTAH - Still scarce in Washington County. Parasitism extremely heavy in fall of 1953 and spring of 1954. (Hughes, Knowlton).

A LEAF ROLLER (Platynota stultana) - ARIZONA - Severe in terminals of citrus in a 7-acre nursery at Yuma. (Ariz. Coop. Rept.).

### TRUCK CROP INSECTS

TOMATO FRUITWORM (Heliothis armigera) - DELAWARE - Feeding on foliage of tomatoes at Middletown and Primehook Neck. (Milliron). VIRGINIA - Causing considerable injury to tomatoes and warranting treatment in eastern area. (Brubaker, Greenwood, Hofmaster). COLORADO - Eggs appearing in commercial planting in Arkansas Valley. (Exp. Sta.).

TOMATO AND POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - All stages continuing in high populations in Arkansas Valley on non-economic hosts. Egg deposition reported on tomatoes. (Exp. Sta.). UTAH - Seriously damaging potatoes at Leeds and areas in Washington County. (Knowlton).

APHIDS - SOUTH DAKOTA - Tomatoes becoming infested. (Lofgren). MINNESOTA - Continued high populations on potatoes and tomatoes. Aphids on cabbage (Myzus persicae and Brevicoryne brassicae) very high populations in some areas north of Twin Cities. Severe stunting of young plants. Pea aphid (Macrosiphum pisi) heavier on canning peas than in past several years. Cannors report much more respraying than normal. (Minn. Ins. Rept. Serv.). MISSOURI - Infestations on tomatoes continue troublesome in Kansas City area. (Wkly. Rept. Fr. Grow.). VIRGINIA - Green peach aphid infestation medium on tobacco in some areas of Halifax County and light infestation in Sussex County. (Hall, Parsen). NORTH CAROLINA - Green peach aphid (Myzus persicae) populations on tobacco markedly reduced due to predators. (Scott, Mitchell).

TARNISHED PLANT BUG (Lycus lineolaris) - DELAWARE - Causing light damage to tomatoes in some areas; decreasing on potatoes. (Milliron).

FLEA BEETLES - RHODE ISLAND - Potato flea beetle (Epitrix cucumeris) light in most untreated fields. (Mathewson). MARYLAND - Numerous on potatoes and cabbage in Cumberland area, Allegany County. (U. Md., Ent. Dept.). DELAWARE - Potato flea beetle (E. cucumeris) in numbers on potatoes west of Dover. (Milliron). VIRGINIA - Causing damage to crucifers in Augusta County. (Woodside). Reached peak infestation on potatoes in Onley area on eastern shore causing considerable injury in unsprayed fields. Injury expected further north. (Brubaker, Greenwood, Hofmaster). MINNESOTA - Damage to potatoes ranges from 1-20 percent in Red River Valley and less than one percent in Twin Cities area. (Minn. Ins. Rept. Serv.).

LEAFHOPPERS - WISCONSIN - Becoming abundant on potatoes, beans and other garden crops. (Chambers). NORTH DAKOTA - Infestations in several potato fields in Pembina and Walsh Counties, June 30. (Goodfellow). VIRGINIA - Severe on vegetables in Scott County. (Delp).

LEAF MINERS - DELAWARE - Serpentine leaf miner (Liriomyza sp.) injury common on potatoes near Vandyke. (Milliron).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - NEBRASKA - Averaging 16 per 25 sweeps on potatoes in east central and southwestern areas. (Andersen).

PALE-STRIPED FLEA BEETLE (Systema blanda) - DELAWARE - Feeding on tomatoes near Middletown and on lima beans near Slaughter Beach. (Milliron).

POTATO APHID (Macrosiphum solanifolii) - DELAWARE - Scarce on potatoes generally and on tomatoes except a few plantings near Middletown, Primehook Neck and Bridgeville. (Milliron). RHODE ISLAND - Light infestations on potatoes with heavier populations on tomatoes in southern area, (Mathewson).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Increasing on potatoes north of Harrington. (Milliron). MARYLAND - Nine adults per sweep in Prince Georges County. Hopper burn evident. (U. Md., Ent. Dept.). MINNESOTA - Average about 3 per leaf on potatoes with little tip burn. (Minn. Ins. Rept. Serv.). NEBRASKA - First to third instars on potatoes in southeastern area. Counts range from 15 to 35 per 25 sweeps. (Andersen).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - DELAWARE - Injuring tomatoes at Middletown, Mt. Friendship and Bridgeville. Light on potatoes generally. (Milliron). NORTH DAKOTA - Eggs hatching in several fields with larvae in Hatton area June 27. Up to 6 egg masses per 25 plants in some areas. (Goodfellow). MINNESOTA - Eggs hatching in Red River Valley. (Minn. Ins. Rept. Serv.).

GRASSHOPPERS - DELAWARE - Melanoplus sp. abundant on potatoes near Vandyke and increasing in Dover area southward. Feeding on tomatoes near Middletown and in some fields in Kent and Sussex Counties. (Milliron).

WIREWORMS - SOUTH CAROLINA - Observations June 1-20 of untreated plots on four farms in Charleston area and certificates of Federal-State inspectors indicate that wireworms caused moderate to severe injury to spring-crop potatoes in certain fields. Injury greater than in 1954 but about the same as that in 1952 and 1953. Proportion of tubers by weight showing injury ranged from 4.8 to 51.9 in experimental plots and proportion of damage ranged from 1.5 to 9.3. Weighted averages were 20.3 and 4.4 respectively. Of 975 carlots inspected, 135 or about 14 percent were ineligible to U.S. Grade 1, chiefly because of wireworm damage. (Cuthbert, Reid).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - DELAWARE - Small larvae rather common on tomatoes in some fields on Primehook Neck. (Milliron).

MEXICAN BEAN BEETLE (Epilachna varivestis) - RHODE ISLAND - Moderate infestations damaging beans small gardens over State. (Mathewson). DELAWARE - Adults feeding generally; larvae appearing on beans in Lincoln area. (Milliron). MARYLAND - Adults and larvae causing moderate to heavy damage to snap and lima beans in the Cumberland area of Allegany County. (U. Md., Ent. Dept.). PENNSYLVANIA - All stages numerous on beans in gardens in Cumberland and Franklin Counties. (Pepper). VIRGINIA - Light to moderate injury to beans in eastern area. (Brubaker, Greenwood, Hofmaster). UTAH - Damaging snap beans at Kanab. (Knowlton).

RED-BACKED CUTWORM (Euxoa ochrogaster) - IDAHO - Still doing some damage to beets in south central area. (Douglass).

LYGUS BUGS - UTAH - Numerous on peas, sugar beets, and potatoes near cut alfalfa in Washington, Kane and Beaver Counties. (Knowlton).

BEEET WEBWORM (Loxostege sticticalis) - WYOMING - Infestation on sugar beets Goshen County. (Spackman).

BEEET LEAFHOPPER (Circulifer tenellus) - COLORADO - Serious incidence of curly top in commercial plantings of horseradish in Delta County reported June 27. (Ext. Serv.). TEXAS - Light phase adults at three per 100 sweeps on Russian-thistle in Dimmit County. (Richardson).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Populations decreasing but some damage to beans in eastern area. (Brubaker, Greenwood, Hofmaster).

PEA WEEVIL (Bruchus pisorum) - IDAHO - Controls underway. (Douglass).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) -OHIO - Taken in a kitchen in Van Wert. Determined by J. N. Knull. (Parks, June 27). This note should not be construed to mean that there is an established infestation of this weevil in Ohio, but that it has been collected as an interception.

ASPARAGUS BEETLES - PENNSYLVANIA - Defoliating asparagus in Centre County. Adults numerous. (Udine).

ONION MAGGOT (Hylemya antica) - RHODE ISLAND - Severe damage in two-acre onion field near Portsmouth with about one-third of plants infested. (Mathewson). MINNESOTA - Damage present in Moorhead area. (Minn. Ins. Rept. Serv.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - TEXAS - Medium infestation on most garden plants in Colorado County. (Gold).

SPIDER MITES - NORTH CAROLINA - Two-spotted spider mite (Tetranychus bimaculatus) rather severe infestation reported in Wake County. (Jones, Farrier). Strawberry spider mite (Tetranychus atlanticus) causing considerable injury to strawberries in Pender County. (Morrow, Farrier). UTAH-Two-spotted spider mites damaging strawberries at Farmington. (Knowlton).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - UTAH - Adults appearing in Utah and Cache Counties. (Knowlton).

CUTWORMS - IDAHO - Moderate to extensive damage throughout the State. Severe damage to strawberries in Gem County. (Barr).

DIAMONDBACK MOTH (Plutella maculipennis) - DELAWARE - Injuring cabbage in Kent and Sussex Counties. (Milliron).

CABBAGE CURCULIO (Ceutorhynchus rapae) - PENNSYLVANIA - Large number of adults feeding on cabbage in Indiana County. (Udine).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Severe in several areas and increasingly destructive in Kent and Essex Counties. (Milliron).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Very injurious to cabbage in several areas. (Milliron). MARYLAND - Abundant and doing damage to cabbage in Allegany County, Cumberland area. (U. Md., Ent. Dept.). PENNSYLVANIA - Quite abundant in Indiana County. (Udine). RHODE ISLAND - Very heavy adult populations in several cabbage fields, one per plant in the Wickford and Middletown areas. (Mathewson).

FALSE CHINCH BUG (Nysius ericae) - OKLAHOMA - Moderate damage to cucumbers in local areas. (Walton).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - RHODE ISLAND - Adults extremely numerous in Newport and Wickford areas with up to 30 beetles per cucumber leaf. Damage heavy in home gardens. Lighter populations common over State. (Mathewson). DELAWARE - Causing moderately heavy damage to cucumbers west of Dover and to watermelons at Canterbury. (Milliron). MARYLAND - Average five adults per squash plant in a large planting in Allegany County. Damage severe. (U. Md., Ent. Dept.).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Active on lima and snap beans in several counties. Injuring tomatoes on Primehook Neck and on cucurbits several areas. (Milliron).

SQUASH BUGS - DELAWARE - Horned squash bug (Anasa armigera) abundant on squash at Ellendale. Squash bug (Anasa tristis) adults infesting pumpkins near Georgetown. (Milliron). RHODE ISLAND - Squash bug (Anasa tristis) populations heavy in Wickford area and common in Middletown area. (Mathewson).

SQUASH VINE BORER (Melittia cucurbitae) - DELAWARE - Adults active on squash near Ellendale. (Milliron).

TOBACCO BUDWORM (Heliothis spp.) - NORTH CAROLINA - Causing damage in several northern and eastern counties. Eggs in some abundance in Cumberland and Robeson Counties. (Scott, Mitchell).

HORNWORMS - DELAWARE - Small to half-grown larvae on tomatoes at Middletown. (Milliron). VIRGINIA - Heavy infestation on 30 acres of tomatoes in Northumberland County. (Saville). NORTH CAROLINA - Reported on tobacco from several counties in northern half; very few in southern area. Eggs in Columbus County. (Scott, Mitchell). MARYLAND - Small larvae damaging tobacco in Prince Georges County. Of 220 plants examined on six farms 20 percent showed damage. (U. Md., Ent. Dept.). MISSOURI - Moderate infestation in tobacco in western Boone County. (Wkly. Rept. Fr. Grow.). COLORADO - Eggs and larvae reported in commercial plantings of tomatoes, June 25. (Exp. Sta.).

JAPANESE BEETLE (Popillia japonica) - NORTH CAROLINA - Causing light damage to tobacco in a few fields in Beaufort, Cumberland, Duplin, Gates, Hertford, Pamlico and Pitt Counties. (Scott).

COTTON INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - TEXAS - Increasing slightly in upper coastal and south central areas. Extremely heavy for this time of year in central, north central, west cross timbers, east and north-east areas. (Gaines). Twenty-four percent punctured squares in 23 untreated fields and 6.1 percent in 31 early-treated fields in McLennan and Falls Counties. (Parenica et al). LOUISIANA - Average infestation in 91 fields in Tallulah area was 9 percent punctured squares. All fields examined infested. (Gaines, Pfrimmer et al). Average infestation in two fields in Red River Parish was 12 percent, in three fields in Bossier Parish 41 percent, in five fields in Ouachita Parish 21 percent, and in five fields in Tensas Parish 14 percent. (Oliver). OKLAHOMA - Increasing in Choctaw and Caddo Counties; as high as 14 percent punctured squares in Caddo County, 6-30 percent in Choctaw and 8-28 in Johnson County. (Stiles). ARKANSAS - Infestation not changed much from last week. Of 2442 fields scouted, 980 infested, or 40 percent, which compares with 21 percent last week. Most punctures are old and are egg punctures, which indicates leveling off of infestations. Overlapping of broods in northeast. First-generation weevils in southwest. Insecticides not needed in most fields. (Warren, Turney). MISSISSIPPI - In general, boll weevil counts low June 28. (Hutchins). Reported from most fields of fruiting cotton in Washington County area. Average of 4.1 percent punctured squares. Activity appears to be increasing. (Merkel, Furr et al).

ALABAMA - Thirty-eight of 43 fields examined in 10 southeastern counties found infested at rate of 5.4 percent for infested fields. (Moore). GEORGIA - Of 80 fields examined in 20 middle and south Georgia counties, 76 were infested. Average of 11 percent punctured squares in 12 untreated fields; all fields examined infested. Sixty-four of 68 treated fields examined found infested at rate of 3 percent punctured squares. (J. C. and C. R. Jordan). TENNESSEE - Only a few punctured squares in west Tennessee. Infestations do not exceed 2 percent in any field examined. (Locke). SOUTH CAROLINA - Survival percentage to July 1 in cages in Florence was 5.8; 24-year average percent of survival was 3.6. Total weevils taken in trap plot to June 30 was 1521, compared with 76 to same date in 1954. Average of 6 percent square infestation in 49 treated fields in Darlington County. Average of 5 percent square infestation in 10 treated fields in Florence County. Average of 20 percent infestation in 10 untreated fields compared with 16 percent for previous week. (Walker et al). NORTH CAROLINA - Of 177 fields surveyed in 18 counties, 45 were negative, approximately 85 had infestation of less than 10 percent, and the remaining 46 had 10 percent or more. A few had infested squares of 20-50 percent. First-brood adults reported. (Jones).



BOLLWORMS (Heliiothis spp. et al) - ARIZONA - Economic level, 6 to 8 percent of plants, on 190 acres in Pinal County, June 26. (Ariz. Coop. Rept.). TEXAS - Increasing rapidly in lower Rio Grande Valley, east and southwest areas. Slight increase in upper coastal, south central, central and northeast areas. (Gaines). Slight increase in activity in McLennan and Falls Counties. Eggs and larvae average 0.6 and 0.1 per 100 terminals, respectively, in 48 fields in McLennan and Falls Counties. (Parenica et al). ARKANSAS - Increasing some fields; of 2442 inspected, 499 found infested, Natural control effective most fields. (Warren, Turney). OKLAHOMA - Very few larvae or eggs reported. (Stiles). LOUISIANA - From 0-4 per 100 terminals in 15 fields in Bossier, Red River, Ouachita and Tensas Parishes. (Oliver). Average of .7 eggs per 100 terminals and 1 larva per 100 terminals in Tallulah area; 13 of 24 fields infested. (Gaines, Pfrimmer et al). MISSISSIPPI - No alarming numbers in most parts of State June 27. (Hutchins). Heavy in Claiborne and Walthall Counties, medium in Madison County, and light in northern half of State. (Bennett). Average of 1.1 eggs per 100 terminals and 1.9 larvae per 100 terminals in infested fields in Washington County. (Merkl, Furr et al). ALABAMA - Of 43 fields examined in 10 southeastern counties, 13 found infested at rate of 1.8 eggs per 100 terminals in infested fields. (Moore). GEORGIA - Average of 2.7 eggs and 1.8 larvae per 100 terminals in 20 fields. Injured squares averaged .9 percent in untreated and .3 percent in treated fields. (J. C. and C. R. Jordan). TENNESSEE - Very light infestation in squares on older cotton in west Tennessee; does not exceed 2 percent for all infested fields. (Locke). SOUTH CAROLINA - Average of .4 egg per 100 terminals in 5 fields in Florence County, no larvae. (Walker et al). NORTH CAROLINA - Still low in all fields, maximum of 7 percent injury. (Misticic).

FLEAHOPPERS - ARIZONA - A black fleahopper (probably Spanogonicus albofasciata) found at 20-30 per 100 sweeps at Eloy June 24, nymphs numerous; low in Marana area, Pima County. (Ariz. Coop. Rept.). NEW MEXICO - Psallus seriatus infesting cotton in Lea County; light on cotton in Chaves County. (Durkin, June 25). TEXAS - Increased in central area. (Gaines). While most fields had low infestations in Lubbock area, some have infestation warranting controls. (Davis, Owen, June 30). OKLAHOMA - Up to 30 per 100 terminals in Caddo County and 50 per 100 in Choctaw County, (Stiles). ARKANSAS - Infestation of P. seriatus still being found in fields over State, heaviest in southern area, but declining many fields. (Warren, Turney). TEXAS - Average of 7.2 per 100 terminals in 21 untreated fields and 3.5 in 27 early-treated fields in McLennan and Falls Counties. (Parenica et al). LOUISIANA - From 0-22 per 100 terminals in 10 fields in Red River, Bossier and Ouachita Parishes. Twenty-three per 100 terminals in Tensas Parish. (Oliver). Cotton fleahoppers in 96 of 101 fields examined in Tallulah area at rate of 6.7 per 100 terminals. (Gaines, Pfrimmer et al). MISSISSIPPI - Damage in a few fields in Washington County area. (Merkl, Furr et al). TENNESSEE - Warranting control in some fields in west Tennessee area. Heavier infestations spotted. (Locke).

SPIDER MITES - TEXAS - Active across most of lower Rio Grande Valley. (Deer). ARIZONA - Increasing on cotton in Pinal and Pima Counties. Light to heavy at Eloy and Sahuarita, June 24. Tetranychus atlanticus and T. bimaculatus moderately heavy on 60 acres at Eloy, June 25. (Ariz. Coop. Rept.). GEORGIA - Heavy infestations in Jackson and Peach Counties. (J. C. and C. R. Jordan). NORTH CAROLINA - Injury to several fields in Montgomery County. (Jones).

LYGUS BUGS - ARIZONA - Increased sharply on cotton in many fields in Maricopa, Pinal and Pima Counties during week ending June 24; further slight increase July 1. Up to 12 per 100 sweeps at Eloy, Pinal County. (Ariz. Coop. Rept.).

CABBAGE LOOPER (Trichoplusia ni) - TEXAS - "Ragging" many cotton fields in lower Rio Grande Valley. (Deer). ARIZONA - Twenty larvae per 100 plants on 60 acres in Maricopa County; 2 eggs per 100 terminals. (Ariz. Coop. Rept.).

THRIPS - NEW MEXICO - Frankliniella sp. numerous in cotton and alfalfa in Eddy County. Numerous in cotton adjoining barley and oats in Chaves County. (Durkin, June 25).

A LEAF MINER (Liriomyza sp.) - ARIZONA - Worse than usual on cotton in Pima County. (Ariz. Coop. Rept.).

A LEAF ROLLER (Platynota stultana) - ARIZONA - Beginning to damage cotton at Phoenix and Yuma. (Ariz. Coop. Rept.).

WEBWORM - TEXAS - Damaging cotton in northwest and south central areas. (Gaines).

APHIDS - ARIZONA - Large numbers in many cotton fields in Maricopa and Pinal Counties, June 24. (Ariz. Coop. Rept.).

GRASSHOPPERS - TEXAS - Continue to cause damage to cotton bordering grassland in Briscoe, Floyd, Swisher and Yoakum Counties. (Davis, Owen). OKLAHOMA - Damage in cotton fields over State. (Stiles).

FALSE WIREWORMS - TEXAS - Damaged stands of replanted cotton in Howard, Lynn and Mitchell Counties. (Davis, Owen).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Infestation building up and distribution becoming more general over southern area. (Chambers).

ELM LEAF BEETLE (Galerucella xanthomelaena) - RHODE ISLAND - Light populations of larvae common on unsprayed elms over State with light damage on a few trees. (Mathewson). PENNSYLVANIA - Injuring elms in yards in Cumberland County. Larvae ready to pupate. (Pepper). VIRGINIA - Damaging foliage on very large elms in Rockbridge County (Morris) and in Prince William County (Cox). NEVADA - Reaching economic populations in western counties. Development about 14 days later than past four years. (Galloway).

BALSAM-FIR SAWFLY (Neodiprion abietis) - WISCONSIN - Very abundant in Door County. (Chambers).

BIRCH LEAF MINER (Fenusa pusilla) - WISCONSIN - More common than usual in Door County. (Chambers). RHODE ISLAND - Adults active and ovipositing on scattered birch in the Scituate and Kingston areas. (Kantack, Mathewson).

BIRCH SKELETONIZER (Bucculatrix canadensisella) - WISCONSIN - Becoming prevalent in Door and Marinette Counties. (Chambers).

BROWN-HEADED ASH SAWFLY (Tomostethus multicinctus) - MINNESOTA - Defoliating ash near Sauk Centre. (Minn. Ins. Rept. Serv.).

AN OAK WEEVIL (Cyrtopistomus castaneus) - DELAWARE - Adults active on a variety of oaks in Harrington area. (Milliron).

PINE SPITTLEBUG (Aphrophora parallela) - WISCONSIN - Abundant on pine and causing considerable twig injury throughout the State. (Chambers).

RED-HEADED PINE SAWFLY (Neodiorion lecontei) - VIRGINIA - Causing heavy damage to pines in Mecklenburg County. (Rowell, Copley).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - WISCONSIN - Causing destruction to red and jack pine in large areas of Vilas, Oconto and Marinette Counties. Spraying operations underway. (Chambers).

SATIN MOTH (Stilpnotia salicis) - OREGON - Larvae feeding heavily on silver poplar in Sherman County. (Every).

SPIDER MITES - NORTH DAKOTA - Populations increasing in junipers in nurseries. (Goodfellow). TENNESSEE - Heavy infestation on willow caks in Memphis area. (Locke). MARYLAND - Severe on hemlock in Baltimore City. (U. Md. Ent. Dept.).

SPRUCE BUDWORM (Choristoneura fumiferana) - MINNESOTA - Heavy defoliation (over 50 percent of crown removed) at one point in Lake County. Medium defoliation (21-50 percent of crown removed) one point in northwestern St. Louis County. (Minn. Ins. Rept. Serv.)

SPRUCE NEEDLE MINER (Taniva albolineana) - WISCONSIN - Observed more common than usual in nurseries and park plantings in southern area. (Chambers).

WALKINGSTICK (Diapheromera femorata) - WISCONSIN - Numerous in Shawano, Marinette and Marathon Counties. Airplane control operations one area. (Chambers).

WESTERN TENT CATERPILLAR (Malacosoma pluviale) - OREGON - Pupation in Willamette Valley and Hillsboro areas; larvae half to full grown in Clatsop, Tillamook and Columbia Counties. Spotted severe infestations on alder, willow and apple. (Roth).

SCALE INSECTS - MINNESOTA - Scale insects (chiefly Lecanium corni and L. fletcheri) abundant on hardwoods and arborvitae in urban areas. (Minn. Ins. Rept. Serv.)

RHODODENDRON WHITEFLY (Dialeurodes chittendeni) - WASHINGTON - Adults numerous on rhododendron at Sumner. (Doucette).

NORWAY-MAPLE APHID (Periphyllus lyropictus) - PENNSYLVANIA - Quite abundant in city of Indiana on maple, honeydew nuisance. (Udine).

MIMOSA WEBWORM (Homadaula albizziae) - TENNESSEE - Appearing for the first time this season in the Memphis area. (Locke).

LOCUST LEAF MINER (Chalepus dorsalis) - MARYLAND - Heavy damage to black locust foliage in central and western areas. (U. Md., Ent. Dept.)

FALL WEBWORM (Hyphantria cunea) - DELAWARE - Attacking black walnut near Townsend. (Milliron).

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma) - WISCONSIN - Very abundant in several cities along Michigan Lakeshore. (Chambers).

ROSE CHAFER (Macrodactylus subspinosus) - RHODE ISLAND - Very heavy populations throughout the State with as many as 50 per sweep from roses in southern and northern areas. Damage to untreated roses heavy and considerable injury to beans and strawberries in home gardens. (Mathewson).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Populations light. Adults taken at Wickford, Providence and Kingston. (Mathewson). PENNSYLVANIA - Adults emerging in Franklin, Cumberland, Westmoreland Counties. (Pepper, Udine). DELAWARE - Numerous in southern Kent and northern Sussex Counties on smartweed and sassafras. (Milliron). MARYLAND - Abundant on roses and other ornamentals in Montgomery and Prince Georges County! (U. Md., Ent. Dept.). VIRGINIA - Attacking ornamentals in Pulaski County (Grigsby); in Henry County (Pollard); in King William County (Kelly); in Fairfax County (Beard); and in Isle of Wright County (Grizzard).

EUROPEAN EARWIG (Forficula auricularia) - NEVADA - Populations increasing to economic numbers, especially in Reno vicinity. (Gallaway). RHODE ISLAND - Abundant over State. (Mathewson).

BULB MITE (Rhizoglyphus echinopus) - NORTH CAROLINA - Reported killing an entire planting of gladiolus bulbs in Guilford County. (Scott, Farrier).

### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NEVADA - Very abundant in northeastern area. (Gallaway). RHODE ISLAND - Abundant over State. (Mathewson). COLORADO - High populations of adults reported from a number of communities of eastern area. (Exp. Sta.). FLORIDA - A mosquito (Aedes taeniorhynchus) averaging 2 to 3 bites per minute in Dade County. (Det. D. O. Wolfenbarger) (Denmark).

HORN FLY (Siphona irritans) - FLORIDA - Infestation averaging 200 per animal in a herd at Alachua. (Denmark).

### BENEFICIAL INSECTS

A PARASITE (Heterospilus cephi) - PENNSYLVANIA - Larvae quite numerous on larvae of European wheat stem sawfly in Centre County. (Udine).

### RECENT INTERCEPTIONS AT PORT OF ENTRY

Of interest recently was the interception of a lepidopterous larva, identified as Blastodacna sp. near or = atra Haw. found feeding around bud of an apple scion in the mails from Sweden at the Washington D. C. inspection house. (Gouldman). B. atra has been reported injurious to apple in parts of Europe and England where it is known as the "apple pith moth." Injury is due to the larvae boring in the buds, shoots or twigs. Buds may be completely destroyed, and leaves and blossoms turn brown and die. Serious damage is said to occur under certain conditions but ordinarily injury is not considered of major importance.

Observations on the biology of the B. atra in England indicate the adults appear during the latter part of July. Eggs are deposited singly on twigs near the base of the buds. They hatch in about 15 days and the larvae bore into a twig to construct a tunnel in the pith where they feed and pass the winter. In the spring they burrow into a new bud, shoot or twig, resume feeding, complete larvae development and pupate in the tunnel. The pupal stage lasts about a month from the middle of June to the middle of July.

Living larvae of the apple pith moth have been intercepted on a number of occasions in recent years in apple scions from Europe at various ports. It is not known to occur in the United States. (Compiled - Plant Quarantine Branch.)

### MISCELLANEOUS INSECTS

A SUBTERRANEAN TERMITTE (Reticulitermes virginicus) - NEW YORK - Collected in May at Great Neck, Nassau County, New York by Philip Meyer. (Det. T. E. Snyder). (Spear). According to ARS records, this is the first report of this insect from New York.

LIGHT TRAP COLLECTIONS

	Prod. <i>unipunc.</i>	Agrot. <i>ornif.</i>	Perid. <i>ypsilon</i>	Feltia <i>subt.</i>	Heliiothis <i>armig. vires.</i>	Protoparce <i>sexta quin.</i>
TEXAS						
Waco 6/25-7/1	5	6	3	6	96	
LOUISIANA						
Bat. R. *6/25-7/1	1	83	1	148	1	
Frankl. 6/16-29	13	88	3	30	8	
Tallul. *6/25-7/1	3	40	3	51	17	54 19
ARKANSAS						
Hope 6/25-7/1	3		2		9	
Stuttg.			1		3	
Van B.	3		1		3	
Varn.	6		10		17	
Fayet.	115		12		29	109 spp.
Oseool.	23		7		13	
Clarksv.	17		5		3	
MISSISSIPPI (counties)						
Pearl Riv. 6/25-7/1	3	2	3	6		
Oktibbeha	11	47	5	7	7	
Humphreys	3	18	1	7		
GEORGIA (counties)						
Clarke 6/24-30	3	18		45	16 spp.	
Spalding	1	34	3	28	139 spp	
Tift 6/25-7/1	6	5			4 spp.	

Other States Reporting: ALABAMA (Auburn 6/25-7/1)-3 P. ornithogalli, 18 Feltia subterranea, 2. H. armigera. SOUTH CAROLINA (Oconee County 6/26-7/2)- 15 P. ornithogalli, 8 Heliiothis spp., 2 P. sexta, 1 P. quinquemaculata. NORTH CAROLINA- (Duplin County 6/20-26)- 22 P. ornithogalli, 12 H. armigera, 1 P. sexta.

\* Two traps at Baton Rouge; three at Tallulah.

ADDITIONAL NOTES

NEBRASKA - A cutworm (Euxoa detersa) damaging corn grown on sandy soil in Pierce County. Population greater than in past 4 or 5 years. Replanting necessary in some cases. WHEAT HEAD ARMYWORM infestations spotted but moderate in wheat in south central, central and southeastern areas. Average of 20 per 25 sweeps. Grain being docked when taken to elevators. Some control used. CORN ROOT APHID infestations still occurring in south central, southeast and east central counties. In some areas of southeast 20 out of 25 plants infested. EUROPEAN CORN BORER. Egg laying continuing in northern area but no new egg masses found in southern area. In 9 counties in northeastern area egg mass counts from 2 to 101 per 20 plants and from 10 to 370 per 100 plants. Damage ranged from 0 to 100 percent. (Anderson, Hill).

OREGON - Sod webworms (Crambus sp.) up to 40-50 percent of plants killed in some fields. (Dikason, Every). A mealybug (Phenacoccus aceris) hatching started June 28 at Gervais. (Roth).



WEATHER BUREAU'S 30-DAY OUTLOOK  
July 1955

The Weather Bureau's 30-day outlook for July calls for temperatures to average above seasonal normals over the eastern half of the nation except for near to below normal in the Southeast and along the Gulf Coast. Greatest departures are anticipated over the Northeastern quarter of the country. Below normal temperatures are predicted in the Northern Plains and west of the Continental Divide with greatest departures in the Intermountain area. In unspecified areas near normal temperatures are expected.

Precipitation is predicted to exceed normal over most of the western half of the country and also in the Upper Mississippi Valley and in the extreme Southeast. Subnormal amounts are indicated in a broad zone extending from the Middle Atlantic States southwestward to northern Alabama and Mississippi. Elsewhere near normal amounts are predicted.

This report released by the Weather Bureau on July 1, 1955.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price: \$4.80 a year, \$2.40 for six months.

WEATHER FOR THE WEEK ENDING JULY 5, 1955

The week's weather east of the Rocky Mountains determined by a high pressure system moving southeastward from the north-central interior was generally fair with rising temperatures and increasing humidity. Below normal temperatures prevailed in most of the East during the closing days of June but hot, humid weather became well established over the eastern two-thirds of the country during the opening days of July. By July 4 maxima in the 90's extended almost to the Canadian Border. Highest temperatures at some northern cities on that date were: Boston, Mass., 93°; Albany, N.Y., 95°; Buffalo, 90°; Alpena, Mich., 95°; Fort Wayne, Ind., 101°; Chicago, Ill., 97°; Minneapolis, Minn., 90°; Rapid City, S. Dak., 99°; and Denver, Colo. 93°. Minima temperatures during this hot period rose into the 60's and 70's. Chicago had a low of 76° on July 4. In the far West temperatures were well below seasonal levels continuing the below normal trend of 1954 and the first half of 1955. In the Pacific Northwest temperatures for the week averaged as much as 12° below normal and minima in the 30's. Some below 32° were recorded at many interior stations in the higher valleys. Pendleton, in northeastern Oregon, had a record low of 42° for July on the 1st. Meacham, also in northeastern Oregon, reported a snow shower on the

same date and several inches of new snow were reported to have fallen in the Upper Cascade Mountains during the latter part of the week. On June 30 Ely and Winnemucca, Nevada, reported lows of 31° and 32°, respectively. The low temperatures in this region were caused by a cool Pacific air mass which moved in on June 28 and 29 reducing temperatures by 30° or more in 24 hours.

Precipitation east of the Rockies was spotty, although heavy amounts fell over a large area in the Upper Mississippi Valley and part of the Northern Great Plains and another area in the lower Mississippi Valley which included most of Louisiana and parts of Mississippi and Arkansas. The heavy rains broke the serious drought in southeastern Louisiana. Some locally heavy showers fell in the Northern Great Plains and Upper Mississippi Valley on June 29 and 30, Bismark, North Dakota reporting 1.22 inches on the 29th and International Falls, Minnesota, 1.50 inches on the 30th. Showers were general over Florida on June 30 and July 1 when Tallahassee reported 4.47 inches for the 2 days and Tampa and Fort Myers received 2.84 inches and 1.39 inches, respectively on July 1. Elsewhere the week's total was under  $\frac{1}{2}$  inch. Many stations reporting a few hundredths and a large area in the southwest including western portions of Colorado and New Mexico, all of Arizona, the southern two-thirds of California and most of Nevada and Utah received no rain. (Summary Supplied by U. S. Weather Bureau).





VOL. 5 No. 28

*Capin*  
JULY 15, 1955

*SB*  
*823*  
*C77*  
*Ent.*

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPERS continue of primary concern in some states. Damage becoming common on crops in Missouri, severe on 50,000 acres in Whitman and Adams Counties, Washington, and appearing in corn fields in Nebraska. Large numbers in alfalfa in Minnesota, new outbreak in Union County, New Mexico, and light to severe populations in crops in southeast Kansas. Controls underway on large acreage in several Texas counties. (pp. 643, 657, 664).

EUROPEAN CORN BORER damage to sweet corn general in Delaware and heavy in early corn in southwestern Kentucky. Shot-hole damage to plants ranges from 2-50 percent in Minnesota and 50-60 percent in advanced corn in South Dakota. From 24-100 percent of corn showing damage in Nebraska and some fields in southern Wisconsin have 60-80 percent of stalks infested. Egg-laying about complete in Minnesota, Illinois and South Dakota. Fourth-instar larvae in South Dakota and Minnesota. (p. 644).

CHINCH BUG outbreak beginning on corn and sorghum in east central and southeastern Nebraska and continues in some central Kansas counties. Damage also to corn in areas of Pennsylvania and South Carolina. (p. 644).

ALFALFA WEEVIL reported from North Dakota for first time. Populations in Idaho unusually low (p. 646), but considerable damage in Utah (p. 664).

Heavy populations of PEA APHID persist on alfalfa in Nebraska, South Dakota and Minnesota, and some southwest Kansas areas. (p. 647). YELLOW CLOVER APHID showing increase in some areas of Arizona and Texas. Declining in southeast Nebraska, and non-economic populations in north central Kansas, but still heavy in Guadalupe and Quay Counties, New Mexico. (p. 647). PLANT BUGS of concern on alfalfa in some sections of Colorado, Washington, South Dakota, Illinois. (p. 648). JAPANESE BEETLE damaging soybeans in eastern Virginia and corn in Delaware. (p. 649). Damage to ornamentals other areas. (p. 660).

APPLE MAGGOT fly emergence continues in Maine, Massachusetts and Minnesota. (p. 649). SPIDER MITES increasing rapidly in orchards in southern areas of Indiana and Illinois, and in New York. (pp. 649, 665). Rapid build-up of CODLING MOTH in Colorado. Increased larval activity expected in Indiana and Illinois. Adults emerging rapidly in north-east Kansas. (p. 650).

Threatening populations of TUBER FLEA BEETLE and POTATO PSYLLID on early potatoes in western Nebraska. (p. 651). POTATO LEAFHOPPER  
(Continued next page)

becoming abundant on beans and potatoes in central Wisconsin. Injury to potatoes in eastern Virginia and Delaware. (p. 652). POTATO FLEA BEETLE unusually severe in eastern Virginia. (p. 652). APHIDS unusually heavy for time of year on potatoes in Maine and damaging cucurbits in some Texas and Oklahoma areas. (p. 652). MEXICAN BEAN BEETLE of concern on beans in several states. Severe damage to untreated beans in Virginia, Maryland, and Larimer and Weld Counties, Colorado. (p. 652). STRIPED CUCUMBER BEETLE unusually destructive in southern Wisconsin. (p. 654). GREEN PEACH APHID more abundant on tobacco in central Tenn. than since 1950. (p. 654). LEAF MINERS damaging cantaloups at Yuma, Arizona. (p. 654).

Considerable increase of BOLL WEEVIL in east central and west cross timbers areas of Texas, 32 percent punctured squares in untreated fields in McLennan and Falls Counties. Rapid increase in untreated fields in Oklahoma but continues low in treated fields. Same as last week (9 percent infestation) at Tallulah, Louisiana. Some increase in infestations in Arkansas. Average of 7 percent infestation in Washington County, Mississippi; 5 percent infestation in central and western Alabama; 18 percent in untreated and 4 percent in treated fields in north Georgia; 4 percent in west Tennessee; 30 percent in untreated and 9 percent in treated fields in Florence County, South Carolina. (p. 655). BOLLWORMS increasing in some Texas sections but continue low in most other areas. (p. 656). FLEAHOPPERS increased in Texas areas and in local areas of Arkansas. Some damage in west Tennessee and Washington County, Mississippi. (p. 657). SPIDER MITES increasing in some counties of Oklahoma, Texas and Mississippi. (p. 657)

HORN FLY heavy in untreated herds in South Dakota and increasing rapidly in Kansas. (p. 658). FLEAS unusually prevalent in Wake County, North Carolina and abundant in Tennessee. (p. 658).

JACK PINE BUDWORM moths abundant in east central Minnesota. (p. 659). ROSE CHAFER remains heavy in Rhode Island and in sand areas of central Wisconsin. (p. 660).

STATES REPORTING this week - 39.

WEATHER Summary (p. 665).

\*\*\*\*\*

Reports in this issue are for the week ending July 8, 1955, unless otherwise designated.



## CEREAL AND FORAGE INSECTS

GRASSHOPPERS - NEW MEXICO - Medium to heavy on crops, most abundant on alfalfa, cotton, corn and beans, in Taos and Lea Counties. New outbreak on 40 to 60 thousand acres in Union County. (Durkin, July 2). WASHINGTON - Severely damaging 50,000 acres range in Whitman and Adams Counties; 85 percent Melanoplus mexicanus; M. bivittatus and Aulocara eliotti also involved. (Busdicker, Brannon). TEXAS - Over 400,000 acres of range land has been or will be treated in Armstrong, Hutchinson, Lipscomb, Moore, Potter, Randall, Roberts, Sherman, Wheeler and Hansford Counties. (County Agts.). Medium widespread damage to grain sorghums and corn in Ellis County. (Dorman). Heavy widespread on grassland and all crops in Montague County. (Roberts). NEBRASKA - Melanoplus sp. damage showing up in many corn fields, especially in margins in eastern counties. From 30-45 M. differentialis, fourth instars, per square yard in corn fields and M. bivittatus adults appearing in fields. From 80-120 grasshoppers per square yard along roadsides. (Hill, Andersen). ARKANSAS - Melanoplus sp. locally heavy in southwestern counties, up to 50 per square yard. Some damage to corn, cotton, soybeans and alfalfa. Most damage by M. differentialis. This species maturing. Largest area under attack, 4000-5000 acres, is in Pike County. (Warren, Turney).

MINNESOTA - First and second instar Melanoplus femur-rubrum appearing in large numbers in second-crop alfalfa in central, west central and northwestern. Several legume fields in east Otter Tail County have 12-15 adults per square yard, mostly M. femur-rubrum. Infestations in small grains generally light. (Minn. Ins. Rept. Serv.). WISCONSIN - Continue hatching in northern area but no serious outbreaks reported. (Chambers). SOUTH DAKOTA - Hatch complete. Melanoplus bivittatus and M. mexicanus rapidly becoming adult. Infestation spotted. Late hatch in some northern areas. Local infestations up to 25-30 per square yard. (Burge). NORTH DAKOTA - Scattered reports but no general problem areas are known. (Goodfellow). ILLINOIS - From 1 to 6 per square yard in many legume fields. Higher populations reported, however. (Petty et al). LOUISIANA - Melanoplus femur-rubrum and Melanoplus sp. increasing in white clover in Acadia and Jefferson Davis Parishes; 25-26 per 100 sweeps. (Oliver). TENNESSEE - Abundant in scattered fields with counts from 1 to 5 per square foot in more heavily infested fields in upper east area. (Dozier, July 3). NORTH CAROLINA - Melanoplus spp. average 1.4 nymphs per sweep in one 5-6 acre alfalfa field and 1 per sweep in a 3-4 acre field in Wake County. (Farrier). DELAWARE - Nymphs of Melanoplus sp. numerous in alfalfa and clovers in several areas. (Milliron). KANSAS - Light to severe in Cloud, Jewell, Smith, Phillips, Norton, several northeast counties; 5-40 per square yard in alfalfa and 1-5 per square yard in wheat stubble and corn fields. As high as 45 per square yard in some roadside ditches and fence rows adjacent to corn. Margin of alfalfa bordering small grains reduced to

stems some areas. Controls underway in some north central communities. (Matthew). MISSOURI - Heavy damage becoming common. Clover and alfalfa being stripped and damage to corn in margins becoming more noticeable. (Kyd, Thomas). MARYLAND - Small nymphs becoming abundant, 2-10 per sweep, in hay and pasture fields in sections of Montgomery and Frederick Counties. (U. Md., Ent. Dept.).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Destructive to tassels and stalks of sweet corn generally. Severe infestations several locations. Potatoes lightly infested many places; heavy at Blackbird. (Milliron). PENNSYLVANIA - Light infestation in corn in Armstrong County; some third instars. (Adams). VIRGINIA - From 1 to 29 stalks per 100 damaged in 8 fields in 5 counties. (Morris). ILLINOIS - Egg-laying practically complete, but all sizes of borers found and beginning to migrate over plants and burrow into stalks. (Petty et al). KENTUCKY - Southwestern area corn planted in early April, silking July 7, heavily infested. One field had 1404 borers per 100 stalks. Pupation of first generation 20 percent in early-planted corn. (Rodriguez). MINNESOTA - Average percent of shot-holed plants: southwest 50 percent, south central 18, southeast 17, central 2. Few eggs on field corn and egg deposition about complete. Mostly third and fourth instars in south central area. (Minn. Ins. Rept. Serv.). SOUTH DAKOTA - Egg-laying approximately 90 percent complete in northern counties (Lofgren), complete in southern counties (Hantsbarger). In advanced fields of corn (48 inches tall) average of 50-60 percent of stalks show shot-hole damage, some fields 100 percent. Borers from first to fourth instar and average about 6 per infested stalk. (Lofgren, Hantsbarger, Spawn). WISCONSIN - Continues to build up, some fields of southern area have 60-80 percent of stalks infested. No serious damage observed. (Chambers). NEBRASKA - Survey in northeast, east central and southeast area showed no egg masses and many borers in third instars. From 24 to 100 percent of corn showing damage. Corn averaging 54 inches tall. (Andersen). MARYLAND - Moderate damage to 50 acres of field corn in Dorchester County. (U. Md., Ent. Dept.).

CHINCH BUG (Blissus leucopterus) - PENNSYLVANIA - Started to move from wheat July 1-3 in Lycoming, Columbia and Montour Counties. Moderate damage to margins of corn, control measures effective. (Gesell). SOUTH CAROLINA - Common on field corn in Florence County (Kirk, July 1); numerous in Dillon County (Brown); and extremely numerous in Marion County (King). MISSISSIPPI - Damaging lawns and large sodded areas in Hattiesburg area of Forrest County. (Sheffield, July 1). NEBRASKA - Outbreak beginning in east central and southeastern areas. Leaving small grains and moving to corn and sorghum. Infestation spotted and light to moderate in most areas, from 17 per linear foot of sorghum to 75-100 per foot of corn. Heaviest in margins. Some plants showing characteristic wilting. (Hill, Andersen). KANSAS - Outbreak continues in some central counties; established in many

sorghum and milo fields of Cloud, Saline, Dickinson and Riley Counties, and other counties. Migration apparently over as small grain cut in this area. (Matthew). MISSOURI - A few scattered infestations. (Kyd, Thomas).

CORN EARWORM (Heliothis armigera) - DELAWARE - Injurious to tassels and ears of sweet corn from Blackbird southward. (Milliron). SOUTH CAROLINA - Unsprayed sweet corn harvested June 27-29 had 99 percent of ears infested. (Kirk). NORTH CAROLINA - Average of .6 egg per silk at Faison, Duplin County, and 1.5 per silk at Clayton, Johnson County, July 7. (Townes, Farrier). TENNESSEE - Still causing light damage to whorls and immature tassels. (Dozier, July 3). VIRGINIA - Heliothis sp. damaging corn in Brunswick County (Marshall); 8 of 100 stalks damaged in a Greensville County field and 5 of 100 in 4 Southampton County fields. Eggs noted on silks in latter county. (Morris). ARKANSAS - Flights of adults increasing in corn fields. Up to 70 percent of ears infested with larvae in some fields of southwestern counties. (Warren, Turney). ARIZONA - Moderate to heavy on corn in Phoenix area. (Ariz. Coop. Rept.).

CORN LEAF APHID (Rhopalosiphum maidis) - OKLAHOMA - Populations on sorghums increasing rapidly in many areas. (Howell).

CORN ROOTWORMS - DELAWARE - Diabrotica undecimpunctata howardi causing slight damage to leaves and silks of corn near Smyrna. (Milliron). ILLINOIS - Five D. longicornis per plant in one field and pupation just beginning. Reports of damage by this species to corn have been received for three or more years. (Petty et al). OREGON - D. undecimpunctata larvae damaging young corn in Eugene area; two to three beetles per plant (30 inches tall) at Roseburg. Very low in other areas of Willamette Valley. (Morrison). NEBRASKA - First adults of D. virgifera in Lancaster and Gage Counties. (Andersen, Hill).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - MARYLAND - Damaging field corn in Dorchester County. (U. Md., Ent. Dept.).

CUTWORMS - OREGON - Cutworms, probably Agrotis ypsilon, damaging corn in Stayton area. (Stephenson). Correction: CEIR 5(25):569 - WASHINGTON - A CUTWORM (Apamea amputatrix) should read GLASSY CUTWORM (Crymodes devastator). Det. by W. C. Cook from reared adults. (Johansen).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - ARKANSAS - Infestations from 0-38 percent in Pope, Perry and Yell Counties and from 0-6 in Washington-Benton County area. First-generation moths appearing about June 23 in upper Arkansas River Valley. (Warren, Turney).

FALL ARMYWORM (Laphygma frugiperda) - ARKANSAS - Infestations up to 12 percent in some corn in Clark County. Second and third instars. (Warren, Turney).

SAY STINK BUG (Chlorochroa sayi) - NEW MEXICO - Damage in 500-1000 acres of barley in Lea County. (Durkin, July 2).

SOUTHERN MASKED CHAFER (Cyclocephala immaculata) - NEBRASKA - Large number of adults at lights. (Andersen).

HESSIAN FLY (Phytophaga destructor) - MICHIGAN - Puparia readily found at Jackson, Charlotte, Sturgis and Coldwater. A few heavily infested fields. (Hutson, June 28).

APHIDS - NORTH DAKOTA - Continue to cause concern to grain growers, but grain advanced in southeastern and eastern areas to stage where little damage likely. Moderate to heavy populations on retarded grain in western and northern areas. (Goodfellow).

CORN SAP BEETLES - VIRGINIA - Population heavy in corn in Tidewater areas. (Davich). Sap beetles in most areas of State considered secondary invaders. (Morris). DELAWARE - Very abundant in injured sweet corn some places. (Milliron).

ARMYWORMS - ILLINOIS - Occasional armyworms still found in bluegrass with maximum of 20 per 100 sweeps. (Petty et al). MICHIGAN - One field of spring wheat at Saginaw has sufficient population to warrant treatment. (Hutson).

THRIPS - MINNESOTA - Limothrips denticornis apparently responsible for premature drying of leaves and heads of barley near Elbow Lake, west central area. Six to 12 thrips per stem. (Minn. Ins. Rept. Serv.).

FALSE WIREWORMS (Eleodes spp.) - KANSAS - Adults still abundant in fields of central and western counties. Need for seed treatment at seeding time next fall indicated. (Matthew).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - WASHINGTON - Severely damaging sweetclover interplanted with peas near Cheney. (Brannon).

ALFALFA WEEVIL (Hypera postica) - IDAHO - At lowest level of population in past four years. Most alfalfa fields did not show larval damage at time of haying. (Walz, July 2). NORTH DAKOTA - Identified from southwestern area. Adults taken east of Dickinson, Stark County, and west of Bucyrus, Adams County. Larvae taken at these points, also at Marmarth, Slope County and Gascoyne, Bowman County. Only

trace infestations found. (Goodfellow, June 25). PENNSYLVANIA - Adults and larvae still present in Schuylkill, Carbon and Lehigh Counties. (Menusan ).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Increasing on alfalfa at Smyrna and Hartly; no injury. (Milliron). ILLINOIS - From 3-18 adults per sweep with .2 to 4 nymphs per sweep. (Petty et al).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Infestations from 39-42 per 100 sweeps of alfalfa in Red River and Bossier Parishes. (Oliver).

PEA APHID (Macrosiphum pisi) - WASHINGTON - Total 267 per 100 sweeps on alfalfa, 36 on red clover, and 13 on white clover at Pullman. (Johansen). NEBRASKA - Heavy populations still exist in alfalfa throughout the Platte Valley and in eastern counties. From 75 to over 100 lady beetles per 25 sweeps in these fields. (Andersen). SOUTH DAKOTA - Abundant; up to 130 per sweep in alfalfa in southeastern counties. Predators numerous; up to 10 coccinellids per sweep. (Hantsbarger). NEW MEXICO - Small numbers on 2000 acres of alfalfa in Valencia County. (Durkin, July 2). MINNESOTA - More abundant in alfalfa than normal in northwestern, west central and south central areas; up to 1000 per sweep in LeSueur County. Predators low in northwestern and west central areas. (Minn. Ins. Rept. Serv.). ILLINOIS - From one to 4 per sweep in eastern, central and western Illinois. (Petty et al). DELAWARE - Slight increase on alfalfa in Smyrna-Hartly area. (Milliron). MICHIGAN - Moderate infestation in alfalfa at Saginaw. (Hutson). KANSAS - Has diminished to non-economic levels in north central and northwest areas. Some areas in southwest still have destructive populations and some spraying being done. (Matthew).

YELLOW CLOVER APHID (Myzocallis trifolii) - ARIZONA - Generally low in southern area but increasing rapidly in some fields in Pinal and Cochise Counties. Lady beetles absent in these fields. (Ariz. Coop. Rept.). NEW MEXICO - Populations seem to be declining in Dona Ana County, even in fields not treated recently. Areas in Guadalupe and Quay Counties still heavily infested. (Durkin, July 2). TEXAS - Infestations increased considerably the past week. Beneficial insects also increasing rapidly. (Randolph). OKLAHOMA - Seems to be slowly increasing on alfalfa at Stillwater. (Bieberdorf). Small numbers in southern and western areas. (Rogers). NEBRASKA - Myzocallis sp. population declining in southeast, from 4-10 per 25 sweeps. (Andersen). KANSAS - Non-economic infestations on alfalfa in nearly all north central counties; extends northern distribution to Cloud, Mitchell, Smith, Phillips and Norton Counties. From 3-15 aphids and 7-21 lady beetles per sweep. (Matthew). Heavy infestation at one location in Marion County. As high as 55 lady beetles per square foot in field. (Burkhardt).

PLANT BUGS - COLORADO - Populations of lygus, particularly L. elisus, reaching highs (364) June 22 in light trap collections in Otero County. Excessive populations of tarnished plant bug on alfalfa in Yuma and Adams Counties. (Col. Exp. Sta. and Ext. Serv.). NEBRASKA - New generation of L. lineolaris beginning to appear in southeastern alfalfa fields. From 30-46 nymphs per 25 sweeps. (Andersen). WASHINGTON - Lygus bugs, 40 adults and 168 nymphs per 100 sweeps on alfalfa, 18 adults and 83 nymphs on red clover, and 3 adults and 36 nymphs on white clover at Pullman. (Johansen). SOUTH DAKOTA - Lygus and others up to 4.3 per sweep in alfalfa in southeastern counties. (Hantsbarger). MICHIGAN - Moderate infestation of several species in alfalfa at Saginaw. (Hutson). ILLINOIS - Tarnished plant bug adults range from one to 4 per sweep in eastern, central and western areas, with maximum of 6 adults per sweep. From 5-12 nymphs per sweep in same area. (Petty et al). LOUISIANA - Tarnished plant bug infestation from 32-63 per 100 sweeps of alfalfa in Bossier Parish. (Oliver). DELAWARE - Tarnished plant bug (L. lineolaris) nymphs and adults numerous on forage legumes generally. (Milliron).

A LEAF MINER (Liriomyza sp.) - ARIZONA - Severe on alfalfa in spots at Yuma. Moderate damage in Avra Valley, Pima County, but present activity not general. (Ariz. Coop. Rept.).

LEAFHOPPERS - SOUTH DAKOTA - Up to 6.5 per sweep in alfalfa in southeastern counties. (Hantsbarger).

MITES - ARIZONA - Heavy in two fields of corn and one field of sorghum in Phoenix area. (Ariz. Coop. Rept.). COLORADO - Mites, apparently Petrobia latens, causing heavy damage to barley in Rio Grande County. (Colo. Exp. Sta.). MARYLAND - Infesting soybeans in Dorchester County. (U. Md., Ent. Dept.).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Numerous on alfalfa at Clayton. Adults conspicuous generally. (Milliron). ILLINOIS - From 0-1 per 10 feet of row in soybeans. (Petty et al).

FALSE CHINCH BUG (Nysius ericae) - ALABAMA - Reports of damage to pastures in southeastern area. (Arant).

A COLASPIS - LOUISIANA - Colaspis, probably flavida, averaging 40 per 100 sweeps in white clover in Acadia Parish. (Oliver).

BLISTER BEETLES - LOUISIANA - Epicauta sp. averages 200 per 100 sweeps in white clover in Acadia Parish. (Oliver). TEXAS - Epicauta sp. heavy locally on alfalfa in Wharton County. (Wilson).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Infestation in late soybeans 18 per 100 feet of row in Princess Anne County and 8 in Nansemond County. In early soybeans in Princess Anne and Norfolk Counties populations averaged one per plant. (Morris).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Heavy on soybeans in parts of Princess Anne and Norfolk Counties. (Morris).  
DELAWARE - Numerous on corn in several areas. (Milliron).

SOD WEBWORMS - OREGON - In CEIR 5(27):638 add Union County. (Roth).

WHEAT HEAD ARMYWORM (Protoleucon albilinea) - KANSAS - Examination of harvested wheat showed light infestation in Cloud, Jewell, Smith, Phillips, Norton, Osborne, Mitchell and Saline Counties. (Matthew).

WEBWORMS - OKLAHOMA - Garden webworms infesting about 10 percent of alfalfa terminals in Stillwater vicinity. Second and third instars. (Bieberdorf). Webworms damaging alfalfa in Kiowa County. (Rogers).  
TEXAS - Medium widespread infestations of alfalfa webworm (Loxostege commixtalis) in Brazos River bottoms of Brazos and Burleson Counties. (Randolph).  
NEBRASKA - Loxostege sp. larvae beginning to appear in alfalfa in southeastern areas. From 4-5 per 25 sweeps. Some evidence of webbing. (Connin, Andersen).  
MISSOURI - Moths numerous in alfalfa fields. (Kyd, Thomas).

RANGELAND INSECTS - NEVADA - A hairy caterpillar doing severe damage to snowberry in White Pine County. Previous outbreaks in 1949 and 1951. (Gallaway).

## FRUIT INSECTS

APPLE MAGGOT (Rhagoletis pomonella) - MAINE - First emergence on June 29 in Monmouth County. (Boulanger, June 29). MASSACHUSETTS - Flies now emerging and expected as major problem through July and part of August. (Crop Pest Cont. Mess.). MINNESOTA - First fly emergence July 4 and July 6 in southeastern area. (Minn. Ins. Rept. Serv.).

ORCHARD MITES - Correction - INDIANA - CEIR 5(26):596: "Counts ranged to 4976 mobile forms per leaf. . ." should read "Counts ranged to 4976 mobile forms per 100 leaves. . .". INDIANA - Populations increasing rapidly in sprayed and unsprayed orchards in Vincennes area (Hamilton) and have increased rapidly in Orleans area. (Marshall).  
ILLINOIS - Increasing rapidly in Carbondale area and warranting control. European red mite (Metatetranychus ulmi) more prevalent than usual this area. (Chandler).  
ARIZONA - A mite (Tetranychus yumensis)

especially severe on lemons in the Yuma area, causing yellowing, mottling and webbing. (Ariz. Coop. Rept.).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Second brood on apples slowly emerging in Carbondale area. (Chandler).

CODLING MOTH (Carpocapsa pomonella) - MAINE - First entries in apples made July 4 in Manchester County. (Boulanger, July 4). MASSACHUSETTS - Activity well past the peak of first brood. (Crop Pest Cont. Mess.). INDIANA - Emergence of first-brood adults well underway in Vincennes area. Eggs hatching in five days after laying, making hatch complete by July 1. Increase in larval activity expected July 7 and July 12 to 16. (Hamilton). ILLINOIS - First of second-brood moths from early apples southern area emerged June 30. New entries in unsprayed and poorly-sprayed orchards. Increased hatch expected July 11-16. (Chandler). MICHIGAN - Spring brood larvae leaving apples. (Hutson, June 29). KANSAS - Emerging rapidly in northeast area. (Eshbaugh). COLORADO - Prolonged and rapid build-up during past month. Heavy increase in larvae in orchards of Delta, Montrose and Mesa Counties. (Exp. Sta.).

BLACK CHERRY APHID (Myzus cerasi) - MICHIGAN - Abundant at Bellaire, Traverse City, Acme and Empire on red tart cherries. (Hutson, July 7).

BUD MOTHS - MASSACHUSETTS - A problem in a few orchards; many eggs hatching. (Crop Pest Cont. Mess.).

A CHERRY RUST MITE (Vasates fockeui) - WASHINGTON - Injuring cherries in the Wenatchee area. (Anthon).

GRAPE LEAF FOLDER (Desmia funeralis) - MISSISSIPPI - Larvae received from Newton County July 6. (Hutchins).

A LEAF ROLLER (Platynota stultana) - ARIZONA - Severe in terminals of citrus in a 7-acre planting at Yuma. (Ariz. Coop. Rept.).

PEAR-SLUG (Caliroa cerasi) - WISCONSIN - Reported abundant in nurseries and orchards of southern area. (Chambers, July 2).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - MICHIGAN - Second brood reaching peak hatch at Eenton Harbor, Niles, Paw Paw, Allegan and South Haven. (Hutson, June 28).



Citrus Insect Situation in Florida, Fourth Week in June, 1955

Purple scale infesting 93 percent of groves checked. Further increase in activity. Peak expected in week or two. Highest activity in Brooksville, upper east coast, Gainesville and west coast districts. FLORIDA RED SCALE infesting 61 percent of groves. Activity increased sharply. Peak activity expected in a week. Highest activity in Indian River and Ridge districts. CITRUS RED MITE infesting 76 percent of groves. Activity unchanged. Expected to decline in most areas. CITRUS RUST MITE infesting 59 percent of groves. Activity increased especially on fruit. Increase expected. Highest activity in Bartow, Indian River and upper east coast districts. (Pratt, Thompson, Johnson).

TRUCK CROP INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - DELAWARE - Injuring tomatoes at Summit Bridge and Clayton area, and eggplant north of Georgetown. (Milliron). NORTH DAKOTA - Infestation general but less than last year in Red River Valley. DDT not effective in control. (Goodfellow). IDAHO - Delay in control in southern area due to adverse weather. (Douglass, July 2).

CUTWORMS - MAINE - Severe damage to potatoes in one field at Masardis and one at Westfield, and an area at Island Falls. (Shands).

FLEA BEETLES - DELAWARE - Eggplant flea beetle (Epitrix fuscula) numerous on eggplant north of Georgetown. A flea beetle (Phyllotreta cruciferae) very destructive to small cabbage north of Georgetown. (Milliron). PENNSYLVANIA - Striped flea beetle (P. striolata) very abundant on cabbage in southeastern area, (Menusan). SOUTH CAROLINA - More numerous than usual on tobacco in Horry County. (Horton, Johnson). NEBRASKA - Tuber flea beetle (Epitrix tuberis) large populations in untreated early potatoes in western area. (Wallis).

EGGPLANT LACE BUG (Gargaphia solani) - DELAWARE - Destructive to eggplant north of Georgetown. (Milliron).

POTATO PSYLLID (Paratrioza cockerelli) - NEBRASKA - Populations increasing rapidly and threaten to cause severe injury at least to untreated early potatoes in western area. (Wallis). COLORADO - Populations static on tomatoes in commercial plantings in Pueblo, Otero, Bent, Crowley and Prowers Counties. Checked by high temperatures. (Exp. Sta. and Ext. Serv.).

TOMATO FRUITWORM (Heliothis armigera) - COLORADO - Egg counts indicate a general early seasonal distribution in commercial tomatoes in Bent, Otero and Pueblo Counties. (Exp. Sta. and Ext. Serv.).

POTATO LEAFHOPPER (Empoasca fabae) - PENNSYLVANIA - Beginning to appear in Camberia County. (Udine). DELAWARE - Increased population and tip burn on untreated potatoes at Blackbird, Felton, Harrington. (Milliron). VIRGINIA - Injury to several potato plantings in eastern area. (Brubaker, Greenwood, Hofmaster). WISCONSIN - Becoming very abundant on potatoes and beans in central area. (Chambers). NEBRASKA - Averaging 32 adults and 17 nymphs per 25 sweeps of a standard net on potatoes in east central area. "Hopperburn" beginning to show in many fields. (Andersen).

POTATO FLEA BEETLE (Epitrix cucumeris) - MAINE - Light feeding by adults generally; some fields with moderate damage. (Shands). RHODE ISLAND - Four to five per potato plant common in most fields. (Kantack). DELAWARE - Injuring untreated potatoes throughout the State. (Milliron). VIRGINIA - Damage unusually severe and widespread in eastern area. (Brubaker, Greenwood, Hofmaster).

APHIDS - MAINE - Several species (Aphis abbreviata, Macrosiphum solanifolii, Myzus persicae and M. solani) unusually heavy on potatoes for this time of year in Aroostook County. (Shands). OKLAHOMA - Damaging watermelons in Jefferson County. (Rogers). TEXAS - Heavy infestations on cantaloups in Comanche County; some fields ruined, light infestations on watermelons (Jones) and medium to heavy widespread infestations on squash and cucumbers in Victoria County (Franklin).

BLISTER BEETLES - VIRGINIA - Medium infestation on potatoes in the Bristol area of Washington County. (Gorsline).

WIREWORMS - MICHIGAN - Wheat wireworm (Agriotes mancus) numerous in bean fields at Saginaw. (Hutson, July 6).

SEED-CORN MAGGOT (Hylemya cilicrura) - MICHIGAN - Continue to infest late plantings of beans at Barryton and Ellsworth. (Hutson, July 2).

PEA WEEVIL (Bruchus pisorum) - IDAHO - Control operations prolonged by adverse weather. (Douglass, July 2).

MEXICAN BEAN BEETLE (Epilachna varivestis) - MAINE - Some damage to beans by adults. Eggs beginning to hatch about June 27. (Maine Coop. Rept.). DELAWARE - Destructive to snap beans in Bridgeville-Georgetown area. (Milliron). MARYLAND - Heavy damage to untreated beans in all areas. (U. Md., Ent. Dept.). VIRGINIA - Causing severe damage to untreated snap beans in eastern area. (Brubaker, Greenwood, Hofmaster). MICHIGAN - Larvae causing trouble on snap beans at Lansing and Jackson. (Hutson, July 2). COLORADO - Causing severe damage and warranting control in Larimer and Weld Counties. (Exp. Sta.).

CONCHUE LA (Chlorochroa ligata) - TEXAS - Spotted, medium infestations on blackeyed peas in Karnes County. (Griffin).

ARGUS TORTOISE BEETLE (Chelymorpha cassidea) - TENNESSEE - Larvae causing considerable damage to sweetpotato foliage in western area. Considered unusual in this area. (Hammett).

GOLDEN TORTOISE BEETLE (Metriorhina bicolor) - DELAWARE - Feeding heavily on sweetpotatoes near Ellendale. (Milliron).

ASPARAGUS BEETLE (Crioceris asparagi) - DELAWARE - Numerous on untreated asparagus ferns west of Blackbird; less common elsewhere. (Milliron).

ONION MAGGOT (Hylemya antiqua) - IDAHO - Severe damage to onions in gardens in Moscow. Adults emerging for second generation southwestern area. (Walz, Barr, July 2).

BROWN WHEAT MITE (Petrobia latens) - IDAHO - Light damage to onions in a few fields in Canyon County. (Walz, July 2).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Injuring some cabbage in large acreages in Kent County and occurring in smaller plantings in Sussex County. (Milliron). VIRGINIA - Severe injury to untreated cabbage in eastern area. (Brubaker, Greenwood, Hofmaster).

PARSNIP WEBWORM (Depressaria heracliana) - PENNSYLVANIA - Heavy infestation on large planting of parsnips in McKean County. (Adams).

FALSE CHINCH BUG - FLORIDA - A lygaeid (Nysius raphanus) averaging many adults infesting turnips at Panama City, Bay County. (Brogdon). MISSISSIPPI - False chinch bug (Nysius ericae) seriously damaging turnips in a field in Jackson County. (Bond).

CABBAGE MAGGOT (Hylemya brassicae) - VIRGINIA - Damaging cabbage in Tazewell County. (McDonald, Morris).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Still principal pest on crucifers, generally. (Milliron). VIRGINIA - Severe injury to untreated cabbage in eastern area. (Brubaker, Greenwood, Hofmaster). RHODE ISLAND - Almost 100 percent of untreated cabbage in gardens in Wakefield-Wickford area showing injury. (Kantack).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Active on cucurbits near Smyrna and Georgetown. (Milliron).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - RHODE ISLAND - Very heavy infestations in untreated plantings; damage moderate to severe in untreated gardens. (Kantack). DELAWARE - Severe on squash at Leirsic. Occurring several other areas on cucurbits. (Milliron). WISCONSIN - Unusually abundant and destructive throughout southern area. (Chambers).

SQUASH BEETLE (Epilachna borealis) - DELAWARE - Adults feeding on squash many areas in Sussex County and on cucumbers north of Georgetown. (Milliron).

SQUASH BUG (Anasa tristis) - RHODE ISLAND - Adults heavy in squash plantings at Wickford, Wakefield and East Greenwich. Large leaves with up to 40-50 eggs with some hatching in East Greenwich area. (Kantack). TEXAS - Medium to heavy widespread infestations on squash and cucumbers in Victoria County. (Franklin).

THRIPS - DELAWARE - Onion thrips (Thrips tabaci) continue to be severe on onions generally; very abundant on cabbage in southern New Castle County and in Kent. (Milliron). NEW MEXICO - Thrips (Frankliniella sp.) still infesting onions in Dona Ana County and warranting control. (Durkin). NEVADA - Onion thrips (Thrips tabaci) migrating into onion fields from alfalfa. (Galloway).

A LEAF MINER (Liriomyza sp.) - ARIZONA - Has caused extensive damage to cantaloup at Yuma. (Ariz. Coop. Rept.).

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Few larvae in Bladen County and few eggs in Harnett and Cumberland Counties. (Farrier).

GREEN PEACH APHID (Myzus persicae) - SOUTH CAROLINA - Unusually numerous on two acres of peppers in Horry County. (Johnson). NORTH CAROLINA - Decreasing further on tobacco in eastern counties. (Farrier, Scott). VIRGINIA - Light to medium infestations in Pittsylvania County on tobacco. (Dominick). Light infestation in Brunswick County. (Marshall). TENNESSEE - Increasing rapidly in central area. Most severe infestation since 1950 on tobacco. (Scott).

HORNWORMS (Protoparce spp.) - DELAWARE - Injuring tomatoes at Clayton and in Frederica-Felton area. Very destructive to peppers north of Harrington. (Milliron). NORTH CAROLINA - Eggs found in Harnett, Cumberland, Robeson and Columbus Counties with larger numbers in latter two. (Farrier). TENNESSEE - Becoming more abundant on tobacco but less severe than in former years. (Scott). NEW MEXICO - Tomato hornworm very abundant on tomatoes in Luna County. (Durkin). COLORADO - Egg counts indicate a general

early seasonal distribution in commercial tomatoes in Bent, Otero and Pueblo Counties. (Exp. Sta. and Ext. Serv.).

RASPBERRY CANE BORER (Oberea bimaculata) - MICHIGAN - Common at Elsie. (Hutson, July 5).

TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus) - PENNSYLVANIA - Heavy infestation on a half-acre patch of raspberry plants in Lycoming County. About 50 percent loss of crop. (Gesell).

STRAWBERRY ROOT WEEVILS - IDAHO - Strawberry root weevils (Brachyrhinus spp.) found in hop yards. As many as 10 adults under one vine. (Walz).

A MINT FLEA BEETLE (Longitarsus waterhousei) - WASHINGTON - Damaging mint roots at Vancouver. (Waterhouse) OREGON - Adults emerged about July 2 in Willamette Valley. (Every).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Increased slightly in southwest, coastal bend, upper coastal, south central, north central and northeast areas. Considerable increase in east central and west cross timbers. (Gaines). Continues high in late-planted cotton in lower Rio Grande Valley but overall infestation diminishing. (Deer). Infestation averaged 32 percent punctured squares in 21 untreated fields and 14.4 in 18 treated fields in McLennan and Falls Counties. (Parencia et al). OKLAHOMA - Gaining rapidly in untreated fields; in one untreated field in Johnston County infestation increased from 28 to 46 percent in 6 days. Counts mostly low in treated fields. (Stiles). LOUISIANA - Infestation of 9 percent in 4 fields in Ouachita Parish, 40 percent in 2 fields in Bossier Parish, 15 percent in 8 fields in Natchitoches Parish, 9 percent in 7 fields in Tensas Parish. Control measures being applied in oldest cotton. (Oliver). All of 88 fields examined in Tallulah area found infested at rate of 9 percent, the same as last week. Percent survival in cages to July 7 was 1.3 compared with 3.5 in 1954. Emergence completed. (Gaines, Pfrimmer et al). ARKANSAS - Second-generation weevils emerging in all sections. Dry weather tending to hold infestations down in southwest counties, but damaging infestation in some fields. Infestations becoming more general in southeast, have increased in east central and northeastern counties, and more general than last week in Arkansas River Valley. Fifty-eight percent of fields examined infested compared with 40 last week. (Warren, Turney). MISSISSIPPI - Reported from 33 of 39 fields examined in Washington County; average of 7.2 percent infestation for all fields. Second-generation weevils common in older untreated cotton. (Merkl, Furr et al). ALABAMA - Twenty-nine of 33 fields

examined in two central and six western counties found infested at rate of 4.6 percent for infested fields. (Moore). GEORGIA - Eight fields inspected in 20 northern counties and 77 fields found infested. Ten untreated fields examined and all were infested at average rate of 18.3 percent punctured squares. Seventy treated fields examined and 67 were infested at rate of 3.7 percent. (J. C. and C. R. Jordan). TENNESSEE - Infestation found in all fields examined (20) in west Tennessee area; average of 4 percent punctured squares. (Locke). SOUTH CAROLINA - Of 22 treated fields examined in Darlington County, 20 had square infestations at rate of 2 percent. Ten treated fields examined in Florence County and all found infested at average rate of 9 percent. Non-treated check areas in 7 experimental fields in Florence County showed square infestation of 30 percent compared with 20 percent for previous week. (Walker et al). VIRGINIA - Infestations in 3 fields in Southampton County were 4.7 and 0; in 2 fields in Greensville infestations were 4 and 1 percent. (Morris).

BOLLWORMS (Heliothis spp. et al) - ARIZONA - Six percent of cotton terminals with larvae, 10 with eggs in one 160 acre field at Eloy, Pinal County. Light to heavy in many fields July 1. (Ariz. Coop. Rept.). OKLAHOMA - Remain low. (Stiles). TEXAS - Increased in coastal bend, upper coastal, south central and central areas. (Gaines). Overall infestation not too severe in lower Rio Grande Valley. (Deer). Low egg counts in many fields in Lubbock area. (Davis, Owen). In 35 fields in McLennan and Falls Counties, 1.4 eggs and .6 larva per 100 terminals. (Parenica et al). LOUISIANA - Beneficial insects continue to control bollworms in Tallulah area. (Gaines et al). ARKANSAS - Infestations have declined markedly from last week. Natural control effective, but moth flight increasing. (Warren, Turney). MISSISSIPPI - Eggs in 16 of 39 fields examined in Washington County, average of 1.4 per 100 terminals. Moth activity decreased considerably. (Merkel, Furr et al). GEORGIA - Terminal inspections in 20 fields in 20 northern counties showed all fields infested. Averages of 1.6 eggs and .6 larva per 100 terminals in 3 untreated fields and 3.3 eggs and 2.5 larvae per 100 terminals in 17 treated fields. Injured squares averaged 2.9 percent in 10 untreated and .2 percent in 70 treated fields. (J. C. and C. R. Jordan). ALABAMA - Twenty-five of 33 fields inspected in 2 central and 3 western counties and 25 found infested at rate of 2 eggs per 100 terminals in infested fields. (Moore). TENNESSEE - Appearing in older cotton in west Tennessee area but only slight damage. (Locke). SOUTH CAROLINA - Average of .6 egg per 100 terminals in 9 fields in Florence County. (Walker et al). VIRGINIA - No infestation in 7 fields in Greensville and Southampton Counties. (Morris).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Injury reported in some fields in Brazos and Grimes Counties. (Gaines).

FLEAHOPPERS - TEXAS - Increased in upper coastal, northeast, north and south plains. (Gaines). Average of 10.8 per 100 terminals in 20 untreated fields and 3.1 in 15 early-treated fields in McLennan and Falls Counties. (Parencia et al). LOUISIANA - Found in 91 of 95 fields examined in Tallulah area at rate of 6.7 per 100 terminals. (Gaines et al). ARKANSAS - Psallus seriatus increased in local areas, particularly in southeastern and east central counties. (Warren, Turney). MISSISSIPPI - Some damage in a few fields in Washington County. (Merkel, Furr et al). TENNESSEE - Heavy enough to warrant control in scattered fields in west Tennessee. Considerable damage to young squares. Slight increase over last week. (Locke).

GRASSHOPPERS - TEXAS - Damage to cotton in cross timbers area. (Gaines). OKLAHOMA - Damage to cotton in margin of fields continues. (Stiles).

BROWN COTTON LEAFWORM (Acontia dacia) - TEXAS - Light infestation in many fields in Washington and Burleson Counties. (Gaines).

ROOT APHIDS - TENNESSEE - Infesting cotton in McNairy County, parts of some fields destroyed. (Mullett).

SPIDER MITES - NEW MEXICO - Generally light on cotton in Dona Ana County. (Durkin, July 2). TEXAS - Increasing in upper coastal and north central areas. (Gaines). Damage to late cotton in lower Rio Grande Valley. (Deer). OKLAHOMA - Increasing in Atoka and Bryan Counties. Light infestation in Tillman County. (Stiles). MISSISSIPPI - Increasing in some areas of Washington County. (Merkel, Furr et al). GEORGIA - Heavy infestation in Jackson and Houston Counties. (J. C. and C. R. Jordan). TENNESSEE - Populations very low in west Tennessee. Conditions unfavorable for build-up and predators numerous. (Locke).

THRIPS - NEW MEXICO - Heavy on untreated cotton in Dona Ana and Lea Counties. (Durkin, July 2). TEXAS - Light to medium in most fields in Lubbock area. (Davis, Owen).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Appearing on stub cotton: 60-111 larvae per 100 leaves on stub and 20-50 per 100 leaves on planted cotton near stub. (Ariz. Coop. Rept.).

GARDEN WEBWORM (Loxostege similalis) - TEXAS - Reported in Jones, Lubbock, Lynn and Cottle Counties. (Gaines).

LEAF MINERS - ARIZONA - More abundant than usual, causing some concern, July 1. Severe on 1100 acres at Chandler, serious on 400 acres, June 29. (Ariz. Coop. Rept.).

LYGUS BUGS - ARIZONA - Up to 12 per 100 sweeps in cotton in some locations in Maricopa, Cochise and Pinal Counties. (Ariz. Coop. Rept.). NEW MEXICO - Lygus hesperus in low numbers in cotton and alfalfa in Dona Ana County. Light to medium, some damage, in Lea County. (Durkin, July 2).

### INSECTS AFFECTING MAN AND ANIMALS

HORN FLY (Siphona irritans) - SOUTH DAKOTA - Up to 600 per animal in untreated herds. (Lofgren). KANSAS - Increased enormously in past ten days and require repeated control operations. (Matthew).

STABLE FLY (Stomoxys calcitrans) - OKLAHOMA - Average about 20 per animal in central area. (Rogers). KANSAS - Populations built up to enormous proportions in past ten days and requiring repeated control measures. (Matthew).

MITES ON FOWLS - OKLAHOMA - Unusually numerous in Oklahoma County. (Rogers).

FLEAS - NORTH CAROLINA - Fleas on dogs unusually prevalent, especially in Wake County. (Scott). TENNESSEE - Abundant on pets and around homes over State. (Mullett).

BLOODSUCKING CONENOSE (Triatoma sanguisuga)- FLORIDA - Adults collected in home in Alachua County. (Anthony).

### BENEFICIAL INSECTS

SYRPHID FLIES - SOUTH CAROLINA - Extremely numerous in Horry County. (Nettles).

LADY BEETLES - SOUTH CAROLINA - Extremely numerous in Horry County and controlling tobacco aphids. (Nettles).

### MISCELLANEOUS INSECTS

A GEOMETRID (Sterrhya bonifata) - NEW MEXICO - Larvae very numerous on bales of alfalfa hay in southern Dona Ana County. Damage undetermined. (Durkin, July 2).

### STORED PRODUCTS INSECTS

LESSER GRAIN BORER (Rhizopertha dominica) - COLORADO - Noticeable increase in stored-grain insects particularly the lesser grain borer. (Exp. Sta.).



FOREST, ORNAMENTAL AND SHADE TREE INSECTS

SATIN MOTH (Stipnotia salicis) - NEW YORK - Defoliating poplars in Glens Falls. Bird predators active. (Arndt). WASHINGTON - Larvae partially defoliated a small group of poplars near Sumner. (Doucette).

JACK PINE BUDWORM (Choristoneura pinus) - MINNESOTA - Moths abundant in east central area July 7. Heavy defoliation in about two townships in north central area and in about 20 sections just southeast of Park Rapids in central area. Heavy defoliation in about 24 sections just east of Pelican Lake in east central area. Light to moderate defoliation covering large areas in these same locations. (Minn. Ins. Rept. Serv.)

IPS BARK BEETLES - SOUTH CAROLINA - Infesting seven trees one plot and 30 trees of another in Barnwell County. Trees dying. (Shelley). TEXAS - Light populations of all stages found in San Augustine County. (Fulmer).

A HOLLY BUD MOTH (Rhopobota naevana ilicifoliana) - WASHINGTON - Heavy infestation in Snohomish County; tips beginning to drop. (Johanson).

HEMLOCK BORER (Melanophila fulvoguttata)- TENNESSEE - Killing small stand of hemlock weakened by roadwork. (Dozier, July 3).

GREEN-STRIPED MAPLEWORM (Anisota rubicunda) - NEBRASKA - Trees 30 to 40 feet high nearly defoliated in Omaha and Auburn. (Walstrom). MISSOURI - Defoliating soft maples. (Kyd, Thomas). KANSAS - Local infestations in eastern Brown County. (Brady).

FALL WEBWORM (Hyphantia cunea) - DELAWARE - Rather common on various trees especially near Ellendale. (Milliron). ARKANSAS - Scattered infestations causing light damage in southern two-thirds of State. (Warren, Turney).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buolinana) - PENNSYLVANIA - Severe infestations on isolated Mugho pines in Lackawanna County. (Gesell).

BAGWORMS - SOUTH CAROLINA - Arborvitae severely damaged in Marion County. (King). TENNESSEE - Abundant on evergreens over the State. (Mullett).

APHIDS - DELAWARE - A woolly aphid (Prociphilus fraxinifolii) curling leaves of white ash at Wilmington. (Milliron.) PENNSYLVANIA - Norway-maple aphid (Periphyllus lyropictus) on maples in Erie County; control operations underway. (Adams).

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - FLORIDA - Averaging 5 adults per tree on infested slash pines in Nassau County. (Entzminger.)

A BLISTER BEETLE (Linsleya sphaericollis) - OREGON - Adults causing some damage to lilacs in Grants Pass area June 30. (Every).

WHITE-LINED SPHINX (Celerio lineata) - KANSAS - Considerable numbers in several western counties. (Gates).

A WEEVIL (Pseudocneo rhinus bifasciatus) - PENNSYLVANIA - Heavily infesting a commercial planting of chrysanthemums at Yeadon. (Menusan).

TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus) - PENNSYLVANIA - Causing bronzing of leaves in a large rose planting in Bedford County. (Udine). - WASHINGTON - Causing considerable trouble on potted and benched chrysanthemums in Puget Sound area. (Doucette).

GLADIOLUS THRIPS (Taeniothrips simplex) - MINNESOTA - Infestation heavy in gladiolus field in southeastern area. (Minn. Ins. Rept. Serv.)

A SNOUT BEETLE (Pagous magister) - PENNSYLVANIA - Large numbers collected from commercial water lilies in Lancaster County. (Negley).

ROSE-SLUG (Endelomyia aethiops) - PENNSYLVANIA - Considerable injury to a large rose planting in Bedford County. (Udine).

ROSE CHAFER (Macrodactylus subspinosus) - RHODE ISLAND - Populations remain heavy over State. (Kantack). - MICHIGAN - Continuing as nuisance in suburban Lansing. (Hutson, July 6). - WISCONSIN - Continues destructive in sandy areas of central section. (Chambers).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Populations increasing rapidly with many adults over State. (Kantack). - PENNSYLVANIA - Abundant on roses and other ornamentals in Bedford, Centre, and Armstrong Counties. (Adams).

EUROPEAN EARWIG (Forficula auricularia) -RHODE ISLAND - Very heavy populations throughout the State. Invading homes in many areas. (Kantack).

SCALE INSECTS - MINNESOTA - European fruit lecanium (Lecanium corni) and Fletcher scale (L. fletcheri) hatching complete in Twin Cities area. (Minn. Ins. Rept. Serv.)

MIMOSA WEBWORM (Homadaula albizziae) - DELAWARE - Injury to mimosa at Lewes. (Milliron). VIRGINIA - Infestation on mimosa in Nansemond, Norfolk and Princess Anne Counties. (Heltzel). - MARYLAND - Quite heavy on mimosa in central and southern areas. (U. Md., Ent. Dept.)

ELM SAWFLY (Cimbex americana) - WISCONSIN - Abundant on willow and poplar several areas of southern section. (Chambers).

ELM LEAF BEETLE (Galerucella xanthomelaena) - NEVADA - Infestations increasing rapidly in western area. (Gallaway). - PENNSYLVANIA - Heavy infestation on elms in Erie County; spraying operations underway (Adams). Larvae pupating in northeast area (Gesell).

COTTONWOOD LEAF BEETLE (Chrysomela scripta)- SOUTH CAROLINA - Defoliating weeping willows at Aiken. (Johnson).

LIGHT TRAP COLLECTIONS

		Pseudal. unipun.	Prod. ornith.	Agrotis ypsilon	Perid. marg.	Feltia subter.	Heliopsis armig.	Protoparce sexta
TEXAS								
Waco	7/2-8	1	3			2	21	
LOUISIANA								
B. Rouge*	7/2-8	1	29			183	1	
Tallah*	7/1-7	8	33	1	2	38	2	21 8
ARKANSAS								
Hope	7/1-7		1	3			12	1
Stuttgart	6/30-7/6		2	1			6	
Van Buren	7/1-7		2				8	
Vanner	7/1-7	10	11	14			13	
Fayetteville	7/2-8	12	12	9			45	
Clarksville	7/1-7	1	2	6			4	
MISS (Counties)								
Washington*	7/2-8	5	63	2	3	72	8	
Coahoma		4	14	1		8	3	
Humphreys		5	6	4	1	16	5	
Oktibbeha		15	36	5		10	2	
Pearl River		4	1	3		4		
ALABAMA								
Auburn	7/2-9		4			9		
SOUTH CAROLINA								
Charleston	7/6-11				1	11	1	2
NORTH CAROLINA								
Duplin	7/2-8						4	6 4

\* Two traps Eaton Rouge; Three at Tallulah. Two traps Washington County.

LIGHT TRAP COLLECTIONS

	Pseudal. unipoun.	Prod. ornith.	Agrotis ypsilon	Perid. marg.	Feltia subter.	Heliopsis armig.	Protoparce sexta.
TENNESSEE							
Shelby	12	8	8	1			1 sp.
Lawrence							20 spp.
Maury		24	4		24		8 spp.
Robertson							6 2
Cumberland	1	1	7				18 spp.
Greene	52		4	48			6 2

## RECENT INTERCEPTIONS AT PORTS OF ENTRY

Of interest recently was the interception of an adult chrysomelid identified as Diabrotica speciosa (Germ.) with Paspalum dilatatum seed in the mail from Brazil at the Washington, D. C. Inspection House. (Locke). This insect has been reported injurious to cucurbits, particularly melons, cucumbers and pumpkins in Argentina and Brazil, where it is known as the "Vaguinha das Cucurbitaceas." It is also said to attack a variety of other plants in many families, including eggplant, tomatoes, corn, peanuts, beans, and some fruit trees. Injury is due to the larvae feeding on the roots and the adults feeding on the leaves, flowers and fruit.

Observations on the biology of the insect in Argentina indicate it hibernates in the adult stage. Eggs are deposited in early spring at the base of the leaf stems. They hatch in about 10 days. The larvae feed on the roots. Pupation occurs in the soil. Adults emerge to feed on the leaves, flowers and fruits. There appear to be three generations a year. Specimens of D. speciosa have been intercepted in quarantine at various ports on five previous occasions: with Rapanea seed from Uruguay, oats from Argentina, cabbage from Brazil, banana debris from Panama (doubtful origin) and in packing of plums from Argentina. It has also been reported from Peru and Venezuela. It is not known to occur in the United States.

(Compiled - Plant Quarantine Branch)

## ADDITIONAL NOTES

UTAH - CLEAR-WINGED GRASSHOPPER still numerous in Duchesne and Uintah Counties. Approximately 1500 acres have been sprayed. GRASSHOPPERS abundant in many areas of State. PEA APHID has increased to moderate and sometimes damaging numbers in alfalfa many areas. CORN EARWORM appearing in northern area. MORMON CRICKET outbreak on Diamond Mountain larger than anticipated. In June 7030 acres baited. ENGLISH GRAIN APHID injuriously abundant in parts of Salt Lake, Tooele, Utah, Iron, Juab and Box Elder Counties recently. Wheat and barley both injured in some localities. THRIPS unusually abundant in blossoming alfalfa left for seed in Millard, Duchesne, and Uintah Counties. LYGUS BUGS unusually numerous in most alfalfa fields, with conspicuous bud damage where first-crop seed not treated in the bud stage. Infestations more spotted in Uintah Basin area. ALFALFA WEEVIL caused considerable damage in scattered areas throughout State. In general, infestation low, but some injury still occurring in cooler higher areas. HORN FLY annoying in additional areas in State. TABANIDS annoying livestock along rivers in Duchesne County. (Knowlton). (Continued on p. 665).

## WEATHER FOR THE WEEK ENDING JULY 11, 1955

Hot humid weather prevailed east of the Rocky Mountains until the week end, when both temperatures and humidity were reduced considerably in the northeast quadrant of the country by influx of polar air. Average temperatures for the week ranged from normal or slightly above normal in the South to as much as 7° above normal from the upper Mississippi Valley to the Atlantic Coast. Many sections of the latter area reported the hottest week thus far this year. Maximum temperatures equaled or exceeded 100° on two to six days in the central Great Plains and were generally in the 90's or high 80's elsewhere east of the Rockies.

Temperatures remained at unseasonably low levels west of the Continental Divide, averaging as much as 14° below normal for the week in eastern Oregon. Early in the week record daily lows were reported in western and northern Nevada, and Bryce Canyon and Woodruff, Utah, recorded 29° on the 9th. Maximum temperatures in the 70's and 80's were the rule in central and northern areas.

Precipitation for the week totaled 1/2 inch or more in northern Idaho, much of Montana, and in most of the area east of a line joining Williston, North Dakota and New Orleans, Louisiana. Rainfall in this area, mostly of the thunder-shower type, was unusually intense in scattered sections. As much as 6 inches fell in the Webster City and Parson areas of Iowa. Greenfield, Ohio reported 7.06 inches on the 6th and 7th, and a shower of near record intensity occurred in the Boston, Massachusetts area on the 10th. Numerous hail storms were reported in the northern Great Plains and upper Mississippi Valley, and in the latter area a tornado at Arco, Minnesota caused one death, several injuries, and much property damage.

No significant rainfall occurred in most of the central and lower Great Plains and far West. The week was entirely rainless in most of western Wyoming, Utah, western Arizona, southern Nevada, and California.  
(Summary supplied by U. S. Weather Bureau).

### ADDITIONAL NOTES-(Continued from p. 664)

NEW YORK - ORCHARD MITES - Continue to increase in Rockland, Monroe and Oswego Counties. FRUIT APHIDS requiring control in Monroe and Wayne Counties; increasing in Oswego County. CABBAGEWORMS heavy in Niagara and Wayne Counties. CABBAGE MAGGOTS injurious in plant beds in Niagara County. (Wkly. News. Lett.).









VOL. 5 No. 30

JULY 29, 1955

SB

823

C77

Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

Second-generation EUROPEAN CORN BORER may be unusually heavy in Illinois and of considerable concern in some areas of Minnesota. First-brood infestations heavy generally in Wisconsin but moderate in southwest Ohio and lighter than usual in Massachusetts. Second-brood moths numerous in Delaware and emerging in Illinois, Minnesota and Kansas. (p. 702).

GRASSHOPPERS continue to cause crop damage and require control in areas of Missouri, Kansas and Nebraska. Damage or abundant populations also reported from several other States including Montana, New Mexico, Arkansas, and Delaware. Wisconsin and Minnesota have heavy nymphal populations. (p. 701).

CHINCH BUG outbreaks declining in Nebraska and Kansas. (p. 703). CORN EARWORM causing more damage than usual to early corn in southern Wisconsin but lighter than normal in southeastern Massachusetts. (p. 704). CORN LEAF APHID very heavy on oats in Wyoming, sorghums in Colorado and some areas of Oklahoma. Remains high in Nebraska and continues to build up in Kansas. (p. 704). FALSE WIREWORM adults abundant in wheat fields in Nebraska. Kansas has also reported abundance earlier. (p. 704). CORN SAP BEETLES of concern in New Jersey, Delaware, Missouri, Nebraska and Kansas. (p. 705) WHEAT STEM MAGGOT is more abundant than normal in Red River Valley, Minnesota. (p. 705).

BLISTER BEETLES infesting alfalfa, soybeans or other legumes in several States. (p. 706). Problem on truck crops in Delaware, Tennessee, and Missouri. (p. 714). SWEETCLOVER WEEVIL population higher than for many years in Minnesota. (p. 706). PEA APHID very heavy in alfalfa in some counties of Montana and New Mexico. (p. 707). YELLOW CLOVER APHID collected in additional counties of Utah, increasing in El Paso County, Texas and central and western Oklahoma. (p. 707). PLANT BUGS continue abundant in legumes in several States; 10 nymphs per sweep in eastern, central and northeastern Illinois. (p. 707). POTATO LEAF-HOPPER heavy on crops in Tennessee, large numbers on alfalfa in southeast Missouri, highest populations in Illinois in eastern area. (p. 708). Appearing on potatoes in North Dakota. (p. 712). Continued on next page.

ORCHARD MITES increasing in Niagara and Wayne Counties, New York and in southern Indiana. Heavy in orchards in Rio Arriba County, New Mexico. European red mite heavy in apple orchards in Minnesota. (p. 708). BLUEBERRY MAGGOT adult activity on blueberries in New Jersey heaviest in years. (p. 708). LESSER PEACH TREE BORER heavier than last year in Arkansas. (p. 709). CRANBERRY FRUITWORM prevalent some areas of New Jersey and in central Wisconsin. (p. 710).

SQUASH BUGS numerous in Virginia, Delaware and Rhode Island. Increasing in Utah. (p. 710). TOMATO RUSSET MITE reported from new area in Georgia; first infestations of season in Maryland. (p. 712). POTATO PSYLLID increasing in tomatoes and potatoes in North Platte Valley, Nebraska. (p. 712). COLORADO POTATO BEETLE more abundant than usual in potatoes in western Nebraska, common in untreated fields in northwestern Minnesota. (p. 712). POTATO FLEA BEETLE numerous in Pennsylvania and some areas of Rhode Island. (p. 712). A LEAF MINER, new pest of tomatoes in Puerto Rico. (p. 713).

Conditions favorable for BOLL WEEVIL buildup in Oklahoma, Mississippi and Tennessee. Increase in some areas of Texas and sharp increase in Arkansas and coastal South Carolina. (p. 715). BOLLWORMS building up in Arkansas and Tennessee, slight increase in areas of Texas and Arizona. Moth flights increasing in Arkansas, Mississippi, South Carolina, and Louisiana. (p. 716). SPIDER MITES showing increase on cotton in some areas of Texas, Arkansas and South Carolina. (p. 716). Economic populations of FLEAHOPPERS in Missouri cotton, heavy in some areas of Texas and increasing in other sections of this State as well as in some Oklahoma counties. (p. 717). Some buildup of LYGUS BUGS in San Joaquin Valley, California, Maricopa County, Arizona and in New Mexico. (p. 717).

LARCH SAWFLY causing widespread defoliation in northwestern Wisconsin (p. 718) and in central Minnesota (p. 719). BAGWORM damaging shrubs and trees in Missouri, Kansas and Illinois. (p. 719).

Revised list of STATE CLEARING OFFICES. (p. 727).

States reporting this week - 38.

WEATHER on page 726.

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - IDAHO - Approximately 8000 acres involved in Duck Valley area; hatch still occurring. Spotted heavy infestation over 3000 acres in Fremont-Clark Counties area, mainly Camnula pellucida, Melanoplus borealis, Bruneria brunnea. From 20-40 grasshoppers per square yard on 5000 acres in Lemhi County. (Evans). MONTANA - Aulocara elliotti, Agenotettix deorum, Melanoplus mexicanus and M. occidentalis in economic numbers on range in Big Horn County. M. confusus and Aeropedellus clavatus in large numbers at higher elevations. (Twilde). From 30-50 A. clavatus adults per yard in crested wheatgrass in Fergus County. Up to 40 Aulocara elliotti on native range in same county; 10-50 per yard in Gallatin and Madison Counties. C. pellucida average 1000 per yard in hatching beds in Centennial Valley in southwest area. From 50-200 per yard in spots in Big Hole Valley. (Roemhild). UTAH - Known infested crops and range acreage by county: Beaver 500; Cache 10,000; Duchesne 4000; Iron 6000; Juab 25,000; Millard 11,000; Sanpete 6000; Sevier 10,000; Tooele 5000; Utah 8000; Washington 5000. Control previously reduced several large infestations. (Thornley, Knowlton).

NEBRASKA - Melanoplus sp. damage still showing up in alfalfa and corn in eastern areas. Eight per plant in marginal corn. From 50-80 per square yard in alfalfa. Controls used. (Roselle, Andersen).

KANSAS - Increase in crop damage from Melanoplus spp. in local areas in northeast counties. Light to severe in alfalfa, corn, soybeans, pastures and home gardens. Although populations generally dispersed through fields, concentrations of nymphs still found in fence rows and ditches in many areas. Counts of 3 to 36 per square yard. Controls still required in many alfalfa fields and in margins of corn and soybeans where heavy populations exist. Eggs, probably M. mexicanus, in one field in Riley County. (Matthew). NORTH DAKOTA - Scattered infestations in many localities should be watched for movement into flax. (Ins. Rept. Serv.). MINNESOTA - Numerous small nymphs in most areas. (Minn. Ins. Rept. Serv.). MISSOURI - Melanoplus spp. crop damage continues to increase as more grasshoppers become adults. Most severe injury to alfalfa, red clover, corn, soybeans, pastures and gardens. Heaviest populations and damage in western half of State. Crop spraying greatly increased since July 11. Fungus diseases remain low and spotted. Parasitism by threadworms and mites general but incidence under 10 percent. (Kyd, Thomas). ARKANSAS - Melanoplus sp. still causing concern in central and northwestern counties. Young peach orchards, strawberry fields, corn and other crops being damaged to varying degrees. (Warren, Turney). WISCONSIN - Red-legged grasshoppers continue hatching in southern area. Heavy populations, as high as 1000 per square yard, in Grant County. (Chambers). ILLINOIS - Average of 9 per sweep

in legumes in northeastern area, 8 per sweep in central area, and 5 per sweep in eastern area. Still using sweeps because of difficulty in estimating populations including small M. femur-rubrum nymphs. (Petty et al). TEXAS - Medium widespread infestation of M. differentialis in maize, clover, corn and alfalfa in Ellis County. (Dorman). Medium widespread in maize and peas in Denton County. (Bernd). TENNESSEE - Injuring corn and tobacco in Clarksville area, but less severe than in 1954. (Scott). MARYLAND - Continue abundant in hay and pasture fields in areas of Montgomery and Frederick Counties. (U. Md., Ent. Dept.). FLORIDA - Grasshoppers, probably Schistocerca sp., feeding heavily on sugarcane at Belle Glade. Also pasture grasses. (Genung). NEW JERSEY - Becoming a problem in some areas. (Merrill). DELAWARE - Injuring soybeans and alfalfa. (Milliron). NEW MEXICO - Damage to crops on 5000 acres in Mora County and approximately 30,000 acres in Rio Arriba County. Fewer reports of damage range lands. (Durkin, July 15).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Adults numerous at lights. Borers numerous in commercial sweet corn near Bridgeville. (Milliron). MASSACHUSETTS - First brood lighter than normal in most areas. (Crop Pest Cont. Mess.). ALABAMA - Found in Franklin and Colbert Counties. (Arant). ILLINOIS - Pupation about 10 percent in heavily infested area with a few moths emerging. Potentially, may have largest population of second-generation borers on record for State. Many early-planted fields have average of 5 first-generation borers per stalk. If normal development occurs, severe damage from second generation appears inevitable and a large acreage of corn may profitably be treated. (Petty et al.) KANSAS - Light infestation of larvae in fields of corn in Marshall, Nemaha, Jefferson, Jackson, and Shawnee Counties. Infestation from 1 to 16 percent; in some northeast counties, 40 percent emerged. Infestation only in early-planted fields. (Matthew). NEBRASKA - Pupae in southeastern counties, borers from second to fifth instar. Percent of corn damaged ranged from 8 to 100 percent in fields surveyed. (Andersen). WISCONSIN - Increasing; fields heavily infested, generally; earlier fields more heavily infested. (Chambers). OHIO - Survey of 27 early dent corn fields in southwestern area first half of July showed moderate infestation. Five of fields had 50 percent or more of plants with leaf-feeding injury. (Parks, Goleman, July 8). MINNESOTA - Average percent of plants infested: south central, 16; southwest, 50; central, 10; west central, 40. Average number borers per 100 plants: south central, 21; southwest, 180; central, 23; west central, 81. Second generation can be of concern in more heavily infested areas. (Minn. Ins. Rept. Ser.). MICHIGAN - Pupae numerous at Grand Rapids and Detroit, July 16. (Hutson).



CHINCH BUG (Blissus leucopterus) - NEBRASKA - Population down in east-central and southeastern areas; 25 per foot of sorghum row in many areas. (Andersen). KANSAS - Light to moderate infestation in several fields of corn and milo in northeast counties. In general, peak of outbreak passed and control need only in few local instances. (Matthew). OKLAHOMA - No economic infestations found in survey of northeastern area (Howell). TEXAS - Medium local infestations in maize in Menard County. (Mullins). GEORGIA - Moderate to heavy damage to corn in Hall and Jackson Counties. Heavy in millet in Hart County June 30. (Jordan). OHIO - Nymphs per linear foot of row in 77 wheat fields in northwestern area averaged 0.8. Nymphs ranged to 10 per foot. Adults injuring one field of wheat, migrating to corn. (Parks, Goleman, July 8).

ARMYWORM (Pseudaletia unipuncta) - PENNSYLVANIA - Moths active, 99 in one trap in Centre County, July 15. (Frost).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Feeding heavily on soybeans in Sussex County and on corn in some areas. (Milliron). VIRGINIA - Medium infestation on field crops in Carroll and Grayson Counties. (Price). NORTH CAROLINA - Spotty in soybeans in Bertie and Currituck Counties. (Scott).

HESSIAN FLY (Phytophaga destructor) - OHIO - An average of 13.8 percent of stems of wheat in 77 fields in 11 northwestern counties were infested. Individual fields ranged to 96 percent infestation. (Parks, Goleman, July 8).

CORN EARWORM (Heliothis armigera) - DELAWARE - Destructive to tassels of sweet corn in some areas. (Milliron). VIRGINIA - Heliothis sp. heavily damaging whorls of late field corn in Goochland County. (Truett). NORTH CAROLINA - Moderate damage in corn in Currituck and Bertie Counties. (Scott). MASSACHUSETTS - Lighter than usual in early corn in southeastern area. (Crop Pest Cont. Mess.). WISCONSIN - Very abundant in early sweet corn throughout southern area. More damage than for many years. (Chambers). NEBRASKA - Larvae showing up in field corn in southeast. Light. (Andersen).

CORN LEAF APHID (Rhopalosiphum maidis) - WYOMING - Very heavy on barley and light on oats. (Fronk). Reports of heavy infestation in Park and Big Horn Counties. (Spackman). COLORADO - Serious numbers on sorghums. Some on corn. (Colo. Ext. Serv.). NEBRASKA - Populations remain high. Sorghum and corn infested in eastern part of State. Lady beetles ranging from 4-8 per plant. (Andersen). KANSAS - Infestation continues to build up in sorghum and corn fields. Light to heavy in several fields in northeast counties. (Matthew). Populations building up in most sorghum fields in southwest area. Infestation from moderate to heavy in a few local fields. (DePew). OKLAHOMA - In grain sorghum fields of Grady, Blaine and Dewey Counties, where there are few parasites, infestations very heavy. Some leaves turning red. (Stiles). DELAWARE - Common on corn in some areas. (Milliron). MINNESOTA - Still present in late barley in Roseau, Kittson and Marshall Counties. Some fields plowed down in Roseau County. (Minn. Ins. Rept. Serv.).

CORN ROOTWORMS (Diabrotica spp.) - MISSOURI - A few fields of corn in Mississippi County heavily damaged in spots by northern corn rootworm (D. longicornis), 5-7 adults per plant. Farthest south in Missouri heavy damage by this pest has been recorded. (Kyd, Thomas). KANSAS - Beetles found in nearly all corn fields surveyed in northeast counties. As high as 7 per plant. Mostly northern and southern corn rootworms involved, but western corn rootworm in one field in Nemaha County. (Matthew). NEBRASKA - Silks on forming ears of corn being damaged. Diabrotica virgifera, D. undecimpunctata howardi, Diabrotica longicornis involved. In eastern Lancaster County as high as 40 rootworms per plant. (Roselle, Andersen).

FALSE WIREWORMS (Eleodes sp.) - NEBRASKA - Adults abundant in most wheat fields in southwestern, central and southeastern areas. (Andersen).

FALL ARMYWORM (Laphygma frugiperda) - KANSAS - Light infestation in corn in Osage County. (Matthew). COLORADO - Moderate damage to field corn in Prowers, Bent and Otero Counties. (Colo. Exp. Sta.). PUERTO RICO - Despite continued dry weather, outbreaks observed on

young plant cane at Caguas (Martorell), attacking seedling horsetail beefwood at Palo Seco (Perez) and extensively destroying pastures and feeding on foot-high corn and tomatoes at San Lorenzo (Wolcott).

GARDEN WEBWORM (Loxostege similalis) - MISSOURI - Severe to heavy infestations on scattered small corn and soybeans in northern two-thirds of State. Most larvae full grown. (Kyd, Thomas). KANSAS - Light in alfalfa fields in some northeast counties, 3-7 per sweep of 15-inch net, less than 5 percent of terminals webbed. (Matthew).

CARROT BEETLE (Ligyрус gibbosus) - IDAHO - Heavy infestations of larvae in corn in River bottom in Benewah County. (Portman).

SAP BEETLES - NEW JERSEY - Very prevalent on corn silks. (Merrill). DELAWARE - Carpophilus lugubris adults abundant in sweet corn in Kent and Sussex Counties generally; larvae appearing in ears. C. antiquus adults very prevalent in commercial sweet corn east of Bridgeville. (Milliron). MISSOURI - C. dimidiatus adults and larvae continue to damage ears of sweet and field corn; 5-40 percent infestation in southern half of State. (Kyd, Thomas). NEBRASKA - C. dimidiatus adults damaging corn silks in central and southeastern areas; 6-10 per stalk. (Andersen). KANSAS - Infesting tips of ears following earworm damage in Shawnee County, from 4-8 percent of ears infested. (Matthew).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius (L.))\* - COLORADO - Recent high temperatures have brought out heavy infestations, particularly on corn. Controls underway. (Chem. Ind.)

WHEAT STEM SAWFLY (Cephus cinctus) - NORTH DAKOTA - Infestations from light to heavy in spring wheat fields in areas of Bottineau County. (Ins. Rept. Serv.).

WHEAT STEM MAGGOT (Meromyza americana) - MINNESOTA - More abundant than normal in Red River Valley area. From 10-20 percent of rye stems damaged in some fields in Pennington County by July 11. Damage in wheat as high as 10 percent. (Minn. Ins. Rept. Serv.).

SUGARCANE BORER (Diatraea saccharalis) - LOUISIANA - Hatch increasing, especially in Bunkie-Cheneyville area. Controls underway. (Oliver).

\*Pritchard, A. E. and Baker, E. W. 1955. A revision of the spider mite family Tetranychidae. Pacific Coast Ent. Soc. Mem. Ser. vol. 2, pp. 432-38.

APHIDS - MONTANA - Very large numbers on wheat and barley in central and eastern areas. Some control. English grain aphid involved. (Roemhild). UTAH - Still damaging spring barley and wheat in several areas. Corn leaf aphid and English grain aphid causing greatest injury. (Knowlton, Hutchings). NORTH DAKOTA - Some heavy populations in late-sown barley. (Ins. Rept. Serv.).

A HESPERID - ARKANSAS - Large numbers of larvae in some instances causing severe damage to pastures, particularly Bermuda grass sod, in northwestern area. (Warren, Turney).

NORTHERN MASKED CHAFER (Cyclocephala borealis) - PENNSYLVANIA - Small grubs averaging 20 per square foot in turf in Lackawanna County. (Gesell).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - MINNESOTA - Population higher than for many years. Heavy migrations in Crookston area. (Minn. Ins. Rept. Serv.).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - ILLINOIS - Average of 73 adults per 100 sweeps in clover and alfalfa in central area. (Petty et al).

ALFALFA WEEVIL (Hypera postica) - MONTANA - Damage in counties adjoining North Dakota in Yellowstone and Missouri River Valleys. (Roemhild). UTAH - Damage still occurring at higher elevations. (Knowlton). WYOMING - Larvae causing damage in alfalfa in Albany County. (Fronk). First known record of alfalfa weevil in this county. (Spackman).

BLISTER BEETLES - NEW MEXICO - Very heavy in alfalfa in Rio Arriba County. (Durkin, July 15). KANSAS - Epicauta sp. light to moderate in nearly all alfalfa fields in north central counties, from 2-7 per sweep. (Gates). NEBRASKA - Epicauta spp. very abundant in soybean fields in eastern and central areas; 12 per 25 sweeps. Controls used. (Andersen). MISSOURI - Small spots in soybeans and alfalfa fields heavily damaged by adult Epicauta spp. in widely scattered areas. (Kyd, Thomas). LOUISIANA - Spotty, heavy infestation of Epicauta sp. in soybeans and white clover some areas; 150 per 1000 sweeps in Jefferson Davis Parish. (Oliver).

BEAN LEAF BEETLE (Cerotoma trifurcata) - NORTH CAROLINA - Moderate damage to soybeans in Currituck and Bertie Counties. (Scott).

MEXICAN BEAN BEETLE (Epilachna varivestis) - NORTH CAROLINA - Light damage to soybeans in Currituck and Bertie Counties. (Scott).

GRAPE COLASPIS (Colaspis sp.) - ILLINOIS - Adults from 125 to 150 per 100 sweeps in legumes in central and northeastern areas. (Petty et al).

A TENEBRIONID (Crypticus sp.) - FLORIDA - Larvae infested peanuts at Cottondale, Jackson County. Roots infested. Heavily-infested plants dying. (Mayeux).

PEA APHID (Macrosiphum pisi) - WYOMING - Very heavy population on alfalfa in Big Horn and Washakie Counties. (Spackman). NEW MEXICO - Very heavy in alfalfa in Torrance, Santa Fe and Rio Arriba Counties. (Durkin, July 15). ILLINOIS - About 100 per 100 sweeps on alfalfa in northern half of State. (Petty et al).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Infestation continues in alfalfa and clover in several parishes; 11-62 per 100 sweeps. (Oliver).

YELLOW CLOVER APHID (Myzocallis trifolii) - UTAH - Collected in four additional counties: Juab, Tooele, Utah and Salt Lake. Spread northward on western side of State continues. (Knowlton). NEW MEXICO - Generally light in Mesilla Valley and in Torrance County. Spotty within fields. (Durkin, July 15). OKLAHOMA - About 10 percent above last week in Stillwater vicinity. Seems to be increasing in central and western areas; very heavy infestation at Dill City, Washita County. (Stiles). TEXAS - Infestations heavy and increasing in El Paso County. (Foster). Heavy local infestations in alfalfa in Collin County. (Dahlberg).

LESSER CORNSTALK-BORER (Elasmopalpus lignosellus) - NORTH CAROLINA - Twenty-five percent loss in two fields of soybeans in Currituck County. (Scott). GEORGIA - Light damage, 4.4 percent plant mortality, in 2 acres soybeans in Tift County June 21. (Beck). Light damage to 50 acres peanuts in Crisp County. (Snodgrass).

RED-NECKED PEANUTWORM (Stegasta bosquella) - GEORGIA - Light damage to peanuts in Mitchell and Dougherty Counties, June 23. (McGill, Morgan).

PLANT BUGS - DELAWARE - Lycus lineolaris adults and nymphs abundant generally on forage crops. (Milliron). ILLINOIS - Highest population of L. lineolaris in legumes in eastern area, 673 adults per 100 sweeps. Adelphocoris rapidus averages about 100 per 100 sweeps. Nymphal plant bug population is about 1000 per 100 sweeps in eastern, central and northeastern areas. (Petty et al). LOUISIANA - L. lineolaris infestation in alfalfa continues moderate, 19 per 100 sweeps in Red River Parish and 28 per 100 in Bossier Parish. (Oliver). MISSOURI - From 2-7 L. lineolaris adults and nymphs per sweep in alfalfa in southeast area. (Kyd, Thomas).

POTATO LEAFHOPPER (Empoasca fabae) - NEBRASKA - Averaging 23 per 25 sweeps in alfalfa in central and southeastern counties. (Andersen). MISSOURI - Heavy numbers resulting in severe yellowing of several alfalfa fields in extreme southeast area. Average field counts from 2-16 per sweep. (Kyd, Thomas). ILLINOIS - Highest population in alfalfa and clover in eastern area, where there are 538 adults per 100 sweeps and 2500 nymphs per 100 sweeps. TENNESSEE - Large numbers across State on alfalfa, beans and other plants. (Mullett). NORTH CAROLINA - Damage to peanuts becoming noticeable in Bertie and Edgecombe Counties. (Dogger). MARYLAND - Light damage to alfalfa in Montgomery, Baltimore and Harford Counties. (U. Md., Ent. Dept.). VIRGINIA - Expected to increase on alfalfa in all parts of State and may cause yellowing in some cases. (Turner). FLORIDA - Populations still high in Everglades area. (Genung).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - ILLINOIS - Highest population of adults in legumes is in eastern area with average of 385 per 100 sweeps. (Petty et al).

CUTWORMS - ARIZONA - Peridroma margaritosa and Prodenia sp. completely defoliated one-third of 150 acres of alfalfa in Maricopa County. (Ariz. Coop. Rept.). IDAHO - Severely damaging about 250 acres of clover in Long Valley area. (Manis).

STINKBUGS - CALIFORNIA - Showing very early in alfalfa seed in fields in Imperial Valley. (Cal. Coop. Rept., July 12).

### FRUIT INSECTS

ORCHARD MITES - NEW YORK - Increasing in Niagara and Wayne Counties with some leaf injury. (Wkly. News Lett.). INDIANA - Increasing in frequency in apple orchards in Vincennes area. (Hamilton). Not reduced by recent rains; counts increased from an average 1.5 on July 15 to 3.2 per leaf on July 19. (Marshall). COLORADO - Surveys in Mesa County disclosed a probable new species of Eriophyes. Reported earlier as an efficient vector of peach mosaic. (ARS). NEW MEXICO - Heavy in most peach, apple and apricot orchards in Espanola Valley, Rio Arriba County. (Durkin, July 15).

EUROPEAN RED MITE (Metatetranychus ulmi) - PENNSYLVANIA - Abundant on peaches in York County and injuring foliage in one orchard. (Pepper). MINNESOTA - High populations in apple orchards. (Minn. Ins. Rept. Serv.).

APPLE MAGGOT (Rhagoletis pomonella) - NEW YORK - Emergence in cages at Geneva reached a peak July 17. (Glass). NEW JERSEY - Fly activity on blueberries heaviest in some years. Migration from wild

berries beginning. (Merrill). MINNESOTA - High populations of flies in southeastern and Twin Cities areas in neglected orchards. (Minn. Ins. Rept. Serv.).

CODLING MOTH (Carpocapsa pomonella) - NEW YORK - Second brood in light traps Rockland County, entries in Niagara County, and first flights of moths July 21 in Wayne County. (Wkly. News Lett.). MASSACHUSETTS - First-brood moths beginning to emerge. (Crop Pest Cont. Mess.). NEW JERSEY - Weather favorable for activity. Entries frequent on apples in Burlington County. (Merrill). RHODE ISLAND - Heavy injury to neglected orchard in southern area with 25 percent of apples infested. (Kantack). PENNSYLVANIA - Fresh entries on apples in Adams County about July 15. No interval between first and second broods. (Asquith). ILLINOIS - Noticeably more entries into apple in southern area than at any time during second brood in spite of rains, which are unfavorable for entrance. (Chandler). INDIANA - Second-brood larvae still entering unprotected fruit in Vincennes area. (Hamilton). MISSOURI - Some new entries over State, but much reduced. (Wkly. Rept. Fr. Grow.). UTAH - Economic damage to apples and pears in some commercial orchards in several areas. (Knowlton).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - MASSACHUSETTS - Second-brood larvae active in apple orchards. (Crop Pest Cont. Mess.). NEW YORK - Second brood hatching in Saratoga and Niagara Counties. (Wkly. News Lett.).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - In Carbondale area, evidence of second brood on apple but not as many as week ending July 14. (Chandler).

PEACH TREE BORER (Sanninoidea exitiosa) - ARKANSAS - Damage about the same as last year. (Ark. State Plt. Board). UTAH - Causing substantial damage to peaches, cherries, and prunes in Utah County. (Barlow, Knowlton).

LESSER PEACH TREE BORER (Synanthedon pictipes) - ARKANSAS - Infestations range from light to heavy in Crowley's Ridge area of eastern part of State. Heavier than in 1954. (Ark. State Plt. Board).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - NEW YORK - Third-brood moths in traps on July 21 in Rockland County; steady flight of moths since July 10 in Wayne County. (Wkly. News Lett.). PENNSYLVANIA - Many injured terminals and some infested fruit in a peach orchard in York County. (Pepper). Light infestation in ripe plums in Snyder County. (Gesell).

PEAR-SLUG (Caliroa cerasi) - UTAH - Causing some injury to cherries in northern area. (Knowlton, Barlow).

EUROPEAN EARWIG (Forficula auricularia) - CALIFORNIA - Damage to ripe cherries in El Dorado County. (Cal. Coop. Rept.).

GREEN JUNE BEETLE (Cotinis nitida) - MISSOURI - Destructively numerous on ripe fruit in central area and around Independence. (Wkly Rept. Fr. Grow.).

GRAPE PHYLLOXERA (Phylloxera vitifoliae) - WISCONSIN - Abundant in some plantings in Chippewa County. (Chambers).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Feeding on grape vines Nuckols area, Buckingham County (Morris), and on fruit trees in Woodlawn and Galax areas of Carroll and Grayson Counties (Price).

GRAPE FLEA BEETLE (Altica chalybea) - SOUTH CAROLINA - Attacking grapes in vineyard at Orangeburg. (Trowell).

CRANBERRY FRUITWORM (Mineola vaccinii) - NEW JERSEY - Prevalent on early-drawn cranberry bogs. (Merrill). WISCONSIN - Very abundant in many bogs of central area. (Chambers).

BLACK-HEADED FIREWORM (Rhopobota naevana) - WISCONSIN - Very abundant on many bogs in central area. (Chambers).

WALNUT CATERPILLAR (Datana integerrima) - MISSOURI - Some defoliation of walnuts in southwest Missouri. (Wkly. Rept. Fr. Grow.). OKLAHOMA - Now in last instar. Defoliated some trees from five to ten percent. (Bieberdorf).

### TRUCK CROP INSECTS

SQUASH BUGS (Anasa spp.) - UTAH - Squash bug (A. tristis) infestations have increased in a number of counties. (Knowlton). TENNESSEE - A. tristis requiring insecticides for control. (Scott). VIRGINIA - Numerous on watermelons, squash and cantaloups in Prince Edward County. Six to eight per watermelon vine. (Lancaster, Rowell). NORTH CAROLINA - Caused 100 percent loss of pumpkins in two fields in Currituck County. (Scott). DELAWARE - A. armigera nymphs very abundant on squash at Ellendale. (Milliron). NEW JERSEY - Eggs appearing on cucurbits throughout State. (Merrill). RHODE ISLAND - A. tristis oviposition counts remain high in all fields throughout the State with adults and immature forms in all areas. Counts in Wickford, East Greenwich and Cranston areas from 25-50 nymphs per plant. (Kantack).

SQUASH VINE BORER (Melittia cucurbitae) - PENNSYLVANIA - Many eggs and adults on squash in Clearfield County. (Adams).



STRIPED CUCUMBER BEETLE (Acalymma vittata) - RHODE ISLAND - Populations decreased in all areas. (Kantack). TENNESSEE - Damaging cucumbers and summer squash. Untreated plantings show severe injury. (Scott).

A LEPIDOPTEROUS LARVA - ARIZONA - Heavy infestation in all fields of watermelons in the east Mesa area. Scarring rind and boring into fruit. (Ariz. Coop. Rept.).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Injurious to untreated crucifers throughout the State. (Milliron). RHODE ISLAND - Adults very numerous; one to ten larvae per plant common in all plantings with nearly all plants infested. (Kantack).

CABBAGEWORMS - PENNSYLVANIA - Adults and eggs very heavy on late cabbage in Lackawanna County (Gesell) and light to heavy infestations in commercial plantings of cabbage, broccoli and cauliflower in Potter County (Adams).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Destructive to young commercial cabbage west of Middletown and to young cauliflower east of Dover. Feeding on tomatoes in Leipsic-Little Creek area. (Milliron).

TARNISHED PLANT BUG (Lygus lineolaris) - MARYLAND - Causing browning of cauliflower in Garrett County. (U. Md., Ent. Dept.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - WYOMING - Adults and larvae heavy in some fields in Goshen County. (Wallis). NEW MEXICO - Damage to beans in Rio Arriba County. (Durkin, July 15). DELAWARE - Heavy injury to all types of snap beans and lima beans at Clayton and in Lincoln area. (Milliron). RHODE ISLAND - Moderate to heavy infestations in all fields examined. Damage in Portsmouth area heavy with light to moderate damage in other areas. (Kantack).

BEAN APHID (Aphis fabae) - DELAWARE - Lima beans on sandy soil heavily infested in Lincoln-Milton area. (Milliron).

BEAN LEAF BEETLE (Cerotoma trifurcata) - LOUISIANA - From two to five adults per cowpea plant in Terrebonne Parish. (Oliver).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Damage to lima beans conspicuous generally. (Milliron).

STRAWBERRY SPIDER MITE (Tetranychus atlanticus) - DELAWARE - Destructive to lima beans east of Milton. (MacCreary).

COWPEA CURCULIO (Chalcodermus aeneus) - ARKANSAS - Infestations in many fields. Cause of crop being refused at processors. (Warren, Turney).

BEEF LEAFHOPPER (Circulifer tenellus) - COLORADO - Low populations on sugar beets and non-economic hosts in eastern area. Some tomato plants in Otero County with western yellow blight, July 18. (Colo. Exp. Sta.). UTAH - About three percent curly top of canning tomatoes in northern area. Average 17 percent curly top on beets in central area (Gunnison through Richfield to Joseph). (Dorst).

TOMATO RUSSET MITE (Vasates lycopersici) - GEORGIA - Heavy infestation on tomatoes in a garden in Tifton, Tift County, June 23. (Ratcliffe). MARYLAND - Damaged tomatoes in Baltimore and Caroline Counties. First infestations of year. (U. Md., Ent. Dept.).

TOMATO FRUITWORM (Heliothis armigera) - GEORGIA - Moderate to heavy infestations on tomatoes, sweet corn, lima beans and cotton in Spalding County, June 30. (Beckham, Dupree). COLORADO - General distribution of eggs in commercial tomatoes in Prowers, Bent, Otero and Pueblo Counties. (Colo. Exp. Sta.). UTAH - Average 0.4 egg per 100 leaves in northern area, July 16. (Dorst).

POTATO PSYLLID (Paratrioza cockerelli) - NEW MEXICO - Adults in small numbers in potato fields in Santa Fe County. (Durkin, July 15). NEBRASKA - Increasing in all tomato and potato fields of North Platte Valley. No mid-summer decrease due to hot weather. (Wallis). WYOMING - Nymphs 2-6 per 100 sweeps in Goshen County. (Wallis).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - DELAWARE - Destructive to tomatoes at Dover, Felton and in the Georgetown area. (Milliron). MINNESOTA - Common in unsprayed fields in northwestern area. (Minn. Ins. Rept. Serv.). NEBRASKA - Much more abundant in potatoes in western area than for many years. Slight injury in small areas in a few fields. (Wallis).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Very prevalent, causing tipburn, on potatoes near Clayton. Increasing on potatoes and limas some areas. (Milliron). PENNSYLVANIA - Adults abundant in unsprayed potatoes in York County. (Pepper). NEBRASKA - No increase. Range between 10 and 18 per 25 sweeps in potatoes in eastern area. (Andersen). NORTH DAKOTA - Appearing in potatoes in upper Red River Valley. (Ins. Rept. Serv.).

POTATO FLEA BEETLE (Epitrix cucumeris) - RHODE ISLAND - Populations heavy in some fields with 40-50 per sweep in Little Compton, Allenton, Charlestown and Kingston areas. (Kantack). PENNSYLVANIA - Adults abundant in unsprayed potatoes in York County with heavy feeding. (Pepper). Generally numerous. (Udine).

POTATO APHID (Macrosiphum solanifolii) - RHODE ISLAND - Populations remain light with slight increase in Portsmouth area. (Kantack).

HORNWORMS (Protoparce spp.) - DELAWARE - Active on tomatoes many areas, some feeding on potatoes. (Milliron). MARYLAND - Light to moderate damage to tomatoes in Montgomery and Baltimore Counties. (U. Md., Ent. Dept.). NORTH CAROLINA - Eggs averaged 1.3 and larvae six per 25 tobacco plants in southeastern counties with as many as 30 per 25 plants in some fields. (Farrier). COLORADO - Average 1.9 larvae per 100 leaves in 12 tomato fields in four counties. (Colo. Exp. Sta.).

APHIDS - MAINE - Building up in some commercial plantings of potatoes in Aroostook County. (Shands). DELAWARE - Becoming numerous on late potatoes at Middletown. (Milliron). UTAH - Aphis gossypii damaging cantaloups and cucumbers in parts of Box Elder and Davis Counties. (Allred, Knowlton).

TUBER FLEA BEETLE (Epitrix tuberis) - NEBRASKA - Very prevalent, particularly in early planting of potatoes in North Platte Valley. (Wallis). WYOMING - Larvae abundant on potatoes in Goshen County. (Wallis).

GARDEN FLEAHOPPER (Halticus bracteatus) - DELAWARE - Rather numerous on tomatoes at Edwardsville. (Milliron).

LEAF MINERS - ARIZONA - Liriomyza sp. caused considerable damage to 400-500 acres of castor beans in Pima County. (Ariz. Coop. Rept.). NEW MEXICO - Liriomyza sp. infesting cantaloup in Dona Ana County. (Durkin, July 15). DELAWARE - Liriomyza sp. numerous in a large acreage of cabbage at Middletown. (Milliron). PUERTO RICO - A leaf miner new to Puerto Rico first noted on tomatoes in February at Vega Alta, later at Lajas and Carolina, and since from every area where tomatoes are grown. No parasites have been reared from specimens. (Wolcott).

THRIPS - TEXAS - Heavy local infestation on tomatoes and eggplant in Floyd County. (Carroll, Barber). NEW MEXICO - Still very abundant on onions in Mesilla Valley. Treatment underway but reinfestation occurring. (Durkin, July 15). COLORADO - Thrips tabaci increasing in Otero, Adams and Weld Counties. (Colo. Exp. Sta.). UTAH - Onion thrips (Thrips tabaci) damage common in several areas. (Knowlton).

GARDEN CENTIPEDE (Scutigera immaculata) - WASHINGTON - Causing serious injury to carrots and corn at West Sound and Friday Harbor, San Juan County. (Baker).

\* (Liriomyza sp.)

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Causing moderate damage to truck crops in the Woodlawn and Galax areas of Carroll and Grayson Counties. (Price).

BLISTER BEETLES - DELAWARE - Epicauta sp. damaging potatoes south of Townsend. (Milliron). TENNESSEE - Severe local infestations of several species on truck crops, gardens and alfalfa throughout the State. (Mullett). MISSOURI - Garden crops heavily damaged in scattered areas. (Kyd, Thomas).

FLEA BEETLES - NEW JERSEY - Adults causing considerable damage to crucifers. (Merrill). DELAWARE - Epitrix cucumeris numerous on potatoes near Clayton. (Milliron). NEW MEXICO - Some damage to 500 acres potatoes in Santa Fe County. (Durkin, July 15). MONTANA - Systema taeniata damaging beans in Yellowstone Valley. (Roemhild). UTAH - Damaging turnips and radishes some areas. (Knowlton).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - UTAH - Caused light to severe injury to strawberries and some raspberry roots in Cache, Salt Lake, Box Elder and Utah Counties. (Knowlton, et al).

STRAWBERRY LEAF ROLLER (Ancyliis comptana fragariae) - ILLINOIS - Heavy infestation of second brood in Union County and Centralia area. Greatest damage to new planting; unusual in southern areas. (Chandler).

A NITIDULID (Lobiopa insularis) - LOUISIANA - Usually found damaging strawberry fruits, the beetle was taken at Baker and in E. Baton Rouge Parish on watermelon; at Baton Rouge on figs and tomatoes, and in Terrebonne Parish on ripe tomatoes and figs. Most larvae and adults found on ripe tomatoes. (Oliver).

MILLIPEDES - MONTANA - Causing damage to ripening strawberries in Gallatin County. (Roemhild).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Damage increasing in eastern counties. (Guthrie).

TREE CRICKETS (Oecanthus spp.) - NORTH CAROLINA - Adults in Cumberland County. Damage to tobacco light but general in southeastern counties. (Farrier).

GRASSHOPPERS - TENNESSEE - Injuring tobacco. Damage less severe than in 1954. (Scott).

GREEN PEACH APHID (Myzus persicae) - TENNESSEE - Infestation on tobacco decreasing. Damage caused ranges from a trace to severe. (Scott).

SUCKFLY (*Cyrtopeltis minimus*) - NORTH CAROLINA - First adult this season in Harnett County. (Farrier, Burton).

### COTTON INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - TEXAS - Increased in east central, north central and northeast areas. (Gaines). Very severe damage in untreated fields in lower valley. (Deer). In McLennan and Falls Counties, infestation averaged 19.6 percent in 16 treated and 44 percent in 19 untreated fields. (Parenchia et al). OKLAHOMA - Most favorable week for boll weevil development in about three years. Second-brood weevil emerging in old cotton. (Stiles). ARKANSAS - Have increased sharply in most fields over State. Some fields of older cotton in northeast had increases of as much as 50 percent in four days. Insecticides barely holding infestation static in southwest and southeast as emergence of first-generation weevil continues. Of 2738 fields scouted, 1965 (72 percent) had infestations; percentage last week was 55. (Warren, Turney). LOUISIANA - Five fields in Ouachita Parish had 36 percent infestation, three in Bossier had 33, three in Red River had 26, four in Tensas had 43 percent. Application of insecticides general, but ground equipment hampered by rains. (Oliver). Square examination in 98 fields in Tallulah area showed all infested at rate of 21 percent compared with 12 percent last week. (Gaines, Pfrimmer). MISSISSIPPI - Most ideal boll weevil conditions since 1950. In an area extending from northern part of the delta to Louisiana border weevils building up rapidly. Increasing also in other areas. (Hutchins, July 18). In Washington County, 62 of 64 fields examined were infested at rate of 22.1 percent, more weevils in area than since 1950. (Merkel, Furr et al).

ALABAMA - All fields examined (17) in seven central and northern counties found infested at rate of 15 percent. (Moore). TENNESSEE - Second generation at peak emergence in west Tennessee. Heaviest populations in counties on Mississippi border. Of 76 fields surveyed in 10 counties, 63 found infested with average infestation of 4.7 percent. Average for infested fields last week was 5.2 percent. Ideal weather for build-up. (Locke). GEORGIA - All fields (80) inspected in 20 northern counties found infested. Average of 20.7 percent punctured squares in 7 untreated fields and 5.7 percent in 73 treated fields. (J. C. and C. R. Jordan). SOUTH CAROLINA - Of 36 treated fields examined in Darlington County, 34 found infested at rate of 12 percent. All treated fields (20) examined in Florence County were infested at rate of 28 percent. Non-treated check areas in 7 experimental fields in Florence County showed infestation of 81 percent compared with 51 for previous week. (Walker et al). Increasing rapidly in coastal area. (Nettles). NORTH CAROLINA - Of 148 treated fields checked, 127 infested and slightly over half had less than 10 percent punctures. Average of 51 percent infestation in Scotland

County and over 10 percent in Bertie, Cumberland, Harnett, Hoke, Sampson and Wilson Counties. Untreated fields in Scotland County had 74 percent infestation. (Scott).

**BOLLWORMS (Heliothis spp. et al) - NEW MEXICO - Heliothis armigera still light in cotton in Dona Ana County, but large populations in some alfalfa fields. (Durkin, July 15). ARIZONA - H. armigera increased slightly in Maricopa, Pinal, Pima and Cochise Counties. Small acreage treated. (Ariz. Coop. Rept.). TEXAS - Increased slightly in upper coastal, south central, east central, west, northwest and north and south plains. (Gaines). Severe damage in untreated fields in the lower valley. (Deer). In McLennan and Falls Counties eggs and larvae in 30 fields at rate of 10.1 and 2.3 per 100 terminals, respectively. Square injury 4.5 percent in 27 fields and boll injury 7 percent in 26 fields. (Parenchia et al). Sufficient infestations to warrant control in some fields in Lubbock area. (Davis, Owen). OKLAHOMA - Increasing in Caddo County. (Stiles). ARKANSAS - H. armigera infestation increasing as are moth flights, but corn attracting moths in most areas. Some cotton fields, however, have infestation heavy enough to warrant control. Indications natural control is excellent. (Warren, Turney). MISSISSIPPI - Still not problem July 19 but moth flights increasing. (Hutchins). Egg deposition expected in Washington County, but low July 22. (Merkl, Furr et al). TENNESSEE - Increasing all fields in west Tennessee, damaging populations expected by end of July. (Locke). GEORGIA - Average of 5.5 eggs and 4.8 larvae per 100 terminals in 4 untreated fields and 3.2 eggs and 2.4 larvae per 100 terminals in 16 treated fields in north Georgia. Average of 3.1 percent squares damaged in 7 untreated fields. (J. C. and C. R. Jordan). SOUTH CAROLINA - Total of 1400 H. armigera and 10 H. virescens moths taken in light trap at Florence during week, which is largest number for any week this year. Average of 1.6 eggs per 100 terminals in 4 fields in Florence County; no larvae. Less than 1 percent square damage in 19 fields. (Walker et al). LOUISIANA - H. armigera infestation continued very low but moth flights increased. (Oliver). At Tallulah, 2 eggs per 100 terminals in 64 of 97 fields. Moth catches in light trap more than double previous week. (Gaines, Pfrimmer, et al).**

**SPIDER MITES - CALIFORNIA -** Up to July 8, spider mites much lighter in cotton than past years at this time. (Cal. Coop. Rept.). ARIZONA - Severe on 25 acres of cotton at Eloy July 7. (Ariz. Coop. Rept.). TEXAS - Mites increased in south central, central, north central and west areas. (Gaines). ARKANSAS - Spotty but increasing; only a few fields have required treatment. (Warren, Turney). TENNESSEE - One field heavily infested in Lauderdale County. (Locke). GEORGIA - Light infestation in 25 of 80 fields examined in 20 northern counties. (J. C. and C. R. Jordan). SOUTH CAROLINA - Building up in some fields in Florence area. (Walker et al). NORTH CAROLINA - Tetranychus desertorum adults over 15 per leaf and many eggs and nymphs on cotton in Scotland County. (Misticic).

MISSOURI - Margins of a few cotton fields beginning to show light damage from Tetranychus telarius (L.)\*. (Kyd, Thomas).

APHIDS - ARKANSAS - Aphis gossypii spotty but increasing, weather favorable. (Warren, Turney). GEORGIA - Of 80 fields inspected in 20 northern counties, light infestations in 21, medium in 4, and heavy in 4. (J. C. and C. R. Jordan).

COTTON LEAFWORM (Alabama argillacea) - TEXAS - Increased in upper coastal area. (Gaines).

FLEAHOPPERS - TEXAS - Heavy in many fields in cross timbers and northwest areas; increased in north and south plains. (Gaines).

OKLAHOMA - Increasing in Caddo, Beckham and Coal Counties. As high as 74 per 100 terminals in Caddo County. (Stiles). MISSOURI - Economic populations of Psallus seriatus continue in 16-20 percent of older rank cotton; 2-66 adults and nymphs per 100 terminals. (Kyd, Thomas).

PLANT BUGS - MISSOURI - A few fields near alfalfa have population heavy enough to warrant control measures. Adelphocoris rapidus and Lygus lineolaris involved. (Kyd, Thomas).

COTTON SQUARE BORER (Strymon melinus) - ARKANSAS - Infestation in some fields in eastern area. Heavier than usual. (Warren, Turney).

CABBAGE LOOPER (Trichoplusia ni) - TEXAS - Light infestation in south central and north and south plains areas. (Gaines).

BROWN COTTON LEAFWORM (Acontia dacia) - TEXAS - Increased in Burleson County. (Gaines).

A MEALYBUG - ARIZONA - Heavy population in 10 acres of cotton at Litchfield Park July 14 but damage not severe. (Ariz. Coop. Rept.).

A LEAF ROLLER (Platynota stultana) - CALIFORNIA - Appearing in small numbers in some cotton fields in Imperial Valley. Not as heavy as a year ago. (Cal. Coop. Rept., July 12).

LYGUS BUGS - CALIFORNIA - Building up in San Joaquin Valley cotton but not heavy to July 12. (Calif. Coop. Rept.). NEW MEXICO - Building up in cotton. Most fields in Dona Ana County have 5-10 adults per 100 sweeps. (Durkin, July 15). ARIZONA - Have increased generally in

\*Pritchard, A. E. and Baker, E. W. 1955. A revision of the spider mite family Tetranychidae. Pacific Coast Ent. Soc. Mem. Ser. vol. 2, pp. 432-38.

Maricopa County. Eleven per 100 sweeps (other mirids included) for week ending July 15, while counts in Pinal and Pima Counties ranged from one to ten per 100 sweeps. Much treatment, especially in Maricopa County. (Ariz. Coop. Rept.).

### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

A JACK PINE SAWFLY (Neodiprion sp.) - MINNESOTA - Severe defoliation on Cut Foot Sioux Forest Service District in north central section of State, July 15. (Minn. Ins. Rept. Serv.).

GYPSY MOTH (Porthetria dispar) - Cooperative spraying operations were completed about middle of June. Total of 1,094,138 acres sprayed during year. First egg clusters of the season noted July 6 in Essex County, New York. (Gypsy Moth Cont. Proj.).

### Forest and Ornamental Pest Conditions in Wisconsin:

ELM LEAF MINER very abundant in central area and DUSKY BIRCH SAWFLY abundant in northeastern area. A virburnum shoot SAWFLY is quite abundant in nurseries and park plantings in southern area. TWO-SPOTTED SPIDER MITE is unusually abundant on evergreens, garden plants and small fruits, due to hot dry weather. LARCH SAWFLY defoliation widespread in northwestern area, from one-third to almost complete defoliation. Peak of FOREST TENT CATERPILLAR moth flight passed. High percent of parasitism in northwest area. SARATOGA SPITTLEBUG developing much slower than anticipated; spraying of 800 acres planned. JACK PINE BUDWORM has oviposited in area or more than 100,000 acres. WHITE-PINE WEEVIL has been abundant in northern half of State. RED-HEADED PINE SAWFLY very abundant in local areas of several counties. FALL WEBWORM is becoming very abundant in southern area. Range apparently increasing in northern part of State each year. BALSAM-FIR SAWFLY very heavy in northeastern area, severe damage local areas. (Chambers).

FALL WEBWORM (Hyphantria cunea) - FLORIDA - Larvae infesting forests and persimmons at Welaka, Putnam County. (Det. L. A. Hetrick). (Denmark). NORTH DAKOTA - Scattered light infestations on shade trees and fruit in eastern area. (Ins. Rept. Serv.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - PENNSYLVANIA - Second-generation adults on elms beginning to deposit eggs in northeastern area. (Gesell). VIRGINIA - Larvae and adults causing light to heavy damage to elms in Buckingham County. (Morris). TENNESSEE - Defoliating untreated Chinese elms. (Scott). INDIANA - First-brood adults during July 8-19. (Hamilton). MISSOURI - Heavy infestation of second-generation



larvae on Chinese and American elms throughout southeastern area. (Kyd, Thomas). ARIZONA - Causing considerable damage to elms in Salt River Valley. (Ariz. Coop. Rept.).

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - FLORIDA - Adults average 6-10 per stem on slash pines in Hillsborough County (Det. W. F. Cowan) and average 6 per plant in logged-over area Nassau County. (Entzminger).

ASH PLANT BUG (Neoborus amoenus) - MONTANA - Abundant and causing damage to green ash in towns in southern part of State. (Roemhild).

BAGWORM (Thyridopteryx ephemeraeformis) - MISSOURI - Heavy infestation generally over State on evergreens and to lesser extent on box-elder and willow. (Kyd, Thomas). KANSAS - Light to heavy infestation in Riley, Shawnee, Jackson, Jefferson and Nemaha Counties. Some trees extensively defoliated. (Matthew). ILLINOIS - Injury to various trees and shrubs common. (Petty et al). VIRGINIA - Damaging evergreens in King and Queen County. (Amos).

BIRCH LEAF MINER (Fenusa pusilla) - RHODE ISLAND - Moderate to heavy damage to birches over State. (Kantack).

CANKERWORMS - MONTANA - Considerable damage to shelter belts in northern and central parts of State. (Roemhild).

COTTONWOOD LEAF BEETLE (Chrysomela scripta) - MISSISSIPPI - Seriously defoliated a newly-established 50-acre cottonwood plantation and are attacking cottonwood nursery at Scott. Control underway. Considerable defoliation of cottonwoods at Stoneville. (Morris).

GALL MITES - COLORADO - An unusual abundance of Eriophyes sp. on maple and E. populi on cottonwood in eastern area. (Colo. Exp. Sta.).

LARCH SAWFLY (Pristiphora erichsonii) - MINNESOTA - Severe defoliation in north central areas. (Drooz).

MIMOSA WEBWORM (Homadaula albizziae) - DELAWARE - General on mimosa; heaviest injury from central area southward. Attacking honey locust in New Castle and Kent Counties. (Milliron). VIRGINIA - Infestations range from light to heavy on mimosa in Buckingham County (Morris); medium on mimosa at Cumberland (Seay); and damaging mimosa in Patrick County (Olinger, Amos). MARYLAND - Continues severe in most sections of State. (U. Md., Ent. Dept.).

NEVADA BUCK MOTH (Hemileuca nevadensis) - MONTANA - Defoliating shade trees in north central areas. (Roemhild).

MITES - MISSOURI - Heavy foliage bronzing by two-spotted spider mite (*Tetranychus telarius* (L.))\* of some elm, walnut, locust and apples, as well as numerous shrubs and garden crops. (Kyd, Thomas). MINNESOTA - Spider mites, mainly *T. telarius* appearing in nurseries and landscape plantings. (Minn. Ins. Rept. Serv.). MONTANA - Abundant on evergreens locally in Yellowstone County. (Roemhild).

MOURNING-CLOAK BUTTERFLY (*Nymphalis antiopa*) - WISCONSIN - Destructive in south central area. (Chambers, July 8). NORTH DAKOTA - Defoliation of willow in shelter belt planting near Langdon, July 20. Most larvae heavily parasitized. (Ins. Rept. Serv.).

NORWAY-MAPLE APHID (*Periphyllus lyropictus*) - IDAHO - General build-up in maple trees throughout city of Moscow. Predators low. (Manis, July 16).

PINE SPITTLEBUG (*Aphrophora parallela*) - MINNESOTA - Abundant on jack pine in central area. (Minn. Ins. Rept. Serv.).

PITCH TWIG MOTH (*Petrova comstockiana*) - WISCONSIN - Abundant in Washburn and Burnett Counties. (Chambers, July 8).

SOUTHERN PINE BEETLE (*Dendroctonus frontalis*); - VIRGINIA - Continues to damage and kill pines on a farm near Dilwyn, Buckingham County. (Ellis, Morris).

SPIREA APHID (*Aphis spiraeicola*) - UTAH - Infestations are very severe in several northern counties. (Knowlton).

RED-HEADED PINE SAWFLY (*Neodiprion lecontei*) - MINNESOTA - Heavy feeding July 12 on a plantation in Sherburne County (Hodson) and in Anoka County, where control operations are underway (Minn. Ins. Rept. Serv.). VIRGINIA - Damaging pines in Mecklenburg County. (Powell, Rowell).

A TENT CATERPILLAR (*Malacosoma* sp.) - WASHINGTON - First adult observed in San Juan County July 15. (Baker).

WEBWORMS - DELAWARE - *Salebria afflictella* and *Tetralopha melano-trammos* destroying sweetgum in southern New Castle, Kent and northern Sussex Counties. (Milliron).

COTTONY-CUSHION SCALE (*Icerya purchasi*) - ARIZONA - Heavier than usual in Maricopa County. (Ariz. Coop. Rept.).

\* Pritchard, A. E. and Baker, E. W. 1955. A revision of the spider mite family Tetranychidae. Pacific Coast Ent. Soc. Mem. Ser., vol. 2, pp. 452-38.

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Especially destructive to sassafras generally. Feeding heavily on elms and some small ornamentals at many places in Kent and Sussex Counties. (Milliron). RHODE ISLAND - Heavy populations throughout State. Damage to small elms and maples is moderate to heavy in Kingston area. (Kantack). MARYLAND - Severe infestation on shade trees and fruit trees in western Allegany County and troublesome on ornamentals in Montgomery, Baltimore and Prince Georges Counties. (U. Md., Ent. Dept.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - RHODE ISLAND - Moderate numbers in all areas. (Kantack).

AN ANGLE-WING BUTTERFLY (Vanessa caryae) - WASHINGTON - Numerous on hollyhocks in San Juan County. (Baker).

#### INSECTS AFFECTING MAN AND ANIMALS

CHICKEN MITES (Dermanyssus gallinae) - NORTH CAROLINA - Infestation severe in breeding house with over 1000 birds at Raleigh. (Farrier).

CHIGGERS - MARYLAND - Severe in upper Baltimore County. (U. Md., Ent. Dept.).

A CONENOSE BUG (Triatoma protracta) - ARIZONA - Several household infestations in Maricopa and Yavapai Counties. (Ariz. Coop. Rept.)

DOG AND CAT FLEAS - PENNSYLVANIA - Light infestations in homes in Columbia and Lycoming Counties (Gesell) and a heavy infestation in and around a home in Centre County. (Udine).

FOWL TICK (Argas persicus) - MARYLAND - Very heavy infestation in chicken house in Harford County. A few birds near death. (U. Md., Ent. Dept.).

HORN FLY (Siphona irritans) - UTAH - Annoying in Box Elder and other counties. (Allred, Knowlton).

HOUSE FLIES - NEW MEXICO - Musca domestica very numerous at Las Vegas, (Durkin, July 15). MARYLAND - Very troublesome in dairy and beef barns in most sections. (U. Md., Ent. Dept.).

MOSQUITOES - MINNESOTA - A large brood of Aedes vexans emerged about July 14 in Twin Cities area. (Minn. Ins. Rept. Serv.).

TABANIDS - UTAH - Tabanids, particularly Tabanus soncmensis, extremely annoying to cattle at Randolph. Deer flies annoying in Rich County and in Ogden Valley (Knowlton) and annoying to man and animals in Bicknell area of Wayne County in middle of July (Harmstron).

### BENEFICIAL INSECTS

LADY BEETLES - MONTANA - Increasing in aphid-infested grain. (Roemhild). OKLAHOMA - Hippodamia convergens populations unusually large where aphids present on several crops and accompanied with several species of chrysopids. Caused decline of corn leaf aphid. (Walton).

A EUROPEAN CORN BORER PARASITE (probably Lydella stabulans) - PENNSYLVANIA - Numerous puparia noted with corn borer larval skins nearby on corn stalks in Blair County. (Udine).

GOATWEED BEETLES - MONTANA - Chrysolina gemellata and C. hyperici in large numbers in planted areas. Severe defoliation to goatweed on range. (Roemhild).

### MISCELLANEOUS INSECTS

RED HARVESTER ANT (Pogonomyrmex barbatus) - OKLAHOMA - Mating swarms seen July 20. Swarming occurred over a wide area. (Howell).

A TARANTULA HAWK (Peosis formosa) - OKLAHOMA - Large numbers active. (Howell).

CICADA KILLER (Sphecius speciosus) - KANSAS - Counts of wasps at a concentration in Manhattan ranged from 150 to 200. Some destruction of lawns occasionally. Active in several areas of State. (Wilbur).

CARPENTER BEES - TENNESSEE - Damage to several buildings by carpenter bees. (Scott).

OLD HOUSE BORER (Hylotrupes bajulus) - PENNSYLVANIA - Some exit holes in siding of a 4-year old house in Columbia County. (Gesell).

EUROPEAN EARWIG (Forficula auricularia) - IDAHO - Large numbers in and about dwellings in Twin Falls. (Douglass). RHODE ISLAND - Populations remain heavy throughout the State. (Kantack).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - DELAWARE - Numerous adults entering houses in Newark. (Milliron). RHODE ISLAND - Moderate numbers invading homes in Wakefield area. (Kantack). PENNSYLVANIA - Moderate to heavy scattered infestations in homes in northeastern

areas (Gesell) and abundant in a home in Lancaster County (Pepper).  
MINNESOTA - Causing annoyance by entering buildings throughout  
State. (Minn. Ins. Rept. Serv.).

### RECENT INTERCEPTIONS AT PORTS OF ENTRY

Of interest recently was the unusual interception of four living adults of the so-called Egyptian alfalfa weevil (Hypera brunneipennis (Boh.)) with garlic in cargo from Egypt at New York, New York. (Holloway, Melendez). The distribution of H. brunneipennis includes Egypt, Ethiopia, India and the Yuma region of Arizona and California, where it was first found in 1939.

In Egypt, it is said to be a minor pest of berseem clover (Trifolium alexandrinum) but in the United States it has been found to feed on fenugreek (Trigonella foenum-graecum), alfalfa (Medicago sativa), burclover (Medicago hispida), hubam (Melilotus alba), and sour clover (Melilotus indica). Vetch (Vicia sp.) has been fed upon experimentally but not Pisum sp. or Lathyrus sp. The larvae and adults feed on the leaves and tender stems. Eggs are laid in clusters of about 15 in small, dry alfalfa stems, 500 or more per female. In Arizona this occurs during the first two and a half months of the year. The incubation period varies from 6 to 22 days according to temperature. The larvae feed first on the uppermost portions of plants and move downward as the foliage is destroyed. There are four larval instars with a total developmental period of 17 to 32 days. The pupal stage is passed in a thin, white, netlike cocoon attached to the plant and varies from 6 to 15 days. This habit is characteristic of the species and differs from the alfalfa weevil, H. postica, which spins its cocoons in the surface litter. In the United States adult weevils aestivate during the hot months of the year, approximately May to November.

(Compiled--Plant Quarantine Branch)

### STORED PRODUCTS INSECTS

STORED GRAIN INSECTS - IDAHO Most farm-grain storages in Boundary and Bonner Counties infested with stored grain pests. Mainly dermestids, fungus beetles and granary weevils. (Portman, July 16).

DERMESTIDS - UTAH - Trogoderma grassmani and T. sternale placifer det. Anderson, extremely numerous on wheat in sacks at Salina, June 20. (Knowlton).

LIGHT TRAP COLLECTIONS

		Pseudal. wipun.	Laphyg. frugip.	Agrotis ypsilon	Perid. marg.	Feltia subter.	Heliethis armig.	Protoparce sexta	quin.
TEXAS									
Waco	7/16-22	11	2			19	216		
LOUISIANA									
Tallulah*	7/15-21	241	25	40	29	201	260	7	53
B. Rouge*	7/16-22	13	135	7		310	50		
Franklin	7/15-21	4	85		2	16	23		
ARKANSAS									
Hoope	7/15-21		2	9	2		380		2
Stuttgart	7/14-20	5	5	1	4		19		
Van Buren	7/15-21	3					109		
Vanner	7/15-21	52	51	27	28		111		
Dayetteville	7/15-22	86	58	16	17		317		
Osceola	7/ 8-14	2			3		2		
Clarksville	7/15-21	1	5	5	2		32		
MISS. (Counties)									
Coahoma	7/16-22	169		43	2	37	127		
Humphreys		194		49	2	44	58		
Oktibbeha		140		13	5	9	12		1
Pearl River		15				3			
Washington*		1087	20	39		184	613		21
GEORGIA (Counties)									
Spalding	7/9-15	1	18	8		30		34 sp.	1
Tift	7/10-16	15					60		21
Clarke	7/9-15	1				21	1		

\* Three traps at Tallulah; two at Baton Rouge; two Washington County. Continued on p. 725.

LIGHT TRAP COLLECTIONS (Continued)

Other States: ALABAMA (Auburn, 7/16-22): P. unipuncta, 2; H. armigera, 15; F. subterranea, 19. NORTH CAROLINA (Faison, 7/16-22): P. unipuncta, 8; A. ypsilon, 1; H. armigera, 10; P. quinque maculata, 4; P. sexta, 14. VIRGINIA (Pittsylvania County, 7/9-16): P. sexta, 97; P. quinque maculata, 95. SOUTH CAROLINA (Clemson, July 17-23): P. unipuncta, 3; F. subterranea, 2; Heliothis sp., 3; P. sexta, 11; P. quinque maculata, 2.

ADDITIONAL NOTES

MICHIGAN - CODLING MOTH adults appeared at Grand Rapids, Lansing and Paw Paw, July 15. APPLE APHID appearing at Round Lake, Lansing, Jackson, Grand Rapids and Paw Paw. ORIENTAL FRUIT MOTH well past peak of second brood. STRAWBERRY ROOT WEEVIL annoying in houses in all the Lower Peninsula. (Hutson).

SOUTH DAKOTA - EUROPEAN CORN BORER infestations ranging from 5 to 90 percent in central east area with 90.2 borers per 100 plants. Majority fourth and fifth instars and nearly all corn tasseling. (Hantsbarger). CORN EARWORM caused some damage to field and sweet corn in eastern areas. GRASSHOPPERS - Scattered infestations in central east, mainly in legumes and field margins. About 70 to 75 per square yard in Lake County, mainly M. femur-rubrum and some M. bivittatus. Infestations in northern counties up to 40 per 10 sweeps, mainly M. bivittatus. PEA APHID declining rapidly. (Lofgren, Hantsbarger). LEAFHOPPERS abundant on legumes, up to 7.4 per sweep. PLANT BUGS in alfalfa and red clover averaging approximately two per sweep, up to four per sweep in certain areas. (Hantsbarger).

## WEATHER FOR THE WEEK ENDING JULY 25, 1955

Hot, humid weather continued over most of the Nation last week. Temperatures averaged above normal in the northern two-thirds of the Country where most days were fair and sunny, while persistent shower activity held temperatures at subnormal levels in the South. The humidity was particularly high from the Mississippi Basin to the Atlantic Coast.

The most unusually hot weather occurred along the north Atlantic Coast where highs reached or exceeded 100° at numerous stations on the 21st and 22nd, and 23d. The mercury reached the century mark at both Philadelphia, Pa., and New York City on the 22d, New Jersey reported the hottest week of the current season, and Boston, Mass., now has already had 12 days with 90° or above which equals the July record for the number of such occurrences. New York City's temperature for the week averaged 9° above normal. Cooler air from Canada overspread the northeastern quadrant of the Nation during the weekend lowering daytime temperatures into the more comfortable 70's and 80's. The north Pacific Coast was one of the coolest sections in the Nation during the week. Maximum temperatures there remained in the 70's and minima in the 40's and 50's.

In the course of the week showers occurred nearly everywhere except in parts of the Pacific States. They were most frequent in the Gulf States from Louisiana to Florida and in Arizona where weekly totals exceeded 4 inches at several stations. In a large part of the western one-third of Texas, showers totaling one-half to over an inch were very beneficial. In most of the area from the central and upper Great Plains westward the week's rainfall totaled less than one fourth inch, and rain is needed in many sections. Rainfall from the eastern portion of the Great Plains to the Atlantic Coast was generally sufficient to maintain ample soil moisture, but some sections were getting dry. (Summary supplied by the U. S. Weather Bureau)

\*\*\*\*\*

Reports in this issue are for the week ending July 22, 1955, unless otherwise designated.



STATE CLEARING OFFICES  
for Economic Insect Survey Reports

Alabama	Dr. F. S. Arant, Head, Department of Zoology and Entomology, Alabama Polytechnic Institute, Auburn
Alaska	Dr. Richard H. Washburn, Entomologist, Agricultural Experiment Station, Palmer
Arizona	Dr. L. A. Carruth, Head, Department of Entomology, College of Agriculture, University of Arizona, Tucson
Arkansas	Mr. Gordon Barnes, Extension Entomologist, University of Arkansas, Fayetteville
California	Mr. H. M. Armitage, Chief, Bureau of Entomology, State Department of Agriculture, Sacramento 14
Colorado	Dr. Leslie B. Daniels, Head, Department of Entomology, Colorado A & M College, Ft. Collins
Connecticut	Mr. J. Peter Johnson, Associate Entomologist, Agricultural Experiment Station, P. O. Box 1106, New Haven 4
Delaware	Dr. L. A. Stearns, Chairman, Department of Entomology and Plant Pathology, University of Delaware, Newark
Florida	Mr. Ed L. Ayers, Plant Commissioner, State Plant Board of Florida, Gainesville
Georgia	Dr. C. R. Jordan, Extension Entomologist, University of Georgia, College of Agriculture, Athens
Hawaii	Division of Entomology & Marketing, Board of Agriculture and Forestry, Honolulu 1
Idaho	Dr. H. C. Manis, Head, Department of Entomology, University of Idaho, Moscow
Illinois	Mr. H. B. Petty, Jr., Extension Entomologist, Illinois Agricultural Extension Service, 280 Natural Resources Building, Urbana
Indiana	Mr. J. J. Davis, Head, Department of Entomology, Purdue University, Lafayette

Iowa	Dr. H. M. Harris, Head, Department of Zoology and Entomology, Iowa State College, Ames
Kansas	Dr. Herbert Knutson, Head, Department of Entomology, Kansas State College, Manhattan
Kentucky	Mr. W. A. Price, Head, Department of Entomology, University of Kentucky, Lexington 29
Louisiana	Dr. L. D. Newsom, Head, Department of Entomology Research, Louisiana State University, Baton Rouge 3
Maine	Dr. G. W. Simpson, Head, Department of Entomology, University of Maine, Orono
Maryland	Dr. E. N. Cory, Head, Department of Entomology, University of Maryland, College Park
Massachusetts	Mr. A. I. Bourne, Research Professor of Entomology, University of Massachusetts, Amherst
Michigan	Mr. Ray Hutson, Head, Department of Entomology, Michigan State College, East Lansing 13
Minnesota	Mr. T. L. Aamodt, Director, Plant Industry Division, 312 Coffey Hall, Department of Agriculture, Dairy and Food, University Farm, St. Paul 1
Mississippi	Dr. R. E. Hutchins, Head, Department of Entomology and Zoology, Mississippi State College, State College
Missouri	Mr. Stirling Kyd, Extension Entomologist, Department of Entomology, University of Missouri, Columbia
Montana	Dr. J. H. Pepper, Head, Department of Zoology and Entomology, Montana State College, Bozeman
Nebraska	Dr. Roscoe E. Hill, Chairman, Department of Entomology, University of Nebraska, Lincoln 9
Nevada	Mr. George G. Schweis, Director, Division of Plant Industry, Department of Agriculture, Reno
New Hampshire	Dr. J. G. Conklin, Professor of Economic Entomology, University of New Hampshire, Durham

- New Jersey Dr. B. E. Pepper, Chairman, Department of Entomology, Rutgers University, New Brunswick
- New Mexico Mr. John J. Durkin, Extension Entomologist, Plant Quarantine Service, New Mexico College of A & M Arts, State College
- New York Dr. A. A. LaPlante, Extension Entomologist, Department of Entomology and Plant Pathology, Cornell University, Ithaca
- North Carolina Mr. George D. Jones, Extension Entomologist, State College of Agriculture, Raleigh
- North Dakota Dr. J. A. Callenbach, Chairman, Department of Entomology, North Dakota State College, Fargo
- Ohio Dr. C. R. Neiswander, Associate Chairman, Department of Entomology, Ohio Agricultural Experiment Station, Wooster
- Oklahoma Dr. D. E. Howell, Head, Department of Entomology, Oklahoma A & M College, Stillwater
- Oregon Mr. Vincent D. Roth, Survey Entomologist, Division of Plant Industry, Oregon Department of Agriculture, Salem
- Pennsylvania Mr. J. O. Pepper, Extension Entomologist, Pennsylvania State College, State College
- Puerto Rico Dr. George N. Wolcott, Agricultural Experiment Station, Rio Piedras
- Rhode Island Dr. F. L. Howard, Head, Department of Plant Pathology and Entomology, University of Rhode Island, Kingston
- South Carolina Mr. W. C. Nettles, Leader, Extension Entomologist and Plant Disease Work, Clemson Agricultural College, Clemson
- South Dakota Dr. G. B. Spawn, Head, Department of Entomology-Zoology, South Dakota State College of A & M Arts, College Station

Tennessee	Mr. R. P. Mullett, Extension Entomologist and Plant Pathologist, College of Agriculture, University of Tennessee, Knoxville 16
Texas	Dr. J. C. Gaines, Head, Department of Entomology, Texas A & M College, College Station
Utah	Dr. George F. Knowlton, Extension Entomologist, Utah State Agricultural College, Logan
Vermont	Mr. John Scott, Director, Division of Plant Pest Control, State Department of Agriculture, Montpelier
Virginia	Dr. J. O. Rowell, Extension Entomologist, Virginia Polytechnic Institute, Blacksburg
Washington	Dr. Horace S. Telford, Chairman, Department of Entomology, Washington State College, Pullman
West Virginia	Mr. F. Waldo Craig, Chief, Entomology Division, Department of Agriculture, Charleston 5
Wisconsin	Mr. E. L. Chambers, Chief, Plant Industry Division, 315 North Carroll Street, Madison 3
Wyoming	Mr. Everett W. Spackman, State Entomologist, Division of Entomology and Plant Industry, Department of Agriculture, 308 Capitol Building, Cheyenne





VOL. 5 No. 31

AUGUST 5, 1955

SB  
823  
C77  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.



## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

Adult GRASSHOPPER surveys show light to threatening populations in western and northwestern Kansas and heavy infestations in several counties in central and east central Minnesota. Populations becoming abundant in many Wisconsin counties and continue abundant in Delaware. Nebraska has heavy populations in alfalfa and corn, and crop damage increasing in Missouri. (p. 733).

EUROPEAN CORN BORER continues to show build-up in Wisconsin. Outlook for serious damage from second generation in Illinois remains unchanged. Second-brood moths expected over extended period in Minnesota. (p. 734).

CORN EARWORM continues primary pest of corn in Wisconsin. Heavy infestations in sorghum in some areas of Arkansas. Several other States report damaging infestations, but Idaho population in southwestern area lowest in four years. (p. 734). Heavy hatch of SUGARCANE BORER in some Louisiana cane areas. (p. 735). CORN ROOTWORMS continue to build up in untreated fields in Nebraska. Northern corn rootworm unusually abundant in Illinois. (p. 735). CORN LEAF APHID abundant on corn in areas of South Dakota, more prevalent than usual in Delaware, and heavy in sorghums in some counties of Nebraska, Oklahoma and Texas. (p. 735). FALL ARMYWORM injuring late corn in Arkansas, Maryland, Delaware and Missouri. (p. 736).

NEW RECORDS: YELLOW CLOVER APHID reported from Arkansas for first time. (p. 737).

MITES of concern on field crops in Colorado. Idaho has some build-ups on clover in southwestern area. (p. 738). BLISTER BEETLES heavy in alfalfa and other crops in areas of several States. (pp. 740, 744).

RED-BANDED LEAF ROLLER more severe than for several years in Ohio. Serious in some orchards in Monroe County, New York. (p. 741). ORCHARD MITES increasing in some areas of New York and Utah but under control in Indiana and Ohio. (pp. 740-741).

POTATO LEAFHOPPER heavy on beans in Maryland; light to moderate in eastern Virginia. (p. 743). POTATO PSYLLID causing very severe injury to potatoes in Arkansas Valley, Colorado. (p. 744). HORNWORMS heavy on tomatoes some New York counties; active in Delaware. (p. 744). COLORADO POTATO BEETLE common on untreated potatoes in south central Idaho, unusually abundant in Malheur County, Oregon. (p. 744). PICKLEWORM injuring cucurbits in eastern Virginia. (p. 745). SQUASH BORER and SQUASH BUG abundant in Wisconsin and Rhode Island. (p. 745).

TOBACCO FLEA BEETLE increasing in some sections of North Carolina and Virginia. (p. 746).

BOLL WEEVIL increasing in Texas, Arkansas, Mississippi and some other areas. Counts high in some areas in Louisiana (over 25 percent many fields), Texas (56 percent untreated fields Waco area), South Carolina (47 percent untreated fields), and in some fields in North Carolina. Infestations, however, are fairly light in Oklahoma, and below 10 percent in many fields in Arkansas and Tennessee. (p. 746).

BOLLYWORMS increasing in several Arizona counties and very numerous in Dona Ana and Chaves Counties, New Mexico. Texas and Arkansas also report increases. Heavy moth flights in Louisiana. (p. 748).

PINK BOLLYWORMS increasing in south central and central areas of Texas. (p. 749). LYGUS BUGS showing build-up in some areas of California, Arizona and Texas. (p. 748).

ELM LEAF BEETLE serious on elms in Indiana. Also damaging in parts of Virginia and California. (p. 749).

SCREW-WORM much heavier than normal in Texas. Several cases in Louisiana. (p. 751). FLEAS unusually prevalent in Georgia. Tennessee and Rhode Island have local trouble. (p. 751).

MEXICAN FRUIT FLY - Recent interceptions at ports of entry and map showing control program. (p. 754).

WEATHER outlook and summary. (p. 753).

STATES reporting this week - 39.

\*\*\*\*\*

Reports in this issue are for the week ending July 29, 1955, unless otherwise designated.

## CEREAL AND FORAGE INSECTS

GRASSHOPPERS - CALIFORNIA - Populations of economic importance on range land: Amador County 57,000 acres; Butte County 125,000; Kings County 45,000; Shasta County 50-60,000; Tehama County 750,000. Limited infestations of high concentrations of Camnula pellucida, Oedaleonotus enigma, and Melanoplus devastator found in Contra Costa, El Dorado, Glenn, Merced, Riverside and San Diego Counties. (Cal. Coop. Rept.). UTAH - Average of 50 M. borealis per square yard destroyed some reseeded areas on Beaver Mountain. Aulocara elliotti dominant in many areas, 25-50 per square yard. Grasshopper damage becoming more conspicuous in greener crop land areas in 20 counties. Camnula pellucida largely winged and migrating in areas of Sanpete, Tooele, Duchesne and Uintah Counties. (Thornley, Knowlton). NEW MEXICO - Infesting 300 acres of alfalfa and field crops in Sandoval County. (Durkin). KANSAS - In mid-summer adult survey in western and northwestern counties, counts ranged from non-economic to severe, but generally light to threatening. In fence rows and roadside ditches along wheat stubble and summer fallow, counts ranged from 6-30 per square yard. Major species: M. mexicanus, M. femur-rubrum, M. differentialis, M. bivittatus and Aeoloplus turnbulli. Light to threatening populations also at some range land stops; 3 to 8 per square yard. (Matthew). OKLAHOMA - Few reports throughout the State. (Flora).

MISSOURI - Melanoplus spp. crop damage increased as hot weather dried vegetation. M. differentialis now major species, from third instar to adult. M. bivittatus light in southwest area. M. mexicanus second-generation hatch complete in southern half and nearing peak in northern half. Up to 29 per square yard in crops and 5-45 in field margins. Light fungus disease in scattered areas. (Kyd, Thomas). NEBRASKA - Melanoplus spp. in alfalfa, margins of corn, and along roadsides. From 80 to 100 in alfalfa and corn to 100 to 150 or more along roadsides. Much control. (Andersen). Large numbers of grasshoppers at lights July 7 identified as Trachyrhachis kiowa; sometimes numerous in range land. (Hill). NORTH DAKOTA - Moderate infestations east of Williston and in southwestern counties. (N. D. Ins. Rept. Serv.). MINNESOTA - Adult surveys in central and east central showed heavy infestations in Anoka, Sherburne, Stearns, Morrison, Benton, Isanti and Pine Counties. Considerable treatment in this area. From 15-35 per square yard, mostly M. femur-rubrum and M. bivittatus, third instar to adults. Hatching about complete. (Minn. Ins. Rept. Serv.). ILLINOIS - Situation remains rather serious in many localities with concentrations still in margins, fence rows or similar situations. (Petty et al). TEXAS - Medium widespread on field and forage crops in Denton County. (Berend). WISCONSIN - Becoming abundant in a number of counties. Several hundred per square yard reported in Lafayette and Grant Counties. Average over 25 per square yard in 20 counties. Nearly all Melanoplus femur-rubrum. (Chambers). DELAWARE - Melanoplus spp. nymphs continue abundant in grass; feeding on soybeans generally. Light feeding on late field corn. (Milliron).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NEBRASKA - All stages, from third to fifth instars of first generation and first instars of second generation. Moths active at Lincoln, southeast and northeast areas. (Andersen). KANSAS - No infestations in corn in northwest area; however, very few corn fields in area. (Matthew). MINNESOTA - From 10-49 percent of plants infested with from 0.7 to 3 larvae per plant. Highest infestation in southwest district. Emergence ranges from 1 to 6 percent. Second-generation moths expected over extended period. (Minn. Ins. Rept. Serv.). WISCONSIN - Continues to show indications of a considerable build-up with very early-planted fields showing as many as 80 percent of stalks infested. Nearly all larvae pupated. (Chambers). ILLINOIS - Average pupation in northeastern area 28 percent. Occasional moth and egg-laying reported. In northwestern area 37 percent pupation and 4 percent emergence, west north central 44 and 7, east north central 25 and 1.5, west central 81 and 43, east central 47 and 7. Survey of first-generation population in northern half of State shows about 55 borers per 100 stalks of corn. Highest second-generation egg mass count was 15 per 100 stalks. Based on information now available, damage from second generation expected to be very severe and treatment will be profitable on most late-maturing corn in northern half of State. (Petty et al). SOUTH DAKOTA - In southeastern counties 39 percent of corn plants infested with average of 53 borers per 100 plants. One percent second instars, 2 percent third, 20 fourth, 55 fifth. Twenty-two percent pupae. Corn in silk stage. (Hantsbarger). ARKANSAS - Light infestation in White County, new county record. (Warren, Turney). TENNESSEE - Eggs and larvae noted on corn. (Stanley). ALABAMA - A few adults, egg masses, and second to fourth instar larvae in northern counties. (Eden). PENNSYLVANIA - Population down in Blair County area with noticeable Lydella parasitism. (Udine).

CORN EARWORM (Heliothis armigera) - DELAWARE - Moderately heavy ear infestation in most sweet corn from Clayton southward. Spotty damage to whorl of late field corn. (Milliron). MARYLAND - Heavy damage to ears in 250 acres of sweet corn in Montgomery County. Also heavy in field corn in Baltimore County. (U. Md., Ent. Dept.). NORTH CAROLINA - Moderate damage in corn in Surry County. Eggs increased markedly. Average for Faison was 69.6 eggs per ear and for Clayton 2.6. (Townes). ARKANSAS - Grain sorghums in central Arkansas River valley being heavily attacked. Up to 14 first to third instar larvae per head. (Warren, Turney). WISCONSIN - Continues as primary corn pest, especially in early-planted sweet corn. Many fields too heavily infested to be usable. (Chambers). NEW MEXICO - Causing damage to young stands of field corn in Curry County. About 30 percent of whorls in fields checked were damaged. (Durkin). IDAHO - Lowest for past four years in southwestern area, highest infestation 2 earworms per 100 ears. (Douglass, July 23).

MORMON CRICKET (Anabrus simplex) - UTAH - Infests 10,000 acres in Dagget County; 5,000 in Uintah County; and 5,000 in Piute County. Controls planned in these areas for 1956. Remnants of outbreak persist on about 3,000 acres in San Juan County. (Thornley, Knowlton). COLORADO - Damaging population on 1,800 acres in Rio Grande County, July 15. Crickets in complex with grasshoppers. Areas treated for Mormon cricket in Moffat County earlier under control. (Ext. Serv.)

WHEAT STEM SAWFLY (Cephus cinctus) - NORTH DAKOTA - Survey in areas generally west of U.S. Hwy. 281 and north of N. D. 7 showed severest infestation in area of southern Mountrail, southwestern Ward and western McLean Counties. Some fields in Williams, Divide, Burke, Renville and Bottineau Counties also have heavy infestations. Non-economic populations generally south of Missouri River and in eastern part of surveyed area. (N. D. Ins. Rept. Serv.).

SUGARCANE BORER (Diatraea saccharalis) - TEXAS - Light widespread infestations, 2 percent of stalks infested, in rice in Jackson County. (Fuller). LOUISIANA - Extremely heavy and general hatch recently in most cane fields in Bunkie-Cheneyville area. Widespread dusting began July 25. Third-generation control may be needed in some areas. (Oliver).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - ARKANSAS - Range extended into Pulaski and Cleburne Counties. Larval infestations observed in White County for first time. One field in Cleburne County had infestation of 20 percent, highest this season. Indications in infested counties of possible serious damage to corn as season progresses. (Warren, Turney).

CHINCH BUG (Blissus leucopterus) - OKLAHOMA - Population seems low, especially in northeastern area. (Howell). TEXAS - Heavy widespread on milo in Menard County. (Mullins).

CORN ROOTWORMS - ILLINOIS - Northern corn rootworm more abundant this year. (Petty et al). NEBRASKA - Diabrotica spp. continue to build up in untreated fields. (Andersen).

CORN FLEA BEETLE (Chaetocnema pulicaria) - PENNSYLVANIA - Considerable Stewart's disease, carried by this insect, in early susceptible varieties. A few fields 90 percent infested. (Udine).

CORN LEAF APHID (Rhopalosiphum maidis) - SOUTH DAKOTA - Abundant on corn in some areas, notably Charles Mix County. (Hantsbarger). NEBRASKA - Light to moderate infestations in corn in Cuming County and in southeastern area. In sorghum, heavy populations continue in south central counties. (Andersen). TEXAS - Heavy local infestation on grain sorghums in Motley County. (Pallmeyer). OKLAHOMA - Severe in sorghum

in Payne County, very heavy in maize in Guymon County. (Thomas). Generally decreasing in sorghum that is beginning to head. (Howell). ARKANSAS - Light to heavy infestation in scattered fields over eastern half of State. (Warren, Turney). MINNESOTA - Practically disappeared on late barley in northwestern area. Predators continue heavy. The heavy aphid infestations may indicate heavy populations on corn later. Some corn fields in Crookston area have 50-80 percent of plants showing aphids. (Minn. Ins. Rept. Serv.). MISSOURI - Grain sorghums uniformly infested in southwest, although not high enough to cause discoloration. Lady beetles numerous. (Kyd, Thomas). DELAWARE - Injuring top leaves and tassels of field corn in many locations in Kent and Sussex Counties. More prevalent than usual. (Milliron).

FALL ARMYWORM (Laphygma frugiperda) - MISSOURI - A few isolated fields of small corn in southwest from 40-85 percent infested with larvae of all stages. Adults numerous at lights. (Kyd, Thomas). ARKANSAS - Heavy on young corn; up to 100 percent of stalks infested with as high as 7 larvae per stalk. Insects maturing in older corn. (Warren, Turney). VIRGINIA - Attacking corn in Goochland County. (Morris). MARYLAND - Heavy damage to late-planted corn in Calvert and Carroll Counties, 20 to 50 percent of plants damaged in some fields. First appearance of season. (U. Md., Ent. Dept.). DELAWARE - Injuring whorls of late corn from Middletown southward; as many as 10 small larvae from single plant. (Milliron).

APHIDS - WYOMING - Damage to small grain in Fremont, Big Horn and Park Counties. Corn leaf aphid on barley in Washakie County. (Spackman, Lowry). UTAH - Aphids, principally corn leaf aphid, still damaging spring barley in several areas. (Knowlton). VIRGINIA - Aphids, probably corn leaf aphid severely infesting tassels and whorls of corn in some fields of Appomattox and Smyth Counties. (Smith, Jones). Building up on sorghums in several areas. (Morris).

CORN SAP BEETLES - DELAWARE - Eggs, larvae and adults of Carpophilus lugubris very prevalent in ears of untreated commercial sweet corn. (Milliron). WISCONSIN - C. dimidiatus more abundant than usual and showing up in ears of early sweet corn. (Chambers). NEBRASKA - C. dimidiatus adults continue to damage ears of corn in eastern area. (Andersen).

SORGHUM WEBWORM (Celama sorghiella) - TEXAS - Medium to heavy widespread on milo in Matagorda County; 20-30 per head in several fields. (Piannstiel). ARKANSAS - Infesting grain sorghum heads in central Arkansas River valley. (Warren, Turney).

ENGLISH GRAIN APHID (Macrosiphum oranarium) - WASHINGTON - Very light infestation on wheat in Palouse region, 0-7 per head. (Johansen).

ARMYWORM (Pseudaletia unipuncta) - WYOMING - Damage to oats in Goshen County. Controls applied. (Spackman).

A CHINCH BUG (Blissus leucopterus insularis) - FLORIDA - Averaging 500 per square foot on 500-acre pasture of torpedo grass in Osceola County. Unusually heavy infestation. Controls applied. (Smith).

PACIFIC COAST WIREWORM (Limonijs canus) - OREGON - Localized moderate to severe damage to field corn in Douglas County. Det. M. C. Lane. (Roth).

PEA APHID (Macrosiphum pisi) - NEW MEXICO - Infestations still very heavy in alfalfa in Sandoval, Bernalillo, Torrance and Santa Fe Counties. Around Albuquerque the infestation consists of 80 percent pea aphids and 20 percent yellow clover aphids. (Durkin). IDAHO - Populations in alfalfa seed fields in south central and southwestern low; however, some controls applied. (Manis, July 23).

YELLOW CLOVER APHID (Myzocallis trifolii) - CALIFORNIA - Heavy in alfalfa in Imperial and Kern Counties. Rapid increases in Tulare and Kings Counties. (Cal. Coop. Rept.). ARIZONA - Heavy on 280 acres of alfalfa at Phoenix July 20. Decrease to .25 per leaf in areas of Maricopa County, cutting of hay and natural factors involved. Occasional economic populations (to 3-10 per leaf) in Salt River Valley and adjoining districts. Abundant and damaging in area of Cochise County. New records from Navajo County. (Ariz. Coop. Rept.). NEW MEXICO - Alfalfa still infested in Socorro, Eddy, Catron, Torrance and Chaves Counties. (Durkin). TEXAS - Medium spotted infestation on alfalfa in Collin County. (Dahlberg). UTAH - Taken in Weber County, new county record. (Knowlton). KANSAS - Non-economic to light infestations in all alfalfa surveyed in several northwest counties; from 5-70 per sweep of 15-inch net. (Matthew). ARKANSAS - Collected from mixture of crimson clover and alfalfa in Chicot County July 12; about 2-3 per sweep of 12-inch net. First known record of this species in State. (Warren, Turney).

YELLOW STRIPED ARMYWORMS (Prodenia sp.) - CALIFORNIA - Increasing in alfalfa fields in San Joaquin Valley. (Cal. Coop. Rept., July 23). UTAH - Appearing in some alfalfa fields in Wasatch, Summit, Morgan and Weber Counties. (Knowlton).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - TEXAS - Heavy infestation causing extensive damage to cowpeas in Parker County. (Denton). Heavy widespread on grasses adjacent to peanut fields in Erath County. (Sanchez). Medium infestation on peanuts in Mason and Llano Counties. (Garett, Sanchez). VIRGINIA - Heavily damaging soybeans in Westmoreland County. Large spots in some fields damaged or killed. (Rowell, Dawson). SOUTH CAROLINA - Light to moderate

injury to young soybeans and grain sorghum in Charleston County. (Cuthbert). Much less than last year in Allendale County. (Rogers).

WEBWORMS - OKLAHOMA - Severe in alfalfa in Garfield County. (Thomas)

VETCH BRUCHID (Bruchus brachialis) - Medium widespread infestations in Fannin and counties eastward. (Green).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Remains high in alfalfa with 210 per 100 sweeps in Rapides Parish, 250 per 100 in Bossier Parish, and 93 per 100 in Red River Parish. (Oliver).

RED-NECKED PEANUTWORM (Stegasta bosquella) - TEXAS - Light widespread infestations on peanuts in Llano and Mason Counties. (Sanchez).

ALFALFA WEEVIL (Hypera postica) - IDAHO - Larval injury severe to second-growth alfalfa in Washington, Minidoka and Jerome Counties. (Portman, July 23). UTAH - Injury still occurring at higher elevations; 5-15 per sweep higher counts. Infestations persisted later than usual in northern and central areas. (Knowlton).

PEA LEAF WEEVIL (Sitona lineata) - OREGON - Damage to red clover in Washington County. (Torvend).

LEAFHOPPERS - SOUTH DAKOTA - Numerous in alfalfa, up to 44 nymphs and adults per 10 sweeps; 32 nymphs and adults per 10 sweeps in red clover. (Hantsbarger).

POTATO LEAFHOPPER (Empoasca fabae) - NEBRASKA - From 10-17 per 25 sweeps in soybean fields in east central counties. (Andersen). MISSOURI - Widely-scattered alfalfa fields in southern two-thirds of State show moderate to heavy yellowing, from 2-12 per sweep. (Kyd, Thomas). PENNSYLVANIA - Moderate infestation in alfalfa in Warren County. (Adams). MARYLAND - One per sweep on alfalfa in Anne Arundel County. (U. Md., Ent. Dept.).

MITES - CALIFORNIA - Heavy infestations of brown wheat mite (Petrobia latens) in spots in barley fields in Modoc County. Some heavy infestations also in Tule Lake area, Siskiyou County. (Cal. Coop. Rept. July 23). COLO. - Mites on field crops being reported from all sections of State, moderate to severe. Acaracides being applied but results erratic. (Ext. Ser., Exp. Sta., Chem. Ind.). IDAHO - Tetranychus spp. building up in some red clover fields in southwestern area. Many fields treated. (Walz, July 23). MARYLAND - Heavy in field margins of soybeans in Dorchester County. (U. Md., Ent. Dept.). DELAWARE - Strawberry spider mite (Tetranychus atlanticus) injuring soybeans in Kent County. (Milliron).



PLANT BUGS - ARIZONA - Lygus hesperus found at 100-125 per 100 sweeps on alfalfa at Yuma. (Ariz. Coop. Rept.). UTAH - Lygus generally numerous in maturing alfalfa. (Knowlton). SOUTH DAKOTA - Increasing in alfalfa in southeastern counties, up to 78 adults and nymphs per 10 sweeps. (Hantsbarger). LOUISIANA - Lygus lineolaris infestations continue widespread and general in Natchitoches, Bossier and Red River Parishes on alfalfa and on white clover in Jefferson Davis, St. Landry and Acadia Parishes. (Oliver). PENNSYLVANIA - Ten to 15 per 30 sweeps in birdsfoot trefoil in Warren County. (Adams). IDAHO - Lygus spp. heavy in Weiser area. (Portman, July 23).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - IDAHO - Second-year red clover seed fields have 40 percent of heads infested with larvae east of Weiser. First-year fields have around 15 percent infestation. (Portman, July 23).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Destructive to soybeans in Kent and Sussex Counties. (Milliron).

A HESPERID - ARKANSAS - Infestations extend from Polk County to Washington County and east to Pope County. Damage to pastures locally severe, up to 80 acres stripped. Adults appearing in great numbers. (Warren, Turney).

GARDEN WEBWORM (Loxostege similalis) - MISSOURI - Alfalfa becoming uniformly moderately infested over much of State. From 10-65 percent of terminals infested or showing injury. (Kyd, Thomas).

GREEN CLOVERWORM (Plathypena scabra) - RHODE ISLAND - Four to five larvae per sweep in 20 acres of alfalfa in Wickford area. Common on clover in Kingston, light damage. (Kantack).

CLOVER APHID (Anuraphis bakeri) - WASHINGTON - Colonies of 3-19 under bracts and stipules of red clover at Pullman. (Johansen). IDAHO - Less than usual in clover in central Idaho. (Portman, July 23).

CUTWORMS - ARIZONA - Peridroma margaritosa heavy on 30 acres of alfalfa in Navajo County. Cutworms also abundant on 200 acres in Maricopa County, up to 10 per square foot and damage from 15-50 percent on young growth. (Ariz. Coop. Rept.).

BEET ARMYWORM (Laphygma exigua) - ARIZONA - Damaging alfalfa in several fields in Yuma Valley, 2-4 per sweep. (Ariz. Coop. Rept.).

BLISTER BEETLES - OREGON - Epicauta spp. more abundant than usual in Morrow and Umatilla Counties. Some local damage to alfalfa. (Roth). IDAHO - Five per sweep in alfalfa seed fields east of Weiser. (Portman, July 23). NEBRASKA - Epicauta spp. infestation spotted in soybeans in eastern area, but heavy feeding. Controls used. (Andersen). OKLAHOMA - Epicauta sp. very abundant in some alfalfa fields. (Fenton). TEXAS - Heavy spotted infestations on alfalfa in Austin County. (Murphy). ILLINOIS - Epicauta sp. defoliating soybeans in some fields. (Petty et al). LOUISIANA - Epicauta sp. averaging 150 per 100 sweeps on rice heads in Evangeline Parish. (Oliver)

BEAN LEAF BEETLE (Cerotoma trifurcata) - DELAWARE - Abundant on soybeans at Felton. (Milliron). NEBRASKA - Damaging soybeans in Thayer, Burt, and Hall Counties; light infestations. (Roselle).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - ARIZONA - Six to 10 per square foot in alfalfa in one area on Yuma Mesa. (Ariz. Coop. Rept.).

### FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - MASSACHUSETTS - Favorable weather for second brood. (Crop Pest Cont. Mess.). NEW YORK - Continues to emerge in Rockland County; a few fresh entries during week in Orleans County; second brood active in all but lake shore areas of Monroe County. (N. Y. Wkly. News Lett.). INDIANA - Peak flight July 11 and 17 and peak second brood larval activity passed in Vincennes area. (Hamilton). OHIO - First of second-brood entrances appearing in northern area. (Cutright). ILLINOIS - Many new entrances in the Belleville section of southern area. Third-brood moths expected by August 7. (Chandler). MISSOURI - Occasional new entries in southeast and moderate numbers of entries in west central area. (Wkly. Rpt. Fr. Grow.). OREGON - First-generation moths began emerging July 18 at Milton-Freewater. (Wallace).

EUROPEAN RED MITE (Metatetranychus ulmi) - PENNSYLVANIA - Severe infestation in 10-acre peach orchard in Huntingdon County. (Udine). OHIO - Heavy populations in many orchards but well controlled by good spraying. (Cutright). NEW YORK - Increasing in Rockland County; problem in some orchards in Westchester County; still heavy in Monroe County; and decreasing in Orleans County. (N. Y. Wkly. News Lett.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - OHIO - Light infestations. (Cutright). NEW YORK - Building up rapidly in Orleans County; increasing in many orchards in Monroe County; and beginning to appear in Wayne County. (N. Y. Wkly. News Lett.).

ORCHARD MITES - INDIANA - Under control in general in Vincennes and Orleans areas. (Hamilton, Marshall). MISSOURI - Mites in all areas examined and weather ideal for increases. (Wkly. Rept. Fr. Grow.). UTAH - Increased damage to apples and peaches in Weber, Davis, Box Elder and Cache Counties. (Davis). CALIFORNIA - Metatetranychus ulmi and Tetranychus telarius infestations on prunes in Napa County ranged up to 40 percent of leaves damaged. (Cal. Coop. Rept. July 23). OREGON - A rust mite (Vasates fockeui) causing localized damage to young cherry trees in parts of Willamette Valley. Has been common during 1954-55. (Roth).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - NEW YORK - Larvae becoming more abundant in Orleans County and eggs hatching in Wayne County. In serious numbers in some orchards in Monroe County. (N. Y. Wkly. News Lett.). PENNSYLVANIA - Depositing eggs for third generation on apples in Adams County. Peak expected about first week in August. (Asquith). OHIO - More severe than for several years. (Cutright). INDIANA - Adults in traps increased between July 15 and 22. Third brood expected by August 5 in Vincennes area. (Hamilton).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Peak July 18 in southern area with numbers still moderate on apples. (Chandler).

PEAR-SLUG (Caliroa cerasi) - IDAHO - Damage showing up in untreated pear and cherry orchards in southwestern area. (Walz, July 23).

APPLE MAGGOT (Rhagoletis pomonella) - OHIO - Heavy infestation in Japanese plum at Wooster. (Cutright).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Heavy infestation on grapes, cherry trees, apple trees, flowers and shade trees in Bedford County (Boone) and on grapes at Aspen, Charlotte County (Watts).

LESSER APPLEWORM (Grapholitha prunivora) - OREGON - First-generation adults began emerging July 21 at Milton-Freewater. (Wallace).

MAY BEETLES (Phyllophaga sp.) - VIRGINIA - Feeding on young apple trees in Washington County. (Sinclair, Rowell).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - Very light infestation found 10 miles northwest of Lakeport, Lake County. (Lyndall, June 15). Pear orchards in Potter Valley, Mendocino County, suffered reinfestation in July. (Cal. Coop. Rept., July 23).

PEACH TWIG BORER (Anarsia lineatella) - CALIFORNIA - Considerable damage to plums during early July in Tulare and Fresno Counties. (Cal. Coop. Rept. July 23).

PEACH TREE BORER (Sammnoidea exitiosa) - DELAWARE - Adults in flight at Newark and southward. (Milliron).

GRASSHOPPERS - OHIO - Very abundant in Wayne County orchards and requiring emergency sprays. (Rings).

UNSPOTTED TENTIFORM LEAF MINER (Callisto geminatella) - MISSOURI - Numerous reports of infestations in orchards from over State. (Wkly. Rept. Fr. Grow.).

MEALY PLUM APHID (Hyalopterus arundinis) - CALIFORNIA - Severe infestations in some prune orchards in Napa County. (Cal. Coop. Rept. July 23). WASHINGTON - Correction: OEIR 5(29):679, 1955, author should have been (Luce) instead of (Telford). (Johansen).

GRAPE PHYLLOXERA (Phylloxera vitifoliae) - MISSOURI - Galls exceptionally abundant on susceptible varieties over State. (Wkly. Rept. Fr. Grow.).

GRAPE BERRY MOTH (Polychrosis viteana) - PENNSYLVANIA - Moderate infestation on grapes in Erie County; as heavy or slightly heavier than in 1954 in commercial orchards. (Adams). First adults of second generation appearing cages in this county. (Cox).

FILBERTWORM (Melissopus latiferreanus) - OREGON - First adult emergence in Willamette Valley July 24. (Thompson).

PECAN BUD MOTH (Gretchena bolliana) - MISSISSIPPI - Damaging young pecan trees in Madison County. (Hutchins).

WALNUT HUSK FLY (Rhagoletis completa) - CALIFORNIA - First adult July 12 in new infestation in Sonoma County. (Cal. Coop. Rept. July 23).

A PECAN MITE (Eotetranychus hicoriae) - TEXAS - Light widespread infestations on pecan trees in Wharton County. (King).

YELLOW SCALE (Aonidiella citrina) - CALIFORNIA - Crawlers starting to move onto citrus fruits in untreated orchards in central area. (Cal. Coop. Rept. July 23).

#### Citrus Insect Conditions in Florida Third Week of July

PURPLE SCALE - Infestation declining; 92 percent of groves infested. No increase expected. FLORIDA RED SCALE - Increase in activity this week, with peak probably reached; 75 percent of groves infested. Increase in hatching expected in week or two. Activity highest in Indian River and Orlando districts. Few groves heavily infested, but number

of light infestations higher than usual. CITRUS RED MITE - Activity declined; 72 percent of groves infested. Highest activity in Ridge district. CITRUS RUST MITE - Increased activity and expected to increase further; 72 percent of groves infested. Highest activity in west coast, Indian River and Brooksville districts. (Pratt, Thompson, Johnson).

### TRUCK CROP INSECTS

BEEF LEAFHOPPER (Circulifer tenellus) - CALIFORNIA - Incidence of curly top damage in early tomato fields in several counties showed average of one percent infestation or less with highest range of 2.5 percent. (Cal. Coop. Rept. July 23). UTAH - Curly top count on canning tomatoes from Tremonton to Payson in 17 fields averaged 5.5 percent. More curly top is expected in districts adjacent to local leafhopper breeding grounds of northern area. (Dorst). COLORADO - Increased incidence of curly top of tomatoes in Otero County. (Colo. Exp. Sta.).

BEEF WEBWORM (Loxostege sticticalis) - WYOMING - Larvae damaging beets in Washakie County. (Lowry).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Increased feeding on tomato foliage in Dover area. Continues active on cabbage near Middletown. (Milliron). PENNSYLVANIA - Becoming very abundant on cabbage in Blair County. (Udine).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Continues prevalent on crucifers generally. Damaging cabbage and cauliflower seedbeds near Leipsic. (Milliron). IDAHO - Unusually large number of adults observed in Moscow area. (Manis). RHODE ISLAND - One to ten larvae per plant over State with severe injury common in all fields examined. (Kantack).

FLEA BEETLES - NEW YORK - Unusual numbers on eggplant and cabbage in Westchester County. (N. Y. Wkly. News Lett.). DELAWARE - A flea beetle (Phyllotreta cruciferae) heavy on crucifers in Kent and Sussex Counties. Completely destroying some plants near Dover. (Milliron).

POTATO LEAFHOPPER (Empoasca fabae) - MINNESOTA - Present in potato fields of northwestern area. (Minn. Ins. Rept. Serv.). PENNSYLVANIA - Moderate infestation on potatoes in Erie and Warren Counties. (Adams). VIRGINIA - Light to moderate injury to snap beans in eastern area. (Brubaker, Greenwood, Hofmaster). MARYLAND - Heavy infestation on snap and lima beans in most sections. (U. Md., Ent. Dept.).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Causing severe injury to small acreage of potatoes in Arkansas Valley. Expected to completely destroy crop. Tomatoes and late potatoes showing moderate and increasing numbers. (ARS).

POTATO FLEA BEETLE (Ebitrix cucumeris) - PENNSYLVANIA - From 10-15 per 30 sweeps on potatoes in Erie County. (Adams). MAINE - Summer generation adults began to emerge during week of July 30 in Aroostook County. Populations small. (Shands). RHODE ISLAND - From 5-30 adults per sweep in all fields examined in Allentown, Charlestown and Kingston. Light to moderate injury common in unsprayed fields. (Kantack).

POTATO APHID (Macrosiphum solanifolii) - RHODE ISLAND - Increase in some fields, from 5-25 per sweep in one field in Kingston area. Populations light throughout State. (Kantack).

MITES - OKLAHOMA - Tetranychus canadensis and T. schoenei heavily infesting tomatoes, beans, sweetpotatoes and okra throughout State. (Howell).

LEAF MINERS (Liriomyza spp.) - ARIZONA - Infestation has practically ruined one large potato planting in Cochise County. (Ariz. Coop. Rept.). PENNSYLVANIA - Quite abundant on potatoes and tomatoes in commercial fields in southeastern area. (Menusan).

HORNWORMS (Protoparce spp.) - NEW YORK - Unusual number on tomatoes in Westchester County; most outstanding insect in Monroe County. (N. Y. Wkly. News Lett.). DELAWARE - Still active on tomatoes at Hartly, Felton and other areas. (Milliron). MARYLAND - Survey of eight tobacco fields in Calvert County showed damage to 28 out of 800 plants examined. Few second-brood eggs present. (U. Md., Ent. Dept.). NORTH CAROLINA - Average of less than one egg and over 1.5 larvae per 25 tobacco plants in southeastern and north central counties. (Farrier). Second brood developing; about two larvae per 100 plants in fields examined. (Scott). MISSOURI - Light trap catches of adults continued high during week. (Kyd, Thomas).

APHIDS - MAINE - About 30 percent reduction on potatoes in Aroostook County. Counts now very low. (Shands).

COLORADO POTATO BEETLE (Lepinotarsa decemlineata) - IDAHO - Infestations rather common in untreated potatoes in south central area. (Douglass, July 28). OREGON - More abundant than ever before known in Malheur County. (Bond).

ELISTER BEETLES - OREGON - Elicauta spp. more abundant than usual in Morrow and Umatilla Counties. Some damage to gardens. (Wallace). WYOMING - Damaging potatoes in Lincoln County. (Larson).

TENNESSEE - Attacking tomatoes and potatoes in Knox County. (Stanley).  
DELAWARE - Epicauta sp. numerous on tomatoes near Felton (Milliron)  
and E. pestifera attacking tomatoes at Newark (Kelsey).

TARNISHED PLANT BUG (Lycus lineolaris) - PENNSYLVANIA - Adults  
abundant on potatoes and other vegetables in Adams and Franklin Counties.  
(Pepper). From 5-10 per 30 sweeps on potatoes in Erie and Warren  
Counties. (Adams).

TOMATO FRUITWORM (Heliothis armigera) - DELAWARE - Damage to  
tomato foliage light and somewhat heavier to fruits. (Milliron).

TOMATO RUSSET MITE (Vasates lycopersici) - DELAWARE - Part of  
a 10-acre field being damaged east of Hartly. (Milliron).

PICKLEWORM (Diaphania nitidalis) - VIRGINIA - Injury to cucumbers  
and considerable injury to some summer squash in eastern area.  
(Brubaker, Greenwood, Hofmaster).

GRANULATE CUTWORM (Feltia subterranea) - SOUTH CAROLINA -  
In many parts of Barnwell and Allendale Counties. Attacking watermelon  
rinds. (Nettles).

SQUASH BORER (Melittia cucurbitae) - WISCONSIN - Abundant. (Chambers).  
RHODE ISLAND - Damaging squash in Wickford area, where about 30 per-  
cent of plants killed in a one-fourth acre field. Light damage common in  
other areas. (Kantack).

SQUASH BUG (Anasa tristis) - WISCONSIN - Abundant in most southern  
counties. (Chambers). DELAWARE - Increasing on pumpkins east of  
Hartly. (Milliron). RHODE ISLAND - Very heavy populations in Wickford  
and East Greenwich areas. Moderate infestations in all other areas.  
(Kantack).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - DELAWARE -  
Large numbers of adults feeding on pumpkin flowers west of Dover.  
(Milliron). MARYLAND - Light infestation on cantaloups in Anne  
Arundel County. (U. Md., Ent. Dept.).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - IDAHO - Moths  
began to emerge from hibernation cages July 19 in south central area.  
(Douglass).

WIREWORMS - CALIFORNIA - Causing destruction of strawberry fields  
in Tehama County. (Cal. Coop. Rept. July 23).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Appearing on  
lima beans several places from Middletown southward. (Milliron).

MEXICAN BEAN BEETLE (Epilachna varivestis) - DELAWARE - Damage conspicuous generally, especially in smaller bean plantings. (Milliron). PENNSYLVANIA - Populations low on beans but increasing slowly in Blair County. (Udine). COLORADO - Populations developing to damaging numbers in green bean acreages. (Colo. Exp. Sta.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - DELAWARE - Infesting lima beans near Bridgeville. (Milliron). VIRGINIA - Light to moderate injury to snap beans in eastern area. (Brubaker, Greenwood, Hofmaster). WASHINGTON - Building up on raspberry plantings in Snohomish County. Eggs and young stages especially numerous. (Johanson).

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Caused some damage to tobacco in Surry County during recent cool spell. (Farrier). MARYLAND - Light infestation on tobacco in Calvert County. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Ebitrix hirtipennis) - VIRGINIA - Increasing on tobacco in the Chatham area of Pittsylvania County. (Dominick). NORTH CAROLINA - Increasing throughout flue-cured tobacco area. Many fields had one or more beetles per leaf. (Farrier).

ONION MAGGOT (Hylemya antiqua) - IDAHO - Starting second generation in onions in southwestern area. First time in many years infestations attacking onions this late in year. (Walz, July 23).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Damage to raspberry plants continues heavy. (Kantack).

ASIATIC GARDEN BEETLE (Autoserica castanea) - RHODE ISLAND - Large numbers attracted to lights. (Kantack).

EUROPEAN EARWIG (Forficula auricularia) - CALIFORNIA - Moderate damage to strawberries in parts of Alameda County. (Cal. Coop. Rept. July 23).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Increased greatly in southwest, south central, east central, north central, northeast and west central areas. (Gaines). Average of 29.6 percent punctured squares in 13 treated fields and 56.3 in 13 untreated fields in McLennan and Falls Counties. (Parenica et al). OKLAHOMA - Infestation remains fairly light. Some increase in Caddo, LeFlore and Tulsa Counties. (Stiles). ARKANSAS - Infestation increasing over State. Counts low, however, below 10 percent, in many fields. Of 2835 fields scouted, 82.7 percent had infestation, compared with 71.8 percent last week. (Warren, Turney).



LOUISIANA - Squares examined in 161 fields in Tallulah area showed all fields infested at rate of 22 percent, compared with 21 percent last week. (Gaines, Pfrimmer et al). Infestations by parish: Tensas 36 percent in 9 fields, Natchitoches 54 in 1, Morehouse mostly 25 percent or below in 229 fields but 26 fields had 26-50 percent, Franklin had 42 fields with 26-50 percent infestation and 12 fields over 50 percent of 136 infested, Ouachita had 28 percent in 9 fields, Richland had 3 fields with 26-50 percent infestation of 9 examined, Red River had 20 percent in two fields, Bossier had 36 in two fields, St. Landry had 32.5 in two, Avoyelles had 34 percent in three fields. (Oliver). MISSISSIPPI - Second-generation weevils have shown up in large numbers in some fields. (Hutchins, July 25). Average of 21.1 percent infested squares in Washington County. Infestations continue to rise despite control attempts. (Merkel, Furr et al). ALABAMA - Average infestation in three southeastern and two central counties was 23 percent in 41 fields. (Moore). GEORGIA - All fields (76) inspected in south and middle Georgia found infested. Average of 26.8 percent infestation in 5 untreated fields and 6.1 percent in 71 treated fields. (J. C. and C. R. Jordan). TENNESSEE - Second-generation weevils still emerging in southern counties of western area. Of 82 fields examined, 63 found infested at rate of 6 percent compared with 4.7 percent last week and 1.5 a year ago. (Locke). SOUTH CAROLINA - Average infestation in treated fields 13 percent and in untreated fields 47 percent for week ending July 22. (Nettles). Average of 49 percent square infestation in 50 treated fields in Darlington County, 39 percent in 7 treated fields in Florence County. Migration underway in Pee Dee area. (Walker et al). NORTH CAROLINA - Of 162 treated fields examined, 137 were infested and about half had over 10 percent infestation. Counties with high infestations were Martin, 87 percent; Greene, 30; Scotland, 50; and Wake, Wilson, Wayne and Johnson around 30 percent. All untreated fields infested, most with high percentages of punctures. (Jones).

BOLLWORMS (Heliopsis spp. et al) - CALIFORNIA - Some increase in San Joaquin Valley cotton. (Cal. Coop. Rept. July 22). ARIZONA - Damage general in Yuma area, one out of 6 large bolls damaged in one field. General increase in Maricopa, Pinal, Pima and Santa Cruz Counties (July 22). Still light in Cochise County. (Ariz. Coop. Rept.). NEW MEXICO - Becoming very numerous in cotton in Dona Ana County. Most fields with 5 to 6 percent infestation. Outbreak underway in Chaves County, as heavy as 1951 with weather favorable for continued build-up. General rains in most areas hampering control operations. (Durkin, Sikes, July 22). TEXAS - Increased greatly in north central, northeast, west central, west cross timbers and northwestern areas. (Gaines). Eggs and larvae in 27 fields in McLennan and Falls Counties averaged 11.5 and 5.4 per 100 terminals respectively. Boll injury 6 percent in 21 fields. (Parenica et al). Increasing in Lubbock area but damaging infestations not general. Controls warranted in some fields. (Davis, Owen). OKLAHOMA - No serious infestations reported. (Stiles). ARKANSAS - Increasing

most areas. Counts in east central counties run low, spotty in northeast, but elsewhere increasing, with several counts above 15 larvae per 100 terminals. (Warren, Turney). TENNESSEE - No noticeable increase in western area. (Locke). GEORGIA - Seventeen treated fields in south and middle Georgia areas had average of 2.6 eggs and 2.1 larvae per 100 terminals. Damaged squares averaged 3.6 percent in 5 untreated fields and .8 percent in 71 treated fields. (J. C. and C. R. Jordan). ALABAMA - Only occasional larva noted in southeastern and central counties. (Moore). LOUISIANA - Very heavy moth flights in Bossier, Natchitoches and Avoyelles Parishes. Most fields have light infestations but more damage expected. Up to 20 eggs per 100 terminals in Tensas Parish. Several fields in Morehouse, Ouachita, Richland and Franklin Parishes have up to 6 percent infestations. In Rapides, Avoyelles, St. Landry and Red River Parishes damage non-economic. (Oliver). Average of 2.3 eggs per 100 terminals in 106 fields and 1.5 larvae per 100 terminals in 44 fields in Tallulah area. (Gaines, Pfrimmer). MISSISSIPPI - Average of 3.9 eggs per 100 terminals in Stoneville area. (Merkel, Furr et al).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Increased in south central and central areas. (Gaines). Percent infestation in bolls: McLennan County 12 percent in 12 fields, Falls 12 percent in 16 fields, Robertson 10 percent in 4 fields. (Parenica et al).

LYGUS BUGS - CALIFORNIA - Increased in some cotton fields in San Joaquin Valley, some square damage. (Cal. Coop. Rept. July 23). ARIZONA - Lygus, mainly L. hesperus, average 10-29 per 100 sweeps in Maricopa County (July 22). High counts again this year in Buckeye area. General increase in Pinal and Pima Counties. (Ariz. Coop. Rept.). NEW MEXICO - Still light in cotton, 5-10 per 100 sweeps in Dona Ana and Chaves Counties. (Durkin, July 22). TEXAS - Increased in west central, northwest and north and south plains areas. (Gaines).

SPIDER MITES - CALIFORNIA - Very light in cotton fields in Imperial Valley. Decreasing in San Joaquin Valley. (Cal. Coop. Rept. July 23). NEW MEXICO - Remain light in Dona Ana County; light and spotty in Chaves County. (Durkin, July 22). TEXAS - Increased in southwest, upper coastal, south central, north central and northwestern areas. (Gaines). ARKANSAS - Infestations have increased, (Warren, Turney). GEORGIA - Heavy damage in Henry and Elbert Counties, but only very light infestations found in fields examined in middle and south Georgia Counties. (J. C. and C. R. Jordan). NORTH CAROLINA - Tetranychus tumidus causing severe damage in field in Rowan County. (Scott, Farrier).

FLEAHOPPERS - NEW MEXICO - Psallus seriatus in small numbers in cotton in Chaves County. (Durkin, July 22). TEXAS - Damage in north and south plains areas. (Gaines). TENNESSEE - Some damage in western area. (Locke).

LEAF ROLLERS - ARIZONA - Platynota stultana continued to cause damage to cotton in many fields in Maricopa County, July 22. (Ariz. Coop. Rept.)

CABBAGE LOOPERS - TEXAS - Light to medium damage in southwest, south central, west, and north and south plains areas. (Gaines).

APHIDS - ARIZONA - Heavy on 180 acres of cotton in Maricopa County. (Ariz. Coop. Rept.) TEXAS - Increased in upper coastal, central, northwest, and north and south plains areas. (Gaines). Most infestations light in Lubbock area. (Davis, Owen). LOUISIANA - Generally widespread but mostly very low counts. (Oliver). GEORGIA - Seventy-six fields examined in middle and south Georgia Counties, heavy infestation in 2, medium in 10, light in 12. (J. C. and C. R. Jordan). SOUTH CAROLINA - Light infestation most fields in Florence area. (Walker et al).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

ELM LEAF BEETLE (Galerucella xanthomelaena) - IDAHO - Larvae of first generation reaching maturity in south central area. (Douglass). CALIFORNIA - Severe injury to unsprayed elms in parts of Tuolumne County. Adults of first summer generation common by July 15 in central area. (Calif. Coop. Rept., July 23). INDIANA - Seriously attacking elms, primarily Chinese elms, throughout State. (Davis). VIRGINIA - Adults and larvae damaging elms in Franklin (Tucker) and Carroll Counties (Price, Rowell).

PALES WEEVIL (Hyllobius pales) - PENNSYLVANIA - Abundant in McKean County in stumps of Christmas trees cut last year. About 30 percent emerged with many adults still in stumps of red pine. (Adams).

ELM LEAF APHID (Myzocallis ulmifolii) - MARYLAND - Heavy infestation on elms, College Park, Prince Georges County. (U. Md., Ent. Dept.)

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - FLORIDA - Ten pupae and adults per slash pine tree in Nassau County. (Draper).

WALKINGSTICK (Diapheromera femorata) - WISCONSIN - Heavy infestation in Eau Claire, Shawano, Marathon and Marinette Counties. (Chambers).

WOOLLY ELM APHID (Eriosoma americanum) - WISCONSIN - Heavy infestation in Juneau County. (Chambers).

BAGWORMS - DELAWARE - Thyridopteryx ephemeraeformis causing heavy damage to sycamores north of Smyrna. (Milliron). INDIANA - More abundant than for several years. Major hosts junipers and arborvitae. (Davis).

A GALL INSECT (Callirytis operator) - WISCONSIN - Causing premature fall of red oak acorns in a considerable area of north central section. (Chambers).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Populations remain heavy throughout all areas with moderate to heavy damage on elms and maples. (Kantack).

LOCUST LEAF MINER (Chalepus dorsalis) - PENNSYLVANIA - Injury evident on all black locust even in mountain areas of Adams and Franklin Counties. (Pepper). RHODE ISLAND - Damaging black locusts in the Scituate area. (Mathewson).

A MITE (Oligonychus bicolor) - DELAWARE - Conspicuous damage to willow and pin oaks at Newark, St. George and elsewhere in New Castle County. (Milliron).

MIMOSA WEBWORM (Homadaula albizziae) - VIRGINIA - Damaging mimosas in Patrick, Campbell and Halifax Counties and honey locust in Halifax County (Rowell et al) and mimosas in Rappahannock County (Lyne).

NORWAY-MAPLE APHID (Periphyllus lyropictus) - IDAHO - Infestations increasing on maples in Twin Falls. (Douglass).

SADDLED PROMINENT (Heterocampa guttivitta) - WISCONSIN - Severe in 100-acre area of Door County. (Chambers).

SCALE INSECTS - MINNESOTA - Lecanium sp. crawlers present on all broadleaved trees and arborvitae in Hibbing and Virginia, and requiring control some places. (Minn. Ins. Rept. Serv.).

TWO-MARKED TREEHOPPER (Enchenopa binotata) - WISCONSIN - Quite common on bittersweet and other shrubs, (Chambers).

#### INSECTS AFFECTING MAN AND ANIMALS

HORN FLY (Siphona irritans) - NEBRASKA - High populations throughout the State. (Andersen).

HOUSE FLIES - OKLAHOMA - Populations in untreated barns average 20-50 per Scudder grid count. (Howell). ARIZONA - Mainly house flies in two towns in southeastern Maricopa and northwest Pinal Counties-- average of five highest grill counts: June 13-17, 35.8; June 20-24, 68.2; June 27-July 1, 52.0; July 7-11, 66.6; July 14-18, 23.2. (Ariz. Coop. Rept.). COLORADO - Excessive fly breeding around commercial sites, especially around fertilizer plants handling waste from packing plants. (Ext. Ser.).

MOSQUITOES - CALIFORNIA - Culex tarsalis has not approached level of 1954. Some increases in Central Valley and southern areas. Only one-fourth of mosquito control agencies in these two areas show a higher adult C. tarsalis index than for 1954 at this point. Aedes nigromaculis predominates in most agricultural areas while C. stigmatosoma and C. quinquefasciatus are abundant in relatively few areas. (Cal. Coop. Rept. July 23). UTAH - Very annoying in area of Summit County. (Knowlton).

SCREW-WORM (Callitroga hominivorax) - TEXAS - Much heavier than normal over entire State. (Stanley, Davis). LOUISIANA - Several cases in dogs in East Baton Rouge and West Feliciana Parishes. (Oliver).

STABLE FLY (Stomoxys calcitrans) - OKLAHOMA - Average 5-50 per unprotected animal. (Howell). NEBRASKA - Rapid increase in populations in past ten days. Causing considerable annoyance in most areas of State. (Andersen).

TABANIDS - UTAH - Deer flies annoying at Oakley and Kamas. (Knowlton)

BLOODSUCKING CONENOSE (Triatoma sanguisuga) - OKLAHOMA - Reported to have bitten three people in Stillwater. (Flora). TEXAS - Reported in considerable numbers from Hays, Liveoak and Guadalupe Counties. (Garner).

EAR TICK (Otobius megnini) - OKLAHOMA - From 50-100 ticks per ear common in sheep in central area. (Howell).

FLEAS - GEORGIA - Unusually prevalent, especially on dogs and around premises. (Snapp). TENNESSEE - Still a problem about households in Knoxville. (Stanley). RHODE ISLAND - Becoming troublesome in some homes. (Mathewson).

STICKTIGHT FLEA (Echidnophaga gallinacea) - NORTH CAROLINA - Severe infestation in pullets in Rowan County. (Jones).

### BENEFICIAL INSECTS

A BIG-EYED BUG (probably Geocoris pallens) - CALIFORNIA - Increasing in some alfalfa and cotton fields in San Joaquin Valley but not in sufficient numbers to control yellow clover aphid. (Cal. Coop. Rept. July 23).

LADY BEETLES - RHODE ISLAND - Very abundant in alfalfa, potatoes and small gardens throughout the State. (Kantack). CALIFORNIA - Building up on cotton and alfalfa, but not in sufficient numbers to control yellow clover aphid in San Joaquin Valley. (Cal. Coop. Rept. July 23).

WHEEL BUG (Arilus cristatus) - MISSOURI - Very numerous around lights and in fields. (Kyd, Thomas).

SYRPHID FLIES - IDAHO - Populations appearing in Moscow area. (Manis).

#### STORED PRODUCTS INSECTS

HIDE BEETLE (Dermestes maculatus) - VIRGINIA - Damaging home-cured hams in Montgomery County. (Rowell, Morris).

#### MISCELLANEOUS INSECTS

CICADA KILLER (Sphecius speciosus) - INDIANA - Many reports, especially in central and northern areas. (Davis).

ELM LEAF BEETLE (Galerucella xanthomalaena) - PENNSYLVANIA - Adults causing annoyance in homes in many areas. (Pepper).

EUROPEAN EARWIG (Forficula auricularia) - RHODE ISLAND - Heavy populations throughout the State, causing annoyance in homes. (Kantack).

#### ADDITIONAL NOTES

NEW YORK - CORN EARWORM showing up in unusual abundance for time of year in Hudson Valley. EUROPEAN CORN BORER - From three to 11 percent of plants in early green tassel or later carried large larvae as well as pupae from first generation. FALL ARMYWORM appearing in Hudson Valley, July 28. (N. Y. Wkly. News Lett.).

INDIANA - GRASSHOPPERS common but not serious, except in few isolated cases, in northern half of State. Unusual number of reports of PEAR-SLUG on pear and cherry. BRONZE BIRCH BORER responsible for killing many specimen birches throughout State. (Davis).

WEATHER BUREAU'S 30-DAY OUTLOOK

August 1955

The Weather Bureau's 30-day outlook for August calls for temperatures to average above seasonal normals over most of the northern two-thirds of the nation except for near normal in the Pacific Northwest and in northern New England. Greatest departures are expected over the Central and Northern Plains. Below normal temperatures are predicted for the Gulf States and Southeast. Unspecified areas are expected to average near normal.

Precipitation is forecast to exceed normal along the Gulf Coast and over the southeastern quarter of the nation, as well as in the Western Inter-mountain Region and Pacific Northwest. Subnormal amounts are anticipated over the Central and Northern Plains, the Great Lakes Region and the Northeast.

This report released by the Weather Bureau on August 2, 1955.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price: \$4.80 a year, \$2.40 for six months.

WEATHER FOR THE WEEK ENDING AUGUST 1, 1955

Last week's temperature pattern, characteristic of nearly every week this year, showed above and below normal departures east and west of the Continental Divide respectively. The relatively hottest weather of the week was centered over Iowa and parts of seven surrounding states. After a 99° reading at Des Moines, Iowa, on the 26th, the mercury reached or topped the century mark each remaining day of the week, with a high of 105° on the last day of July, and a weekly average temperature of 12° above normal. On the same day Omaha, Nebraska, reported 108°, and a high of 108° was recorded in South Dakota on July 30, and 102° in Minnesota on July 28. While high temperatures in the East during July, 1955, have been well below former records, their persistency above normal has resulted in one of the hottest July's on record. Minneapolis, Minnesota, reported the warmest July since 1936, and 17 days with 90° or above tied the record set that year for such days. Harrisburg, Pennsylvania, reported the highest average July temperature on record, 80.4°, and 21 days with 90° or above, which was also a new all-time record.

Showers and thunderstorms produced variable amounts of rain in virtually all sections of the Country, except in large portions of California and Nevada. The largest area receiving one-half inch or more was south and east of a line extending from Corpus Christi, Texas, to Raleigh, North Carolina. The second largest area included most of Minnesota

(Continued on p. 757)

## RECENT INTERCEPTIONS AT PORTS OF ENTRY

Interceptions of larvae of the Mexican fruit fly (Anastrepha ludens) during recent months in fresh fruits from Mexico at various ports show the customary seasonal increase. Recent reports included interceptions on fruit in the following States: Texas, in oranges, mangoes, sweet limes, white sapote, grapefruit; California, in mangoes; Alabama, in oranges; and Arizona in mangoes and sweet limes. In a total of 77 interceptions reported involving 329 fruit, 568 larvae were found. Most heavily infested lot was one consisting of 30 sweet limes found to contain 103 larvae intercepted at Brownsville, Texas.

The Mexican fruit fly has been reported a serious pest of citrus and mango in northeastern Mexico where it is considered native with its original wild host plant believed to be Sargentia greggii, the so-called yellow chapote. Reported as a pest in the State of Morelos as early as 1898, it now occurs throughout most of Mexico spreading in more recent years to the western part of the country. (Sinoloa - 1933, Tijuana, Jan. 22, 1954). (See map on next page.) It is also said to occur in Costa Rica and Guatemala.

In certain years when it builds up tremendous populations on its native hosts in Mexico, it ranges northward into the Rio Grande valley of Texas. In California a single adult of A. ludens was trapped at San Ysidro in August 1954. As far as known, no additional specimens have been taken since.

Besides mango and various citrus fruits (except lemons and sour limes), it attacks a number of other fruits, including yellow chapote, white sapote, rose apple, guava, pomegranate, pear, apple, quince, annonas, mammees, peaches and avocados.

Observations on the life history of the insect in Mexico indicate that mating occurs in 11-25 days after emergence. Oviposition begins in a few days. One female may deposit as many as 400 eggs in punctures in the skin of the fruit during an egg-laying period of several months. Larvae, on hatching, burrow in the flesh of the fruit. Larval development is completed in 18-35 days and pupation occurs in the soil, requiring 20-30 days. There are 3 generations a year with a complete life cycle averaging 3 months. Some adults live 11-14 months in laboratory tests. (Compiled - Plant Quarantine Branch)



# MEXICAN FRUITFLY CONTROL 1955



(1) The citrus industry of Texas has not completely recovered from the disastrous freeze in 1951. Production for 1953-54 was between 2 and 3 million boxes with steady increases predicted as the industry makes a "comeback."



LIGHT TRAP COLLECTIONS

	Pseudal. unipum.	Laphyg. Agrotis firu gip. ypsilon	Perid. marg.	Feltia subter.	Heliethis armig. vires. sexta	Protoparce quin.
TEXAS						
Waco	7/23-29	4		20	187	
LOUISIANA						
Tallah* B. Rouge* Franklin Curtis	7/22-28 7/23-29 7/22-27 7/20-26	166 78 2 48	24 158 2 2	26 4 3 3	192 151 3 31	677 37 4 643
MISSISSIPPI (Counties)						
Coahoma Humphreys Oktibbeha Pearl River Washington*	7/23-29	94 18 102 10 1035	26 14 11 3 133	24 17 6 3 274	336 31 80 7 865	18 52 spp.
GEORGIA (Counties)						
Tift Spalding Clarke	7/17-23 7/16-22 7/15-21	14 11 3	7 7	32sp. 69 35	579 143 sp. 9	24 2 1
SOUTH CAROLINA (Counties)						
Oconee Charleston	7/24-30 7/26-8/1	12 1	1 5	1 10	7 sp. 135	12 2

-755-

\* Three traps at Tallulah; two at Baton Rouge; two in Washington County. Light Traps continued on next page.

LIGHT TRAP COLLECTIONS

	Pseudal. unipun.	Laphyg. Agrotis Perid. frugip. ypsilon marg.	Feltia subter.	Heliothis armig. vires.	Protoparce sexta quin.
<b>TENNESSEE (Counties)</b>					
Madison	4				12
Laurence					16
Maury	24				32
Povertson	24	4		4	72
Cumberland	12	8	4		52
Knox	312	32		64	44
Greene	4			8	29
					52
					1
					28

ALABAMA Auburn 7/24-30 2 14

NORTH CAROLINA Duplin 7/23-29

VIRGINIA (Counties) Pittsylvania 7/17-23

76 3 3 762 1956

and Wisconsin. Very beneficial rains of 1 to over 2 inches also occurred in northwest Texas and southern portions of Arizona and New Mexico. The year's second tropical storm, moving in from the Gulf and accompanied by heavy rain, was located over central Louisiana August 1. In many sections east of the Rockies persistent heat and subnormal rainfall during July have created an urgent need for rain, although no serious crop damage has yet been reported, except locally.

Heavy thunderstorms produced several flash floods in the far West. Damage from these floods occurred in Bingham, Utah, on the 26th, and in Las Vegas, Nevada, on the 24th. On the 23d hail, high winds, and heavy rain in the vicinities of Coulee City, Hartline, Wilbur, and Harrington, Washington, damaged buildings, caused serious erosion, damaged or destroyed over 4,000 acres of wheat, and drowned 39 head of sheep.

(Summary Supplied by U. S. Weather Bureau).









VOL. 5 No. 32

AUGUST 12, 1955

S13  
823  
C77  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

**CORN EARWORM** seriously damaged all of early sweet corn in Wisconsin and threatening considerable damage to late sweet corn. Infesting field corn generally in Delaware and infesting 100 percent of untreated sweet corn in New Jersey. Of major concern in eastern Colorado and causing severe damage to early and late corn in several counties in New Mexico. General infestation in heads of grain sorghum in Oklahoma, Arkansas and Texas. (p. 762). More abundant in Hudson Valley, New York, than in any year since 1949. (p. 804).

**EUROPEAN CORN BORER** moth flight unusually heavy in Illinois and expected to increase with peak of egg-laying August 10-15. Damage may far exceed anything yet experienced in State. Substantial build-up in populations in Wisconsin. Early fields with severe injury, some running more than 100 borers per 100 stalks. (p. 762). Moths have been flying for 30 days in Iowa. Second brood expected to be general in corn of practically all stages. (p. 804).

**CORN LEAF APHID** causing considerable damage to corn in Delaware in several areas and abundant and causing damage in Howard County, Maryland. Abundant on sweet corn in southern Wisconsin and extremely abundant on corn grown in the shade in Tennessee. Heavy populations on sorghum and milo in east central Nebraska and in several areas of Texas and Oklahoma. (p. 763).

**CORN ROOTWORMS** serious at Dewey, Arizona and numerous in Otero County, Colorado. Causing damage to corn in Watonwan County, Minnesota, and very abundant in bottom-land corn near Clarksville, Tennessee. Increase expected in Tidewater area of Virginia. (p. 764).

**BLISTER BEETLES** severe in alfalfa in central area of South Dakota, and in northern Oklahoma, and injuring forage, soybeans and other crops in Pennsylvania and Missouri. (p. 764).

**YELLOW CLOVER APHID** damage increasing in Iron, Millard and Beaver Counties in Utah. In Kansas, damaging some alfalfa in Wilson County, and increasing in southwestern area. (p. 765).

**GRASSHOPPERS** causing heavy damage to several crops and pastures in Missouri and continue heavy in several areas of Minnesota. Causing severe, local damage in Colorado. Large numbers of second generation in many fields of Nebraska. Several hundred per square yard in corn, grain and legumes, and causing considerable damage in southern tier of counties in Wisconsin. Damaging alfalfa and other crops in Santa Fe County, New Mexico. (p. 761).

BOLL WEEVIL increased considerably in most cotton growing areas. Heavy infestations in several Texas areas. Up to 38 percent punctured squares in several Louisiana parishes. Building up in southern Tennessee counties. Infestations averaged 32.6 percent in Mississippi fields, 23 percent in western Alabama, and from 57 to 97 percent average square infestations in three counties of South Carolina. Some high counts also in North Carolina and Virginia and increasing in Arkansas and Oklahoma. Rank cotton growth in most areas causing difficulty in obtaining satisfactory control. (p. 774).

BOLLWORMS heavy in succulent cotton in all of Texas. Heaviest outbreak in Bryan County, Oklahoma, since 1950. Heavy in Chaves County, New Mexico, and a few damaging infestations in Dona Ana County. Some damage in Stoneville area of Mississippi. PINK BOLLWORM increasing in several Texas areas. (p. 775).

MEXICAN BEAN BEETLE causing serious damage near Madison, Wisconsin, to beans and home gardens and severe injury to untreated gardens in western Nebraska and in several counties of Utah. (p. 770). SPIDER MITES increasing on truck crops in New Jersey and injurious to lima beans in Delaware. (p. 770).

BACWORMS causing serious damage to many trees in Pennsylvania, Delaware, Virginia, Ohio and Tennessee. (p. 773). RED-HEADED PINE SAWFLY infestations heavy and causing damage in Texas, Arkansas, Mississippi, and Pennsylvania. (p. 777).

WEATHER summary. (p. 805).

STATES reporting this week - 40.

\*\*\*\*\*

Reports in this issue are for the week ending August 5, 1955, unless otherwise designated.

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - WASHINGTON - Spraying July 23-30 on 50,000 acres in Whitman County reduced populations of 90 percent Melanoplus mexicanus from 25-100 per square yard to less than one per square yard. (Busdicker). NEW MEXICO - Causing damage to alfalfa and other crops on approximately 8000 acres in Santa Fe County. Spray operations on 89,000 acres in the Hayden area of Union and Harding Counties completed July 29. (Fulkerson). COLORADO - Severe damage in local areas. Spotted infestations in Kiowa, Prowers, Las Animas, Bent, Baca and Boulder Counties. (Ext. Ser.). ILLINOIS - Considerable numbers in many localities, mostly concentrated in borders of fields but moving into first few rows of corn and soybeans. (Decker). MISSOURI - Melanoplus spp. causing heavy damage in west central, northwest and extreme north-east areas to corn, soybeans, alfalfa, red clover and pastures. Decreasing in central and south central areas due largely to diseases and parasites. Recent hot, humid weather increased fungus and bacterial diseases over southern two-thirds of State. (Kyd, Thomas). KANSAS - Populations lower than expected in Miami, Linn, Crawford, Douglas and Franklin Counties. Counts ranged from 1-9 adults per square yard in fields of alfalfa, corn, milo and soybeans. Counts in roadsides and margins from 8-26 per square yard with M. differentialis predominating. Most alfalfa had 3-15 second and third instar nymphs of M. mexicanus. Light to severe infestations in Johnson County with heavy populations in a few fields of corn and alfalfa. Light to threatening infestation of M. differentialis in fields in south central area. Local, economic infestations of Schistocerca lineata in Riley and Dickinson Counties. (Lawson). NEBRASKA - All crop species are mating and laying eggs. Second generation of M. mexicanus and likely M. femur-rubrum in large numbers in many pastures, legume and corn fields. (Roselle). MINNESOTA - Heavy infestations continue throughout the State. Infestations in southwestern area in margins. Populations moving into soybeans from cut alfalfa. Mostly third and fourth instar M. bivittatus and M. femur-rubrum. Heavy infestations in orchard cover crops in southeastern area; threatening new trees. Average between 10 and 20 per square yard in alfalfa in northwestern area. Up to 25 percent of alfalfa in some fields already destroyed. (Minn. Ins. Rept. Serv.).

SOUTH DAKOTA - Predominantly M. bivittatus and M. differentialis feeding on corn in some fields of central region. Damage limited to first few marginal rows. M. femur-rubrum about four per square yard in alfalfa fields in Beadle County. (Hantsbarger). WISCONSIN - M. femur-rubrum hatching and moving out of hay fields into second crop hay, new seedings, grain fields and corn, where they are causing considerable damage in southern area. Several hundred per square yard common in fields in southern tier of counties extending from Grant to Kenosha. Threatening injury to corn, soybeans, tobacco, sugar beets and clover grown for seed. (Chambers). DELAWARE - M. femur-rubrum and M. differentialis injuring soybeans south of Cheswold. (Milliron).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NORTH DAKOTA - Infestations range from 20-80 percent in Traill, Cass, Richland and eastern Ransom Counties. Pupation first generation averages 10 percent in southeastern area with 75-90 borers per 100 stalks. Second to fifth instars present, indicating long egg-laying period. (N. D. Ins. Rept. Ser.). SOUTH DAKOTA - Averaging 15.4 percent infestation in central and eastern counties with an average of 37.1 borers per 100 plants. Fifth instar is 66.7 percent of populations. (Hantsbarger). MINNESOTA - Moth emergence relatively low but expected to increase in next 10 days. Egg masses on field corn light, averaging 8 per 100 in south central, 2 in southwestern, and one in both central and west central districts. Counts up to 80 per 100 plants reported on sweet corn in south central district. From 25-40 percent of sweet corn infested in Polk and Pennington Counties in Red River Valley. (Minn. Ins. Rept. Serv.). NEBRASKA - Adult activity has been light past week; pupation progressing rapidly; egg-laying expected week of August 8. (Andersen, Roselle). WISCONSIN - Attracting more attention than usual this summer. Substantial build-up in population. Early fields with severe injury, some running more than 100 borers per 100 stalks. Second brood just beginning to hatch. (Chambers). ILLINOIS - Pupation of first generation ranges from 48 to 96 percent. Moth flight unusually heavy and expected to increase during week, with peak of egg-laying expected about August 10-15. Prolonged egg-laying period expected--extending into September. Extensive damage by second generation expected, with egg masses now 50-100 and up to 500 per 100 plants in some fields with more to come. Damage may exceed anything yet experienced in State. Egg counts highest in Woodford, Livingston, Ford and adjacent counties. (Decker). KANSAS - Second brood larvae in corn in Kansas River Valley in Douglas County. Infestations 4-16 percent. (Matthew). NEW JERSEY - Infestation generally very low. (Merrill). IOWA - See additional notes, page

CORN EARWORM (Heliothis armigera) - DELAWARE - Heavy in sweet corn at Harrington and continues to infest ears of field corn generally. (Milliron). MASSACHUSETTS - Infestation expected to be more serious than usual in late corn. (Crop Pest Cont. Mess.). NEW JERSEY - Untreated fields of sweet corn 100 percent infested with some infestation in whorls of young plants. (Merrill). VIRGINIA - Almost 100 percent infestation in Buckingham and Northumberland Counties (Morris) and damaging corn in Goochland County. (Truett). NORTH CAROLINA - Average egg counts on 25 silks: Faison, 98.7; Clayton, 26.8. (Townes). WISCONSIN - Seriously damaged all of early sweet corn and threatening to cause considerable damage to field and late sweet corn. (Chambers). LOUISIANA - Larvae averaged 21 per 100 sweeps in alfalfa in Bossier Parish. (Oliver). ARKANSAS - In complex with sorghum webworm on grain sorghum in many counties. (Warren, Turney). TEXAS - Heavy, widespread infestations in milo heads in Tom Green County (Morgan) and local, spotted, heavy infestations from 2-6 per head of grain sorghum in Lamar County (Pearce). Heavy widespread infestations in whorls of

grain sorghums in Schleicher County, up to seven larvae per stalk (Godwin). OKLAHOMA - General infestation on heads of grain sorghum over the State. (Stiles). COLORADO - Of major concern to corn growers eastern area. (Colo. Exp. Sta., Ext. Ser.). UTAH - Causing severe local damage exceeding 50 percent in some Logan and Providence corn fields. (Davis). NEW MEXICO - Very abundant and causing severe damage to early and late corn in Torrance, Quay and Curry Counties. (Durkin). ARIZONA - Infesting 50 percent of ears in Gilbert area. (Ariz. Coop. Rept.).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - CONNECTICUT - Heavy damage to late plantings of sweet corn, killing plants 4-6 inches tall and infesting late-planted snap beans in the Mt. Carmel area. (Quinton). VIRGINIA - Infestations general in peanuts over the peanut-growing areas of the State. Last brood expected to cause heavy damage if hot dry weather persists. (Davich). ARIZONA - Infesting about 10 percent of sorghum plants in 840 acres north of Chandler. (Ariz. Coop. Rept.).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - VIRGINIA - More numerous than usual in sweet corn in the truck crop area of the State. (Hofmaster).

FALL ARMYWORM (Laphygma frugiperda) - DELAWARE - Severe injury to corn at Little Creek and attacking late corn from Mr. Pleasant southward. (Milliron). VIRGINIA - Damaging late field corn in some parts of State. Average four percent infestation in three fields Southampton County (Morris) and damaging corn in Goochland County (Truett).

SORGHUM WEBWORM (Celama sorghiella) - OKLAHOMA - General infestation over State on grain sorghum heads. (Stiles). ARKANSAS - In complex with corn earworm in grain sorghums in many counties. (Warren, Turney).

CORN LEAF APHID (Rhopalosiphum maidis) - DELAWARE - Abundant on field corn several areas. Considerable damage occurring. (Milliron). MARYLAND - Abundant on tassels and upper leaves of corn in Howard County with damage on about 7 percent of plants. (U. Md., Ent. Dept.). WISCONSIN - Very abundant on early sweet corn in southern area. (Chambers). TENNESSEE - Extremely abundant on corn growing in shade. Infestation not general in Clarksville area. (Scott). NEBRASKA - Heavy populations continue in sorghum and milo in east central area. All milo plants show heavy population. Light infestations on corn in Hall and Hamilton Counties. (Andersen). OKLAHOMA - Infestations in grain sorghum throughout southwestern counties. (Flora). TEXAS - Light, local infestations on grain sorghums in Collin County (Dahlberg) and heavy, widespread infestations on grain sorghums in Clay County (Lewis). NEW MEXICO - Very heavy on 40 acres of broom corn in Quay County. (Durkin). UTAH - Still damaging some barley in some higher valleys. (Knowlton).

CORN ROOTWORMS (Diabrotica spp.) - ARIZONA - D. undecimpunctata \* larvae serious on corn roots, 45 acres at Dewey July 18. First time reported on corn roots in recent years. (Ariz. Coop. Rept.). COLORADO - D. virgifera adults in considerable numbers in Otero County. (Colo. Exp. Sta.). MINNESOTA - D. longicornis causing damage to corn in east Watonwan County. Now mostly adults. (Minn. Ins. Rept. Serv.). TENNESSEE - Very abundant on riverbottom corn in Clarksville area. (Scott). VIRGINIA - D. undecimpunctata howardi adults in large numbers in Tidewater area. Increase expected in number attacking peanuts. (Davich).

CORN SAP BEETLES - VIRGINIA - Very heavy on corn in eastern and southeastern areas. (Hofmaster). DELAWARE - Carpophilus lugubris increasing on all corn throughout central area southern Delaware. (Milliron). WISCONSIN - C. dimidiatus more abundant than usual on sweet corn injured by corn earworm. (Chambers).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Destroying silks of corn at Harrington. (Milliron).

MITES ON CORN - COLORADO - Severe damage to corn in eastern area. Control operations underway. (Ext. Ser.). UTAH - Damaging corn in parts of Sanpete and Salt Lake, grass in Washington, and beans in Davis and Weber Counties. (Knowlton, Grimshaw). ARIZONA - Very abundant infestation in Gilbert area. (Ariz. Coop. Rept.).

ALFALFA WEEVIL (Hypera postica) - IDAHO - Heavy damage on second growth of alfalfa subsiding in southeastern area. Larvae pupating. (Portman, July 30). VIRGINIA - Infestation 20 per 100 sweeps in alfalfa in King William County. (Morris).

BLISTER BEETLES - DELAWARE - Epicauta sp. feeding on alfalfa at Cedar Creek. (Milliron). WISCONSIN - E. pennsylvanica injuring soybean fields and some second crop clover fields. Very abundant in home gardens. (Chambers). SOUTH DAKOTA - Quite numerous in alfalfa in central region. Counts up to 4.2 beetles per sweep in some fields. (Hantsbarger). NEBRASKA - Epicauta spp. infestation in soybeans continues light, ranging from 4-8 per 25 sweeps in the southeast to 6-8 per 25 sweeps in the Grand Island area. (Andersen). MISSOURI - Widespread but spotted damage to alfalfa, soybeans and gardens. Heavy damage confined to small spots of individual fields. (Oliver). OKLAHOMA - Medium infestation in alfalfa in northern area. (Stiles).

PALE STRIPED FLEA BEETLE (Systema blanda) - DELAWARE - Abundant in alfalfa south of Mt. Pleasant. (Milliron). SOUTH DAKOTA - Eight adults per sweep in one alfalfa field in Hyde County. (Hantsbarger).

\* D. undecimpunctata undecimpunctata



ALFALFA CATERPILLAR (Colias philodice eurytheme) - NEBRASKA - Average of 8 larvae per 25 sweeps in alfalfa. (Andersen). ARIZONA - With a few corn earworms and beet armyworms, larvae occur on alfalfa 98 per 100 sweeps in 160 acres in Gilbert area. (Ariz. Coop. Rept.).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Moderately abundant in alfalfa from Mt. Pleasant southward. In soybeans throughout the State. (Milliron). NEW JERSEY - Damage to soybeans in southern area. (Merrill). RHODE ISLAND - From 5-15 per sweep in experimental alfalfa plantings in Kingston and 1-10 larvae per sweep in 20 acres of alfalfa in Wickford area. Light damage common. (Kantack). VIRGINIA - Populations in a King William County field were 40 per 100 sweeps (Morris) and more numerous on soybeans in southeastern area and in the Eastern Shore region than usual (Hofmaster). ILLINOIS - Moderate numbers in alfalfa and soybeans. (Decker).

GARDEN WEBWORM (Loxostege similalis) - MISSOURI - Damage to alfalfa continues over much of State. Primarily adults central area. (Kyd, Thomas). KANSAS - Larvae in alfalfa in Johnson, Miami, Linn, Bourbon, Crawford, Franklin and Douglas Counties ranged from 2-18 per sweep of a 15-inch net. Counts of webbed terminals from 15-60 percent. (Matthew). NEBRASKA - Light infestation in Grand Island area from 4-5 per 25 sweeps in alfalfa. (Andersen).

ARMYWORM (Pseudaletia unipuncta) - COLORADO - Spotted populations requiring control in alfalfa, beans and small grains in Larimer and Weld Counties. (Ext. Ser.).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - UTAH - Damaging alfalfa, beans and tomatoes in Cache County. (Davis, Lieberman, Knowlton).

BEEF ARMYWORM (Laphygma exigua) - ARIZONA - Damaging alfalfa in Yuma Valley July 28, 2-4 per sweep. (Ariz. Coop. Rept.).

PEA APHID (Macrosiphum pisi) - IDAHO - Building up rapidly in some red clover and alfalfa seed fields. In a few fields populations up to 500 per sweep. (Douglass, Walz, July 30). UTAH - Causing moderate damage to alfalfa in some fields in Iron, Washington, Wayne and Sevier Counties. (Knowlton). NEW MEXICO - Very abundant in alfalfa in Torrance, Santa Fe and Colfax Counties. (Durkin, July 30)

YELLOW CLOVER APHID (Myzocallis trifolii) - IDAHO - Light to moderate infestations in commercial red clover seed fields in Latah County. (Manis). UTAH - Damage increasing in Iron, Millard and Beaver Counties, where control operations underway. Several thousand acres sprayed in both Millard and Iron County, and over a thousand sprayed in

Beaver County. Taken for first time in Wayne and Summit Counties. (Knowlton, Knight, Richenbach).

NEW MEXICO - Increasing in alfalfa in Dona Ana and Sierra Counties. No damage. Some alfalfa fields show severe damage to lower leaves in Torrance County with no aphids present. (Durkin). OKLAHOMA - Light infestation over much of State. Decreased materially. (Stiles). KANSAS - Causing damage to alfalfa in some fields near Fredonia, Wilson County. Increasing in some areas of southwestern region. (DePew). Populations range from 5-350 per sweep with higher counts in a few fields. (Matthew).

LEAFHOPPERS - SOUTH DAKOTA - Counts up to 8 per sweep in alfalfa in some areas. (Hantsbarger).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Usual numbers on alfalfa generally; no damage. (Milliron). MARYLAND - Average 2-6 per sweep in alfalfa fields in Carroll County; damage light. (U. Md., Ent. Dept.). VIRGINIA - Extremely heavy on local alfalfa fields in Amherst and King William County, up to 100 per sweep in the latter (Morris) and causing damage to some alfalfa in Norfolk and Princess Anne Counties (Rowell) and to untreated peanuts in the Tidewater area (Davich). NORTH CAROLINA - Becoming more widespread and severe in eastern counties on peanuts. (Dogger). MINNESOTA - Populations running 15-30 per sweep in some Red River Valley fields. (Minn. Ins. Rept. Serv.). NEBRASKA - Populations in alfalfa reduced in Grand Island and south-eastern area of State. Average 5 per 25 sweeps. (Andersen).

STINK BUGS (Chlorochroa spp.) - NEW MEXICO - C. sayi and C. ligata from 13-20 per 100 sweeps in seed alfalfa in Quay County and on small grains, cotton and beans in Torrance, Quay, Curry and Roosevelt Counties. (Durkin). TEXAS - Heavy widespread infestation of C. ligata on grain sorghums in Menard County. (Morgan).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - DELAWARE - Numerous in blooming alfalfa near Odessa. (Milliron).

LYGUS BUGS - UTAH - Moderate to severe infestations on alfalfa in most areas. (Knowlton). MARYLAND - Lygus lineolaris in moderate numbers on alfalfa and tomatoes. (U. Md., Ent. Dept.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Range from 135 per 100 sweeps in alfalfa in Bossier Parish to 191 per 100 sweeps in Red River Parish and 209 in Rapides Parish. (Oliver). ARKANSAS - Damage ranges from light to severe in alfalfa in eastern area and into central counties along Arkansas River. Up to 125 adults per 20 sweeps of a 12-inch net. Many nymphs present in fields not cut recently. (Warren, Turney). ARIZONA - Infestations 3 per 100 sweeps on alfalfa in Gilbert area. (Ariz. Coop. Rept.).

A NITIDULID (Meligethes nigrescens) - OREGON - Infesting about 20 percent of heads of red clover following migration into field July 28. (Dickason, Stephenson).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - IDAHO - Considerable damage in Idaho Falls where sweetclover has been seeded with grain as companion crop. Damage during second year held growth to a minimum. (Portman, July 30).

ENGLISH GRAIN APHID (Macrosiphum granarium) - IDAHO - Heaviest infestation in Bonneville, Jefferson and Franklin Counties. Populations in barley more than 100 per plant. (Portman, July 30). WASHINGTON - In complex with Rhopalosiphum fitchii, populations up to 100 per plant on leaves of barley in a field near Fairfield. (Toko).

HESSIAN FLY (Phytophaga destructor) - NEW JERSEY - Much worse this year than in 1953-54. Average 12 percent infestation compared with 7 percent in 1954. (Merrill). PENNSYLVANIA - General on wheat. No supplemental generation. (Gesell).

FIELD CRICKET (Acheta assimilis) - WISCONSIN - Abundant in hay and grain fields in southern area. (Chambers).

RICE STINK BUG (Solubea pugnax) - LOUISIANA - Per 100 sweeps in three fields Acadia Parish, 0-1; for two fields Evangeline Parish, 4-6; one field in Jefferson Davis Parish, 6. (Oliver)

RED-NECKED PEANUTWORM (Stegasta bosquella) - TEXAS - Light widespread infestation on terminals and axils of peanut leaves in Erath County. (Sanchez).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Damage to soybeans ranged from light to heavy in southeastern and eastern areas. (Morris). Heavy infestations in some soybean fields in Norfolk, Princess Anne, Northampton and Accomac Counties. (Hofmaster).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - LOUISIANA - Very severe infestations on soybeans in St. Mary Parish. (Oliver). FLORIDA - Average five larvae per linear foot of row in two acres of soybeans, Alachua County. (Det. L. C. Kuitert). (Denmark).

SPIDER MITES - VIRGINIA - Heavy in spots in soybeans in some fields in Princess Anne, Norfolk, Accomac and Northampton Counties. (Hofmaster). DELAWARE - Tetranychus atlanticus light to heavy on soybeans in most of Kent and Sussex Counties. Very severe in some plantings in Harrington and Bridgeville areas. (Milliron).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - NEW YORK - Summer brood flight increased markedly in eastern area. New entrances and stings on increase in Rockland County; very few entrances found even though first-brood entries more general than last year in Ulster County; very active in poorly sprayed orchards Monroe and Niagara Counties. (N. Y. Wkly. News Lett.). NEW JERSEY - Adults emerged July 31 from Burlington County apples showing entry about Aug. 4. Possibility of further entry seems strong. (Merrill). INDIANA - Enough new entries found in Vincennes area to warrant continued cover sprays. This condition likely to continue up to time third-brood larvae appear unless cooler temperatures occur. (Hamilton).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - NEW YORK - In Ulster County activity heavy in orchards where control inadequate; in Niagara County larva attacking fruit on August 3; in Orleans County larvae fairly plentiful; in Monroe County still on foliage in most unsprayed situations and only occasional fruit injury. (N. Y. Wkly. News Lett.).

AN APPLE LEAF ROLLING MIDGE (Dasynectura mali) - MAINE - Found in greater proportions this year than for many previous years. Usually a pest of minor importance in Maine orchards. (Boulanger, June 13).

APPLE MAGGOT (Rhagoletis pomonella) - MINNESOTA - Continues to emerge in all areas. (Minn. Ins. Rept. Serv.).

ORCHARD MITES - NEW MEXICO - Heavy in apple and peach orchards in Santa Fe, DeBaca and Rio Arriba Counties. (Durkin, July 29). ILLINOIS - Increased in Carbondale area. (Chandler). INDIANA - Little increase of spider mites on apples in Orleans area (Marshall) and two-spotted spider mites building up in a few orchards in Vincennes area. (Hamilton). NEW YORK - Two-spotted spider mite main problem in orchards in Ulster County, increasing in Orleans County, generally heavy in Monroe County. (N. Y. Wkly. News Lett.). NEW JERSEY - Both European red mite and two-spotted spider mite found on fruit generally throughout State. (Merrill). MARYLAND - Two-spotted spider mite damaging peach foliage, Howard County. (U. Md., Ent. Dept.).

WOOLLY APPLE APHID (Eriosoma lanigerum) - NEW MEXICO - Medium to heavy on 90 acres of orchards in Santa Fe County. (Durkin, July 29).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Jarring of apples still shows appreciable numbers of curculios although they are on the decrease in Carbondale area. (Chandler).

PEACH SILVER MITE (Vasates cornutus) - WASHINGTON - Increasing on peach in Wenatchee area. (Anthon).

A LEAF MINER (Lithocolletis crataegella) - CALIFORNIA - In one Lake County orchard a serious infestation in pear leaves developed, with 4 or 5 miners per leaf quite common. Moths in flight during first week of August. (Cal. Coop. Rept.).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - Reported from Tehama County. Extent of infestation not known at present. (Cal. Coop. Rept.).

PEAR-SLUG (Caliroa cerasi) - OREGON - Larvae quite numerous this year on sweet and sour cherry, plum and hawthorn. Some trees in Willamette Valley and Roseburg areas being defoliated. (Roth, Every).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - MARYLAND - Damage to peach terminals and fruit, Howard County. (U. Md., Ent. Dept.).  
NEW YORK - Third-brood numbers caught in Rockland County. Moth flight heavier than a comparable period in 1954, Monroe County; 5 pairs of bait jars averaging 3 to 4 moths daily despite a fairly light second-brood catch in the same orchard. (N. Y. Wkly. News Lett.).

EUROPEAN EARWIG (Forficula auricularia) - UTAH - Damaged ripe apricots and infested other ripe fruits, flowers, lettuce and corn in many localities. (Knowlton).

A MITE (Vasates fockeui) - WASHINGTON - Increasing on cherry in Wenatchee area; control required. (Anthon).

A GRAPE LEAFHOPPER (Erythroneura sp.) - NEW MEXICO - Heavy on grapes in Mesilla Valley and causing severe damage if not controlled. (Durkin, July 29).

GREEN JUNE BEETLE (Cotinis nitida) - VIRGINIA - Feeding on grapes, fruits, flowers and vegetables. Heavy damage in City of Warwick and Newport News. Adults seem more numerous this year than for some years. (Brame). Feeding on grapes, figs and peaches very extensively in eastern truck crop areas. More requests concerning the species than for past 7 years. Large numbers concentrated on damaged ears of corn. (Hofmaster). OKLAHOMA - Active in central area. (Flora).

GRASSHOPPERS - OREGON - Predominantly Melanoplus mexicanus defoliating smaller orchard trees east of Roseburg. Also damaging lotus fields and home gardens. (Roth).

BLUEBERRY MAGGOTS - NEW JERSEY - On the increase on blueberries. (Merrill).

A BLUEBERRY STEM GALL CHALCID (Hemadas nubilipennis) - MAINE - Attacking lowbush blueberry and reported from most of blueberry producing regions in State. Increase in abundance over average year. (Boulanger, July 28).

FALL WEEWORM (Hyphantria cunea) - ARKANSAS - Activity increased in northern area. Pecans, walnuts and hickory trees attacked in varying degrees in Ozark National Forest. (Seymour).

BUFFALO TREEHOPPER (Stictocephala bubaius) - WISCONSIN - Moderately abundant in orchards and home gardens. (Chambers).

### TRUCK CROP INSECTS

MEXICAN BEAN BEETLE (Epilachna varivestis) - RHODE ISLAND - Moderate to heavy damage in gardens in several areas. (Kantack). TENNESSEE - Not been reported in the Clarksville area during this season. (Scott). WISCONSIN - Causing serious damage outside of Madison area to string beans, lima beans and home gardens. (Chambers). NEBRASKA - Severe injury to untreated garden plots in western area. (Wallis). UTAH - Damaging in parts of Box Elder, Weber, Davis, Salt Lake and Utah Counties. (Knowlton).

BEAN LEAF BEETLE (Cerotoma trifurcata) - TENNESSEE - Increasing and causing moderate injury to all types of beans in Clarksville area. (Scott).

BLISTER BEETLES (Epicauta spp.) - MISSOURI - Considerable damage, particularly to solanaceous plants in gardens. (Wkly. Rept. Fr. Grow.). DELAWARE - Attacking limas near Houston. E. pestifera feeding heavily on marginal rows of limas near Slaughter Beach. (Milliron).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - On limas in several areas. Numerous on commercial snap beans near Greenwood. (Milliron).

PEA MOTH (Laspeyresia nigricana) - WASHINGTON - Very light on garden peas in San Juan County this season, possibly due to temperatures too low for oviposition. (Baker).

BEAN APHID (Aphis fabae) - OREGON - Began colonizing on beans about August 1, Willamette Valley. (Crowell).

COWPEA APHID (Aphis medicaginis) - IDAHO - Heavy populations on garden beans. (Barr, July 30).

SPIDER MITES - VIRGINIA - Heavy on snapbeans in truck crop areas of State. (Hofmaster). DELAWARE - Tetranychus atlanticus and T. telarius injurious to limas in several areas. (Milliron). NEW JERSEY - Two-spotted spider mite increasing on beans, tomato, strawberry, eggplant and other vegetables. (Merrill).

WESTERN BEAN CUTWORM (Lexagrotis albicosta) - IDAHO - Eggs now appearing on beans in south central area. (Douglass).

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata) - OREGON - Damaging bush beans in Corvallis-Salem area. (Crowell).

CABBAGE LOOPER (Trichoplusia ni) - NEW YORK - Large numbers appearing in many areas. (N. Y. Wkly. News Lett.). NEW JERSEY - Fairly heavy on crucifers but expected to be heavier within two weeks. (Merrill). DELAWARE - Conspicuous injury to tomato foliage generally. Some damage to peppers at Bridgeville and elsewhere. (Milliron).

IMPORTED CABBAGEWORM (Pieris rapae) - TENNESSEE - Cabbage severely damaged in Clarksville area. Almost total losses occurred in untreated plantings. (Scott). RHODE ISLAND - Moth flight unusually heavy in Tiverton and Newport areas. Untreated cabbage plants heavily infested over State. (Kantack).

HARLEQUIN BUG (Murgantia histrionica) - OKLAHOMA - Outbreak in Oklahoma City. (Rogers). NEW MEXICO - Very heavy in farm garden, feeding on collard. (Durkin, July 29).

TURNIP APHID (Rhopalosiphum pseudobrassicae) - IDAHO - Extremely heavy populations causing severe damage to turnips in Moscow. (Manis, July 30).

CABBAGE APHID (Brevicoryne brassicae) - IDAHO - Heavy populations in gardens in Moscow. (Barr, July 30).

FLEA BEETLES - NEW JERSEY - Seriously damaging crucifers in central and northern areas. (Merrill).

SQUASH BUG (Anasa tristis) - Rhode Island - Populations heavy in all plantings. Very heavy populations in Wickford, Portsmouth and Cranston areas. Control measures applied many areas. (Kantack). DELAWARE - Common on pumpkin-squash near Rising Sun. (Milliron). MARYLAND - Nymphs abundant on squash planting, damage light, Frederick County. (U. Md., Ent. Dept.). TENNESSEE - Very abundant on summer squash. Insecticides not providing satisfactory control in Clarksville area. (Scott).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - DELAWARE - Numerous on pumpkin-squash near Rising Sun. (Milliron).

SQUASH VINE BORER (Melittia cucurbitae) - TENNESSEE - Damaging summer squash in Clarksville area. (Scott). RHODE ISLAND - Damage in Wickford area remains heavy. Light to moderate damage in gardens in several other areas. (Kantack).

PICKLEWORMS - SOUTH CAROLINA - Showing up in squash fruit rather appreciably at Clemson, recently. (Foster).

TOMATO RUSSET MITE (Vasates lycopersici) - NEW JERSEY - Appeared on tomatoes from Salem County to Burlington County. (Merrill). DELAWARE - Infestations north of Milford on Primehook Neck and at Bridgeville. (Milliron). MARYLAND - Damage evident in 3 tomato fields at Hurlock, Dorchester County. (U. Md., Ent. Dept.).

TOMATO FRUITWORM (Heliothis armigera) - NEW JERSEY - Increasing on tomatoes. (Merrill). DELAWARE - On tomatoes generally. (Milliron). TENNESSEE - Destroying pods of snap and lima beans. Infestations as high as 20 percent in Clarksville area. (Scott).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - IDAHO - Infestations found in most fields in upper Snake River area. Most fields in need of control. Found in a garden patch southeast of Pocatello. (Portman). NEBRASKA - Much more abundant in all potato fields in western Nebraska than for several years but injury light. (Wallis).

TUBER FLEA BEETLE (Epitrix tuberis) - NEBRASKA - Very high populations in a few fields of potatoes in North Platte Valley. (Wallis).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Prevalent on limas near Frederica and snap beans near Greenwood. Increasing on peanuts near Ellendale. (Milliron). LOUISIANA - Empoasca sp. taken at 25 per 100 sweeps of sweetpotatoes, West Feliciana Parish. (Oliver). WISCONSIN - Continues very abundant on potatoes, beans and other garden crops. (Chambers). NORTH DAKOTA - Populations now reaching a peak in potato fields of upper Red River Valley. (N. D. Ins. Rept. Serv.).

POTATO FLEA BEETLE (Epitrix cucumeris) - MAINE - Very small populations of summer generation adults emerged, week of July 30, on potato foliage in central and southern Aroostook County. In Presque Isle area light damage to potato foliage week of August 6. (Shands et al). RHODE ISLAND - Light to moderate in most fields, one to 20 beetles per sweep in all areas. (Kantack).

POTATO APHID (Macrosiphum solanifolii) - RHODE ISLAND - Numbers increased with 5 to 30 aphids common in fields in several areas. (Kantack).

APHIDS - MAINE - Population unusually small on untreated potatoes July 30, Aroostook Farm, where lady beetles were a factor in reduction of aphids. Appreciable numbers of aphids in some early-planted potato fields in central and southern Aroostook County. In Presque Isle area populations increased rapidly in size week of August 6. (Shands et al).



NEW YORK - Building up in some cabbage and cauliflower plantings. (N. Y. Wkly. News Lett.). IDAHO - Found in potato seed fields and commercial potato fields in Fremont, Bonneville and Jefferson Counties. (Portman, July 30).

GARDEN SLUGS - NORTH DAKOTA - Injury to vegetable gardens, especially to tomatoes, in Fargo area. (N. D. Ins. Rept. Serv.).

BEET WEBWORM (Loxostege sticticalis) - COLORADO - Peak reached in moth traps. (Colo. Exp. Sta.).

ONION MAGGOT (Hylemya antiqua) - OREGON - Flies continue to be active, laying eggs on onions in Lake Labish (Marion County) and Portland areas. (Crowell).

BANDED CUCUMBER BEETLE (Diabrotica balteata) - LOUISIANA - Infesting sweetpotato foliage at 87-105 per 100 sweeps in West Feliciana Parish. (Oliver).

SWEETPOTATO FLEA BEETLE (Chaetocnema confinis) - LOUISIANA - Infesting sweetpotatoes at 160-250 per 100 sweeps in West Feliciana Parish. (Oliver).

A SWEETPOTATO BEETLE (Agroiconota bivittata) - LOUISIANA - Infesting sweetpotatoes at 6-10 per 100 sweeps, West Feliciana Parish. (Oliver).

EUROPEAN EARWIG (Forficula auricularia) - PENNSYLVANIA - Abundant in vegetable gardens, feeding on tomato in Crawford County. New record for this county. (Adams).

POTATO PSYLLID (Paratrioza cockerelli) - NEBRASKA - Increasing, particularly on late potatoes and tomatoes in North Platte Valley of western Nebraska. (Wallis).

ORANGE TORTRIX (Argyrotaenia citrana) - OREGON - Larvae infesting up to 30 percent of boysenberries in one two-and-one-half acre patch in Salem area. Reported causing trouble to other growers in same area. (Stephenson).

CYCLAMEN MITE (Tarsonemus pallidus) - WISCONSIN - On strawberries and peppers, very abundant on delphiniums, chrysanthemums and other garden flowers. (Chambers).

GREEN PEACH APHID (Myzus persicae) - MARYLAND - Light on tobacco, August 1, Anne Arundel County. Crop ready to be topped. (U. Md., Ent. Dept.). TENNESSEE - Although practically disappeared from tobacco, injury still evident in many plantings in Clarksville area. (Scott).

IDAHO - Populations in potatoes higher than observed since 1950, varying from 0-100 per lower compound potato leaf. (Walz, July 30).  
 WASHINGTON - Migrating again and building up tremendous populations on eggplant, pepper, rutabaga, potato and other vegetables in Yakima Valley. (Keene).

HORNWORMS (Protoparce spp.) - TENNESSEE - Slight increase in Clarksville area. Tobacco hornworm is predominating but tomato hornworm increasing at greater rate. (Scott). VIRGINIA - Heavy on late green tobacco in Pittsylvania County. Control measures applied. (Dominick). Fairly numerous on tomatoes in the eastern and southeastern truck crop areas. (Hofmaster). MARYLAND - Eggs on tobacco, Anne Arundel County, August 1, and on tomatoes, Carroll County, August 5. (U. Md., Ent. Dept.). DELAWARE - Injury noticeable at many places but few larvae active. (Milliron). NEW YORK - Showing up on tomatoes in Wayne County. (N. Y. Wkly. News Lett.). NORTH DAKOTA - Larvae quite numerous this year. Considerable damage to some gardens. (N. D. Ins. Rept. Serv.). MISSOURI - Moderate infestation in a tobacco field in Boone County. (Wkly. Rept. Fr. Grow.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Populations still increasing in most areas, but some southeastern fields completely harvested. (Farrier).

BUDWORMS - MARYLAND - Larvae in flower stalks of tobacco (no appreciable injury) August 1, Anne Arundel County. (U. Md., Ent. Dept.).

SUCKFLY (Cyrtopeltis minimus) - NORTH CAROLINA - Isolated field in Cumberland County with 2 per 25 plants. (Farrier).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Infestations heavy in southwest, south central, east, central, north central and northeast areas. (Gaines). In McLennan and Falls Counties, heavy in fruiting fields and requiring re-treatment; migration to remaining fruiting fields makes control difficult. Infestation in six treated fields these counties averaged 45.4 percent punctured squares and 79.8 percent in five untreated fields. (Parenica et al). LOUISIANA - In Tallulah area, square examinations in 118 fields showed all infested at an average of 19 percent compared with 22 percent last week. Infestations ranged from: 1-10 percent in 18 fields; 11-25 percent in 81 fields; from 26-50 percent in 16; and over 50 percent in three fields. (Gaines, Pfrimmer et al). Fifteen fields in Rapides Parish averaged 24 percent infestation; three fields in Pointe Coupe Parish averaged 15 percent; and four fields in Avoyelles Parish averaged four percent infestation. Other averages by Parishes: Ouachita, six fields, 38 percent; Bossier, two fields, 49 percent; and Red River, one field, 33 percent. (Oliver). OKLAHOMA - Increased

considerably in Caddo, Le Flore, Coal, Okfuskee, Grady and Stephen Counties. (Stiles). ARKANSAS - Increased considerably in many fields. Damage likely unless fields protected. (Warren, Turney). TENNESSEE - Building up in southern counties but infestations spotted and limited to rank fields, which make control difficult. Of 66 fields surveyed in 10 counties, 54 were infested at an average of 12.6 percent, twice that of the previous week. (Locke). MISSISSIPPI - All fields examined in Stoneville area infested. Infestations ranged from 1-100 and averaged 32.6 percent. Extremely rank cotton, rains and poor application causes of unsatisfactory control. Populations still high enough to destroy most of fruit. (Merkl, Furr et al). ALABAMA - Infestations in all 50 fields examined in eight western counties averaged 23 percent. Heavy growth and rains hampering controls. (Moore). GEORGIA - All 80 treated fields examined in northern area infested. Infestation averaged 9 percent punctured squares, a sharp increase over survey of two weeks ago. Weevils migrating in large numbers in southern area. (Jordan). SOUTH CAROLINA - In Darlington County all 43 treated fields examined averaged 74 percent square infestation; in Florence County 4 treated fields averaged 57 percent square infestation, and 4 experimental untreated fields in Florence County averaged 97 percent square infestation compared with 79 percent in previous week. (Walker et al). NORTH CAROLINA - Of 143 treated fields checked in 17 counties, 138 were infested. All counties reporting except Johnston and Northampton had over 10 percent of bolls punctured. High infestations in Scotland, 75 percent; Sampson, 65 percent; Wake, 61; Wayne, 47; Wilson, 44; and Bertie, 42 percent. All untreated fields were infested with a range of 14-100 percent boll infestation. (Farrier). VIRGINIA - Three fields in Southampton County averaged 20 percent squares punctured; three fields in Greensville County averaged 11 percent squares punctured; and one field in Brunswick County had 7 percent squares punctured. (Morris).

BOLLWORMS (*Heliothis* spp. et al) - ARIZONA - Major pest in Pinal and Pima Counties and increasing in Maricopa. Warranting control in many fields. (Stevenson, July 29). NEW MEXICO - Infestations very heavy in Chaves County and occur in most fields in Quay, Curry and Roosevelt Counties, with damage light; a few damaging infestations in Dona Ana County. (Durkin, July 29). TEXAS - Heavy in succulent fields in entire State (Gaines). Requiring control in a number of fields in Crosby, Cochran, Hale, Lubbock and Swisher Counties. (Davis, Owen). Square injury averaged 6.7 percent in 13 fields and boll injury 5.2 percent in 26 fields in McLennan and Falls Counties. (Parencia et al). LOUISIANA - Heavy flights of moths continue in Bossier City, Bunkie and St. Joseph areas, but infestations continue light with little damage. (Oliver). In Tallulah area, eggs found in 96 of 118 fields at 2.7 eggs per 100 terminals in infested fields. Larvae found in 62 of 118 fields averaged 2.2 per 100 terminals. (Gaines, Pfrimmer et al). OKLAHOMA - Eggs and larvae in most fields. Heaviest outbreak in Bryan County since 1950. Infestations critical in many fields. (Stiles). ARKANSAS - Increasing; may continue to increase. (Warren, Turney). TENNESSEE - In

most fields; no increase. (Locke). MISSISSIPPI - Eggs average 3.4 per 100 terminals in Stoneville area. Larvae doing some damage in several fields and warranting control. (Merkel, Furr et al). ALABAMA - Light infestations in Sumter, Pickens, Greene, Hale and Perry Counties. (Moore). GEORGIA - Terminal bud inspection in 20 fields averaged 4.5 eggs and 2.7 larvae per 100 terminals. Damaged squares averaged 1.2 percent in 80 treated fields in northern area. (Jordan). SOUTH CAROLINA - Heliothis armigera moths taken in trap were 1171 compared with 5030 the previous week. Of 9850 squares examined in Darlington County in 43 fields, damaged squares averaged 1.3 percent. In Florence County eggs occurred at the average rate of 26 per 100 terminals. (Walker et al).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Increasing in central, east, south central and southwest areas. (Gaines). Infested bolls averaged 25.1 percent in 13 fields in Williamson County and 1.9 percent in McLennan County. (Parenchia et al). In Cameron County, larvae found at rate of 336 per bushel of gin trash compared with 874 last year. (Pink Bollworm Cont. Proj., July 16-31).

FLEAHOPPERS - NEW MEXICO - Psallus seriatus 20-25 per 100 sweeps in one field Roosevelt County. Light infestations in Quay, Curry, Chaves and Sierra Counties. (Durkin, July 29). TEXAS - Damaging infestations in some fields of late-planted cotton in Lubbock area. (Davis, Owen). OKLAHOMA - Infestations quite heavy in some fields in Beckham, Caddo and Washita Counties, and doing some damage around edges of fields. (Slack, Tomlinson). TENNESSEE - Still causing light damage to young squares. (Locke).

SPIDER MITES - TEXAS - Increasing in east and south central areas. (Gaines). ARKANSAS - Increasing in several fields. Control warranted in northeastern area. (Warren, Turney). MISSISSIPPI - Infestation spotted over the Stoneville area. (Merkel, Furr et al). GEORGIA - Heavy infestations in fields in Banks, Franklin, Hart, Jackson, Madison, Elbert, Barrow, Clarke, Oglethorpe, Walton, Oconee, Morgan, Newton, Henry, Carroll, Bartow and Peach Counties. (Jordan). SOUTH CAROLINA - Light to medium, spotted infestations in several fields. (Walker et al). NORTH CAROLINA - Numerous fields in Wayne County with moderate to severe injury by Tetranychus telarius (Harrell) and one field in Union County with severe leaf injury by T. atlanticus (Jones). (Determinations, M. H. Farrier).

CABBAGE LOOPERS - TEXAS - Increasing in southwest, west, northwest and north and south plains areas. (Gaines).

PLANT BUGS - NEW MEXICO - Adelphocoris superbis building up in Dona Ana County and very abundant in an 80-acre field of alfalfa in Quay County. (Durkin, July 29). TENNESSEE - Increasing in rank cotton over

area. Heavy infestation on Ames Plantation in Fayette County; damage heavy on blooms and squares. Lighter infestations in parts of McNairy County. (Locke).

LYGUS BUGS - NEW MEXICO - Increasing in fields adjacent to alfalfa in Dona Ana County; light elsewhere. (Durkin, July 29). ARIZONA - Warranting control in almost all fields in Maricopa County. (Stevenson, July 29). TEXAS - Light to occasionally quite heavy infestations in Bailey, Deaf Smith, Floyd, Garza and Lamb Counties, and in greatest numbers in cotton near alfalfa. (Davis, Owen).

APHIDS - NEW MEXICO - Heavy in spots in one 40-acre field in Roosevelt County. (Durkin, July 29). TEXAS - Increasing in south central, east, central and north and south plains. (Gaines). SOUTH CAROLINA - Light infestations in most fields. (Walker et al).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - PENNSYLVANIA - Very heavy defoliation of 4-5 foot pitch pines in 50-thousand tree plantation in Somerset County. Many trees completely defoliated. Larvae mature. A few Banks pines infested same area. (Udine). ARKANSAS - Infestations in pine plantations in south central counties. (Warren, Turney). MISSISSIPPI - Defoliating small pines in Tishomingo County. (Hutchins). TEXAS - Heavy infestations causing defoliation of some slash pine in Rusk County. (Rehling).

LARCH SAWFLY (Pristiphora erichsonii) - WISCONSIN - Defoliating larches in much of northwestern area. (Chambers).

WHITE PINE WEEVIL (Pissodes strobi) - WISCONSIN - More abundant than normal throughout the State. Severe infestations in Norway pines with the usual damage to white pine, jack pine and Norway spruce. (Chambers).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - WISCONSIN - Very abundant on Douglas fir in northern area. (Chambers).

A MITE (Oligonychus aceris) - INDIANA - Foliage on soft maple trees throughout southern area severely injured. (Det. E. W. Baker). (Hamilton).

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - ARKANSAS - Spot infestations in Malvern area and increased activity throughout southern area. (Phifer).

ASIATIC OAK WEEVIL (Cyrtopistomus castaneus) - MARYLAND - Attracted to light in large numbers, Glenridge, Prince Georges County. Damage to oak tree seedlings at Towson. (U. Md., Ent. Dept.).

TUPELO LEAF MINER (Antispila nysaefoliella) - PENNSYLVANIA - Considerable mining on practically all black gums in Somerset County. (Udine).

WALKINGSTICK (Diapheromera femorata) - MINNESOTA - Adults and late instar nymphs south of Pillage and north of Princeton. (Minn. Ins. Rept. Serv.).

GREEN-STRIPED MAPLEWORM (Anisota rubicunda) - WISCONSIN - Causing damage in Dane County. (Chambers). KANSAS - Numerous eggs on maples near Baldwin and moths emerging in southern Douglas County August 13. (Matthew).

LOCUST LEAF MINER (Chalepus dorsalis) - MARYLAND - Trees with heavy injury in central and southern areas. (U. Md., Ent. Dept.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - RHODE ISLAND - Moderate to heavy in all sections. (Kantack).

LACE BUGS - NORTH DAKOTA - In numbers on American elm in Hankinson area. Considerable leaf damage noted. (N. D. Ins. Rept. Serv.). MARYLAND - Severe on azaleas and rhododendrons in central area. (U. Md., Ent. Dept.).

SPIDER MITES - MARYLAND - Injury to arborvitae, spruce and azaleas in Somerset, Harford, Montgomery and St. Marys Counties. (U. Md., Ent. Dept.).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Generally abundant in all sections of State with feeding moderate to heavy on many plants. Severe injury on small elms, maple, roses and raspberry in many areas. (Kantack).

BAGWORMS - PENNSYLVANIA - Moderate, spotted infestations on arborvitae in northeastern area. (Gesell). DELAWARE - Thyridopteryx ephemeraeformis causing severe defoliation of sycamores along DuPont Parkway in Kent and Sussex Counties. (Milliron). VIRGINIA - Heavily damaging arborvitae in Lynchburg (Rowell) and have been worse than usual in Norfolk area (Hofmaster). OHIO - T. ephemeraeformis causing more damage than usual in central and southern areas, particularly to arborvitae and juniper. (Neiswander). TENNESSEE - On many types of shade and ornamental trees serious problem all across State. (Mullett).

MIMOSA WEBWORM (Homadaula albizziae) - VIRGINIA - Damaging mimosa in all sections of State except in southwestern counties west of Roanoke. (Morris).

EUROPEAN RED MITE (Metatetranychus ulmi) - DELAWARE - Causing severe damage to spruce in several towns. (Milliron).

ELM LEAF BEETLE (Galerucella xanthomelaena) - CONNECTICUT - First-generation beetle moving into hibernation. (Johnson). VIRGINIA - Damaging elms throughout Carroll County. (Price). MISSISSIPPI - Defoliated several large elms on one property in Tippah County. (Cochran).

CATALPA SPHINX (Ceratonia catalpae) - FLORIDA - Larvae causing heavy defoliation of catalpas in Escambia County. (Mead). DELAWARE - Destructive to catalpas throughout the State. (Milliron).

### INSECTS AFFECTING MAN AND ANIMALS

SCREW-WORM (Callitroga hominivorax) - IOWA - Reported in Ottumwa and Fort Dodge areas. (Harris).

STABLE FLY (Stomoxys calcitrans) - PENNSYLVANIA - Increasing in northeastern area. (Gesell). IOWA - Numbers reaching a new high for the summer. (Harris).

HORN FLIES - UTAH - Annoying cattle severely in Wayne County. (Rogers, Knowlton). PENNSYLVANIA - From 150-300 per animal on unsprayed cattle northeastern area. (Gesell).

DEER FLIES - UTAH - Annoying cattle greatly in Wayne County. (Rogers, Knowlton).

MOSQUITOES - UTAH - At Hooper, 200 per night, compared with 10 to 60 elsewhere in Weber County. Largely Aedes vexans and Culex tarsalis. A. dorsalis completely controlled. (Fronk). Fewer mosquitoes in most areas of Utah until recently. Some increase followed recent storms. (Knowlton).

FLEAS - TENNESSEE - A serious problem across State in and around homes. (Mullett).

### STORED PRODUCTS INSECTS

FLOUR BEETLES - PENNSYLVANIA - Mainly Tribolium confusum and T. castaneum in wheat in Crawford County (Adams) and in oats in Venango and Somerset Counties (Udine).

INDIAN-MEAL MOTH (Plodia interpunctella) - MISSOURI - Heavy infestations in farm stored wheat in central area. Adults of first generation new crop wheat in storage emerging in heavy numbers and expected to cause increasing trouble. (Kyd, Thomas).

VEITCH BRUCHID (Bruchus brachialis) - OKLAHOMA - Numerous reports from various sections of State indicate extra heavy to moderate infestation in stored seed. (Flora).

### BENEFICIAL INSECTS

SOLPUGIDS - COLORADO - Season particularly favorable for development. Causing considerable inquiry. (Colo. Ins. Det. Com.).

INSECTS ON KLAMATH - WASHINGTON - KLAMATH WEED BEETLE (Chrysolina gemellata) active on San Juan Island at all times since last fall. A scale and a whitefly were recently collected on klamath weed on Lopez Island. (Baker).

### RECENT INTERCEPTIONS AT PORTS OF ENTRY

In view of the recent finding of the Mediterranean fruit fly, Ceratitis capitata, in the interior of Costa Rica, a brief review of the interception record of this major foreign pest may be of interest. Living larvae and pupae are frequently and regularly intercepted in various fruits in airplane and ships' baggage, cargo, mail, quarters and stores at practically all ports of the United States from many parts of the world. On a number of occasions, living adults have been taken in packages with fruits, emerging during transit, and as stowaways on ships and airplanes. A few figures on the number and kind of fruits found infested, the countries of origin, and when and where they were intercepted, may serve to illustrate the adaptability of this fruit fly to survive transportation by ship or plane from the foreign areas, where it occurs, to continental United States. The totals given do not represent the complete up-to-date record, but are a quick compilation made for comparative purposes.

More than 40 kinds of fruits and vegetables infested with living larvae of C. capitata have been intercepted. Most frequently found infested are oranges, taken 194 times; then tangerines, 100 times; grapefruit, 73 times; peaches, 69; grapes, 60; pears, 54; prickly pears, 46; apples, 36; figs, 34; quinces, 27; coffee berries, 24; mangoes, 12; lemons (over-ripe), 12; persimmons, 11; loquats, apricots, pomegranates, 10; guavas, 9; plums, 8; peppers and avocados, 7; tomatoes, medlars, bitter oranges, dates, strawberry guavas, papayas, nectarines, granadillas, Surinam cherries, ponderosa lemons, pummelos, kaki persimmons, sweet limes, tropical almonds, and kumquats, 1-5 times.

Fruit infested with the Mediterranean fruit fly originated in more than 25 countries, with Italy far in the lead with the number of infested shipments 538; Spain followed with 238; Hawaii, 109; Portugal, 164; Azores, 100; Argentine, 60; Israel, 48; France, 34; Brazil, 34; Greece, 33;



Madeira Islands, 32; Egypt, 26; Bermuda, 21; Algeria, 20; South Africa, 18; Cyprus, 14; Lebanon, 10; Australia, 9; Syria, 8; Canary Islands, 6; French Morocco and Malta, 5; Germany and Uruguay, 3; Mozambique and Turkey, 2; Angola, Spanish Morocco, Yugoslavia, Tunisia, Netherlands, and Cape Verde Islands, 1. Countries of origin listed are those given to inspectors at the time the inspections were made. They are believed to be correct, but are not considered positive records, as they cannot be verified in many cases.

The number of *C. capitata* larvae or pupae found per fruit in infested lots intercepted varies from 1 to many. Examples of infestations include the following: in oranges 140 larvae in 20 fruit from Spain, 126 larvae and 3 pupae in 12 fruit from Israel, 135 larvae in 11 fruit from Portugal, 87 larvae in 2 from Israel, 37 larvae in one from Italy; in tangerines 102 larvae and 5 pupae in 6 fruit from Italy, 45 larvae in 2 fruit from Spain, 121 larvae in 8 fruit from Portugal, 20 larvae in one fruit from Italy; grapefruit, 957 larvae in 51 fruit from Uruguay, 84 larvae in 2 fruit from Egypt; prickly pears, 27 larvae in 1 fruit from Italy; mangoes, 114 larvae in 2 fruit and 100 in 1 from Hawaii; quinces, 13 larvae and 3 pupae in 1 from Greece; loquats, 119 larvae in 33 from the Azores; Surinam cherries, 145 larvae in 35 fruit from Bermuda; apples, 456 larvae and 6 pupae in 135 fruit from Argentina, 72 in 3 fruit from Portugal, and 14 in 1 fruit from France.

Living stages of Mediterranean fruit fly have been intercepted in every month of the year. By far the greater number are taken in the late fall or early winter months. The peak month in number of infested lots intercepted is December, with 240; followed by October with 234, November with 208; January with 157; and September with 150; August had 123; June, 122; May, 107; July, 102; February, 84; April, 71; and March, 68.

Interceptions of *C. capitata* have been made at more than 35 ports of entry, with the port of New York, N. Y., reporting by far the greatest number, 886; followed by Boston, Massachusetts, with 219; then San Francisco, California, with 115; Philadelphia, Pennsylvania, 83; San Pedro, California, 55; Providence, Rhode Island, 48; New Orleans, Louisiana, 44; Baltimore, Maryland, 33; Hawaii, T. H., 27; Galveston, Texas, 24; San Juan, P. R., 15; Chicago, Illinois, 13; Mobile, Alabama, and Port Arthur, Texas, 10; Norfolk, Virginia, and Miami, Florida, 9; San Diego, California, and Detroit, Michigan, 7; Houston, Texas, 6; Newport News, Virginia, Buffalo, New York, and Charleston, South Carolina, 4; Tampa, Florida, 3; Seattle, Washington, Brownsville, Texas, Arlington, Virginia, and Washington, D. C., 2; Guam, M. I., Jacksonville, Florida, Dallas, Texas, Pensacola, Florida, Portland, Oregon, Savannah, Georgia, West Palm Beach, Florida, Louisville, Kentucky, and Gulfport, Mississippi, 1.

(Compiled - Plant Quarantine Branch)

## LIGHT TRAP COLLECTIONS

	Pseudal. unipoun.	Laphyg. frugip.	Agrotis yosilon	Perid. marj.	Fellia subier.	Heliothis arraig.	Protoparce vires. sexta quin.
TEXAS							
Waco	7/31-8/5	2	1	2	33		
LOUISIANA							
Tallulah*	7/30-8/4	206	46	9	133	344	2
B. Rouge*	7/30-8/5	51	1		33	11	
Franklin	7/28-8/4	5	10	6	51	18	
Bunkie	7/28-8/4		3	2	5	3	
St. Joseph	7/25-8/3	47	3		85	102	
Curtis	7/27-8/2	132		8	62	323	
MISSISSIPPI (Counties)							
Coahoma	7/30-8/5	63	16		18	216	
Humphreys		31	45		57	77	1
Oktibbeha		54	20	1	6	27	
Pearl River		6	5		5	13	
Washington		190	71		212	446	45 spp.
KANSASS							
Garden City	7/20-26						11
Hays	7/21-30						27 sp.
Mannhattan	8/1-5						37 sp.

\*Three traps at Tallulah, two at Baton Rouge; two in Washington County. (Light traps continued on next page.)



MISCELLANEOUS INSECTS

ELM LEAF BEETLE (Galerucella xanthomelaena) - DELAWARE - Large number of adults entering houses throughout State. (Milliron). MARYLAND - Entering houses, Washington County. (U. Md., Ent. Dept.).

A CICADA (Tibicen linnei) - WISCONSIN - Attracting attention in various parts of southern area, where it is mistaken for periodical cicada. (Chambers).

EUROPEAN EARWIG (Forficula auricularia) - WASHINGTON - Appearing in epidemic numbers in Yakima Valley. (Keene). IDAHO - Many complaints from rural and urban residents. (Douglass, July 30). RHODE ISLAND - Remain abundant over State. (Kantack).

PHARAOH ANT (Monomorium pharaonis) - WISCONSIN - More complaints than usual this summer. (Chambers).

POWDER POST BEETLES - WISCONSIN - Many reports from all over State indicate the insects are building up as timber pests in homes and barns. (Chambers).

OLD HOUSE BORER (Hylotrupes bajulus) - VIRGINIA - Damaging studding of house at Harrisonburg. (Morris).

WEEVILS (Brachyrhinus spp.) - DELAWARE - B. rugostriatus and B. ovatus annoying in houses in Newark-Wilmington area. (Milliron).

ADDITIONAL NOTES

IOWA - EUROPEAN CORN BORER - Moths have been flying for past 30 days. Second-brood egg masses have accumulated to a total of 70 masses per 100 plants some areas. Third instar larvae present in some fields and there is a good likelihood of an overlapping second and partial third brood. With prolonged second-brood flight, there is little likelihood of egg mass counts warranting treatment at any one time in any one field. Second brood expected to be rather general over corn of practically all planting stages. Some control measures being applied regardless of egg mass count. GRASSHOPPERS are causing some alarm in some areas. Control operations general over State. Some nymphs present. (Harris).

NEW YORK - CORN EARWORM more abundant in Hudson Valley at this time of season than in any year since 1949. Heavy egg-laying, which began about July 20, continuing. Moth catches in black-light trap in Ulster County averaged about 5 per night around August 1. This is high (Continued next page.)

## WEATHER FOR THE WEEK ENDING AUGUST 9, 1955

In central and northern areas east of the Rocky Mountains hot, humid weather which was responsible for one of the hottest as well as one of the most disagreeable Julys on record persisted through the first few days of August. Temperatures were relatively highest in an area extending from the eastern portions of South Dakota, Nebraska, and Kansas to the Atlantic Coast where daily highs of 95° to over 100° occurred on 3 to 5 days. Pennsylvania, with an average temperature of 80° which was 8° above normal, reported that last week was the hottest in over 10 years. Trenton, N. J. reported an average temperature for the week of 83° (highest for the current summer) and 100° on 3 days. This hot, humid weather, which had persisted for 6 weeks in many areas, was broken, when cooler and drier air from Canada preceded by light to heavy thundershowers covered the entire area east of the Rockies except the Gulf States during the period August 4 to 7. Temperatures were reduced by 10° to 20°.

In the far West, last week was a little warmer than previous weeks although average temperatures for the week were again below normal in the far Southwest where frequent showers and much cloudiness occurred and slightly below in the Pacific Northwest. The week's rainfall was again generally very light from the Great Plains westward, except for heavy amounts in large portions of Nebraska, Kansas, Colorado, and Arizona and a few other widely scattered local areas. From the Mississippi Basin eastward amounts were variable, ranging from none in a few local areas to as much as 6 inches at Mobile, Ala. Heavy rain fell in parts of Louisiana, Texas, Mississippi, Alabama, Georgia, and northwest Florida when the tropical storm Brenda moved inland on August 1. Other rather large areas receiving 1 inch or over included the upper Mississippi Valley, the Great Lakes region, and most of New England. (Summary supplied by U. S. Weather Bureau).

ADDITIONAL NOTES (Continued)

for this time of year. Infestations in unsprayed fields already are at "September" levels; one such field in Dutchess County showed 80 percent of ears infested. FALL ARMYWORM entering pupation August 6 in Columbia County. More larvae may be expected in whorls and ears from August 25 on. (N. Y. Wkly. News Lett.).

ALABAMA - Adults and few larvae of VELVETBEAN CATERPILLAR in peanut fields in Geneva, Dallas, Coffee and Henry Counties. Few larvae of FALL ARMYWORM and many adults of CORN EARWORM also found in peanut fields in these counties. (Arant).

CORRECTION: Reference in highlights to pages 804 and 805 should be 784 and 785 respectively.









VOL. 5 No. 33

*Cypr*  
AUGUST 19, 1955

SB  
823  
C77  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

EUROPEAN CORN BORER situation continues serious in Illinois where egg-laying for second generation nearing peak. Moth emergence increasing in Minnesota, still slow in Nebraska and underway in North and South Dakota. Egg-laying may be extended in Minnesota. (p. 789).

Crop damage from GRASSHOPPERS declining in Missouri but Minnesota has heavy populations in most areas. Damage in field margins becoming noticeable in Illinois. Heavy infestations on 175,000 acres of cropland in Kiowa County, Colorado area and on 3,000 acres in Taos County, New Mexico. (p. 789).

CORN EARWORM heavy in sorghum in southwest Oklahoma, heavy on peanuts in Comanche and Limestone Counties, Texas, and very heavy on corn in Pueblo, Otero, Bent and Prowers Counties, Colorado. (p. 790). Heavier than usual in Massachusetts; prevalent in New York. (pp. 805, 806).

FALL ARMYWORM damage to corn reported from Maryland, Virginia, Delaware, Tennessee and Missouri. (p. 790). CHINCH BUG abundant on corn in eastern Oklahoma, and light but general on corn and sorghum in Arkansas. (p. 790). CORN LEAF APHID destructive in Delaware, moderate to very severe on sorghums in southwest Oklahoma and moderate to heavy on corn in southeastern Nebraska. (p. 791). CORN SAP BEETLES of concern in Michigan and Delaware. (p. 791). PLANT BUGS abundant on alfalfa in some areas of Arizona, Illinois and S. D. (p. 793). VELVETBEAN CATERPILLAR adults active in South Carolina and Louisiana. (p. 792).

Distribution of WHEAT STEM SAWFLY in United States. (after p. 808).

CODLING MOTH problem in poorly-treated orchards in Delta and Mesa Counties, Colorado. Infestations increasing in Ohio. Reports from several other States. (p. 794).

COLORADO POTATO BEETLE defoliating untreated late potatoes in southwestern Idaho. (p. 796). MEXICAN BEAN BEETLE heavy in Massachusetts and Rhode Island; general infestation in Maryland. (p. 797).

(Continued on next page)

BOLL WEEVIL infestations continue heavy in some areas. Texas has heavy numbers in south central, east, central, north central and northeast areas with increases in west central, west cross timbers and northwest areas. Sharp increases in Arkansas and in eastern Oklahoma. Infestations averaging 31-79 percent in Louisiana, 30 percent in Stoneville area, Mississippi, 16 percent in northeastern Alabama, 17 percent in western Tennessee and 15 percent in treated and 42 percent in untreated fields in north Georgia. Migration underway in many areas. (pp. 799, 806).

BOLLWORMS major pests in cotton in some Arizona counties, continue heavy in several Texas areas and high egg counts in south central Oklahoma. Heavy moth flights in Louisiana and South Carolina. Sharp increase in egg-laying in Missouri. (p. 799). CABBAGE LOOPER reported on cotton in areas of Texas, Georgia, Tennessee and South Carolina. (p. 800).

EUROPEAN CORN BORER reported on cotton in southeast Missouri and Franklin County, Tennessee. According to available records these are first reports of this insect attacking cotton in the field in the United States. (p. 801).

LILY WEEVIL causing damage to Easter lilies in new areas in Oregon. (p. 803).

SCREW-WORM light to medium on range cattle in northwest part of Texas Panhandle. (p. 803).

May have outbreak of POTATO TUBERWORM this fall in Virginia. (p. 804).

STATES reporting this week - 37.

WEATHER outlook (p. 806) and summary (p. 807).

\*\*\*\*\*

Reports in this issue are for the week ending August 12, 1955, unless otherwise designated.

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - COLORADO - Most serious infestation in extreme eastern Kiowa County area, where approximately 175,000 acres of cropland heavily infested. Populations 85 percent adult M. mexicanus with M. bivittatus, Aeoloplus turnbulli and M. differentialis present in order named. (ARS, Bakke). NEW MEXICO - Heavy on 3,000 acres of forage crops and small grains in Taos County. Controls applied. (Durkin, Aug. 5). TEXAS - Heavy widespread in cotton, corn and grasses in Hopkins County. (Smith). NEBRASKA - Melanoplus spp. in corn, alfalfa, soybeans and pastures. Second-generation nymphs nearing maturity. (Andersen). MINNESOTA - Heavy populations in most of State; 20-30 per square yard not unusual. In many areas as forage is cut grasshoppers moving into corn and soybeans. (Minn. Ins. Rept. Serv.). ILLINOIS - Damage to marginal rows of corn and soybeans becoming noticeable. Populations becoming adult. (White). Still many fields that would justify treatment. (Decker). MISSOURI - Extensive crop damage slowed considerably over State. Adult survey shows from 1 to 28 per square yard in field crops and pastures and 2-36 per square yard of field margins. In general situation is not nearly as serious as last year. (Kyd, Thomas).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - High percentage infestation in corn in Bridgeville-Greenwood area. (Milliron). ILLINOIS - Pupation of first generation from 90-100 percent, emergence from 70-80, in northern half of State. Egg-laying close to peak level but will continue strong for some time. Egg-laying heavy over all northern half of State with counts from less than 1 to over 11 egg masses per plant. Weather has destroyed large numbers of moths in some areas and predators have destroyed many eggs and small larvae in some early-maturing fields. Still highly probable that populations this fall will equal or perhaps exceed those of 1949. (Decker, White). NORTH DAKOTA - Unusually high percentage developing into second brood. In southeastern area about 70 percent pupated, 20 percent emerged. Next brood of larvae not expected before August 20. (N. D. Ins. Rept. Serv.). MINNESOTA - Emergence increasing sharply, peak flight in southwest should occur week ending August 20. Egg-laying will be extended, and ear and ear shank injury will be extensive, especially in southwest and west central areas. In southwest 60 percent of plants infested with 2.4 borers per infested plant; 35 egg masses per 100 plants. (Minn. Ins. Rept. Serv.). NEBRASKA - Second and third instars of second generation can now be found. Pupation about 80 percent. Emergence still slow. (Roselle, Andersen). SOUTH DAKOTA - Averaging 13.2 percent infestation in central and north central counties with average of 37.2 borers per 100 plants. Sixty-four percent of population pupated with 5.7 emergence; 31.7 percent of larvae fifth instar and 4.2 fourth instar. (Spawn, Hantsbarger).

CORN EARWORM (Heliothis armigera) - NORTH CAROLINA - Average egg counts on 25 silks: Faison 31.2, Clayton 23.5. (Townes). GEORGIA - Moderate infestation of second to fifth instars in peanuts general in southern area, August 3. Heavy damage to 10 acres of milo in Tift County, August 3. (Morgan). LOUISIANA - Thirty per 100 sweeps in alfalfa in Natchitoches Parish. (Cliver). TEXAS - On peanuts medium to heavy in Limestone County (Brown), heavy in Comanche County (Sanchez), light local in Anderson County (Stephenson). Medium to heavy in grain sorghum in McCulloch County. (Cusenbary). OKLAHOMA - Populations high in sorghums from whorl to head stage in southwest area, light in central and north central areas. (Wood, Flora). NEBRASKA - Spotted but moderate infestations in corn in southeastern area. (Andersen). MISSOURI - Light trap catches show heavy increase in moth flight in southern two-thirds of State. From 3 to 14 eggs on silks in extreme southeast area. (Kyd, Thomas). COLORADO - Very heavy population of eggs on silks in Pueblo, Otero, Bent and Prowers Counties. Heavy infestation, three to four larvae per ear, in Weld and Larimer Counties. (Exp. Sta. and Ext. Ser.).

SUGARCANE BORER (Diatraea saccharalis) - TEXAS - Heavy widespread infestations, especially in late corn, in Waller County. (Davis, Pearce and Morgan).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - NORTH CAROLINA - About 25 percent of stalks infested by one to three borers in Robeson, Columbus and Bladen Counties. (Farrier).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - ARKANSAS - Light numbers in Montgomery, Howard, Miller and Sevier Counties. First infestations for these counties. Second-generation moths about 50 percent emerged. (Warren, Turney). OKLAHOMA - First third-generation eggs on late green corn in Payne County. (Arbutnot, Hensley).

FALL ARMYWORM (Laphygma frugiperda) - MARYLAND - Damaging field corn in Baltimore and Wicomico Counties; 75 percent of plants infested one field. (U. Md., Ent. Dept.). VIRGINIA - Damaging corn in Stafford County. (Rowell, Morris, Tulloss). DELAWARE - Damage to late corn noticeable over State. Severe injury some places. (Milliron). TENNESSEE - Light local infestation of late instars in late corn over State. (Mullett). GEORGIA - A few larvae in peanut and milo fields in south Georgia, August 8. (Morgan). TEXAS - Heavy spotted infestation on peanuts in Eastland County. (Pearce). MISSOURI - Damage to small corn continues, 4 to 32 percent infestation in infested fields. (Kyd, Thomas).

CHINCH BUG (Blissus leucopterus) - NORTH CAROLINA - Two to three nymphs or adults per lower leaf sheath of corn in many fields

in Robeson, Columbus and Bladen Counties. (Farrier). SOUTH CAROLINA - Heavily infesting corn, milo and grasses in Saluda County. (Kearse). ARKANSAS - Light but general in corn and sorghum fields. (Warren, Turney). TEXAS - Medium to heavy in grain sorghum in McCulloch County. (Cusenbary). OKLAHOMA - Abundant on all corn in eastern area. Severely damaging late-planted irrigated corn in Ottawa County. (Arbuthnot).

CORN LEAF APHID (Rhopalosiphum maidis) - DELAWARE - Very destructive in many places. (Milliron). MARYLAND - Heavy on field corn, some damage, Cecil County. (U. Md., Ent. Dept.). ARKANSAS - Locally heavy on young corn and sorghums in Montgomery County. Lighter in other southwestern counties. (Warren, Turney). TEXAS - Medium widespread in sorghum in Potter County. (Daniels). OKLAHOMA - Infestation light in sorghums in north, central and north central areas. Moderate to very severe in southwest area. (Wood, Flora). NEBRASKA - Moderate to heavy on corn in southeastern counties. Tassels and silks being damaged. High temperatures have effectively controlled populations in milo. (Andersen). UTAH - Still damaging some fields of spring barley in Duchesne and Uintah Counties. (Knowlton).

ENGLISH GRAIN APHID (Macrosiphum granarium) - IDAHO - Extremely high populations on about 1000 acres in several localities in southeastern area, especially on spring-planted grain. Plants almost entirely covered. Predators controlling in some fields but in others chemical control necessary. Most severe in Caribou and Franklin Counties. (Manis, Aug. 6).

CORN ROOTWORMS - COLORADO - Diabrotica virgifera infesting all fields examined in Pueblo, Otero, Bent and Prowers Counties. (Colo. Exp. Sta.). SOUTH DAKOTA - Adults of southern corn rootworm on about 50 percent of plants in one field in Spink County. (Spawn, Hantsbarger).

CORN SAP BEETLES - MICHIGAN - Carpophilus sp. numerous on sweet corn about Sodus and Niles. First time beetles and larvae of this genus reported in sweet corn. (Hutson). DELAWARE - Carpophilus lugubris heavy in sweet corn and increasing in ears of field corn in most areas. (Milliron).

CORRECTION (CEIR\_5 (32):767): HESSIAN FLY - NEW JERSEY - Should read, "Average 26 percent compared with 7 percent in 1954."

RICE STINK BUG (Solubea pugnax) - LOUISIANA - Remains low; 1 to 5 per 100 sweeps in several parishes. (Oliver).

GRASSWORMS (Mocis sp.) - FLORIDA - Thirty per square foot of grass in St. Lucie County. (Campbell).

WHITE-FRINGED BEETLES (Graphocnathus spp.) - During July white-fringed beetles were found for first time in Calhoun County, Alabama; Livingston Parish, Louisiana; and Rowan County, North Carolina. Additional infested areas, mostly extensions, were found in all infested States except New Jersey. Greatest number of acres in Alabama, with notable increases in Baldwin, Houston, and Mobile Counties. (WFB Cont. Proj.). FLORIDA - G. peregrinus adults found on grass 3 miles northeast of Marianna (new infestation), 4 per square foot on grass at Greenwood, 1 per square inch on peanut plants 18 miles north-northeast of Marianna. All locations in Jackson County. (Wesson).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - NEBRASKA - Very abundant in alfalfa in eastern area; 12-25 larvae per 25 sweeps. Adults very prevalent in all fields. (Andersen).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - NEBRASKA - Light, 6-10 per 25 sweeps, in alfalfa in north central and southeast areas. (Andersen).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - SOUTH CAROLINA - First adult of season at Charleston July 28. (Cuthbert) LOUISIANA - Adults taken at Baton Rouge. (Oliver).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - FLORIDA - From 6-10 adults per sweep on white clover one location in Escambia County. (Mead). LOUISIANA - Average of 200 per 100 sweeps in alfalfa in St. Landry Parish and 165 per 100 in Natchitoches Parish. (Oliver). NEW MEXICO - Becoming abundant in alfalfa with as many as 50-60 per 100 sweeps in some fields. (Durkin, Aug. 5).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - OREGON - Specimen taken on sweetclover in northern Deschutes County. First record for central Oregon. (Roth).

CLOVER APHID (Anuraphis bakeri) - IDAHO - Continues to increase in red clover seed fields in southwestern area. Up to 300-350 per head common. (Walz, Aug. 6).

PEA APHID (Macrosiphum pisi) - IDAHO - Up to 500 per sweep in some southwestern red clover seed fields. Population still low in alfalfa in area. (Walz, Aug. 6). NEW MEXICO - Heavy in most alfalfa fields in Torrance, Mora, Santa Fe and Rio Arriba Counties. (Durkin, Aug. 5). UTAH - Populations moderately high in succulent alfalfa in Uintan Basin and in Wasatch County. (Knowlton).

YELLOW CLOVER APHID (Myzocallis trifolii) - CORRECTION: In compiling the Report, the IDAHO note in last weeks issue, 3(32):766, was erroneously placed under this species. The note referred to the



CLOVER APHID in red clover seed fields. CALIFORNIA - Has been found as far north as Merced County. (Harper). ARIZONA - Starting to show in some alfalfa in Greenlee County where no damage since late spring. (Ariz. Coop. Rept.). NEW MEXICO - Light to medium in alfalfa in Dona Ana and Eddy Counties, light in Tarrant County. (Durkin, Aug. 5). TEXAS - Lady beetles controlling infestation in Potter County. (Daniels). UTAH - Found in San Juan, Grand and Box Elder Counties. (Knowlton). OKLAHOMA - Populations generally lower in north central area. Isolated fields in south central area show increase. (Flora, Bryan). ARKANSAS - While the aphid is widespread in Montgomery County area, damage is not apparent. (Warren, Turney).

PLANT BUGS - ARIZONA - Lygus bugs, mainly L. hesperus, abundant in alfalfa in some areas of Maricopa County. (Ariz. Coop. Rept.). ILLINOIS - As high as 10 per sweep in alfalfa and clover in Macon, Christian and Washington Counties. (Moore). VIRGINIA - Lygus bugs average approximately 200 per 100 sweeps in an alfalfa field in Washington County. (Morris). SOUTH DAKOTA - Lygus spp. and Adelphocoris spp. quite numerous, 5 per sweep some fields, in alfalfa in north central area. (Spawn, Hantsbarger).

RED NECKED PEANUTWORM (Stegasta bosquella) - GEORGIA - Heavy damage to peanuts general in southern area, July 15. (McGill).

POTATO LEAFHOPPER (Empoasca fabae) - ILLINOIS - Average 7 to 8 per sweep in alfalfa in Macon, Christian and Washington Counties. (Moore). VIRGINIA - About 220 per 100 sweeps in Washington County alfalfa fields and 80 per 100 sweeps in a Wythe County field. (Morris). NEBRASKA - Populations increasing again on alfalfa in north central area; 14-20 per 25 sweeps. (Andersen).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - GEORGIA - Killing plants in 25 acres of cowpeas in Macon County. (Snodgrass).

GARDEN WEBWORM (Loxostege similalis) - NEBRASKA - Light in north central area on alfalfa; 5-10 per 25 sweeps. Spotted but moderate to heavy infestation in southeast; 25-40 larvae per 25 sweeps with webbing very prevalent. (Andersen).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Feeding on soybeans generally over State. (Milliron). ILLINOIS - Average of 1 to 2 per sweep in clover and alfalfa and up to 1.5 in soybeans. (Moore).

BANDED CUCUMBER BEETLE (Diabrotica balteata) - LOUISIANA - Severely damaging soybean foliage in Ascension, Assumption and Lafourche Parishes, 150-500 per 100 sweeps. (Oliver).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSOURI - Third-generation adults greatly increased, peak expected around August 10. Heavy leaf feeding in most soybean fields in extreme southeast area, 2 to 8 beetles per linear foot of row. Some injury to blossoms and newly-set pods in this area also. (Kyd, Thomas).

BLISTER BEETLES - TENNESSEE - Heavy local infestation on alfalfa and gardens in middle Tennessee. (Mullett). NEBRASKA - Epicauta sp. 10-25 per 25 sweeps in east central and southeastern areas. E. cinerea and E. pennsylvanica from 7-12 per 25 sweeps in north central, east central and southeast areas. (Andersen).

COWPEA CURCULIO (Chalcodermus aeneus) - ARKANSAS - Second generation appearing in pea fields. Where first generation was evident, damage may be severe. (Warren, Turney).

### FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - OREGON - First generation adults emerged in Willamette Valley, August 9. (Jones). COLORADO - Critical egg-laying and larval activity in poorly-treated orchards in Delta and Mesa Counties. (Colo. Exp. Sta.). ILLINOIS - Hatching in appreciable amounts expected week of August 15 in Carbondale area. (Chandler). INDIANA - Hatch tapering off considerably in Lawrence and Orange Counties. (Marshall). MICHIGAN - Summer brood hatching along Lake Michigan fruit belt as far north as Straits of Mackinac. (Hutson, August 1). OHIO - Infestations increasing generally, due to favorable weather. (Cutright). WEST VIRGINIA - Infestations generally light throughout the Kearneysville area. (Hamstead). DELAWARE - A partial third brood appears certain. (Late News).

ORCHARD MITES - OREGON - Tetranychid mites beginning to build up in Willamette Valley, causing damage to fruit trees. (Jones). NEW MEXICO - Very heavy on fruit trees in Rio Arriba County and spotty infestations in Taos County. (Durkin, August 5). ILLINOIS - Continue to be a local problem in Carbondale area. (Chandler). INDIANA - Spider mites in Lawrence and Orange Counties increased slightly with the exception of Metatetranychus ulmi which decreased. (Marshall). MICHIGAN - Infestations spotted. Tetranychus telarius infestations heavy in orchards of susceptible varieties and in drouthy areas. (Hutson, August 3). WEST VIRGINIA - Spider mites, Tetranychus spp. populations very light with no injurious infestations. (Hamstead).

EUROPEAN RED MITE (Metatetranychus ulmi) - OHIO - Infestations generally declining. (Cutright). WEST VIRGINIA - General increase in apple orchards but no severe infestations in Kearneysville area. (Hamstead).

UNSPOTTED TENTIFORM LEAF MINER (Callisto geminatella) - MARYLAND - Severe infestation in large apple orchard in Harford County and requiring special spray. (U. Md., Ent. Dept.). DELAWARE - Damage common on unsprayed apple trees at Newark and Dover and Georgetown. (Milliron).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - OHIO - First moths of third brood have appeared. (Cutright). WEST VIRGINIA - Larvae of third and fourth instars present, but injury to fruit light in Kearneysville area. (Hamstead).

WOOLLY APPLE APHID (Eriosoma lanigerum) - NEW MEXICO - Infestations heavy on fruit trees in Rio Arriba County. (Durkin, August 5).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - Found in Shasta and Trinity Counties, bringing to seven the number of counties involved. (Harper).

GREEN JUNE BEETLE (Cotinis nitida) - ILLINOIS - Many reports of peaches being damaged by the beetle. (White)

#### Cherry Insects in Michigan

Two specimens of Grapholitha packardi, the cherry fruitworm, and two specimens of Mineola scitulella, the destructive prune moth, were found in about 3000 tests by State inspectors. (Hutson, August 8).

STINK BUGS - GEORGIA - Less abundant than usual on fruit and nuts for this time of year. (Snapp.)

GRASSHOPPERS - MARYLAND - Severe damage to small trees in apple orchard in Harford County by Melanoplus differentialis. (U. Md., Ent. Dept.).

PECAN WEEVIL (Curculio caryae) - GEORGIA - Average 0.9 weevils per tree, August 5. (Dupree, Beckham).

JAPANESE BEETLE (Popillia japonica) - WEST VIRGINIA - Seasonal populations have been light. (Hamstead).

GRAPE BERRY MOTH (Polychrosis viteana) - MICHIGAN - Eggs of third brood appeared August 3 at Lawton and Mattewan. (Hutson). PENNSYLVANIA - Eggs common and larvae entering grapes in Erie County in an unsprayed vineyard. (Adams).

FALL WEBWORM (Hyphantria cunea) - DELAWARE - Attacking unsprayed apples at Newark and Dover. (Milliron).

TRUCK-CROP INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - IDAHO - Second-generation larvae continuing to defoliate untreated late-planted potatoes in southwestern area. (Walz, August 6). DELAWARE - Injuring tomatoes and eggplant north of Georgetown. (Milliron).

TUBER FLEA BEETLE (Epitrix tuberis) - COLORADO - Increasing generally in all untreated plots with recent heavy rains favorable for development of second generation in Weld County. (Colo. Exp. Sta.). Light populations increasing on late potatoes in Greeley district. (ARS).

APHIDS - MAINE - Populations more than doubled on potatoes during the week in Aroostook County. (Shands).

POTATO APHID (Macrosiphum solanifolii) - PENNSYLVANIA - Light to moderate on potatoes in Erie County. (Adams).

GREEN PEACH APHID (Myzus persicae) - IDAHO - Populations of over 100 per lower leaf in potato fields in southwestern area. (Walz, August 6). NORTH CAROLINA - Very light infestations on tobacco in Cumberland County. (Farrier).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Slight increase in populations in the Arkansas Valley. Hot weather no benefit in control. (ARS).

LYGUS BUGS - NEVADA - Severe populations in a potato field in Washoe County. (Gallaway). DELAWARE - L. lineolaris abundant on lima beans near Frederica and on peppers at Greenwood. (Milliron).

POTATO FLEA BEETLE (Epitrix cucumeris) - PENNSYLVANIA - From six to thirty per 30 sweeps on potatoes in Erie County. (Adams).

GRASSHOPPERS - SOUTH DAKOTA - Populations of three per square yard, predominantly M. bivittatus and M. femur-rubrum, on potatoes in Clark County. (Spawn, Hantsbarger).

TOMATO RUSSET MITE (Vasates lycopersici) - DELAWARE - Infesting 25 acres of tomatoes near Hartly and reported from west of Greenwood. (Milliron). GEORGIA - Heavy infestation on tomatoes in garden in Albany, August 2. (Osburn).

TOMATO FRUITWORM (Heliothis armigera) - MICHIGAN - Appearing in tomatoes at Baroda, Niles and Sodus. (Hutson, August 3).

HORNWORMS (Protoparce spp.) - DELAWARE - New generations on tomatoes generally and on peppers in several areas from Dover southward. (Milliron). RHODE ISLAND - Moderate infestations over the State with light to moderate injury in large tomato plots in Cranston area. Moderate to heavy injury in Wakefield area. (Kantack). NORTH CAROLINA - Last instars in untreated tobacco fields in southeastern counties. (Farrier).

LEAF MINERS (Liriomyza spp.) - SOUTH CAROLINA - Moderate infestation on summer tomatoes, light infestation on young cantaloups and volunteer cucumbers. (Cuthbert, August 3).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Attacking pepper fruits at Greenwood and Bridgeville, causing fruits to drop. (Milliron).

MEXICAN BEAN BEETLE (Epilachna varivestis) - MASSACHUSETTS - Second generation appears heavy. (Crop Pest Cont. Mess.). RHODE ISLAND - Remains abundant in all areas with moderate to heavy injury in all bean plantings. (Kantack). MARYLAND - Infestation general on snap and lima beans in all sections. (U. Md., Ent. Dept.). TENNESSEE - Scattered infestations in complex with bean leaf beetles requiring controls in western area. (Mullett).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Adults very active on lima beans, generally, and destroying pumpkin flowers west of Dover. (Milliron).

RAPID PLANT BUG (Adelphocoris rapidus) - DELAWARE - Numerous on lima beans near Greenwood. (Milliron).

GARDEN FLEAHOPPER (Halticus bracteatus) - DELAWARE - Infesting lima and snap beans north of Georgetown. (Milliron).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Abundant on snap beans, blackeyed peas and peanuts north of Georgetown. (Milliron). SOUTH DAKOTA - Four per foot of row on potatoes in Kingsbury County. (Spawn, Hantsbarger).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Damaging lima beans from Middletown southward. (Milliron).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - DELAWARE - Injuring lima beans north of Georgetown. (Milliron).

WHITEFLIES - INDIANA - Heavy spotted in many strawberry patches this season in Lawrence and Orange Counties. (Marshall).

PEA LEAF WEEVIL (Sitona lineata) - OREGON - Adults found ragging leaves of strawberries in the Salem area, July 28. New host record. (Stephenson, Roth).

STRAWBERRY CROWN BORER (Tyloclerma fragariae) - ARKANSAS - Infestations have caused light to heavy reduction in stands in Washington County. (Warren, Turney).

SQUASH BUG (Anasa tristis) - DELAWARE - Heavy infestation on pumpkins west of Dover and on squash around Georgetown. (Milliron). MARYLAND - Present on squash in most sections with light to moderate damage. (U. Md., Ent. Dept.) RHODE ISLAND - In all squash plantings over the State with light to moderate damage in untreated fields. (Kantack).

SQUASH BEETLE (Epilachna borealis) - DELAWARE - Destructive to squash near Georgetown. (Milliron).

SQUASH VINE BORER (Melittia cucurbitae) - RHODE ISLAND - Plant decline in Wakefield and Wickford continues. (Kantack).

HARLEQUIN BUG (Murgantia histrionica) - MARYLAND - Light to moderate on broccoli in Queen Annes and Kent Counties. (U. Md., Ent. Dept.).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Increased damage to tomatoes in Dover area and to peppers near Bridgeville and Greenwood. Prevalent on tomatoes and peppers generally. (Milliron).

GRASSHOPPERS - VIRGINIA - Causing severe damage to tobacco in several areas of Scott County. (Delp).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Continues to increase with two to three per leaf in some fields. (Farrier). VIRGINIA - Populations decreased on unsprayed tobacco in Chatham area of Pittsylvania County and averaged about two per leaf in a Washington County field. (Dominick).

SUCKFLY (Cyrtopeltis minimus) - NORTH CAROLINA - Increasing in Cumberland, Wake and Johnson Counties, some as high as 18-20 per plant. (Burton, Farrier).

COTTON INSECTS

**BOLL WEEVIL (*Anthonomus grandis*)** - TEXAS - Heavy in south central, east, central, north central, northeast areas. Increased in west central, west cross timbers and northwest areas. (Gaines). OKLAHOMA - Sharp increase in eastern areas. (Bryan). Also in southeast where not treated because of weather, and in southwest area. Migration underway. (Stiles). ARKANSAS - Infestations continue to rise sharply over State. Second-generation emergence increasing in most fields infested by first-generation weevils. Infestations up to 100 percent in a few fields. Total of 2722 fields scouted and 2573 (94.5 percent) found infested compared with 89.6 last week. Second-generation adults migrating. (Warren, Turney). LOUISIANA - Nine fields in Ouachita Parish had 79 percent infestation, 2 in Caddo had 50, 2 in Bossier had 79, and 2 in Red River had 72. (Oliver). Average of 31 percent infestation in 130 fields in Tallulah area compared with 19 last week. Large number of weevils in most fields with migration underway. (Gaines, Pfrimmer et al). MISSISSIPPI - All fields examined in Washington County area infested. Average of 30.6 percent punctured squares. General migration underway in southern delta. (Merkl, Furr et al). ALABAMA - Of 48 fields examined in nine northeastern counties, 47 found infested at rate of 15.7 percent. (Moore). TENNESSEE - Continuing to increase in southern area of western counties. Migration underway. Considerable damage in Chester and southern Madison Counties. Of 57 fields inspected, 54 found infested at rate of 17 percent compared with 12.6 last week and 4 percent a year ago. Weather continues favorable for build-up and migration underway. (Locke). Very minor numbers in middle Tennessee. (Mullett). SOUTH CAROLINA - In Pee Dee area migration has been extremely heavy. Most growers have ceased insecticidal applications. (Walker et al).

**BOLLWORMS (*Heliothis* spp. et al)** - CALIFORNIA - Spotted and generally low in San Joaquin Valley. Some damage in Imperial County. (Cal. Coop. Rept.). ARIZONA - Major pest of cotton in Maricopa, Pinal, Pima, Cochise and Greenlee Counties. From less than 4 to 35 per 100 plants in Pinal County, 0-20 per 100 plants in Cochise County. Many fields treated in all areas. (Ariz. Coop. Rept.). NEW MEXICO - Infestations general in Dona Ana County. Still generally heavy in Chaves County. (Durkin, August 5). TEXAS - Eggs and larvae in 10 fields averaged 13.3 and 2.3 per 100 terminals, respectively, in McLennan and Falls Counties. (Parencia et al). Continue heavy in south central, east, central, north central and northeast areas. Increased in west central, west cross timbers, northwest, north and south plains areas. (Gaines). Infestations sufficient to require controls in increasing number of fields in Lubbock area. (Davis, Owen). OKLAHOMA - As high as 70 eggs per 100 plants in south central area. (Bryan). Building up some fields, declining others. (Stiles). ARKANSAS - Some fields have heavy damage in Sevier and Little River Counties. (Warren, Turney). LOUISIANA - Counts

continue low over State. Heavy moth flights in Curtis, Baton Rouge and Franklin areas. (Oliver). Average of 3.2 larvae and 3.3 eggs per 100 terminals in infested fields in Tallulah area. Situation becoming more serious. (Gaines, Pfrimmer et al). MISSOURI - Moth activity and egg deposition increased sharply, but only very few fields have infestation heavy enough to warrant control; however, infestation could become problem. Egg counts from 3 to 18 per 100 but small larvae scarce. (Kyd, Thomas). MISSISSIPPI - Eggs in 50 percent of fields examined in Washington County area, 2.1 per 100. (Merki, Furr et al). TENNESSEE - Damage continues very light in western counties. (Locke). Very minor in middle Tennessee. (Mullett). SOUTH CAROLINA. - Total of 9404 *H. armigera* moths taken in light trap at Florence compared with 1171 for previous week. Largest catch of season. Some reports of heavy boll damage. (Walker et al).

COTTON LEAFWORM (*Alabama argillacea*) - LOUISIANA - First moth of year in Tallulah area August 3. (Gaines, Pfrimmer et al). First moth at Baton Rouge August 7. (Oliver). TEXAS - Reported for first time this season from Howard, Terry, Lubbock and Tom Green Counties. (Gaines). One moth taken at Waco August 11. (Parencia et al). NEW MEXICO - A few larvae in cotton in Sierra County. (Durkin, July 29).

CABBAGE LOOPER (*Trichoplusia ni*) - TEXAS - Together with yellow-striped armyworms occurring in medium to heavy numbers many fields in several counties in Lubbock area. (Davis, Owen). GEORGIA - Severe "ragging" of foliage in a Pulaski County cotton field, August 4. (J. Alden). TENNESSEE - Small numbers over western area, very little damage. (Locke). SOUTH CAROLINA - Reported on cotton in some areas. (Nettles).

SPIDER MITES - CALIFORNIA - *Tetranychus* spp. increasing in San Joaquin Valley, heaviest in border rows. (Cal. Coop. Rept., Aug. 5). ARIZONA - Low on cotton due to abnormally wet weather. (Ariz. Coop. Rept.). TEXAS - Infestation sufficient to warrant control in a few fields in Lubbock area. (Davis, Owen). ARKANSAS - Occurring in spots and along field borders in many fields. (Warren, Turney). MISSOURI - Marginal injury from *Tetranychus telarius* becoming common in cotton area with heavy bronzing or loss of foliage. Few fields completely infested. (Kyd, Thomas). MISSISSIPPI - Appearing in most fields; damaging some fields in Washington County area. (Merki, Furr et al). GEORGIA - Numerous fields in Spalding and Pike Counties moderately to heavily infested, August 4-8. (Beckham). ALABAMA - Light in four, medium in two fields of 43 examined in northeastern area. (Moore).

APHIDS - TEXAS - Medium to heavy on cotton in Lubbock area. (Davis, Owen). MISSISSIPPI - Appearing generally over delta area but damage slight. (Merki, Furr et al). ARKANSAS - *Aphis gossypii* has increased in many fields. (Warren, Turney). CALIFORNIA - Some fields in Tulare County showed damage. (Cal. Coop. Rept., Aug. 5).



PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Increased in Williamson and Burleson Counties. (Gaines). Boll inspection results in several counties as follows: Williamson, 7 fields, 28.9 percent infested; Burleson, 18 fields, 40.1 percent; Robertson, 17 fields, 3.3 percent; Falls, 2 fields, 2 percent; McLennan, 6 fields, 4 percent. (Parenica et al).

PLANT BUGS - MISSOURI - Psailus seriatus and Adelphocoris rapidus show populations high enough in about 20 percent of late cotton to warrant control. From 25-65 per 100 terminals. (Kyd, Thomas).

TENNESSEE - Plant bugs causing considerable damage to blooms and squares in some areas in western counties. Fleahoppers continue to cause some damage but declining. (Locke). NEW MEXICO - Lygus spp. very light to above-damaging infestation levels in cotton; 9-16 per 100 sweeps in Dona Ana County. (Darkin, Aug. 5). ARIZONA - Slight decline in Maricopa County but still abundant enough for treatment in most areas, August 5. Generally low in Pinal and Pima Counties, August 5. (Ariz. Coop. Rept.). CALIFORNIA - Lygus elisus nymphs increasing in some San Joaquin Valley cotton fields, but predators effective in some other fields. Controls necessary in a few fields in Imperial County. (Cal. Coop. Rept., Aug. 5).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Appearing many areas in Maricopa County; second brood heavier than first, many egg masses and colonies of first-instar larvae. (Ariz. Coop. Rept.).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - CALIFORNIA - Some damage to stub cotton in Imperial County. (Cal. Coop. Rept., Aug. 5).

EUROPEAN CORN BORER (Pyrausta nubilalis) - TENNESSEE - Found infesting about 150 cotton plants in the field in Franklin County. (Moffitt). MISSOURI - For first time in State, larvae found boring in cotton stems and second and third instars attacking small bolls. Infestations found in Dunklin, New Madrid and Pemiscot Counties, where 0.5 to 1.5 percent of plants damaged. (Kyd, Thomas). According to available records these are first reports of this insect attacking cotton under field conditions.

A LEAF ROLLER (Platynota stultana) - ARIZONA - Second-brood eggs and larvae appearing in Maricopa County. (Ariz. Coop. Rept.).

STINK BUGS - ARIZONA - Along with a plant bug, moderate to heavy in Greenlee County. (Ariz. Coop. Rept.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

ELM LEAF BEETLE (Galerucella xanthomalaena) - NEVADA - Heavy deposit of eggs for second brood in western area. Eggs hatching in Washoe County. (Callaway). IDAHO - Extremely heavy defoliation of elms in Boise Valley on untreated trees. (Barr, August 6).

DOUGLAS-FIR BEETLE (Dendroctonus pseudotsugae) - COLORADO - Damaging numbers in Douglas fir in San Juan National Forest in southwestern area of State. (Colo. Exp. Sta.).

A WEEVIL (Cyrtopistomus castaneus) - VIRGINIA - Infestation severe on live oak trees at Exmore. (Freund). MARYLAND - Damaging small chestnut oaks in Baltimore County. (U. Md., Ent. Dept.).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - ARKANSAS - Additional infestations reported from Bradley County. (Warren, Turney).

ELM SAWFLY (Cimbex americana) - NORTH DAKOTA - Defoliating Chinese and American elms in Dickinson-Taylor area of Stark County. (N. D., Ins. Rept. Serv.).

FALL WEBWORM (Hyphantria cunea) - SOUTH DAKOTA - Scattered infestation on several types of trees including cottonwood and apple in eastern areas. (Hantsbarger, Spawn). MINNESOTA - Infesting many trees in southern area. (Minn. Ins. Rept. Serv.).

IPS ENGRAVER BEETLES (Ips spp.) - ARKANSAS - Increased activity in Ouachita National Forest. Numerous small trees dying, especially when they had been injured previously. (Warren, Turney)

FIR ENGRAVER (Scolytus ventralis) - COLORADO - Damaging numbers in San Juan National Forest in southwestern area of State. (Colo. Exp. Sta.).

YELLOW-NECKED CATERPILLAR (Datana ministra) - SOUTH DAKOTA - On basswood in Brookings area. (Spawn). NORTH DAKOTA - Defoliating crab apples. Valley City and reported from other areas. (N. D. Ins. Rept. Serv.).

SYCAMORE LACE BUG (Corythucha ciliata) - MARYLAND - Heavy on sycamores in most sections. (U. Md., Ent. Dept.).

VARIABLE OAK LEAF CATERPILLAR (Heterocampa maibeo) - MINNESOTA - Causing heavy defoliation of oaks and birch near Cass Lake. (Droz and McAloney).

LOCUST LEAF MINER (Chalepus dorsalis) - RHODE ISLAND - Severe injury to locust trees in the Scituate area. (Kantack, Mathewson).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - RHODE ISLAND - Heavier this year than in previous years. (Kantack, Mathewson).

COTTONY MAPLE SCALE (Pulvinaria innumerabilis) - IDAHO - Extremely severe infestations on maples in Emmett. (Barr, August 6).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Abundant in all areas with severe damage to small maples and elms and damage to roses heavy in some areas. Injury to corn silks moderate to severe. (Kantack). TENNESSEE - Considerable numbers of adults being found in Johnson County. (Mullett). SOUTH CAROLINA - In scattered locations just south of the North Carolina line, including the area from Landrum west to River Falls. (Berly).

LILY WEEVIL (Agasphaerops nigra) - OREGON - Damage to Easter lilies in Curry County this season in several areas not previously reported infested. More than usual damage expected. (Doucette).

A STEM BORER (Emboloecia sauzalitae papaipemoides) - OREGON - Light infestation in Easter lilies in Curry County this summer. (Doucette).

CUTWORMS - OREGON - Unusually numerous in lily plantings in Curry County. Most of damage to flower buds. (Doucette).

IRIS BORER (Macronoctua onusta) - MISSISSIPPI - An infestation recently found in Coahoma County. Second infestation found in State. (Hutchins).

#### INSECTS AFFECTING MAN AND ANIMALS

SCREW-WORM (Callitroga hominivorax) - TEXAS - Light to medium widespread infestation on range cattle in all counties in northwest part of the panhandle. (Garner).

EAR TICK (Otobius meqmini) - TEXAS - Heavy widespread infestations on range cattle in northwest part of panhandle. (Garner).

TICKS - RHODE ISLAND - Severe infestation in house in Wickford (Kantack) and an infestation in a house in Warwick (Mathewson).

HOUSE FLIES - NEW MEXICO - Musca domestica very abundant in Las Cruces and surrounding areas. (Durkin, August 5). ARIZONA - Index in two small towns in southeastern Maricopa and northwestern Pinal Counties: average of five highest grill counts in nine blocks from August 1-5 was 77.6. (Ariz. Coop. Rept.)

FLEAS - GEORGIA - Cat flea (Ctenocephalides felis) infestation heavy in and about households in Fulton and DeKalb Counties and causing more trouble than in the last 10-15 years. (Blasingame). VIRGINIA - Severe infestation in an apartment house in Blacksburg. (Turner).

### BENEFICIAL INSECTS

LADY BEETLES - IDAHO - Increasing in potato and clover fields and heaviest in potatoes. (Walz, August 6). NEW MEXICO - Hippodamia convergens from 2-16 per 100 sweeps in cotton and from 25-50 per 100 sweeps in alfalfa in Dona Ana County. (Durkin, August 5).

A DAMSEL BUG (Nabis ferus) - NEW MEXICO - Up to six per 100 sweeps in cotton and 5-10 per 100 sweeps in alfalfa in Dona Ana County. (Durkin, August 5).

A PREDATOR (Collops vittatus) - NEW MEXICO - From 2-6 per 100 sweeps in cotton and 5 - 10 per 100 sweeps in alfalfa in Dona Ana County. (Durkin, August 5).

### STORED PRODUCTS INSECTS

POTATO TUBERWORM (Cnirimoschema operculella) - VIRGINIA - Infestations more numerous this spring than since 1947. Potential good for heavy outbreak this fall. (Hofmaster).

KHAPRA BEETLE (Trogoderma granarium) - CALIFORNIA - As of August 11 infestations total 183 in sixteen counties with 54 of these having been successfully fumigated. (Harper).

### RECENT INTERCEPTIONS AT PORTS OF ENTRY

Of interest recently was the interception of living adults of Icerya aegyptiaca (Dougl.), the so-called Egyptian mealybug, on the leaves of palm trees from India in ships' furnishings at Philadelphia, Pennsylvania. (Freedland). The insect has been reported injurious to a wide variety of fruit and ornamental trees in parts of Europe, Asia, Africa, Australia and the South Pacific. Injury is due to larval and adult feeding on the leaves, young twigs and fruit, causing considerable leaf drop and some weakening of the host plant under certain conditions. The foliage is also smeared with honeydew excreted by the insect. Its many hosts include acalypha, aleurites, breadfruit, citrus, coffee, Ficus, date, guava, grape, pear, pomegranate and other plants.

One of the giant coccids (Monophlebinae), I. aegyptiaca, is a well-known insect throughout its range, being very conspicuous because of its large size, bright orange-yellow body color more or less obscured by a white wax covering and the thick lateral filaments of white wax radiating outward in a fringe along the body margin. Under ordinary conditions it is not a serious pest, but because of its tremendous reproductive powers occasionally builds up in great numbers to cause considerable injury. It has been intercepted on five previous occasions at various ports; on Cocos nucifera from Ulithi (South Pacific), on croton from the Philippines, on Grevillea from American Samoa, on palm from an unknown origin (soldiers' mail), and on an unidentified host plant from the Straits Settlements. It is not known to occur in the United States.

(Compiled - Plant Quarantine Branch).

### MISCELLANEOUS INSECTS

STRAWBERRY ROOT WEEVILS (Brachyrhinus spp.) - MICHIGAN - Continue as pests in houses as far north as Grand Rapids. (Hutson, August 2). OREGON - B. rugosostriatus and B. ovatus causing annoyance by entering houses. (Roth, Ducette). NEVADA - B. ovatus entering homes in Reno area. (Callaway).

ASIATIC GARDEN BEETLE (Autoserica castanea) - RHODE ISLAND - Unusually abundant in all portions of State (Kantack) and causing loss of business at an ice cream parlor in East Providence (Mathewson).

POWDER POST BEETLES - NORTH CAROLINA - Lyctus sp. infesting three houses, one heavily, in Wake County. (Wright).

### STATE CLEARING OFFICES

CORRECTION: CEIR 5(30):727: Under DELAWARE should read Dr. L. A. Stearns, Chairman, Department of Entomology, University of Delaware, Newark.

### ADDITIONAL NOTES

NEW YORK - EUROPEAN CORN BORER eggs common in late corn plantings in Hudson Valley and FALL ARMYWORM half grown August 10. (Adams). CABBAGE LOOPER serious in many areas. (Kriner). CORN EARWORM prevalent and may become worse. (Kriner).

PENNSYLVANIA - FALL ARMYWORM light to moderate on sweet corn in Lawrence County. (Adams).

MINNESOTA - WALNUT CATERPILLAR heavily defoliating walnut in southeastern area. (Minn. Ins. Rept. Serv.).

MASSACHUSETTS - CORN EARWORM infestation much heavier than usual in early and mid August sweet corn. Further increase expected. (Crop Pest Cont. Mass.).

GEORGIA - Eighty cotton fields in 20 northern counties inspected for BOLL WEEVIL and all found infested. Average of 41.8 percent infestation in 5 untreated fields and 15.5 percent in 75 treated fields. Average of 9 percent infestation in treated fields last week. Average of 1.4 BOLL WORM eggs and 2.3 larvae per 100 terminals in 20 treated fields. APHID infestations in 80 fields: none 31; light 23; medium 16; heavy 10. SPIDER MITES in 80 fields: none 33; light 40; medium 6; heavy 1. Tetranychus telarius and T. desertorum involved. (J. C. and C. R. Jordan).

#### WEATHER BUREAU'S 30-DAY OUTLOOK Mid-August to Mid-September 1955

The Weather Bureau's 30-day outlook for mid-August to mid-September calls for temperatures to average below normal in the Pacific Northwest, far Southwest, and lower Mississippi Valley. Above normal temperatures are predicted in the Northeast, Great Lakes region, and Northern and Central Plains states. In areas not specified, temperatures are expected to average not far from normal.

Precipitation should exceed normal in the eastern quarter of the United States from Georgia northward, and along the West Gulf Coast. Sub-normal amounts are anticipated in the Central Plains, Western Great Lakes, and West of the Continental Divide, except for the northern and southern borders. Elsewhere near normal amounts are expected.

This report released by the Weather Bureau on August 17, 1955.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price: \$4.80 a year, \$2.40 for six months.

## WEATHER FOR THE WEEK ENDING AUGUST 15, 1955

Hurricane Connie furnished the week's principal weather news along the Atlantic Coast. "Connie", the first full blown hurricane of the season, hesitated and altered course several times during her approach to the mainland, and faltered at the coast line near Morehead City, North Carolina, for several hours before finally moving northward to Chesapeake Bay. These frequent variations in course and speed made forecasting of her forward motion extremely difficult. With diminishing intensity in her path northward over Chesapeake Bay and across Pennsylvania to Lake Erie, "Connie" had already lost hurricane strength before passing between Washington, D. C. and Baltimore, Maryland, about 8 a. m. on the 13th. "Connie" was preceded and accompanied by heavy rainfall along her entire path. These heavy rains, which ranged up to 8 or 10 inches near the center of the storm and to more than 12 inches at some stations in southeastern New York, caused some local flood and erosion damage. Crop damage, however, from both winds and heavy rains was more than offset by the benefits afforded by the much needed moisture.

North Carolina bore the brunt of the storm, but no deaths or injuries were directly attributed to the storm in that State, a record undoubtedly due in large part to complete and almost continuous coverage of the storm over radio and television as well as to calls made directly to endangered areas over telephone and amateur radio. Damage in the State was largely confined to coastal areas, which were battered for many hours by winds and tidal waters. Total damage in the State, based on preliminary surveys, was estimated as high as \$11,000,000, most of it along the beaches from the vicinity of Wilmington to Morehead City-Beaufort area. Property damage was believed to be less than one-tenth that caused by "Hazel" on October 15, 1954, but beach erosion appeared to be as great or even greater.

In the remainder of the Nation rainfall was extremely spotty, except in an area of the far West including Washington, Oregon, Idaho, western Montana, northern Utah, northern and western Nevada, and most of California, and another area in the Midwest including northern Missouri, eastern Iowa, northern Illinois, and most of Wisconsin, where little or no rain fell. Heavy rains other than those caused by "Connie" fell in the lower Ohio Valley, southern Minnesota, portions of Arizona, and in scattered areas of the Southern States and central Great Plains. Rainfall in eastern Colorado generally ranging from 150 to 200 percent of normal with many stations reporting over 2 inches caused damaging floods in Morgan, Jefferson, and El Paso Counties.

Temperatures for the week averaged near normal over the entire country, with greatest anomalies ranging from 4° above normal at Bismarck, North Dakota, to 4° below normal at St. Louis and Kansas City, Missouri, and Topeka, Kansas. (Summary Supplied by U. S. Weather Bureau).

LIGHT TRAP COLLECTIONS

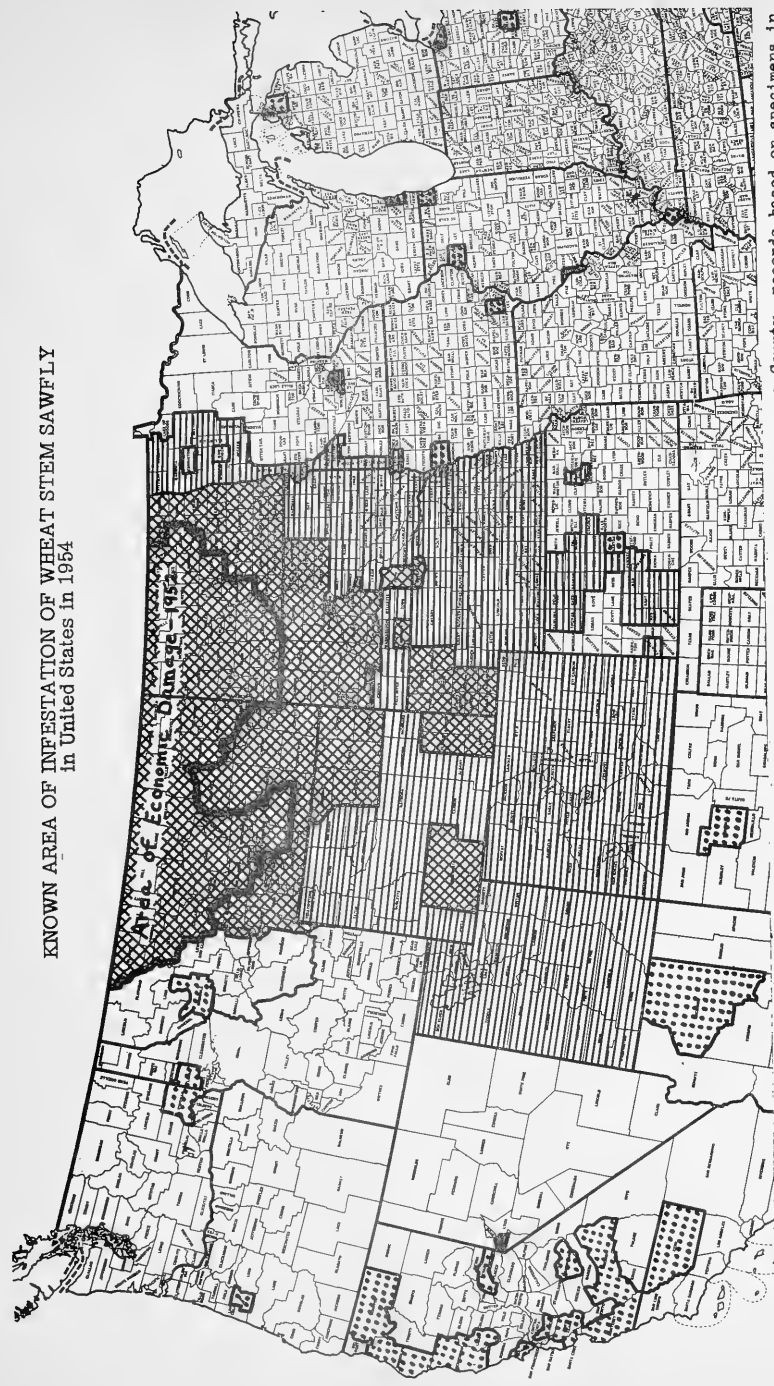
		Pseudal. unipun.	Laphyg. frugip.	Agrotis ypsilon	Peric. marq.	Feltia subter.	Heliopsis armig. vires.	Protoparce sexta. quin.
TEXAS								
Waco	3/6-12	1	5			18	42	
LOUISIANA								
B. Rounce*	3/6-12	30	129	9		171	137	
Franklin	8/5-11	23	122	3		31	58	
Curtis	8/2 & 8	30				7	57	
MISSISSIPPI (Counties)								
Coahoma	8/6-13	104		105	2	27	625	
Humphreys		41		10		15	135	
Oktibbeha		146		41		15	74	
Pearl River		24		5		1	16	
Washington*		531	4	35		407	458	233 spp.
ARKANSAS								
Hope	8/5-8			16			22	
Stuttgart	8/4-10			4	9		12	
Van Buren	2/5-11						32	
Fayetteville	8/6-12	23		17	9		215	
Clarksville	2/5-11	6		17			35	
GEORGIA (Counties)								
Tift	8/1-6	8	25				78	1 6
Spalding	7/31-8/5	19	150	14		33	187 spp.	
Clarke	7/31-8/5	5				3	10	

OTHER STATES: ALABAMA (Anburr 2/3-13) *P. unipuncta* 14; *F. subterranea* 4; *H. armigera* 95. VIRGINIA (Hatchsylvania 7/31-8/5) *P. quinque maculata* 757. MARYLAND (Montgomery 8/3-12) *P. unipuncta* 23; *A. ypsilon* 12; *H. armigera* 30; *P. quinque maculata* 27.

\*Two traps at Baton Rouge; two in Washington County.



KNOWN AREA OF INFESTATION OF WHEAT STEM SAWFLY  
in United States in 1954



County records based on specimens in U. S. National Museum or on published data. Associated host plants unknown.



Counties with infestation in grass only.



Counties with infestation in both wheat and grass.



Prepared by E. C. Davis, Ent. Res. Branch. Published originally in N. Dak. Agr. Expt. Sta. Bimonthly Bul. 17(5): 171-175, 1955.







VOL. 5 No. 35

SEPTEMBER 2, 1955

SB  
823  
C77  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

Adult GRASSHOPPER surveys show populations greater than last year in areas of Minnesota and North Dakota. Populations non-economic to threatening locally in central Kansas, while Melanoplus mexicanus heavier than last year in Nebraska. Infestations continue problem in northern Missouri, southern Wisconsin and other areas. (p. 835). Damaging peaches in several Ohio counties. (p. 840).

EUROPEAN CORN BORER moth emergence practically complete in Illinois, Minnesota and eastern areas of North and South Dakota. Moths very abundant in southern Wisconsin. (p. 836). Additional report of European corn borer on cotton from Missouri. (p. 848).

HESSIAN FLY infesting 10 percent of tillers of wheat in southern Illinois. (p. 837). NORTHERN CORN ROOTWORM causing damage to corn in scattered areas of Missouri (p. 838) and in some Ohio counties (p. 853).

ALFALFA CATERPILLAR adults abundant in Nebraska and areas of Arizona and Delaware. Larvae numerous in Nebraska and eastern South Dakota. (p. 838). BLISTER BEETLES unusually heavy in Illinois and very abundant in Nebraska. (p. 838).

ORCHARD MITES causing damage in areas of New Mexico, Colorado, Minn. and Ohio. (p. 839). RED-BANDED LEAF ROLLER injury to peaches unusually prevalent in some Ohio counties. (p. 840). Two light infestations of CITRUS BLACKFLY discovered in Hidalgo County, Texas. (p. 856).

GREEN CLOVERWORM damaging lima beans in New York and Delaware. (p. 842). Remains principal insect on soybeans and alfalfa in Delaware and could become problem on soybeans in Missouri. (p. 838). WESTERN BEAN CUTWORM damaging beans in south central Idaho. (p. 842). BEET LEAFHOPPER infesting sugar beets at Holdrege, Nebraska. (p. 844). PICKLEWORM very abundant Clarksville, Tennessee. Also reported from Virginia, Georgia and North Carolina. (p. 844).

HORNWORMS caused very heavy damage to tobacco in Maryland and becoming destructive to tomatoes in Delaware. (p. 845).

(Continued on next page).

BOLL WEEVIL continues to increase in Arkansas and Tennessee. Principal insect problem in Tallulah, Louisiana, area. Migration underway in Oklahoma, Mississippi, Georgia, North Carolina and other areas. (p. 846). BOLLWORMS continue main cotton pests in Arizona and continue abundant in several New Mexico counties. Infestations becoming more general in Lubbock area of Texas and increasing in areas of Oklahoma, Arkansas, Tennessee and North Carolina. (p. 846). COTTON LEAFWORM active in some fields in New Mexico, Louisiana and Arkansas. (p. 847). CABBAGE LOOPER damaging cotton in several New Mexico counties, Dawson County, Texas and Cherokee County, Alabama. (p. 848). SALT-MARSH CATERPILLAR causing concern in Yuma and Maricopa Counties, Arizona. (p. 848).

VARIABLE OAK LEAF CATERPILLAR causing defoliation of forest trees in northern Wisconsin and northwestern Minnesota. (p. 849). BIRCH SKELETONIZER has caused browning of birch foliage in northern Wisconsin. (p. 850). GYPSY MOTH caused little defoliation in New England this season. (p. 850).

MOSQUITOES abundant in areas of Idaho, Utah, Wisconsin, Rhode Island and North Carolina. (p. 851). SCREW-WORM reported from Clay County, Nebraska. (p. 851). CRICKETS more abundant than usual in Wisconsin. (pp. 852, 853).

ADDITIONAL NOTES (p. 853).

WEATHER summary. (p. 856).

STATES reporting this week - 35.

\*\*\*\*\*

Reports in this issue are for the week ending August 26, 1955, unless otherwise designated.



CEREAL AND FORAGE INSECTS

GRASSHOPPERS - NEW MEXICO - Severe damage to 4,000 - 5,000 acres of crop lands in Taos County. Approximately 35,000 acres of rangeland infested in Rio Arriba County and 500-1,000 acres in Catron County. Recent adult survey shows 602,000 acres of rangeland infested in Union County and 3,840 acres in Otero County. Other counties reporting infestations are Guadalupe, Sierra, Colfax, Harding, Mora, Roosevelt and Quay. (Durkin, Fulkerson, August 19). UTAH - Much above normal populations in Rich County. (Knowlton). WASHINGTON - Heavy local breeding concentration of Cannula pellucida on rangeland in Yakima County. (Schwary). NEBRASKA - M. differentialis predominant species on corn and milo in eastern, central and western areas. M. femur-rubrum predominant on legumes, especially alfalfa, throughout State. M. mexicanus populations heavier than last year. Only marginal damage to corn in western area. (Roselle, Hill, Andersen). SOUTH DAKOTA - Becoming more numerous in cornfields, 4 adults per square yard one field. Damage becoming evident. Mainly M. differentialis and M. femur-rubrum involved. (Hantsbarger) NORTH DAKOTA - Preliminary adult grasshopper survey results show populations greater than in 1954. M. bivittatus dominant in roadside situations and may cause severe damage to fall-seeded grains. M. femur-rubrum is most numerous in alfalfa. (N. D. Ins. Rept. Serv.).

KANSAS - Adult survey shows non-economic to threatening populations in local areas of central and north central counties. Local damage in corn and alfalfa. Counts in field margins and fence rows ranged from 4 to 26 per square yard while counts in fields showed 2 to 16 adults per square yard. From 6 to 20 M. mexicanus nymphs per square yard in a few alfalfa fields in southern Cloud County. (Matthew). MINNESOTA - According to adult surveys, infestations approaching economic proportions in most agricultural areas. Threatening to severe population levels more common than in 1954. In south central area where populations non-economic in 1954 there is general increase. In west central, southwest, northwest, central and southeastern areas populations higher than last year. In northeastern area populations appear non-economic as in 1954. (Minn. Ins. Rept. Serv.). MISSOURI - Melanoplus spp. damage continues locally heavy in field crops over northern Missouri. M. differentialis ranges from 1 to 24 per square yard and varies from third instars to adults. M. mexicanus and M. femur-rubrum common in grass lands and legumes; 2 to 23 per square yard and range from second instars to adults. (Kyd, Thomas). WISCONSIN - Continue to attract attention in southern area where populations adult and egg-laying underway. Mainly M. femur-rubrum involved. Damage to margins of corn, clover for seed, soybeans and alfalfa. (Chambers). TEXAS - Medium to widespread infestations in peanuts, cotton, pastures and peas in Denton County. (Berend). VIRGINIA - Continue medium to heavy on alfalfa in Washington County. (Gorsline).

EUROPEAN CORN BORER (Pyrausta nubilalis) - ILLINOIS - Moth flight and egg-laying practically complete. Many second-generation borers full grown and a few have pupated; therefore, may have partial third generation. Damage from second generation becoming evident. (Petty et al). WISCONSIN - Moths very abundant in Kenosha and other counties in southern tier. (Chambers). MINNESOTA - Moth emergence practically complete. Ninety-five percent of first-generation borers went into second generation in southwest district. Very little second-generation feeding in ears and ear shanks of corn plants. Tassel and stalk breakage due to first-generation injury much less than in previous years. (Minn. Ins. Rept. Serv.). NORTH DAKOTA - Emergence of moths completed in eastern North Dakota. Egg-laying at peak with counts of 20-155 per 100 stalks, highest in late fields or late-maturing varieties. (N. D. Ins. Rept. Serv.). SOUTH DAKOTA - Moth emergence nearly complete (about 93 percent) in northeastern areas. Second-generation borers up to second instars. Up to 130 egg masses per 100 plants in some fields. (Hantsbarger). KANSAS - Several cornfields in Jefferson County showed 4 to 24 percent infestation with average of 2 larvae (fourth instar) per stalk. No infestations found in Washington and Republic Counties. (Matthew). NEBRASKA - Pupae can still be found in northeast area (Knox County). Second-generation larvae in first and second instars. As many as 7 empty pupal cases per stalk. (Hill).

CORN EARWORM (Heliothis armigera) - DELAWARE - Adults abundant in alfalfa near Lincoln. (Milliron). RHODE ISLAND - Infestations increasing rapidly, especially on late sweet corn; 20 percent ears infested in one field. (Kantack). PENNSYLVANIA - Loss of two acres of sweet corn in Somerset County. (Udine). VIRGINIA - Heliothis sp. caused complete loss on three acres of sorghum in Richmond County. (Farmer). NORTH CAROLINA - Average egg count per silk of corn: Faison 37.4, Clayton 4.9. Attacking milo in Wilson County and Sudan grass in Alamance County. (Jones, Townes). GEORGIA - Heavy in heads of 50 acres of grain sorghum in Newton County. (Jordan). ALABAMA - Infestations have developed in grain sorghum in Dallas and Marion Counties. (Arant). OKLAHOMA - Populations in sorghum heads decreasing sharply in some northern and central counties. (Wood). COLORADO - Infestations reaching 95 percent in field corn in Prowers County, but pupation underway. May mean problem later on tomatoes in Pueblo, Otero and Bent Counties. (Colo. Exp. Sta.). KANSAS - From 4 to 53 percent of ears of field corn showing damage in Washington, Republic, Cloud, Clay, Riley and Jefferson, but no feeding observed in sorghum and milo heads. Marked increase in moth populations in Riley County. (Matthew).

FALL ARMYWORM (Laphygma frugiperda) - DELAWARE - Severe at most places on late corn; about 40 percent of one planting infested near Mt. Pleasant. (Milliron). VIRGINIA - Infesting peanuts in Surry County. (Rawls).

ARMYWORM (Pseudaletia unipuncta) - NORTH CAROLINA - Moderate to severe on Sudan grass and millet in Alamance County. (Jones).

SORGHUM WEBWORM (Celama sorghiella) - ALABAMA - Infestations have developed in grain sorghum in Dallas and Marion Counties. (Arant).

HESSIAN FLY (Phytophaga destructor) - ILLINOIS - Survey shows infestation ranges from 0-30 percent of tillers infested with 0-35 puparia in 125 tillers. Average tiller infestation for several southern counties is 10 percent. (Petty et al).

ENGLISH GRAIN APHID (Macrosiphum granarium) - IDAHO - Populations very much reduced in southeastern area due to lady beetles. About half grain fields in area treated with insecticides. (Portman, August 20).

CORN LEAF APHID (Rhopalosiphum maidis) - TENNESSEE - More than normally abundant in Clarksville area but damage negligible. (Scott).

RICE STINK BUG (Solubea pugnax) - LOUISIANA - Averages from 6 to 47 per 100 sweeps in rice in St. Landry, Evangeline and Acadia Parishes. (Oliver).

A LYGAEID (Paromius longulus) - LOUISIANA - From 4 to 40 per 100 sweeps in rice in some areas. (Oliver).

A MIRID (Labops hesperius) - WASHINGTON - The mirid reported damaging fescue in CEIR 5(24):539 has been identified as this species by R. I. Sailer. (Johansen).

RHODES-GRASS SCALE (Antonina graminis) - FLORIDA - Infesting para grass in St. Lucie County, many per stem. (Campbell).

A GRASSWORM (Mocis sp.) - FLORIDA - More abundant than usual at Homestead, Dade County. (Wolfenbarger).

A SCARAB LARVA - ARIZONA - Caused damage to grass in spots, totaling about 10,000 acres, on a 101,000 acre ranch near Seligman. Probably Phyllophaga sp. involved. (Ariz. Coop. Rept.).

A HESPERID (Atalopedes campestris) - ARKANSAS - The hesperid reported damaging pastures (CEIR 5(31):739) has been identified as this species. (Warren, Turney).

SOD WEBWORMS - WASHINGTON - Crambus plumbifimbriellus (det. H. W. Capps) in complex with C. topiarius causing considerable damage in Dishman area for second season. (Johansen).

NORTHERN CORN ROOTWORM (Diabrotica longicornis) - NEBRASKA - Found in large numbers in an alfalfa field in Otoe County. (Roselle). MISSOURI - Heavy damage in widely scattered areas. Adults feeding heavily on silks and severe lodging in areas of infested fields. (Kyd, Thomas).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - ARIZONA - Adults abundant over alfalfa at Yuma and Coolidge. Some fields have 1-2 larvae per sweep at Yuma. (Ariz. Coop. Rept.). SOUTH DAKOTA - Fairly numerous in alfalfa fields of eastern areas with counts up to two larvae per 10 sweeps. (Hantsbarger). NEBRASKA - Very abundant, adults and larvae, throughout State. From 10-25 per 25 sweeps in panhandle area. (Roselle, Andersen). DELAWARE - Adults numerous in alfalfa at Canterbury. (Milliron).

BLISTER BEETLES - ILLINOIS - More common in alfalfa than any year on record. (Petty et al). NEBRASKA - Epicauta spp. very abundant in alfalfa throughout State. Heaviest infestation where grasshoppers abundant. (Roselle, Andersen).

CLOVER SEED CHALCID (Bruchophagus gibbus) - ARIZONA - From 3-5 per sweep in late seed alfalfa fields at Yuma. (Ariz. Coop. Rept.). SOUTH DAKOTA - Some damage to alfalfa seed fields. Fairly prevalent over eastern area. (Hantsbarger).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Remains principal destructive insect to alfalfa and soybeans. (Milliron). ILLINOIS - Outbreak on soybeans subsiding rapidly. (Petty et al). MISSOURI - Adults becoming numerous and insect could become problem on soybeans. (Kyd, Thomas).

GARDEN WEBWORM (Loxostege similalis) - KANSAS - Light to moderate infestation in some seed alfalfa in north central and northeast areas; 3-14 per sweep of 15-inch net. Moths numerous in Jefferson County. (Matthew).

LEAFHOPPERS - SOUTH DAKOTA - Continue numerous in alfalfa, up to 36 per 10 sweeps in some areas. (Hantsbarger). VIRGINIA - Empoasca fabae heavy in some Montgomery County alfalfa. (Muka).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - ILLINOIS - Concentrating in legume seedings. (Petty et al).

PLANT BUGS - KANSAS - Adelphocoris lineolatus, A. rapidus and Lycus lineolaris rather common, 3 to 14 per sweep in more heavily infested fields, in most seed alfalfa fields in north central and northeast counties. (Matthew). UTAH - Lycus abundant in alfalfa in northern area. (Knowlton).

THRIPS - UTAH - Commonly very abundant on blossoming alfalfa. (Knowlton).

YELLOW CLOVER APHID (Myzocallis trifolii) - KANSAS - Found on alfalfa in Republic, Washington and Jefferson Counties. Extends distribution north and northeast in State. Counts from 3 to 11 aphids per sweep. (Matthew). TEXAS - Local spotted infestations in irrigated alfalfa in Collingsworth County. (Thomas). ARIZONA - Populations rose from .03 per leaf Aug. 8-9 to .07 Aug. 15-16 in alfalfa in Maricopa County. Increase also in lady beetles. (Ariz. Coop. Rept.). NEW MEXICO - Increasing in most alfalfa in Dona Ana County after a relatively aphid-free month. Also returning to alfalfa in Quay County. (Durkin, August 19).

A WEBWORM - MISSOURI - Locally heavy damage to lespedeza in Stone County. (Kyd, Thomas).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - GEORGIA - Light infestation in velvetbeans at Tifton, August 24. Apparently first record of season. (Morgan).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Continues to infest alfalfa at 150-225 per 100 sweeps in Bossier Parish, 250 per 100 sweeps in Natchitoches Parish, and 100 per 100 in Red River Parish. Also continues to heavily infest soybeans over State. (Oliver).

RED-NECKED PEANUTWORM (Stegasta bosquella) - GEORGIA - Peanuts generally infested in southern area. (Geiger).

### FRUIT INSECTS

ORCHARD MITES - NEW MEXICO - Bryobia praetiosa and Tetranychus telarius heavy on about 125 acres of fruit trees in the Espanola Valley of Rio Arriba County and causing light to heavy damage in orchards in the Ft. Sumter area of DeBaca County and Hondo Valley in Lincoln County. (Durkin, August 19). COLORADO - Vasates cornutus building up in peach orchards of Mesa and Delta Counties. Silvering of upper leaf surfaces appearing in orchards with high mite populations. (Colo. Exp. Sta.). MINNESOTA - European red mite (Metatetranychus ulmi) populations quite high in some commercial orchards. (Minn. Ins. Rept. Serv.). OHIO - Two-spotted spider mite (T. telarius) increasing in several orchards but not serious yet. (Cutright). Moderate to severe infestations in orchards in Franklin, Ashland, Licking, Sandusky and Ottawa Counties on peaches where emergency sprays were not applied. Mite infestations low on peaches in Wayne, Columbiana and Mahoning Counties. (Rings).

CODLING MOTH (Carpocapsa pomonella) - COLORADO - Surveys in Delta County show that almost all orchards have fruit damage and some have up to 50 percent damage. Evidence that DDT not effective in control. (Colo. Exp. Sta.). OHIO - Last moths of midsummer brood at Wooster emerged in cages August 20. Larvae leaving apples in increasing numbers. (Cutright).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - OHIO - Injury to peaches more prevalent in Sandusky, Erie and Ottawa Counties than in any year since 1948. (Rings).

FRUIT TREE LEAF ROLLER (Archips argyrospila) - COLORADO - Surveys in Delta County show that some early blemishes on apples due to this insect. (Colo. Exp. Sta.).

GREEN JUNE BEETLE (Cotinis nitida) - OHIO - Adults appearing in greater numbers than usual in Coshocton, Tuscarawas and Licking Counties. (Parks, Goleman).

GRASSHOPPERS - - OHIO - Moderate to severe infestations in peach orchards in Wayne, Columbiana and Mahoning Counties where emergency sprays were not applied. Some orchards showing up to 13 percent of fruit injured. (Rings).

PLUM CURCULIO (Conotrachelus nenuphar) - OHIO - Injury generally light throughout the State on midseason varieties. (Rings).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - OHIO - Injury generally light although some orchards in Erie and Franklin Counties show much more injury than in previous three years. (Rings).

CAT-FACING INSECTS - OHIO - Injury to mid-season varieties of peaches about the same as in 1954 or slightly less. Oak plant bug injury severe in several orchards in Wayne and Sandusky Counties. Populations of stink bugs generally lower than in 1954. (Rings).

PEACH TREE BORER (Sanninoidea exitiosa) - IDAHO - Active in prune orchards in southwestern area. Some orchards have large populations of moths which built up over several years and will require control to prevent damage. (Walz, August 20).

PEAR-SLUG (Caliroa cerasi) - IDAHO - Requiring control on cherries in south central area (Douglass) and damage beginning to appear on untreated pear trees in Moscow area. (Barr, August 20).

HICKORY SHUCKWORM (Laspeyresia caryana) - MISSISSIPPI - Specimens received from Bolivar County where damage was reported. (Hutchins).

LEAFHOPPERS - ARIZONA - Numerous on 80 acres of grapes southwest of Peoria. (Showers). NEW MEXICO - Leafhoppers very abundant on untreated grapes and causing severe damage in Dona Ana County. (Durkin, August 19).

GREENHOUSE THRIPS (Heliothrips haemorrhoidalis) - FLORIDA - Infestation on avocados at Homestead, Dade County. About 4-5 percent of fruit infested. This is third season in which reduction of fruit injury has occurred. (Det. Wolfenbarger). (Denmark).

FILBERTWORM (Melissopus latiferreanus) - OREGON - Moths reached peak of emergence in Willamette Valley, August 23. This is 20 days later than in 1954. (Thompson).

CHESTNUT WEEVILS (Curculio spp.) - MARYLAND - C. proboscideus and C. auriger depositing eggs in chestnut burs in Queen Annes and Prince Georges Counties. (U. Md., Ent. Dept.).

EUROPEAN FRUIT LECANIUM (Lecanium corni) - WASHINGTON - Hatch nearly complete on cranberries in Pacific County. (Tidrick).

BLACK-HEADED FIREWORM (Rhopobota naevana) - WASHINGTON - Half-grown second brood larvae injuring cranberry fruits in Pacific County. (Tidrick).

PECAN LEAF PHYLLOXERA (Phylloxera notabilis) - SOUTH CAROLINA - Up to 10 galls per leaf and 25 percent of leaves infested in Gaffney, Cherokee County, August 10. (Lee).

PECAN WEEVIL (Curculio caryae) - GEORGIA - Light infestation puncturing immature nuts in Spalding County. Infestation averaged 0.63 weevils per tree of 30 bumped August 12. (Dupree, Beckham).

YELLOW-NECKED CATERPILLAR (Datana ministra) - WISCONSIN - Very abundant in many farm orchards. (Chambers).

WALNUT CATERPILLAR (Datana integerrima) - GEORGIA - Completely defoliating pecan trees in Irwin County, August 18. (Davenport).

### TRUCK CROP INSECTS

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Populations below normal in eastern area. (Brubaker, Greenwood, Hofmaster). RHODE ISLAND - Moderate numbers in gardens in Wakefield, Wickford and East Greenwich. (Kantack). NORTH CAROLINA - Reported more difficult to control in Ashe County this year due to extensive rains. Beans in numerous home gardens completely destroyed. (Farrier).

SALT-MARSH CATERPILLAR (Estigmene acrea) - DELAWARE - Some feeding on lima beans in the Andrews-ville-Farmington area. (Milliron).

RAPID PLANT BUG (Adelphocoris rapidus) - DELAWARE - Abundant on lima beans near Brenford and common most other areas. (Milliron).

A STINK BUG (Cosmopepla bimaculata) - VIRGINIA - Large numbers on butter beans in one area of Louisa County. (Andrews, Rowell).

COTTON SQUARE BORER (Strymon melinus) - VIRGINIA - A larva identified as this species damaging pods of beans in a Floyd County garden. (Talley).

SPIDER MITES - VIRGINIA - Continue to cause some injury to beans in eastern area. (Brubaker, Greenwood, Hofmaster).

GREEN CLOVERWORM (Plathypena scabra) - NEW YORK - Second brood damaging foliage and pods of beans in several counties. (N. Y. Wkly. News Lett., August 22). DELAWARE - Continues to feed on lima beans from Middletown southward. (Milliron).

GARDEN WEBWORM (Loxostege similalis) - DELAWARE - Adults very numerous in lima bean fields from Dover southward. (Milliron).

APHIDS - IDAHO - Starting to build up on commercial lettuce and requiring control in several instances. (Walz, August 20). OREGON - Black bean aphid continues to migrate into bean fields in Multnomah County. Colonies building up and control measures required in some bean yards. (Morrison). MAINE - Sharp drop in populations in potatoes during week, although appreciable numbers occur in untreated fields near Presque Isle. Populations about one-third those of week ending August 20. (Shands).

BEAN APHID (Aphis fabae) - WASHINGTON - Increasing in Sumner area and requiring control. Colonies on beans, broad beans, lambs-quarter, pigweed and Canada thistle. (Doucette).

BEAN LEAF ROLLER (Urbanus proteus) - ALABAMA - Caused damage to snap beans in Wilcox County. (Moore).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - IDAHO - Damaging beans in south central area. Infestation lighter than last year. Control underway. (Douglass, August 20).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - WASHINGTON - In complex with a thrips causing damage to edible dry beans in Grant



County. (Harwood). PENNSYLVANIA - First-year planting of raspberries severely injured with some injury to foliage on older plants in York County. (Pepper).

SWEETPOTATO FLEA BEETLE (Chaetocnema confinis) - LOUISIANA - Infesting sweetpotatoes at 100 per 100 sweeps in St. Landry Parish, 225 per 100 sweeps in Lafayette Parish and 300 per 100 sweeps in West Feliciana Parish. (Oliver).

A SWEETPOTATO BEETLE (Agroiconota bivittata) - NORTH CAROLINA - Moderate damage to sweetpotato foliage in Martin County. (Farrier). LOUISIANA - Infesting sweetpotato foliage at 7 per 100 sweeps in St. Landry Parish, 11 per 100 sweeps in Lafayette Parish, and 10 per 100 sweeps in West Feliciana Parish. (Oliver).

MOTTLED TORTOISE BEETLE (Deloyala guttata) - NORTH CAROLINA - Moderate infestation in sweetpotatoes in Martin County. (Farrier, Weisman).

A LEAFHOPPER (Empoasca probably solana) - LOUISIANA - Infesting sweetpotatoes at 50 per 100 sweeps in St. Landry Parish, 125 per 100 sweeps in Lafayette Parish, and 200 per 100 sweeps in West Feliciana Parish. (Oliver).

BANDED CUCUMBER BEETLE (Diabrotica balteata) - LOUISIANA - Infesting sweetpotatoes at 25 per 100 sweeps in West Feliciana Parish and seven per 100 sweeps in St. Landry Parish. (Oliver).

HARLEQUIN BUG (Murgantia histrionica) - VIRGINIA - Causing considerable damage to turnips in a Pittsylvania County planting. (Harein). FLORIDA - Average 5-6 nymphs and adults per plant on turnips at Hawthorne, Alachua County. (Hunter). COLORADO - Damaging numbers in the San Luis Valley. (Chem. Ind.).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Attacking broccoli at Leipsic and cabbage in the Ellendale-Georgetown area. (Milliron). TENNESSEE - Damage to cole crops severe in untreated plantings in Clarksville area. (Scott). NORTH CAROLINA - Heavy egg deposition in collards in Wake County. (Brett).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Conspicuous injury to tomato foliage generally. Prevalent on peppers but less injurious. Feeding on late potatoes near Brenford. Destructive to broccoli and cauliflower at several places in Kent and Sussex Counties. (Milliron). PENNSYLVANIA - Problem of control on 18 acres of cauliflower in Cambria County. (Udine).

AN INTRODUCED FLEA BEETLE (Phyllotreta cruciferae) - DELAWARE - Requiring control on broccoli some places in Kent County. Heavy on cauliflower and broccoli at Brenford and on crucifers in the Georgetown area. (Milliron).

BEET LEAFHOPPER (Circulifer tenellus) - NEBRASKA - Infesting most beet fields at Holdrege at the rate of 15 per 50 sweeps. Diseased plants in the area. (Andersen).

RED-HUMPED CATERPILLAR (Schizura concinna) - UTAH - Striping foliage of raspberries with serious damage locally at Logan. (Knowlton, Davis).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - DELAWARE - Destroying squash near Dover. (Milliron).

SQUASH BUG (Anasa tristis) - TENNESSEE - Causing severe injury to summer squash. (Scott). RHODE ISLAND - Very abundant in all squash plantings in all areas of State. As many as 70 nymphs per leaf in some gardens in Wakefield and Wickford area. (Kantack).

PICKLEWORM (Diaphania nitidalis) - TENNESSEE - Very abundant on summer squash and causing losses approaching 100 percent in the Clarksville area. (Scott). VIRGINIA - Attacking a small percentage of cantaloupes ripening in eastern area. (Brubaker, Greenwood, Hofmaster). GEORGIA - Cantaloupes practically 100 percent infested at Experiment, August 15. (Beckham, Dupree). NORTH CAROLINA - Moderate injury to squash and cucumbers in Wake and Duplin Counties. (Brett, Jones).

MELON APHID (Aphis gossypii) - OKLAHOMA - Heavy infestation on watermelons in Kingfisher County. (Stiles). NEW MEXICO - Infestations spotted throughout 1,350 acres of cantaloupe and honeydew fields in Tucumcari area of Quay County. (Durkin, August 19).

BLISTER BEETLES - TENNESSEE - Epicauta sp. damaging tomatoes and snap beans in the Clarksville area. (Scott). FLORIDA - E. pestifera one to four adults per plant, infesting eggplant at Hague, Alachua County. (Hunter). PENNSYLVANIA - Epicauta sp. adults feeding on several kinds of flowers in Centre County. (Pepper). MINNESOTA - Epicauta sp. abundant in most areas. Feeding on blossoms of most ornamental and garden plants. (Minn. Ins. Rept. Serv. ).

EUROPEAN CORN BORER (Pyrausta nubilalis) - PENNSYLVANIA - Nearly every stalk of potatoes in two fields in York County infested. (Pepper). ALABAMA - About 12,000 acres of pimentos in 23 fields

were examined in the northeastern area. Three fields in DeKalb and two fields in Marshall County were found infested. (Moore).

PLANT BUGS (Lygus spp.) - MINNESOTA - Heavy infestation in Becker area on everbearing strawberries. (Minn. Ins. Rept. Serv.). UTAH - Abundant in some potato fields in northern counties. (Knowlton).

FLEA BEETLES - VIRGINIA - Injuring young potato plants lightly in eastern area. (Brubaker, Greenwood, Hofmaster).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - VIRGINIA - Ovipositing on young potatoes in eastern area. (Brubaker, Greenwood, Hofmaster).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Prevalent on lima beans at Cedar Creek and elsewhere in Sussex County. (Milliron). VIRGINIA - Quite numerous on older snap beans in eastern area. (Brubaker, Greenwood, Hofmaster).

POTATO FLEA BEETLE (Epitrix cucumeris) - DELAWARE - Damaging late potatoes near Brenford. (Milliron). RHODE ISLAND - Light to moderate numbers in all fields. Five to 25 per sweep in 20 acres of potatoes in Charlestown and 1-10 per sweep in the Slocum area. (Kantack).

TOMATO FRUITWORM (Heliothis armigera) - NEW MEXICO - Abundant on 200 acres of tomatoes in Deming area and causing about 25 percent loss. (Durkin, August 19).

GRASSHOPPERS - VIRGINIA - Medium to heavy damage some tobacco fields in Washington County. (Gorsline). PENNSYLVANIA - Adults of Melanoplus femur-rubrum feeding on green and ripe fruits of tomatoes in York County. (Pepper).

HORNWORMS (Protoparce spp.) - DELAWARE - Becoming very destructive to tomatoes throughout State. Natural control by parasitic wasps about 20-30 percent some fields but insufficient to keep hornworms in check. On peppers in Bridgeville area and on late potatoes near Brenford. (Milliron). MARYLAND - Most larvae have left tobacco plants. Very heavy damage to tobacco during August. Some fields not worth cutting. (U. Md., Ent. Dept.). NORTH CAROLINA - Light egg-laying in northeastern counties. (Farrier).

GREEN PEACH APHID (Myzus persicae) - IDAHO - Most populations in potato fields destroyed by lady beetles. (Walz, August 20). NORTH CAROLINA - Very light infestations on tobacco in north central counties. (Farrier).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Moderate damage to tobacco in northeastern counties and some fields in north central counties with 3-7 per leaf. (Farrier).

A WEEVIL (Cyrtopistomus castaneus) - VIRGINIA - Found on tobacco in Lunenburg County. (Det. by R. E. Warner). (Powers).

BUDWORMS (Heliothis spp.) - NORTH CAROLINA - Infestations moderate on tobacco in northeastern counties, limited to buds and suckers. Light in north central counties but few buds and suckers. (Farrier).

A MINT FLEA BEETLE (Longitarsus waterhousei) - OREGON - Emerged in Columbia County, August 15. This is about five weeks later than emergence in the Willamette Valley. (Walrod).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Migration underway over most of State. (Stiles). ARKANSAS - Infestations remain high and continue to increase in young cotton. (Warren, Turney). MISSOURI - A few fields in Ripley, Butler and Dunklin Counties have light infestations from migrating weevils. Most fields beyond square-producing stage and damage should be light. In fields surveyed populations and damage lowest in last three years. (Ky, Thomas). MISSISSIPPI - Average of 27.2 percent infestation in Washington County. Migration underway. (Merkel, Furr et al). LOUISIANA - All fields (111) examined in Tallulah area found infested at rate of 38 percent compared with 41 percent last week. Boll weevil continues major insect problem. Infestation so high some fields that small bolls being attacked. (Gaines, Pfrimmer et al). Six fields in Ouachita Parish had infestation of 83 percent, two in Red River had 97, and two in Bossier had 77 percent. (Oliver). GEORGIA - All fields (80) inspected in 20 northern counties were infested. Average of 71.5 percent in four untreated fields and 30.7 percent in 76 treated fields. Migration occurring in this area. (J. C. and C. R. Jordan). TENNESSEE - Still building up in southern counties of western area. All fields (28) examined were infested at average of 25 percent compared with 5.9 percent for same time last year and 17 percent two weeks ago. (Locke). NORTH CAROLINA - Migration underway in Piedmont area. (Mistic).

BOLLWORMS (Heliothis spp. et al) - ARIZONA - Continue main pests of cotton in Maricopa to Pima Counties. (Ariz. Coop. Rept.). NEW MEXICO - Still abundant in Dona Ana, Chaves and Quay Counties; damaged squares from 2 to 6 percent. (Durkin, August 19). OKLAHOMA - Increasing in central area. Egg counts averaged 78 per 100 terminals in limited area. (Bryan). Another brood expected. (Stiles). TEXAS - Infestations becoming more general in Lubbock area. (Davis, Cwen).

ARKANSAS - Infestations have increased in many fields. Moth flight heavy and egg counts high in some fields. (Warren, Turney). MISSISSIPPI - Eggs in most fields in Washington County; 5.7 per 100 terminals. Larvae light but large numbers of moths in light traps. (Merkl, Furr et al). Sharp increase in moths in light trap in Coahoma County. (Hutchins, August 22). LOUISIANA - Eggs found in 89 of 111 fields examined in Tallulah area; 3 per 100 terminals in infested fields. Some damage in many fields. Moth flight continues to increase. (Gaines, Pfrimmer et al). Infestation still much lower than previously anticipated. (Oliver). MISSOURI - Infestations from .2 to 23 percent. Egg count low in most fields. Larvae from second to fifth instars. Control difficult because of rank cotton. (Kyd, Thomas). TENNESSEE - Increasing in western area, some damage. (Locke). GEORGIA - Average of 1.4 eggs and 1 larva per 100 terminals in 20 treated fields in northern counties. Damaged squares averaged 1 percent in 4 untreated and .3 in 76 treated fields. (J. C. and C. R. Jordan). NORTH CAROLINA - Increasing markedly in Piedmont region. (Mistic).

SPIDER MITES - LOUISIANA - Occurring in many fields in Tallulah area but in very small numbers. (Gaines, Pfrimmer et al). MISSISSIPPI - Mostly light in Washington County. (Merkl, Furr et al). GEORGIA - Heavy infestation in many cotton fields in Fayette County. Some fields defoliated. Infestations in 80 fields in north Georgia as follows: none 33, light 21, medium 15, heavy 11. (J. C. and C. R. Jordan). MISSOURI - Only very few fields now have economic populations. (Kyd, Thomas).

APHIDS - TEXAS - Control necessary in scattered fields. (Davis, Owen). LOUISIANA - Aphis gossypii severe in two fields in Ouachita Parish, light to moderate in 4. (Oliver). ARKANSAS - A. gossypii has built up in many fields and increase expected to continue. (Warren, Turney). MISSISSIPPI - General in most fields in Washington County. Controls required some fields. (Merkl, Furr et al). GEORGIA - Aphid infestations in 80 north Georgia fields as follows: none 25, light 31, medium 14, heavy 10. (J. C. and C. R. Jordan).

COTTON LEAFWORM (Alabama argillacea) - NEW MEXICO - Small numbers in a few fields in Eddy County. (Durkin, August 19). LOUISIANA - Larvae appearing in fields in East Baton Rouge Parish. (Oliver). ARKANSAS - Reported from Bradley and Monroe Counties. (Warren, Turney).

BROWN COTTON LEAFWORM (Acontia dacia) - TEXAS - Infesting cotton in Waller County. (Vaughan).

THRIPS - NEW MEXICO - Very heavy on cotton in Eddy County. (Durkin, August 19).

CABBAGE LOOPER (Trichoplusia ni) - NEW MEXICO - Damaging infestation on cotton in Lea, Eddy, Roosevelt, Chaves, Dona Ana and Quay. (Durkin, August 19). TEXAS - Heavily infesting cotton in Dawson County. (Colgin). Occurring on cotton throughout Lubbock area, but has not seriously damaged plants in most fields. (Davis, Owen). ALABAMA - Some "ragging" of cotton in Cherokee County. (Arant).

PLANT BUGS - ARIZONA - Decreased sharply on cotton. (Ariz. Coop. Rept.). NEW MEXICO - Lygus becoming very abundant in cotton in Dona Ana County. From 8-23 nymphs and 15-25 adults per 100 sweeps. (Durkin, August 19). TENNESSEE - Still causing some damage to blooms and squares. (Locke).

EUROPEAN CORN BORER (Pyrausta nubilalis) - MISSOURI - Stalks of cotton showing borer damage found in Butler, Stoddard and Mississippi Counties. No indication that borer completing life cycle on cotton. (Kyd, Thomas).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Increasing on cotton on Yuma Mesa and in some locations in Yuma Valley. Two to 8 larvae per leaf in fields being damaged. Stub cotton on Yuma Mesa most affected. (Ariz. Coop. Rept.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Increasing and causing concern in Yuma area. Larvae in all stages. Infestations threatening in parts of Maricopa County. (Ariz. Coop. Rept.).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Reported frequently in nursery stocks and in parks throughout the southeastern area. (Chambers).

INTRODUCED PINE SAWFLY (Diprion simile) - WISCONSIN - Becoming more abundant in northwest area. (Chambers).

GREEN-STRIPED MAPLEWORM (Anisota rubicunda) - WISCONSIN - Completely defoliated 15 acres of hardwood in Oconto County. (Chambers).

IPS BARK BEETLES (Ips spp.) - GEORGIA - Heavy spring infestation has decreased considerably during the last three months, following rains. (Dyer). PENNSYLVANIA - Very heavy infestation on 4000-5000 young pines that are in poor condition in Wyoming County. (Gesell).

MIMOSA WEBWORM (Homadaula albizziae) - NORTH CAROLINA - Damage about as usual in western and central areas with some trees completely stripped in local areas. (Scott).

A PINE BUDWORM (Choristoneura pinus) - WISCONSIN - New infestations reported in Bayfield and Douglas Counties. (Chambers).

PINE ROOT COLLAR WEEVIL (Hylobius radialis) - WISCONSIN - Causing death of many trees in a 12-year old jack pine plantation in Washburn County. (Chambers).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - WISCONSIN - Abundant in northwest area. (Chambers). FLORIDA - Infestation on pine seedlings averaged 500 per plant at Lynn Haven, Bay County. (Carr).

ORANGE-STRIPED OAKWORM (Anisota senatoria) - VIRGINIA - Defoliating pin oak in Lynchburg. Hundreds of larvae crawling up trunk and defoliating lower limbs. (Rowell, Morris).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - RHODE ISLAND - Adults very abundant on elms in the Hamilton area. (Kantack).

VARIABLE OAK LEAF CATERPILLAR (Heterocampa mantee) - WISCONSIN - Causing serious damage to trees defoliated previously by the forest tent caterpillar in northern area. (Chambers). MINNESOTA - Abundant and causing defoliation of oak in Norman, Polk and most northwestern counties. (Minn. Ins. Rept. Serv.).

WALKINGSTICK (Diaperomera femorata) - WISCONSIN - Very prevalent in Shawano, Oconto, Marinette and Columbia Counties. Several thousand acres of oak stands have been sprayed for control of the pest. (Chambers).

WHITE-PINE WEEVIL (Pissodes strobi) - WISCONSIN - Causing serious damage to pines and to white and Norway spruce. (Chambers).

YELLOW-NECKED CATERPILLAR (Datana ministra) - DELAWARE - Defoliating pine and red oaks from Newark southward. (Milliron). SOUTH DAKOTA - Causing some defoliation, mainly of oaks in shelter-belt areas. (Hantsbarger).

A BALSAM FIR MIDGE (Itonida balsamicola) - WISCONSIN - Moderately abundant in Forest County. (Chambers).

BAGWORMS - TENNESSEE - Numerous on cedar trees in Clarksville area. (Scott).

BIRCH SKELETONIZER (Bucculatrix canadensisella) - WISCONSIN - Continues noticeable in northern half of State. Has turned most of birch foliage brown. (Chambers).

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - GEORGIA - Moderate to heavy infestation in longleaf and slash pines in 15-20 southeastern counties. (Dyer). NORTH CAROLINA - Killing pines in a local area in Northampton County. (Jones).

ELM LEAF BEETLE (Galerucella xanthomelaena) - TENNESSEE - Defoliated most of the Chinese elms in the Clarksville area. (Scott). VIRGINIA - Heavy damage to foliage of elms in Appomattox County (Wilkins) and in Montgomery County (Morris). NORTH CAROLINA - Causing moderate injury to ornamental elms in Caswell County. (Farrier).

Gypsy Moth Damage in New England

Very little defoliation this year. Some defoliation in Carroll County, New Hampshire, and in York County, Maine. Small areas were defoliated in western Rutland County and in northwestern Bennington County, Vermont. (Gypsy Moth Cont. Proj., August 17, 1955).

BAGWORM (Thyridopteryx ephemeraeformis) - VIRGINIA - Active and damaging to several hosts throughout State. Damaging evergreens at Christiansburg and shrubbery and apple trees at one place in Tazewell County. (Morris). NORTH CAROLINA - Causing moderate damage to ornamental evergreens in Caswell County. (Farrier). KANSAS - Still damaging some shade and ornamental trees in northeastern area. Heavy, local infestations in rural as well as urban areas and populations higher this year than for several years. (Matthew).

LOCUST BORER (Megacyllene robiniae) - WISCONSIN - More abundant than usual in southern area. (Chambers).

SYCAMORE LACE BUG (Corythucha ciliata) - NORTH CAROLINA - Moderate damage to sycamores in Stokes and Caldwell Counties, especially in ornamental plantings. (Farrier).

CATALPA SPHINX (Ceratonia catalpae) - NORTH CAROLINA - Complete defoliation of catalpa trees in Danbury, Stokes County. (Farrier).

LEAF MINERS - MINNESOTA - Heavy infestation on lilacs in Duluth area. (Minn. Ins. Rept. Serv.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - RHODE ISLAND - Continues very abundant in all sections. (Kantack).



JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Remains abundant over State with continued damage to maples and elms in many areas. (Kantack). NORTH CAROLINA - Adults causing moderate damage to roses and other shrubs in Buncombe County. (Farrier).

IRIS BORER (Macronoctua onusta) - MARYLAND - Still active on iris. Larvae about mature in Prince Georges County. (U. Md., Ent. Dept.).

A FLEA BEETLE (Disonycha glabrata) - NORTH CAROLINA - Larvae and adults completely skeletonized Amaranthus sp. grown as an ornamental. (Farrier).

#### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - IDAHO - Extremely abundant in Buffalo River country of southeastern area. (Manis). UTAH - Numerous and extremely annoying in much of Cache County. (Knowlton). WISCONSIN - Several species unusually abundant throughout the State, causing annoyance to crews working in woods. (Chambers). RHODE ISLAND - Very abundant past week in southern area. (Kantack). NORTH CAROLINA - Severe infestations reported in coastal areas after recent floods. (Jones).

TABANIDS - NORTH CAROLINA - Chrysops spp. reported to be in noticeably less numbers than last year in Robeson County. (Farrier).

LITTLE HOUSE FLY (Fannia canicularis) - OREGON - Numerous in the Willamette Valley and more abundant than last year. (Goulding).

SCREW-WORM (Callitroga hominivorax) - NEBRASKA - Reported from Clay County near Bruning. (Andersen).

BROWN-BANDED ROACH (Supella supellectilium) - MINNESOTA - Specimen found in Twin Cities area. Probably becoming established in the area. (Minn. Ins. Rept. Serv.).

FLEAS (Ctenocephalides spp.) - RHODE ISLAND - Troublesome in some homes in Wakefield and Providence. (Kantack, Mathewson).

TICKS - RHODE ISLAND - Infestations in houses referred to in CEIR 5(33):803 should refer to BROWN DOG TICK (Rhipicephalus sanguineus). (Kantack).

AMERICAN DOG TICK (Dermacentor variabilis) - WISCONSIN - Later than usual and still prevalent some areas. (Chambers).

### STORED PRODUCTS INSECTS

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella) - NORTH CAROLINA - Moderate infestation in stored wheat in Wake County. (Scott).

INDIAN-MEAL MOTH (Plodia interpunctella) - NORTH CAROLINA - Moderate infestation in stored wheat in Wake County. (Scott).

A GRAIN MITE - NORTH CAROLINA - Severe infestation of a tyroglyphid mite in a mill in Chatham County. (Farrier).

TOBACCO MOTH (Ephestia elutella) - NORTH CAROLINA - Small numbers in some pack houses in Wayne and Wilson Counties. (Scott, Jones).

### BENEFICIAL INSECTS

A SCALE (Asterolecanium arabidis) - WASHINGTON - The scale reported on klamath weed (CEIR 5(32):780) has been identified as above species by L. M. Russell. (Telford).

A PARASITIC FLY - VIRGINIA - An itonid found feeding on tomato russet mites. (Matheny).

### MISCELLANEOUS INSECTS

BOXELDER BUG (Leptocoris trivittatus) - VIRGINIA - Large numbers on trees at Blacksburg. (Morris).

EUROPEAN EARWIG (Forficula auricularia) - PENNSYLVANIA - Found in house in Elk County. New record for the county. (Adams).

VINEGAR GNATS (Drosophila spp.) - MARYLAND - Becoming troublesome around canneries in Carroll County. Eggs noted on tomatoes. (U. Md., Ent. Dept.).

FIELD CRICKET (Acheta assimilis) - WISCONSIN - More abundant than usual this year. Very prevalent in southern two-thirds of State. (Chambers).

HOUSE CRICKET (Acheta domestica) - WISCONSIN - Abundant in Milwaukee and other cities along the Lake where they have been moving in from vacant lots and city dumps where they breed, apparently. (Chambers).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - WISCONSIN - Continues to cause annoyance in many sections. (Chambers).

### ADDITIONAL NOTES

ARKANSAS - EUROPEAN CORN BORER infestations observed in Jackson, Poinsett, Craighead, Clay, Greene, Randolph, Lawrence, Independence and Stone Counties. Most of these counties not known to have infestations prior to this year. Heaviest infestation east of Crowley's ridge with 25 fields out of 39 fields infested. Percent of stalks infested ranged to 38 with up to five larvae per stalk.

YELLOW CLOVER APHID infestations in Craighead County on white and red clover and in Clay, Greene and Stone Counties on red clover.

THREE-CORNERED ALFALFA HOPPER infestations high on red clover in Clay and Stone Counties. CORN EARWORM and FALL

ARMYWORM infestations heavy in fields of younger corn in north-eastern counties. Damage expected to be heavy in some fields.

BEAN LEAF BEETLE - Only a few fields had damaging infestations.

RICE STINK BUGS causing some concern in Poinsett County.

(Warren, Turney).

OHIO - NORTHERN CORN ROOTWORM (Diabrotica longicornis)

adults reported injuring silks of field corn in Pickaway, Darke,

Union and Hamilton Counties. Some fields requiring treatment. (Parks, Goleman).

MAINE - EUROPEAN CORN BORER more abundant than usual in Monmouth County. (Shands). FALL ARMYWORM infesting corn

ears in Monmouth County. IMPORTED CABBAGEWORM very abundant on unsprayed rutabagas. (Hawkins).

NEW YORK - CODLING MOTH has been a problem for some growers in Niagara County. RED-BANDED LEAF ROLLER flights in eastern

area and third generation or split second generation in Niagara County. In two untreated plantings of corn in Hudson Valley, 35-60

percent ears infested in untreated fields; about two-thirds of larvae earworms and one-third corn borers. CORN SAP BEETLES causing serious injury in Hudson Valley to ears with short husks. (N. Y. Wkly. News Lett. ).

WYOMING - CORN EARWORM (Heliothis armigera) causing light damage to field corn in Washakie County. (Spackman).

LIGHT TRAP COLLECTIONS

		Pseudal. unipun.	Laphyg. frugip.	Agrotis ypsilon	Perid. marg.	Feltia subier.	armig. vires	Heliopsis sexta	Protoparce quin.
LOUISIANA									
Tallahah*	8/19-25	1069	160	78	2	91	4297	202	190
B. Rouge	8/20-26	64	333	22	6	298	363		13
Curtis	8/17-23						807		
KANSAS									
Manhattan	8/21-26						698		254 spp.
Hays	8/13-19						31		13 spp.
TENNESSEE (Counties)									
Madison	8/14-17	125	16	60			328		8
Lawrence	8/11-17	20		8			68		56 spp.
Maury		16		40			136		120
Robertson									28
Cumberland									48
Knox		32	8	64			472		40 spp.
Greene		44		12			204	8	16
ALABAMA									56
Auburn	8/21-27	9	8				132		68
GEORGIA (Counties)									
Clarke	8/13-19	7				7	138		1
Spalding	8/13-19	41	40	21		15	1085	2	1
Tift	8/14-20	53	51				1103	24	202

\* Three traps at Tallulah.

LIGHT TRAP COLLECTIONS

	Pseudal. unip.	Laphyg. frugip.	Agrotis marg.	Perid. subter.	Feitia armig.	Heliolithis vires	Protoparce sexta	quin.
<b>MISSISSIPPI (Counties)</b>								
Coahoma 8/20-26	474		203		29	9552	34	
Humphreys	282		95	1	29	2149		
Oktibbeha	203		116		11	314	21	
Pearl River	101		22		15	175		
<b>SOUTH CAROLINA (Counties)</b>								
Oconee 8/14-20	8					55 spp.	2	1
Charleston 8/16-22		7			13	386	1	33
<b>NORTH CAROLINA (County)</b>								
Duplin 8/20-26	1					11		4
<b>VIRGINIA (County)</b>								
Pittsylvania 8/13-19							233	186
<b>ARKANSAS*</b>								
Stuttgart 8/18-24			25	1		83		88
Van Buren 8/19-25						22		51
Varner 8/18-24			37			1140		
Fayetteville 8/20-26	46		59	10		869		
Clarksville 8/19-25	6		20	2		85		

\*Protoparce spp. for State: 832.

## WEATHER FOR THE WEEK ENDING AUGUST 29, 1955

Relatively warm, dry weather over most of the country last week caused further deterioration of late crops in the Great Plains and rapid development of drought conditions in many other central and southern areas.

Temperatures for the week averaged above normal everywhere except in the Pacific States and along the Atlantic coast where they averaged slightly below. The relatively hottest weather, for the second consecutive week, occurred in the North Central Interior, where departures were as much as 12° and maxima frequently exceeded 100°. However, at the end of the period, temperatures were falling in this area as cooler air moved in from the Rocky Mountains.

Heavy showers which fell in southern Minnesota on the 25th and 26th exceeded 5 inches at a few stations and established new all-time 24-hour rainfall records for Wadena and Fort Ripley. Heavy rains of 1 to 4 inches fell in the extreme lower Mississippi Valley on the 27th when a tropical storm moved into that area, and high winds and tides caused some damage. Continued thundershowers, although of diminishing intensity, brought locally heavy amounts to the central valleys and western mountains of New Mexico and scattered sections of Arizona. In the latter state showers during recent weeks have resulted in ample stock water and excellent ranges.

(Summary Supplied by U. S. Weather Bureau).

Citrus Blackfly in Texas

Two light infestations of the citrus blackfly (Aleurocanthus woglumi) were discovered in southeastern Hidalgo County, August 8 and 9. Inspectors found one citrus leaf with two pupae in a small commercial orchard near Progresso, 33 miles up the Rio Grande from Brownsville. Another infestation was found three-quarters of a mile from the first. (Citrus Blackfly and Mexican Fruit Fly Cont. Proj., Aug. 1-15). It will be recalled that citrus blackfly was found on a single lime tree in Brownsville vicinity May 31, 1955, CEIR 5(23):514.







VOL. 5 No. 36

SEPTEMBER 9, 1955

SB  
823  
C77  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPER damage continues in Wisconsin and eastern Nebraska. Adult surveys show increase of crop species in eastern and southern North Dakota and light to threatening populations in some central and northeast areas. Nevada reports build-up of Melanoplus packardii. Over million and half acres range land treated in 11 States by State-Federal cooperative program. (p. 859).

EUROPEAN CORN BORER infestation as high as 90 percent in some fields in southeastern South Dakota. Larvae up to fifth instar in Nebraska, fourth in Kansas and South Dakota. (p. 859).

CORN EARWORM damaging grain sorghum in Alabama and some areas of Georgia. Appearing on sorghum and milo in central and northeast Kansas. Infestations on peanuts in Oklahoma, Texas and North Carolina. (pp. 860, 875). Adults numerous in lima beans in Delaware and Maryland and larvae numerous in bean fields in Whittier, California area. (p. 867). SORGHUM WEBWORM severe on grain sorghum in Alabama. (p. 860).

YELLOW CLOVER APHID showing increases in some counties of California, New Mexico and Arizona. Nebraska reports moderate to heavy infestations in south central and southwestern areas, while Kansas has moderate to severe populations in Thomas County and Utah has damaging numbers in some areas. (pp. 861, 875).

ALFALFA CATERPILLAR is numerous in some sections of Utah and New Mexico. (p. 861). BLISTER BEETLES damaging soybeans in some Louisiana parishes. (p. 862).

PLANT BUGS very abundant in Wisconsin alfalfa. California, South Dakota and Nebraska also have populations of concern. (p. 862). VELVET-BEAN CATERPILLAR in soybeans at Charleston, South Carolina and in southern Louisiana. (p. 862). VETCH BRUCHID is very common on lower peninsula of Michigan. (p. 862).

CODLING MOTH has been unusually severe on pears in Sierra foothills of California. Apple orchards in Pennsylvania showing fresh entries. (p. 863).

CABBAGE LOOPER is abundant on crucifers in some areas of Michigan, South Carolina, Pennsylvania and Delaware. Wisconsin has severe

(Continued on next page).

infestation on cabbage. (p. 865). MEXICAN BEAN BEETLE very abundant in Alabama and problem in some areas of Mississippi, Florida and Michigan. (p. 866). PICKLEWORM abundant in South Carolina. (p. 868). BEET LEAFHOPPER more abundant on horseradish in Illinois than any time this season. (p. 868). A LETTUCE APHID reported from California for first time. (p. 865).

TOBACCO FLEA BEETLE unusually severe on tobacco in southern Maryland. (p. 869).

BOLL WEEVIL continues to increase in succulent cotton in Oklahoma, Louisiana, Mississippi, Tennessee and South Carolina. Severe infestations continue in Louisiana. Migration heavy in Mississippi. (p. 869). BOLLWORMS in outbreak proportions in cotton in Hidalgo and Luna Counties, New Mexico. (p. 876). Some increase in San Joaquin Valley, California. Another brood is expected in Oklahoma and Mississippi may have damage to late-maturing fields. (p. 869). COTTON LEAF-WORM damaging cotton in southern Louisiana; also in some counties of Oklahoma. (p. 870). APHIDS increasing on cotton in Louisiana and Mississippi. (p. 870).

SOUTHERN PINE BEETLE serious in some South Carolina counties. (p. 870). A LEAFHOPPER (*Macropsis ulmi*) reported from California for first time. (p. 871). WALNUT CATERPILLAR causing severe defoliation in Wisconsin and Arkansas. (p. 872).

MOSQUITOES unusually numerous in Delaware. Also of concern in North Carolina and Utah. (p. 872). HOUSE FLIES abundant in Rhode Island and New Mexico. (p. 873).

Status of GOLDEN NEMATODE in United States (Map). (See end of book).

STATES reporting this week - 29

WEATHER Summary and Outlook (p. 877).

\*\*\*\*\*

Reports in this issue are for the week ending September 2, 1955, unless otherwise designated.

## CEREAL AND FORAGE INSECTS

GRASSHOPPERS - CALIFORNIA - Small, spotted but heavy infestations in Tehama range land and field crops. Heavy infestation in range land, garden crops in Humboldt County. (Cal. Coop. Rept., Aug. 19).

NEVADA - Localized infestations throughout agricultural areas of western Nevada. Build-up of Melanoplus packardii in most areas. Foothill areas adjacent to crop lands in western area have had light to threatening populations of Oedaleonotus enigma and Aulocara elliotti for past 8 years but now practically disappeared while Cratypedes neglectus has increased to non-economic and light infestations.

(Galloway). UTAH - Scattered damage in several counties. Egg-laying underway. (Knowlton). NEBRASKA - Melanoplus spp. continue to damage crop and pasture lands in eastern counties. (Andersen).

KANSAS - Adult survey showed light to threatening populations in range land and crop areas in Wabaunsee County, central area, and Pottawatomie and Nemaha Counties, northeast area. From 3 to 22 per square yard in fence rows and margins and 3 to 16 in the fields. Dominant adult species were M. differentialis, M. femur-rubrum and M. bivittatus. From 2 to 14 M. mexicanus nymphs per square yard in nearly all alfalfa fields observed. (Matthew). NORTH DAKOTA - Adult surveys show major crop species on increase in most areas in eastern and southern counties. (Colberg).

WISCONSIN - Average of 25 adult M. femur-rubrum per square yard in new seedings and legume hay fields in many locations. Movement from cut hay fields to other crops; some damage to corn, soybeans and tobacco. (Smith).

PENNSYLVANIA - Grasshoppers, mainly M. femur-rubrum, fairly abundant on field crops, vegetables, and fruit in Adams and Franklin Counties. (Pepper). DELAWARE - Melanoplus differentialis feeding on soybeans near Rising Sun. (Milliron).

### Grasshopper and Mormon Cricket Control:

The 1955 grasshopper and Mormon cricket control season was concluded week ending August 19. Preliminary figures indicate that 1,302,617 acres of range land in parts of 11 States were sprayed this year for grasshopper control. Also 97,560 acres of Mormon cricket infested range land in parts of six western States were baited during the season. (Grasshopper Cont. Proj.).

EUROPEAN CORN BORER (Pyrausta nubilalis) - KANSAS - Infestations found in a few fields in Pottawatomie and Nemaha Counties. From 4 to 24 percent of stalks infested, most larvae about fourth instar. No infestation observed in fields surveyed in Wabaunsee County. (Matthew).

NEBRASKA - Fifth instars in Burt County. (Andersen). SOUTH DAKOTA - Second generation developing rapidly, mostly fourth instars throughout southeastern counties. Average of 165 borers per 100 plants in this area. Some fields have infestation of 90 percent and higher. (Hantsbarger).

ARKANSAS - Surveys show infestations in Woodruff, Cross, Crittenden, Mississippi, St. Francis, Lee and Monroe Counties. Infestations ranged up to 40 percent of stalks infested in Mississippi County and up to 20 percent in Crittenden County. Some lodging where infestations heaviest.

Larvae nearly full-grown with adult emergence about 20 percent complete. Of 38 fields checked, 13 were infested. (Warren, Turney). MICHIGAN - Second instars of second brood common in areas of southern Michigan. (Hutson).

FALL ARMYWORM (Laphygma frugiperja) - SOUTH CAROLINA - Increasing. (Nettles). DELAWARE - Very destructive to late sweet corn some areas. Infestation in field corn general. (Milliron).

CORN EARWORM (Heliothis armigera) - CALIFORNIA - Severe damage to field corn in Merced County. (Cal. Coop. Rept., Aug. 19). UTAH - From 15 to 100 percent infestation in sweet corn in areas of Washington County. (Knowlton, Hughes). KANSAS - Beginning to show in some milo and sorghum heads in some fields in central and northeast Kansas; averages about 1 larva per head. Moths increasing at light traps. Late-planted field corn in northeast area had 40 to 96 percent of ears infested. (Matthew). TEXAS - Medium to heavy widespread infestation on peanuts in Llano County. (Tanksley). OKLAHOMA - Infesting peanut foliage in many sections. (Stiles). ALABAMA - Severe damage to grain sorghum, particularly in northern area. Adults extremely abundant in eastern and northeastern counties. (Arant, Ruffin). MICHIGAN - Not as heavy as last year at this time. (Hutson). DELAWARE - Small larvae in alfalfa at Smyrna. (Milliron).

CORN SAP BEETLES - DELAWARE - Carpophilus lugubris adults and larvae continue abundant on corn generally. (Milliron).

FALSE WIREWORMS (Eleodes sp.) - NEBRASKA - Very numerous in southwestern area. (Andersen).

FALSE CHINCH BUG (Nysius ericae) - NEW MEXICO - Very heavy on grain sorghum in Curry County. (Durkin, August 26).

RICE STINK BUG (Solubea pumax) - LOUISIANA - From 1 to 42 per 100 sweeps in Acadia, Jefferson Davis, Evangeline and St. Landry Parishes. (Oliver).

SORGHUM MIDGE (Contarinia sorghicola) - ALABAMA - Some damage, principally in southern and central areas. (Arant).

SPIDER MITES - CALIFORNIA - Tetranychus telarius causing medium damage to corn in Tehama County. (Cal. Coop. Rept., August 19). NEW MEXICO - Damage to field corn in Torrance and San Juan Counties. (Durkin, August 26).

SORGHUM WEBWORM (Celama sorghiella) - ALABAMA - Severe damage to grain sorghum, particularly in northern counties. (Arant). All fields examined in Madison, Limestone, Lauderdale, Colbert and Lawrence Counties found infested. From 5 to 73 percent of heads infested. (Moore).

WHITE GRUBS - OKLAHOMA - Average of three white grub larvae per square foot in a field near Blackwell where heavy infestation existed for past three years. (Henderson, Bryan).

CORN LEAF APHID (Rhopalosiphum maidis) - KANSAS - No economic infestations found in milo or sorghum in Wabaunsee, Pottawatomie and Nemaha Counties. (Mathew). ARKANSAS - Very heavy infestation on corn in Phillips County. (Warren, Turney).

APHIDS - CALIFORNIA - Medium to heavy damage to milo in Glenn County and medium damage to rice in Colusa County. (Cal. Coop. Rept., August 19).

ARMYWORM (Pseudaletia unipuncta) - DELAWARE - Small to nearly full-grown, second-generation larvae in soybean grass mixtures; injuring millet near Canterbury. (Milliron).

YELLOW CLOVER APHID (Myzocallis trifolii) - CALIFORNIA - Moderate infestations in alfalfa in Imperial County. Increases in Riverside County where infestation light to very heavy. Infestations heavy in Kern County and light to heavy in Madera County. (Cal. Coop. Rept., August 19).

NEW MEXICO - Appearing in increasing numbers in Dona Ana and Eddy Counties. Controls some fields in Dona Ana County. (Durkin, August 26).

UTAH - General in alfalfa over Sanpete County. Collected in Wasatch County. Up to damaging numbers in Millard and parts of Juab Counties. Generally scarce in Iron and Washington Counties. (Knowlton).

KANSAS - Light infestations, 7 to 160 per 25 sweeps of 15-inch net, in alfalfa in Wabaunsee, Pottawatomie and Nemaha Counties. Moderate to severe infestations in Thomas County; a few acres sprayed. (Mathew).

NEBRASKA - Moderate to heavy infestation in south central and southwestern areas. From 200 per sweep in southern tier of counties to 2 per 25 sweeps at Kearney, Buffalo County. Lady beetles and lacewings are very numerous and have helped reduce populations around Benkleman. (Hill, Connin, Andersen). TEXAS - Medium widespread infestation on alfalfa in Brazos County. (Randolph).

WHITE-FRINGED BEETLES (Graphognathus spp.) - FLORIDA - Adults infesting a 3-acre field of peanuts at Crestview and light infestation on a corn and peanut field at Baker. Both in Okaloosa County. Several adults per plant infesting soybeans near Pensacola Escambia County, and adults abundant in spots on cotton, peanuts and weeds at Jay, Santa Rosa County. (Wesson, Mead).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - UTAH - Unusually numerous in alfalfa in Millard and Iron Counties. (Rickenbach, Knowlton). NEW MEXICO - Numerous in alfalfa in DeBaca County. Adults very abundant in Eddy and Dona Ana Counties. (Durkin, August 26). TEXAS - Medium widespread infestation in alfalfa in Brazos County. (Randolph).

ALFALFA WEEVIL (Hypera postica) - MARYLAND - Adults averaged 10 per 50 sweeps on alfalfa in Montgomery County. (U. Md., Ent. Dept.).

ALFALFA WEBWORM (Loxostege comixtalis) - DELAWARE - Injury in alfalfa from Smyrna southward. (Milliron).

BLISTER BEETLES - LOUISIANA - Epicauta sp. causing severe damage in soybeans in some parishes. (Oliver).

CLOVER SEED CHALCID (Bruchorhampus gibbus) - CALIFORNIA - Very heavy in alfalfa seed crop in Imperial County. (Cal. Coop. Rept., August 19).

FIELD CRICKET (Acheta assimilis) - WISCONSIN - Very abundant in alfalfa fields throughout State. (Smith).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - All stages common in alfalfa and soybeans. (Milliron). ARKANSAS - Appearing on soybeans in several local areas. Damage light. (Warren, Turney).

PLANT BUGS - CALIFORNIA - Lygus bugs infestations heavy in alfalfa in Imperial County and light in Yolo County. (Cal. Coop. Rept., August 19). SOUTH DAKOTA - Fairly high populations of alfalfa plant bug continues in southeastern alfalfa with up to 17 per 10 sweeps. Tarnished plant bug also numerous with up to 13 per 10 sweeps. (Hantsbarger). NEBRASKA - Adelphocoris lineolatus averages 15 per 25 sweeps and A. rapidus 7 per 25 sweeps on alfalfa in southwestern area. (Andersen). WISCONSIN - Lygus very abundant in alfalfa fields over State. (Smith).

PEA APHID (Macrosiphum pisi) - NEBRASKA - Building up on alfalfa in south central and southwestern part of State. From 10-25 per 25 sweeps. (Andersen).

POTATO LEAFHOPPER (Empoasca fabae) - MARYLAND - Averaged 1 to 3 per sweep on alfalfa in Montgomery County. Damage light. (U. Md., Ent. Dept.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - TEXAS - Heavy widespread infestations on alfalfa in Brazos County. (Randolph).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - SOUTH CAROLINA - Light infestation on soybeans at Charleston. (Reid). LOUISIANA - Larvae observed on soybean foliage as far north as Baton Rouge and Opelousas. (Oliver).

VETCH BRUCHID (Bruchus brachialis) - MICHIGAN - Very common throughout lower peninsula. Infestation ranges from 20 to 50 percent. (Hutson, August 26).

YELLOW-STRIPED ARMYWORMS - UTAH - Six hundred acres of alfalfa damaged in Millard County. (Knowlton).



FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - CALIFORNIA - More severe injury to pears in higher Sierra foothills than for many years. Other orchards in same area not damaged so much. (Cal. Coop. Rept., August 19). MICHIGAN - Pupation of late-hatched larvae of spring brood 50 percent at Traverse City. (Hutson). PENNSYLVANIA - Some apple orchards in Adams and Franklin Counties showing fresh entries. (Pepper).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - MICHIGAN - Later peach varieties on Benton Harbor market not as heavily infested as expected from records on earlier varieties. (Hutson).

ORCHARD MITES - CALIFORNIA - Severe injury to almond orchards caused by Tetranychus telarius, Metatetranychus ulmi and Bryobia praetiosa. Unidentified species reported responsible for some leaf loss of figs in San Joaquin Valley. (Cal. Coop. Rept., August 19). UTAH - Injurious abundant in orchards in several counties. (Knowlton et al).

CLOVER MITE (Bryobia praetiosa) - CALIFORNIA - Infestations heavy in neglected apple orchards in San Diego County. (Cal. Coop. Rept., August 19).

EUROPEAN RED MITE (Metatetranychus ulmi) - CALIFORNIA - Light to medium infestations in apple orchards in Santa Cruz County. (Cal. Coop. Rept., August 19).

PEACH TWIG BORER (Anarsia lineatella) - CALIFORNIA - Heavy damage to peaches in parts of Merced County. (Cal. Coop. Rept., August 19).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - A very light infestation in Scott's Valley, Lake County, continues in 2-1/2 acre pear orchard. Infestation in Mendocino County increasing and infestations throughout Humboldt County and orchards in Trinity County now infested. An infestation in Shasta County, south of Dunsmuir. Correction: CEIR 5(32):769 - Should read Shasta County for Tehama County. (Cal. Coop. Rept., August 19).

A ROOT APHID (Eriosoma lanquinosum) - CALIFORNIA - A heavy infestation on young pear trees in Lake County. Many dead trees found. (Cal. Coop. Rept., August 19).

A CATERPILLAR (Datana drexeli) - MARYLAND - Larvae abundant and defoliating cultivated blueberries at University farm, Montgomery County. (U. Md., Ent. Dept.).

A LEAF MINER - CALIFORNIA - Infestations found in some new pear orchards in El Dorado County. Heavy infestation in a 30-acre orchard in Lake County. (Cal. Coop. Rept., August 19).

Citrus Insect Situation in California.

CITRUS RED MITE (Metatetranychus citri) infestation medium to heavy in only a few citrus orchards in San Diego County. Light to medium in San Bernardino County and light to medium in Riverside County. SIX-SPOTTED MITE (Eotetranychus sexmaculatus (Riley))\* infestation moderate on 20 acres in San Diego County. BLACK SCALE (Saissetia oleae) infestations medium in San Bernardino County. Light to heavy infestations in Riverside County. COTTONY-CUSHION SCALE (Icerya purchasi) infestations severe on grapefruit in Coachella Valley of Riverside County. CITRUS MEALYBUG (Planococcus citri) infestations medium in orchards in San Diego County. CALIFORNIA RED SCALE (Aonidiella aurantii) infestations generally light in San Diego County. Light to heavy infestations in San Bernardino County. Some light to heavy infestations west of Beaumont. (Cal. Coop. Rept., Aug. 19).

WALNUT APHID (Chromaphis juclandicola) - CALIFORNIA - Medium infestations in walnut orchards in Glenn County. Severe infestations in Merced County and light in Yolo County. (Cal. Coop. Rept., August 19).

WALNUT HUSK FLY (Rhagoletis completa) - CALIFORNIA - Light infestations in part of San Bernardino County and medium to heavy in parts of Riverside County. Infested area in Sonoma County enlarged by finding an adult eight miles north of previously-known infestation. (Cal. Coop. Rept., August 19).

FIG SCALE (Lepidosaphes ficus) - CALIFORNIA - Heavier than usual in San Joaquin Valley. Some trees completely defoliated. (Cal. Coop. Rept., August 19).

A FIG RUST MITE (Rhyncaphytoptus ficifoliae) - CALIFORNIA - Reported responsible for defoliation of younger tip leaves of fig trees in San Joaquin Valley. (Cal. Coop. Rept., August 19).

TRUCK CROP INSECTS

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Troublesome on broccoli at Milford and on commercial cabbage and cauliflower south of Little Creek. (Milliron). SOUTH CAROLINA - Occasional in complex with diamondback moth on collards in Florence County, August 20. (Reid).

\* Pritchard, A. E. and Baker, E. W. 1955. A revision of the spider mite family Tetranychidae. Pacific Coast Ent. Soc. Mem. Ser. vol. 2, p. 202-205.

DIAMONDBACK MOTH (Plutella maculipennis) - DELAWARE -  
On broccoli at Milford. (Milliron).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - Destructive  
to tomato foliage generally. Severe in the vicinity of Rising Sun.  
Larvae occurring in injurious numbers at several places  
in commercial broccoli, cabbage and cauliflower from Middletown  
southward. (Milliron). SOUTH CAROLINA - Abundant on collards in  
Florence County, August 20. (Reid). PENNSYLVANIA - Extremely  
heavy infestation on cabbage and cauliflower in Luzerne and  
Lackawanna Counties. (Gesell). MICHIGAN - Abundant on cauliflower  
at Southaven, Burrville and Crosswell. (Hutson). WISCONSIN - In  
all cabbage fields. Average 75 larvae per head of cabbage reported  
from Arlington area. Heaviest area of infestation lies north of a  
line from Mazomanie and Watertown. In excess of 100 acres have been  
abandoned due to the pest. State's entire cabbage crop is threatened.  
(Smith). TEXAS - Light widespread infestations of cauliflower seedbed  
in Dimmit County. (Richardson).

LEAF MINERS (Liriomyza spp.) - DELAWARE - Conspicuous injury  
on broccoli at Milford. (Milliron).

AN INTRODUCED FLEA BEETLE (Phyllotreta cruciferae) -  
DELAWARE - Injurious to commercial broccoli at Milford and to  
extensive plantings of cabbage and cauliflower south of Little Creek.  
(Milliron).

A ROOT APHID ON LETTUCE (Pemphigus bursarius) - CALIFORNIA -  
Found for the first time in State in Santa Clara County on poplar (alternate  
host) June 15. (Plesse).

A WHITEFLY (Trialeurodes abutilonea) - DELAWARE - Abundant on  
broccoli at Milford. (Milliron).

FLEA BEETLES - SOUTH CAROLINA - Moderately abundant on  
tomatoes in Florence County, August 20. (Reid). MARYLAND -  
Average five per broccoli plant with moderate damage in Montgomery  
County. (U. Md. Ent. Dept.).

POTATO FLEA BEETLE (Epitrix cucumeris) - RHODE ISLAND -  
Light infestations ranging from 1-5 per sweep in potatoes in Slocum  
and Kingston area. (Caroselli). MICHIGAN - Larval damage to  
potatoes in Bay City area. (Hutson).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) -  
DELAWARE - Feeding on tomatoes at Mt. Pleasant, Ellendale and  
Georgetown. Attacking late potatoes at Georgetown. (Milliron).

BLISTER BEETLES (Epicauta spp.) - SOUTH CAROLINA - Moderately abundant on tomatoes in Florence County, August 20. (Reid).

PENNSYLVANIA - Black blister beetle severely damaged asters in Franklin County. (Pepper).

VINEGAR GNATS - DELAWARE - Drosophila melanogaster occurring in very large numbers in tomato fields generally. (Milliron).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Continues prevalent on lima beans near Smyrna and Milford; no damage. Very abundant on blackeyed peas at Georgetown. (Milliron). MICHIGAN - Moderately abundant. (Hutson).

TOMATO RUSSET MITE (Vasates lycopersici) - DELAWARE - Activity diminished following heavy rains. Still active on growing tips and young leaves of tomatoes at several locations previously reported. (Milliron). PENNSYLVANIA - Light infestation in tomatoes in Lehigh County. (Menusan). CALIFORNIA - Severe infestations in several tomato fields reported in Merced County. Light populations in most Napa County tomato fields, and a heavy population in one field. (Cal. Coop. Rept., August 19).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Injuring foliage of lima beans generally. (Milliron).

A GARDEN SYMPHILID - PENNSYLVANIA - Small areas of heavy damage in Wilkes Barre area and in Cunningham Valley, Luzerne County, on tomatoes, beans, cucumbers and peppers. (Gesell).

GARDEN WEBWORM (Loxostege similalis) - DELAWARE - Adults continue abundant in all lima bean fields. (Milliron).

PEA MOTH (Laspeyresia nigricans) - WASHINGTON - Populations continue low in northwestern area, as in last few years. Parasites established in 1946 and 1947 apparently effective. (Eide).

MEXICAN BEAN BEETLE (Epilachna varivestis) - MICHIGAN - Troublesome at Lansing and Stockbridge on pole beans and in Berrien County on lima beans. (Hutson). FLORIDA - Heavy infestations on butterbeans at Milton in Santa Rosa County. (Mead). ALABAMA - Very abundant in most of the State. (Arant). MISSISSIPPI - Damaging late peas and beans at Booneville. (Cochran).

LYGUS BUGS (Lycus spp.) - DELAWARE - L. lineolaris nymphs increasing on lima beans generally. (Milliron).

BEAN THIRPS (Hercotthrips fasciatus) - CALIFORNIA - In lima bean fields in El Toro section, but damage negligible. (Campbell).

CORN EARWORM (Heliothis armigera) - DELAWARE - Adults continue prevalent in lima beans generally. Small to mature larvae appearing in several areas. (Milliron). MARYLAND - Small larvae boring into lima bean pods in Montgomery, Dorchester and Talbot Counties. Moths plentiful in lima bean fields. Damage light but expected to increase in late beans. Mature larvae have done severe damage to broccoli planting in Montgomery County. (U. Md., Ent. Dept.). SOUTH CAROLINA - Causing severe injury to young tomatoes by tunneling terminal branches. (Cuthbert). Moderately abundant on tomatoes in Florence County, August 20. (Reid). NEW MEXICO - Still causing severe damage to 200 acres of tomatoes in Luna County. (Durkin, August 26). CALIFORNIA - Numerous in bean fields with two percent of pods damaged in some fields. Requiring treatment to prevent further damage. Light damage to tomatoes in Alameda County. (Campbell).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - SOUTH CAROLINA - Causing light damage to young snap beans in Charleston County. (Cuthbert). TEXAS - Light, local infestations of cantaloupes in Erath County. (Sanchez).

BEAN LEAF SKELETONIZER (Autoplusia egea) - CALIFORNIA - Common in about half the bean fields under observation in Orange County. (Campbell).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSISSIPPI - Damaging late peas and beans at Booneville. (Cochran).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Common in lima bean fields in Orange County, from 1-4 larvae per 100 feet of row. (Campbell; August 26). MICHIGAN - A few larvae in every sweetpotato field examined in Berrien County. (Hutson). DELAWARE - A few feeding on lima beans at Smyrna. (Milliron).

SOUTHERN GARDEN LEAFHOPPER (Empoasca solana) - LOUISIANA - Infesting sweetpotatoes in Acadia Parish at 75-100 per 100 sweeps, 175 per 100 sweeps in Evangeline Parish, and 200 per 100 sweeps in St. Landry Parish. (Oliver).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - LOUISIANA - Considerable amount of damage to sweetpotato foliage over most of sweetpotato growing area with 10-60 per 100 sweeps in St. Landry, Evangeline, Acadia and Jefferson Davis Parishes. (Oliver).

A TORTOISE BEETLE (Agroiconota bivittata) - LOUISIANA - Light infestations over the entire sweetpotato growing area. (Oliver).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Adults and larvae common in a lima bean field at Smyrna and in nearby commercial snap beans. (Milliron).

PICKLEWORM (Diaphania nitidalis) - SOUTH CAROLINA - Severe infestations in untreated cantaloupes in Spartanburg County. (Nettles). Abundant on volunteer cucumbers in Charleston County and severely damaging one planting of fall squash. (Cuthbert).

CUCUMBER BEETLES - SOUTH CAROLINA - Very abundant in Charleston County and causing moderate injury to young cucumbers and slight injury to small cabbage. (Cuthbert).

APHIDS - SOUTH CAROLINA - Heavy build-up in untreated cantaloupe fields in Spartanburg County. (Nettles). MAINE - Populations light in treated and untreated potatoes in the Presque Isle vicinity. (Shands).

SQUASH VINE BORER (Melittia cucurbitae) - DELAWARE - Many adults active in squash plantings in the Ellendale-Georgetown area. (Milliron).

CYCLAMEN MITE (Tarsonemus pallidus) - CALIFORNIA - Moderate to heavy infestations in strawberry fields in Santa Cruz County. (Cal. Coop. Rept., August 19).

STRAWBERRY ROOT WEEVILS (Brachyrhinus spp.) - CALIFORNIA - Light to heavy infestations in strawberry fields in Santa Cruz County. (Cal. Coop. Rept., August 19).

ONION THRIPS (Thrips tabaci) - MICHIGAN - Lighter this year than in any year of the past ten. (Hutson).

PEPPER WEEVIL (Anthonomus eugenii) - CALIFORNIA - Damaging peppers in San Diego County. Less abundant than last year but requiring control. (Cal. Coop. Rept., August 19).

BEEF LEAFHOPPER (Circulifer tenellus) - ILLINOIS - Adults more abundant on horse-radish than at any time during the summer. No nymphs collected. (Petty).

RED-NECKED CANE BORER (Acrilus ruficollis) - MICHIGAN - In complex with Oberia bimaculata and Bembecia marginata causing extraordinary interest and excitement among gardeners. (Hutson).

PYGMEPHORUS MITES - PENNSYLVANIA - Abundant in mushroom beds infested with molds in Chester County. (Thomas).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - MICHIGAN - Numerous in areas of muck land. (Hutson).

A WEEVIL (Cyrtorhynchus castaneus) - MARYLAND - Feeding on tobacco in southern area. Attracted to lights in Baltimore County. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - MARYLAND - Worst year on record for tobacco flea beetle in southern area. (U. Md., Ent. Dept.).

HORNWORMS (Protoparce spp.) - DELAWARE - Injuring tomatoes throughout the State. (Milliron). SOUTH CAROLINA - Causing moderate injury to fall tomatoes in Charleston County. (Cuthbert).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Increasing in practically all fields of rank cotton where controls discontinued. (Stiles). MISSOURI - Have not found fields with infestations heavy enough to justify spraying. For entire area boll weevil less than at same time during past two or three years. (Kyd, Thomas). LOUISIANA - All fields (109) examined in Tallulah area were infested at rate of 42 percent compared with 38 percent last week. Infestation continues to increase. (Gaines, Pfrimmer et al). Infestations remain severe over State with poor control in many areas. (Oliver). MISSISSIPPI - Weevils migrating heavily; abundant in almost all fields. It is likely that a record population will be going into hibernation. Cotton maturing in most sections. (Hutchins, August 29). Practically all squares punctured in most fields in Washington County as weevils are numerous and squares are scarce. (Merk, Furr et al). TENNESSEE - Adults numerous in southern part of western area. As squares are scarce, weevils doing some damage to young bolls. Average number of punctured squares in infested fields was 72 percent against 25 last week and 6 percent a year ago. (Locke). SOUTH CAROLINA - Continues to increase on top cotton crop in Piedmont region. (Nettles). ALABAMA - All fields (34) inspected in 7 northern counties were infested at average rate of 18.6 percent. (Moore).

BOLLWORMS (Heliothis spp. et al) - CALIFORNIA - Heavy infestation in eastern Riverside County. Some increase in San Joaquin Valley cotton areas but generally light. (Cal. Coop. Rept., August 19). OKLAHOMA - Another brood expected. Infestation ranges from 1 to 5 percent to 75 percent or more in a few fields. (Stiles). MISSOURI - Damage decreasing but eggs still being deposited in rank fields. (Kyd, Thomas). LOUISIANA - Following great increase in moth flight in Tallulah area, number of eggs per 100 terminals nearly doubled over last week. In 98 of 111 fields examined, eggs were found at average of 5.8 per 100 terminals in infested fields. Larvae averaged 2.7 per 100 terminals in 88 infested fields. (Gaines, Pfrimmer et al). MISSISSIPPI - Late-maturing cotton may be damaged since treatment is declining and abundance of adults is increasing. (Hutchins, August 29). Damage kept to minimum in Washington County by treatment for boll weevil. (Merk, Furr et al). Eggs still being laid on cotton, practically defoliated in Coahoma County. (Hunsucker et al). SOUTH CAROLINA - Continues to increase on top cotton crop in Piedmont. (Nettles).

ALABAMA - Average of 4.3 eggs per 100 terminals in 25 infested fields in northern counties. (Moore).

COTTON LEAFWORM (Alabama arillacea) - LOUISIANA - Damaging population over cotton area south of Highway 190. Several fields completely defoliated and larvae moving to adjacent fields. One severe infestation in Caddo Parish. (Oliver). OKLAHOMA - All stages in untreated field near Stratford August 29. (Howell). Found near Altus, Jackson County. (Robertson). "Ragging" cotton in Garvin and Cotton Counties; some fields need treatment. Also reported from Kiowa, Payne, Pontotoc and Washita Counties. (Stiles).

SPIDER MITES - CALIFORNIA - Tetranychus telarius and other species light in Imperial County cotton but medium in parts of Riverside County. Apparently increasing (normal for time of year) in San Joaquin Valley. (Cal. Coop. Rept., August 19). MISSISSIPPI - Continue to increase in some sections. (Hutchins, August 29). TENNESSEE - Spotted infestations in western area but too late to cause damage. (Locke). SOUTH CAROLINA - Infestation continues to spread in areas where plants have not matured. (Nettles, August 26).

APHIDS - LOUISIANA - Increasing in many fields in Tallulah area. (Gaines, Pfrimmer et al). Severe infestations of Aphis gossypii developing over State. (Oliver). MISSISSIPPI - Continuing to increase in some sections. (Hutchins, August 29). General in Washington County area with control necessary in many fields. (Merkl, Furr et al).

LEAF ROLLERS - LOUISIANA - Some damage to terminals in edges of some fields. (Gaines, Pfrimmer et al).

LEAFHOPPERS - CALIFORNIA - Increased to heavy populations in Imperial County cotton. (Cal. Coop. Rept., August 19).

CABBAGE LOOPER (Trichoplusia ni) - MISSISSIPPI - Considerable damage near edges of cotton fields in Coahoma and Sunflower Counties. (Hunsucker).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Egg masses and young larvae still abundant on cotton in Phoenix area, August 26. (Ariz. Coop. Rept.).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

INTRODUCED PINE SAWFLY (Diprion simile) - WISCONSIN - Second generation heavier than first. Many resort owners becoming concerned. (Smith).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - SOUTH CAROLINA - Serious infestations in Newberry, Union and adjacent counties. (Nettles).



RED-HEADED PINE SAWFLY (Neodiprion lecontei) - WISCONSIN - A few scattered colonies reported on natural and planted Norway and jack pine in Oconto County. Later broods reported in many areas of northwest part of State. Apparently on increase in area. No heavy defoliation yet. (Smith).

BAGWORMS - PENNSYLVANIA - Mature larvae and pupae with some damage to evergreens and deciduous trees in Adams and Franklin Counties. (Pepper). MISSISSIPPI - Thyridopteryx ephemeraeformis defoliating cedars and arborvitae in Oktibbeha County. (Hunsucker).

ELM LEAF BEETLE (Galerucella xanthomelaena) - CALIFORNIA - Light infestations in Glenn County and heavy leaf damage in Lake County. (Cal. Coop. Rept., August 19).

A LEAFHOPPER (Macropsis ulmi) - CALIFORNIA - Found for first time in State on elm in Santa Clara County, June 15. Near relative to Macropsis trimaculata, the known vector of peach yellows and little peach. (Osborn).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Populations declining but especially heavy on linden, Norway maple, elm and grape. (Caroselli).

PUSS CATERPILLAR (Mecalyopyge opercularis) - MARYLAND - Feeding on oak in Caroline County. (U. Md., Ent. Dept.).

SADDLEBACK CATERPILLAR (Sibine stimulea) - MARYLAND - Infesting oak in Caroline County. (U. Md., Ent. Dept.).

WEBWORMS (Tetralopha spp.) - WISCONSIN - Heavy infestation reported in several square miles in the northeast section of Shawano and the southeast section of Langlade Counties. Attacking mature northern hardwoods and primarily maple. (Smith).

SYCAMORE LACE BUG (Corythucha ciliata) - MICHIGAN - Extremely noticeable on sycamore about Lansing and Jackson. (Hutson).

BIRCH SKELETONIZER (Bucculatrix canadensisella) - WISCONSIN - Effects of heavy defoliation beginning to appear in southern Florence County. (Smith).

A CATERPILLAR - UTAH - Severe damage to cottonwood trees along Sevier River in southern Sevier and northern Piute Counties. (Knowlton).

FALL WEBWORM (Hyphantria cunea) - WISCONSIN - Abundant in many localities. (Smith). MISSISSIPPI - Infesting many kinds of trees in Oktibbeha County and counties to west of Highway 82. Infesting pecan trees in Wayne County. (Hunsucker).

WALNUT CATERPILLAR (*Dalana integerrima*) - WISCONSIN - Have defoliated in excess of 60 percent of trees in State. (Smith). ARKANSAS - Caused severe defoliation of pecans in eastern area. Wild hosts also stripped of foliage in many areas. (Warren, Turney).

WHITE-MARKED TUSSOCK MOTH (*Hemerocampa leucostigma*) - WISCONSIN - A few larvae on elm in Sawyer County. Larvae reported in Price County. No defoliation. (Smith).

UGLY-NEST CATERPILLAR (*Archips cerasivorana*) - WISCONSIN - A few nests along roads in Sawyer County. (Smith).

A LACEBUG (*Corythucha pergandei*) - PENNSYLVANIA - Damaging alder leaves severely over entire area of Juniata County. (Udine).

GREENHOUSE WHITEFLY (*Trialeurodes vaporariorum*) - PENNSYLVANIA - Severe injury to one variety of roses in Chester County. (Thomas).

VIRGINIA-CREEPER LEAFHOPPER (*Erythroneura ziczac*) - NEVADA - Causing economic damage to Virginia creeper in western Nevada, Washoe, Churchill, Lyon, Douglas and Storey Counties. Populations approximately 40 percent of previous three years. (Gallaway).

AZALEA LACE BUG (*Stephanitis pyricoides*) - ALABAMA - Abundant on azaleas and other ornamentals. (Arant).

COTTONY-CUSHION SCALE (*Icerya purchasi*) - CALIFORNIA - Some severe infestations on ornamentals were reported in Tulare County. (Cal. Coop. Rept., August 19).

EUROPEAN EARWIG (*Forficula auricularia*) - RHODE ISLAND - Reports of scattered infestations in several areas. Generally beneath loose bark of trees. (Caroselli).

WALKINGSTICK (*Diacheromera femorata*) - PENNSYLVANIA - From 5-10 acres of a 20-acre forest defoliated in Sullivan County. (Gesell).

### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - UTAH - Annoyingly abundant in several areas of Millard County. (Knowlton, Rickenbach). DELAWARE - *Aedes sollicitans* most troublesome species. Active over most of Sussex, Kent and southern New Castle Counties. More numerous now than at any time during the past 10-15 years. (Milliron).

HORN FLY (*Siphona irritans*) - UTAH - Annoyingly abundant over much of State. (Knowlton).

HOUSE FLIES - RHODE ISLAND - Abundant in Woonsocket area following floods. Now being controlled. (Mathewson). NEW MEXICO - Musca domestica very abundant in feed lots, poultry houses, dairy barns and around residences in Mesilla Valley. (Durkin, August 26).

FLEAS (Ctenocephalides spp.) - PENNSYLVANIA - Numerous in central area. (Gesell). RHODE ISLAND - Cat fleas continue to be reported in several areas. (Mathewson). ALABAMA - C. canis and C. felis abundant and have caused some annoyance to humans in houses. (Arant).

### BENEFICIAL INSECTS

GRAPE LEAF SKELETONIZER PARASITES - UTAH - Have held grape leaf skeletonizer to very low population in Washington County since 1953. (Hughes, Knowlton).

HONEY BEE (Apis mellifera) - UTAH - Many killed while spraying for yellow clover aphid in some areas of Millard County. Local losses in other counties. (Knowlton, Rickenbach et al).

A NABID (Geocoris punctipes) - NEW MEXICO - From 1-9 per 100 sweeps in cotton in Dona Ana County. (Durkin, August 26).

LACE WINGS (Chrysopa sp.) - NEW MEXICO - From 0-8 per 100 sweeps in cotton in Dona Ana County, numerous in Eddy County, and keeping bollworm below damaging numbers. (Durkin, August 26).

A PREDACEOUS BEETLE (Collops vittatus) - NEW MEXICO - Decreasing with 0-5 per 100 sweeps in cotton in Dona Ana County. (Durkin, August 26).

A DAMSEL BUG (Nabis ferus) - NEW MEXICO - From 3-5 per 100 sweeps in cotton in Dona Ana County. (Durkin, August 26).

LADY BEETLES - UTAH - Extremely abundant in many yellow-clover-aphid infested fields in Millard County. (Knowlton). NEW MEXICO - Hippodamia convergens decreasing in cotton with 0-5 per 100 sweeps in Dona Ana County. (Durkin, August 26).

### STORED PRODUCTS INSECTS

INDIAN-MEAL MOTH (Plodia interpunctella) - MARYLAND - Infesting stored grain in Washington County. (U. Md., Ent. Dept.).

ANGOUNCIS GRAIN MOTH (Sitotroga cerealella) - SOUTH CAROLINA - Building up on surfaces of grain at Clemson. Moths flying about grain. (Reed, August 23).

## LIGHT TRAP COLLECTIONS

	Pseudal. unipum.	Laphyg. frugip.	Agrotis ypsilon	Perid. marg.	Feltia subter. armig.	Heliolithis vires. sexta	Protoparce quin.
LOUISIANA							
Tallulah*	446	238	79	2	127	138	14
Baton Rouge	6	111	29	6	82	104	
ARKANSAS							
Stuttgart	1		18	8		112	
Van Buren						41	
Warner	20		30	2		795	
Fayetteville	20		22	6		327	
Clarksville	4		20			80	
KANSAS							
Manhattan		21				511	227 spp.
Hays	....					41	14 "
Garden City	11					211	24 "
MISSISSIPPI (Counties)							
Washington *	226	20	64		76	748	215 spp.
Cochosa	454		239		23	1,810	
Humphreys	132		116	2	84	194	
Orkibbeha	38		39		6	46	
Pearl River	50		19	2	8	63	
SOUTH CAROLINA							
Oconee Co.	9		3			79 sp.	1
Charleston	8/28-9/3	74			30	476	57
	8/22-29						1

\* Three traps at Tallulah, 2 in Washington County. Other collections of importance include velvetbean caterpillar (*Anticarsia gemmatilis*) at Tallulah (13) and Baton Rouge (81), LOUISIANA; and at Charleston, SOUTH CAROLINA (83).

Collections at Auburn, ALABAMA showed 2 *P. unipuncta*, 22 *L. frugiperda*, 13 *H. armigera*; at Faison, NORTH CAROLINA 2 *P. unipuncta*, 2 *L. frugiperda*, 4 *H. armigera*.

MISCELLANEOUS INSECTS

A STAPHYLINID - ARIZONA - Abundant enough at Yuma to be nuisance. (Ariz. Coop. Rept.).

FIELD CRICKET (Acheta assimilis) - ARIZONA - Abundant at Yuma at lights. (Ariz. Coop. Rept.).

PHORID FLIES (Megaselia spp.) - PENNSYLVANIA - Infestations from mushroom houses in Chester County carried by winds into Kennett Square. Flies cause allergies to humans. (Thomas).

ADDITIONAL NOTES

GEORGIA - CORN EARWORM from 3-8 per sorghum head in Spalding and Fayette Counties (Beckham) and heavy infestation in grain sorghum in Jackson County (Jordan). FALL ARMYWORM infestation moderate in late grain sorghum and damaging leaves and whorls in Putnam County. (Beckham). LESPEDEZA WEBWORM causing moderate damage to lespedeza in Spalding County. (Beckham, DuPree). GRASSHOPPERS causing moderate to heavy defoliation of lespedeza in Washington County, August 30. (Turner, Mercer). BEAN LEAF ROLLER damage to pole beans heavy in Calhoun County, August 27. (Morgan). WALNUT CATERPILLAR defoliating pecan trees in Thomas County, August 22. (Osborn).

ARIZONA - A complex of LEPIDOPTEROUS LARVAE has developed on alfalfa in Phoenix area. On August 26 the average number per sweep was beet armyworm 1.37, yellow-striped armyworm 1.72, alfalfa caterpillar 1.88, corn earworm 0.45. CABBAGE LOOPER is abundant on alfalfa in vacant lots and fallow fields. ALFALFA CATERPILLAR averaged 1 to 2 per sweep on alfalfa at Yuma August 24. THREE-CORNERED ALFALFA HOPPER averaged 16.3 per sweep in 360 acres alfalfa in Phoenix area. YELLOW CLOVER APHID increased from 0.07 per leaf August 15-16 to 0.13 August 29 on alfalfa in 11 fields in Salt River Valley. COTTONY-CUSHION SCALE light to moderately heavy on several citrus trees on Yuma Mesa, new area of infestation. (Ariz. Coop. Rept.).

NORTH CAROLINA - Third-generation HORNWORM larvae in south-eastern counties in middle to late instars. Numerous requests for aid in BOLLWORM control in Halifax and Nash Counties. (Farrier). CORN EARWORM in every field of peanuts checked in Halifax and Nash Counties. Attacking alfalfa in Wake County and milo heads in numerous fields in Nash County. (Dogger, Farrier). BEAN LEAF BEETLE causing light damage to soybeans in numerous fields in Halifax County. (Farrier). EGGPLANT LACE BUG causing severe damage to untreated egg plants at Faison. EGGPLANT FLEA BEETLE numerous

on untreated eggplants at Faison. (Brett). BAGWORM causing complete defoliation of some evergreens in Nash County. (Fulton, Farrier). MOSQUITOES - Recent rains causing many complaints. Following taken in Halifax County: Aedes vexans, A. sollicitans, A. atlanticus, tormentor complex and Uranotaenia lowii. (Farrier). An air sac MITE (Cytodites nudus) causing general debility in pheasant flock in Wake County. (Green, Farrier). (Continued below).

#### RECENT INTERCEPTIONS AT PORTS OF ENTRY

Adults of the South African grain bug, Blissus diplopterus Dist., were found by Plant Quarantine inspectors at the port of New York infesting apricots from South Africa. The insects apparently had entered the fruit at the stem scar and were found in and near the cracked seed. This insect has been reported damaging wheat, oats, and barley in South Africa, most of the injury occurring while the ears were forming. Only one generation per year has been observed. From mid-summer onwards, the mature bugs seek shelter in the bark of trees, cracks in fence posts, and in dry corn stalks. In winter it migrates to the grain fields, where it has been recorded on the wing in tremendous numbers. B. diplopterus has also been intercepted recently on three occasions with grass seed in the mail from South Africa at the Washington, D. C. inspection house. It is not known to occur in the United States. (Compiled - Plant Quarantine Branch).

#### ADDITIONAL NOTES (Continued)

NEW MEXICO - COTTON BOLLWORMS reached outbreak proportions in Lordsburg and Animas Valley areas of Hidalgo County and in the Deming area of Luna County. Infestations many fields 100 to 150 eggs and small larvae per 100 terminals. Infestations in Dona Ana and Eddy Counties light to heavy, depending on control measures. COTTON FLEAHOPPERS very abundant in untreated cotton in Eddy County. SUPERB PLANT BUG very numerous in many cotton fields Dona Ana County and causing damage in badly-infested fields. LYGUS BUG infestation in cotton light to heavy, from 0 to 18 per 100 sweeps in Dona Ana County. THRIPS heavy on cotton in Eddy County, but no damage apparent. COTTON APHIDS light and spotty in cotton in Eddy County. (Durkin, August 26).

## WEATHER BUREAU'S 30-DAY OUTLOOK

September 1955

The Weather Bureau's 30-day outlook for September calls for temperatures to average below seasonal normals in the South and also in the Ohio Valley and lower Great Lakes region. Elsewhere above normal temperatures are predicted, with greatest departures in the Northern Plains and northern Rocky Mountain States.

Precipitation is expected to exceed normal in States along the Gulf and Atlantic coasts, but subnormal amounts are indicated for most of the remainder of the nation.

This report released by the Weather Bureau on September 2, 1955.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price \$4.80 a year, \$2.40 for six months.

### WEATHER FOR THE WEEK ENDING SEPTEMBER 4, 1955

Last week's weather was featured by heat waves in Far West and continued drought in the Central Great Plains. High temperatures, low relative humidity and virtually no rain during the entire week in the Far West caused a critical fire hazard in the forests. On September 1 the mercury rose to a record-breaking 110° in downtown Los Angeles, California, and during the remainder of the week maxima rose 100° or over in the California's Central Valley, and reached a high of 107° at Medford, Oregon and 111° at Red Bluff, California, on the 4th. The temperature at Los Angeles averaged 14° above normal for the week. In the Central Great Plains the drought was most severe in Nebraska and Kansas where only a few scattered, light showers occurred last week. Crops further deteriorated and owing to the lateness of the season, good rains now would result in only limited recovery. East of the Rockies an influx of cool Canadian air reduced temperatures to below normal levels in central areas during the first half of the week and to above normal levels in the East during the latter part.

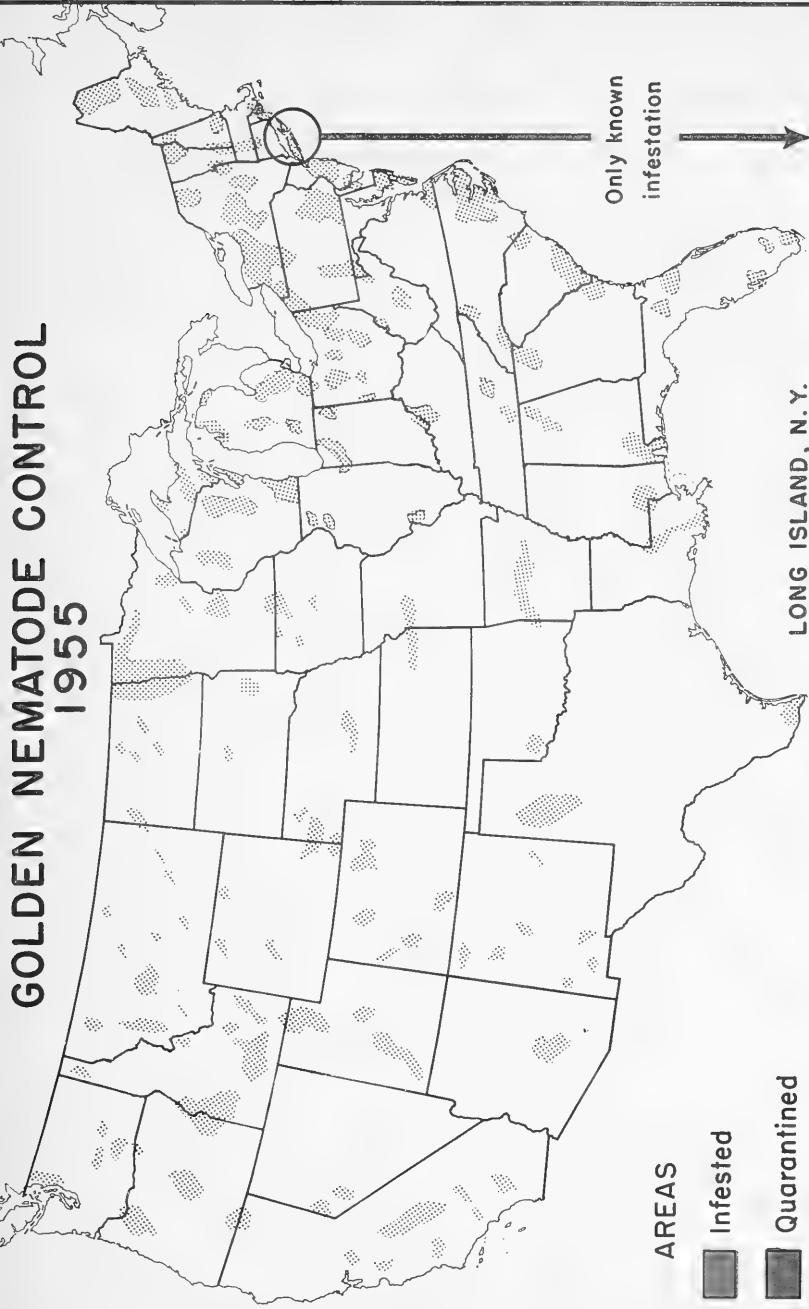
Most of the week rainfalls occurred along the Gulf and Atlantic Coast in a narrow belt extending from eastern Texas to the Great Lakes. In other sections only light scattered showers were of little benefit and areas of short soil moisture continued to spread. At the end of the period the gulf storm "Gladys" caused some locally heavy rain along the Texas Coast.

(Summary Supplied by U. S. Weather Bureau).





# GOLDEN NEMATODE CONTROL 1955



## AREAS

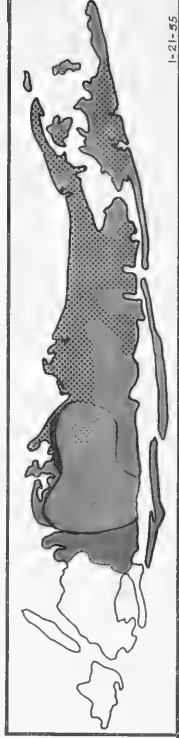
■ Infested

■ Quarantined

■ Potential for spread\*

\* Commercial potato producing areas

LONG ISLAND, N. Y.









VOL. 5 No. 37

SEPTEMBER 16, 1955

SB  
823  
c77  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPERS continue to cause damage in some areas. Utah has severe infestations in several counties and Wyoming reports damage to crops and range land in some sections. No reduction in populations in Wisconsin. (p. 881). Higher adult population in Minnesota than in 1954. (p. 895).

EUROPEAN CORN BORER causing considerable stalk breakage in South Dakota where second-generation larvae in fifth instars. Spotted, high infestations in Indiana. Much heavier infestation than usual in Wisconsin. Third brood active in southeast Missouri. (p. 881). Severe damage to pimentos in northeastern Alabama. (p. 888).

CORN EARWORM severe in late-planted milo in North Carolina and in soybeans and peanuts in some counties of Virginia. Late untreated sweet corn heavily infested in Wisconsin and the insect is prevalent in eastern South Dakota. (p. 881).

CHINCH BUG very heavy in scattered fields in northwest Missouri. (p. 882). CORN ROOTWORM adults abundant on corn silks in southeastern South Dakota. Missouri reports damage to corn in widely scattered areas. (p. 882). FALL ARMYWORM abundant in late-planted corn in Indiana. (p. 883).

ALFALFA CATERPILLAR continues abundant in alfalfa in Nebraska; unusually numerous in some areas of Utah. (p. 883). YELLOW CLOVER APHID infestation becoming more widespread in Central Valley of California; increasing in Greenlee County, Arizona; abundant in some areas of Utah; severe loss in Grady County, Oklahoma; build-up some areas of Kansas; heaviest infestations in alfalfa in Nebraska occur in Republican River Valley. (p. 884).

PLANT BUGS continue abundant in alfalfa in Nebraska, South Dakota and Utah. (p. 885).

PEAR-SLUG severe on untreated cherry and pear trees in Ohio. (p. 886). Considerable defoliation by YELLOW-NECKED CATERPILLAR of untreated orchard trees in Lewiston area of Idaho. (p. 886). WALNUT CATERPILLAR defoliating walnuts in Indiana and Virginia. (p. 887). ORIENTAL FRUIT MOTH very heavy in late peaches in central Pennsylvania. (p. 895).

(Continued on next page).

POTATO LEAFHOPPER and FLEA BEETLES causing severe injury to potatoes in North Dakota. (pp. 827, 888). PICKLEWORM appearing in Centre County, Pennsylvania. (p. 895). BEET LEAFHOPPER - transmitted curly top averages up to 65 percent on beets in central Utah. (p. 888). YELLOW-STRIPED ARMYWORM of concern on sugar beets and lettuce in Maricopa County, Arizona. (p. 888).

BOLLWORMS causing severe damage to cotton in Hidalgo and Luna Counties, New Mexico, with light to heavy infestations in other areas of the State. Infestations are generally light in California and decreasing in Arizona. Mississippi, South and North Carolina report some damage. (pp. 890, 895). Inspections for PINK BOLLWORM show heavy infestation in coast bend area and along Brazos River in Texas. (p. 890). SPIDER MITES building up in cotton in Dona Ana County, New Mexico, and very numerous in north central Oklahoma. (p. 890).

RED-HEADED PINE SAWFLY damaging young pines in southern and western Arkansas. (p. 891). JACK PINE BUDWORM more abundant than usual in Wisconsin. (p. 891). GREEN-STRIPED MAPLEWORM caused heavy defoliation in central and northern Missouri. (p. 892).

MOSQUITOES prevalent in Rhode Island and in areas of Pennsylvania, Virginia and Utah. (p. 893). SCREW-WORM numerous in northwestern Woods County, Oklahoma. (p. 894).

STATES reporting this week - 32.

WEATHER Summary. (p. 897).

ADDITIONAL NOTES. (p. 895).

\*\*\*\*\*

Reports in this issue are for the week ending September 9, 1955, unless otherwise designated.



CEREAL AND FORAGE INSECTS

GRASSHOPPERS - IDAHO - Populations of Melanoplus mexicanus 8-10 per square yard in meadows from Grangeville to Elk City. (Evans, 9/3). UTAH - Severe infestations in areas of Uintah, Duchesne, Cache and Sanpete Counties on farms and from 50-100 per square yard in range land of Sevier County. (Chinn, Knowlton). WYOMING - Fifteen per square yard, largely M. bivittatus and M. femur-rubrum, causing damage to crops near Afton. From 10-20 per square yard, causing damage to range land northwest of Cody and east of Sundance. (Spackman). KANSAS - Adults of Melanoplus remain light to severe in many local areas of central section. Counts in alfalfa and in field margins ranged from 8-30 per square yard. M. mexicanus and M. femur-rubrum dominant species. M. differentialis non-economic in numbers. Heaviest populations in Reno and Rice Counties; somewhat lower counts in McPherson, Saline, Dickinson, Geary and Riley Counties. (Matthew). INDIANA - Rather abundant in spotted areas of northern section. (Davis). WISCONSIN - M. femur-rubrum mature and depositing eggs for several weeks. No reduction in populations. (Chambers). ALABAMA - M. femur-rubrum causing damage to lespedeza in Talladega County. (Ruffin).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NEBRASKA - Larvae found in Kimball County. A male moth found earlier in light trap. (Hill). (New county record). SOUTH DAKOTA - Majority of second-generation larvae have reached fifth instar with an average of 66 percent of corn infested. Considerable stalk breakage occurring. (Hantsbarger). INDIANA - Rather spotted but a high infestation in some localities. (Davis). WISCONSIN - Damage beginning to show throughout corn-growing area. Much heavier infestation than experienced for several years. (Chambers). MISSOURI - Egg mass counts average 10 per plant on late-planted corn in extreme southeast area with hatch about 75 percent complete. Indicates quite a heavy third-brood activity in the area. Second brood from third to fifth instar over northern half of State. Drought in northwest area apparently reduced total number of second brood. (Kyd, Thomas). VIRGINIA - Light damage caused breakage and lodging of corn in a field in southern part of Pittsylvania County. (Curtis).

CORN EARWORM (Heliothis armigera) - RHODE ISLAND - Moderate infestations on sweet corn in home gardens in several areas. (Caroselli). NORTH CAROLINA - Very severe in heads of late-planted milo with up to 23 small and 18 large larvae per head in Union County and 1-4 larvae per head in a field in Davidson County. (Farrier). VIRGINIA - Severe damage to soybeans in King William County. From 15-25 percent of a 12-15 acre field damaged. (Rowell). Severe damage to soybeans and peanuts in one area of Sussex County. (Parson, August 26). Severe on alfalfa on a farm at Denbigh. (Brame, August 31). Along

with other larvae, damaging peanuts at one area in Southampton County. (Matheny, August 30). SOUTH CAROLINA - As many as five per head on grain sorghum on a farm in Anderson County. (Marrett). TEXAS - Heavy infestations in peanuts in Stonewall County. (Davis). WISCONSIN - Late sweet corn heavily infested throughout the State in untreated or poorly-treated fields. (Chambers). INDIANA - Has not been very abundant and far less abundant than in past two years. (Davis). SOUTH DAKOTA - Quite prevalent throughout eastern area with a count of two larvae per ten plants some areas. (Hantsbarger). COLORADO - Surveys show that corn is infested at the rate of eight to one corn earworms and fall armyworm. (Colo. Exp. Sta.). UTAH - Infesting 15-50 percent of sweet corn at St. George and Santa Clara, averaging about 25 percent. At Enterprise, infesting 90-100 percent of ears. (Hughes, Knowlton, September 1). Infestation in canning corn in northern area averages less than five percent. Infestation 2-3 percent average in early market corn. (Dorst). Infesting 60-100 percent of sweet corn in Kane County. (Knowlton, Rose). IDAHO - Infestations generally light throughout State. (Barr, September 3).

CORN LEAF APHID (Rhopalosiphum maidis) - SOUTH DAKOTA - Fairly heavy infestations on later-planted corn. (Hantsbarger).

CHINCH BUG (Blissus leucopterus) - NORTH CAROLINA - Numerous adults and large nymphs under leaf sheaths and in heads of late-planted milo in Union County. (Farrier). MISSOURI - Very heavy numbers of adults and nymphs in scattered fields over northwest area. Spots in these heavily-infested fields average 400-1000 bugs per plant with heavy damage. (Kyd, Thomas).

CORN ROOTWORMS (Diabrotica spp.) - COLORADO - Taken in light traps at the rate of 336 at Hartman, Prowers County, August 24, compared with 724 August 22 and 1212 August 18. (Colo. Exp. Sta.). SOUTH DAKOTA - Northern and southern forms quite numerous in southeastern counties and feeding on silks and on flowers of goldenrod, sunflowers and other marginal vegetation. (Hantsbarger). MISSOURI - D. longicornis damage to corn roots and silks evident in widely scattered areas of northern, central and eastern parts of State. Several fields show heavy root injury while a few show varying degrees of pollination due to adults feeding on silks. (Kyd, Thomas).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KANSAS - A very light infestation in one irrigated corn field in southern Saline County and averaged less than two percent girdling. This is furthest north and east that borers have been observed or reported this year. (Matthew).

FALL ARMYWORM (Laphygma frugiperda) - INDIANA - Has been rather abundant in late-planted corn including corn for silage. (Davis). VIRGINIA - Correction: CEIR 5(35):836 should read corn earworm (Heliothis armigera) infesting peanuts in Surry County. (Morris). ARIZONA - Moderate infestation on 70 acres of sorghum at Phoenix and causing moderate damage, feeding on whorls and leaves of 10 percent of plants. (Ariz. Coop. Rept.).

FALSE WIREWORMS (Eleodes spp.) - KANSAS - A limited survey in wheat fields in Dickinson, Saline, McPherson, Reno and Rice Counties showed infestations in most fields examined (at least five per county). Counts ranged from 1-38 larvae per square yard although most fields had only 3-7 per square yard. (Matthew). Twelve fields near Hays in Ellis County showed economic infestations in one field only. (Harvey).

RICE STINKBUG (Solubea pugnax) - LOUISIANA - Counts continue low over rice-growing area with 12-16 per 100 sweeps in Evangeline Parish, 22-31 per 100 sweeps in Acadia Parish and 11-16 per 100 sweeps in St. Landry Parish. (Oliver).

A LYGAEID (Paromius longulus) - LOUISIANA - Taken at 2-8 per 100 sweeps in all rice fields checked. (Oliver).

SORGHUM WEBWORM (Celama sorghiella) - MISSISSIPPI - Infesting sorghum heads in Clay County. (Young). TEXAS - Light, local infestation on grain sorghum in Austin County. (Pearce).

MEALY PLUM APHID (Hyalopterus arundinis) - ARIZONA - Spotted infestation causing light damage in most fields in Peoria and Chandler area of Maricopa County. (Ariz. Coop. Rept.).

A GRASS MITE (Oligonychus pratensis)\* - WASHINGTON - Damaging a field of bluegrass grown for seed near Pomeroy. Webbing in crowns. (Johansen).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - NEBRASKA - Continues abundant in alfalfa. Larvae from 4-25 per 25 sweeps in Loup and Platte Valleys. In several fields 50-80 percent of larvae parasitized. (Andersen). UTAH - Unusually numerous in alfalfa in Millard and Iron Counties recently. About 200 acres sprayed in Millard County and another 300 acres sprayed for this and the yellow-striped armyworm. (Rickenbach, Knowlton, September 1).

JUNE BEETLES - VIRGINIA - Cotinis nitida and Cyclocephala borealis larvae damaging a stand of young alfalfa in Patrick County. (Olinger, Morris). COLORADO - Heavy infestation of white grubs, 12 per square foot of lawn at Greeley. Causing serious damage. (Chem. Ind.).

\*Pritchard, A. E. and Baker, E. W. 1955. A revision of the spider mite family Tetranychidae. Pacific Coast Ent. Soc. Mem. Ser. vol. 2, p. 349.

LEAFHOPPERS - TENNESSEE - TENNESSEE - Damaging alfalfa in central area. (Mullett). COLORADO - Light trap collections indicate very high populations. (Colo. Exp. Sta.).

GREEN CLOVERWORM (Plathypena scabra) - INDIANA - Has been abundant on soybeans in a number of locations. (Davis). VIRGINIA - Large numbers in alfalfa in Warren County. (Weddle, Rowell).

YELLOW CLOVER APHD (Myzocallis trifolii) - CALIFORNIA - Has appeared in Stanislaus County. Infestations in southern Central Valley becoming more widespread and less spotted. (Cal. Coop. Rept.). ARIZONA - Generally on the increase in Greenlee County, particularly in drier fields. Expect treatments necessary by middle or last of September. (Ariz. Coop. Rept.). NEW MEXICO - Light spotted infestations in most alfalfa fields in Dona Ana, Eddy, Luna, Hidalgo and Chaves Counties. (Durkin, September 2). UTAH - Abundant to damaging in Millard and parts of Juab, and relatively scarce in Iron and Washington Counties. (Knowlton, September 1). Counts from 2-20 per sweep in Millard and Juab Counties with more in occasional fields. (Knowlton, September 8). About 12,000 acres were sprayed with aircraft and 20,000 acres with ground equipment in Millard County. Outbreak was severe and some alfalfa seed crops had to be cut for hay because of aphid injury. (Rickenbach, Knowlton). OKLAHOMA - Infestation per 100 sweeps of 15-inch net in alfalfa in Payne County: 68 September 9 compared with 102.4 for July 27 and 68 for August 24. (Fenton). CAUSING SEVERE LOSSES IN ALFALFA IN GRADY COUNTY. (Howell). KANSAS - Found in all alfalfa fields with green leaves in Geary, Dickinson, Saline, McPherson, Reno and Rice Counties. Counts ranged from 3-200 per sweep with 15-inch net and averaged about 12. Apparent build-up of populations although predators numerous. (Matthew). Heavy local populations causing heavy damage to alfalfa around Garden City, Wolfe and Deerfield, Finney County. (DePaw). Threatening to severe infestations near Marion, Marion County. Counts in many fields ranged from 80-120 per sweep of 15-inch net, while counts in more heavily infested fields ranged to 500-800 per sweep. (Burkhardt). NEBRASKA - Heaviest infestation continues in alfalfa in Republican Valley with counts well over 200 per sweep. Infestation in Platte Valley from 10-25 per 25 sweeps. An infestation just beginning in Loup Valley where counts are 2-12 per 25 sweeps. Counties where the aphid has been found to date: Webster, Harlan, Furnas, Red Willow, Hitchcock, Dundy, Chase, Hayes, Frontier, Gosper, Phelps, Kearney, Hall, Dawson, Buffalo, Lincoln, Perkins, Keith, Deuel, Garden, Morrill, Scotts Bluff, Thomas, Blaine, Custer, Logan and Sherman. (Andersen, Hill).

BLISTER BEETLES - INDIANA - Abundant in many localities. (Davis). WISCONSIN - Epicauta pennsylvanica so abundant that alfalfa and garden

crops are being damaged. (Chambers). OKLAHOMA - Epicauta sp. very numerous in alfalfa and most important defoliator in Payne County. (Fenton). MISSISSIPPI - Epicauta sp. infesting soybeans in some counties. Rather numerous in light trap collections (Hutchins).

ALFALFA WEEVIL (Hypera postica) - UTAH - About 10,000 acres of alfalfa sprayed last spring in Millard County, largely as spring stubble spray. (Knowlton, Rickenbach).

PEA APHID (Macrosiphum pisi) - NEBRASKA - With cool weather, aphids building up in alfalfa. Counts from 25-30 per 25 sweeps in the Loup and Platte Valleys. (Andersen).

PLANT BUGS - NEBRASKA - Adelphocoris lineolatus, A. rapidus and Lygus lineolaris continue abundant in alfalfa. Counts from 10-20 per 25 sweeps. (Andersen). SOUTH DAKOTA - High populations in alfalfa. Up to 23 tarnished plant bugs and up to three rapid plant bugs per 10 sweeps. Alfalfa plant bugs declining somewhat. (Hantsbarger). UTAH - Adults and nymphs of lygus bugs still numerous on alfalfa and occasionally on potatoes in several counties. About 35,000 acres of alfalfa intended for seed were treated at least once for lygus bugs in Millard County this season. (Rickenbach, Knowlton).

POTATO LEAFHOPPER (Empoasca fabae) - VIRGINIA - Heavy infestation causing yellowing of alfalfa in Patrick County. (Olinger, Rowell). OKLAHOMA - Nymphs and adults in alfalfa in Payne County. (Fenton). NEBRASKA - Average 7 per 25 sweeps in alfalfa in Loup Valley. (Andersen).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - NEBRASKA - In complex with Endria inimica ranging from 10-15 per 25 sweeps in alfalfa in Loup Valley. E. inimica in fourth instar. (Andersen).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Infesting alfalfa in Bossier Parish at 300-1100 per 100 sweeps and in Natchitoches Parish at 250-300 per 100 sweeps. Continues to infest soybeans over State. (Oliver).

THRIPS - OKLAHOMA - Averaged 20 per square foot, Henderson count method, in alfalfa in Payne County. (Fenton).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - NEBRASKA - Light and spotted infestation in Loup Valley area. Counts from 1-4 per 25 sweeps in alfalfa. (Andersen). UTAH - About 600 acres of alfalfa damaged in some areas of Millard County. (Rickenbach, Knowlton, September 1).

BEAN LEAF BEETLE (Cerotoma trifurcata) - INDIANA - Rather common in some areas on soybeans and garden beans. (Davis).

## FRUIT INSECTS

APPLE MAGGOT (Rhagoletis pomonella) - NEW YORK - Two prune orchards in Niagara County with moderate to heavy apple maggot infestations. A total loss of apples on farms with inadequate spraying schedules or none. Flies can still be seen in unsprayed or poorly-sprayed orchards in Monroe County. (N. Y. Wkly. News Lett., Sept. 6). OHIO - Second-brood adults emerged in late August under laboratory conditions. (Cutright).

CODLING MOTH (Carpocapsa pomonella) - NEW YORK - Still persistent in Monroe County in orchards where first-brood carryover was moderate and a few orchards with serious trouble even with a light first brood. Continues at rather low level in Wayne County. (N. Y. Wkly. News Lett., 9/6). VIRGINIA - Third brood light in Albemarle County this year. (Bobb). UTAH - Infesting up to 40 percent of apples in Kane County. (Rose, Knowlton). Infesting 5-10 percent of apples in some commercial orchards in Utah and Cache Counties. (Davis, Knowlton).

ORCHARD MITES - NEW YORK - Tetranychus telarius found readily in many orchards in Wayne County, but populations declining. (N. Y. Wkly. News Lett., 9/6). VIRGINIA - Metatetranychus ulmi heavy in some but light in other orchards in Albemarle County this year. (Bobb). OHIO - T. telarius still increasing but not seriously. (Cutright).

PEAR-SLUG (Caliroa cerasi) - OHIO - Very severe on untreated trees of cherry and pear. (Cutright). UTAH - Still active on cherries at Farmington and Springville. (Davis).

WHITE APPLE LEAFHOPPER (Typhlocyba pomaria) - NEW YORK - Small orchard in Niagara County heavily infested with severe foliage injury and spotting of fruit. (N. Y. Wkly. News Lett., Sept. 6).

RED-BANDED LEAF ROLLER (Arovrotaenia velutinana) - NEW YORK - A few third-brood egg masses found in orchards in Monroe and Wayne Counties. (N. Y. Wkly. News Lett. 9/6). VIRGINIA - Third brood so heavy in two Albemarle County apple orchards that the fruit abandoned. Every apple had 5-6 larvae on it. Heaviest populations seen. (Bobb).

YELLOW-NECKED CATERPILLAR (Datana ministra) - IDAHO - Infesting fruits in Lewistown area. Considerable defoliation of untreated trees. (Barr, Sept. 3).

PLUM CURCULIO (Conotrachelus nenuphar) - NEW YORK - Rather general and heavy fall feeding injury in prunes in Niagara County, Sept. 6. (N. Y. Wkly. News Lett.). VIRGINIA - No noticeable second brood in Albemarle County this year. (Bobb).

PEACH TWIG BORER (Anarsia lineatella) - UTAH - Infesting untreated peaches at Farmington 5-25 percent. (Davis).

PEACH TREE BORER (Sanninoidea exitiosa) - UTAH - Damage severe in some prune orchards. One showed 80-90 percent infestation. (Davis).

GREEN JUNE BEETLE (Cotinis nitida) - INDIANA - Recently reported causing serious damage to peaches in New Castle. (Davis).

CLOVER MITE (Bryobia praetiosa) - UTAH - Still injurious to peaches in Utah County. Decreasing. (Ashton, Davis, Knowlton).

WALNUT CATERPILLAR (Datana integerrima) - INDIANA - Defoliating walnuts throughout State. (Davis). VIRGINIA - Mature larvae medium to severe on black walnuts in north central area. Some trees completely defoliated. (Morris, Va. For. Serv.). Damaging walnuts in Henrico County. (Davis, Morris).

LEAFHOPPERS - UTAH - Discolored grape foliage in Washington County and Virginia creeper in many parts of Utah. (Knowlton).

A GRAPE LEAF SKELETONIZER-UTAH - Parasites have held this pest in check in Washington County since spring of 1953. (Hughes, Knowlton, September 1).

GRAPE BERRY MOTH (Polychrosis viteana) - UTAH - Infesting some vineyards in St. George-Washington area of Washington County. (Knowlton, September 1).

### TRUCK CROP INSECTS

CORN EARWORM (Heliothis armigera) - NORTH CAROLINA - Attacking tomatoes, butter beans and field peas in Anson County. (Farrier). COLORADO - Eggs being laid in commercial tomato fields. Damage to canning tomatoes in Adams County. (Colo. Exp. Sta.).

POTATO PSYLLID (Paratrioza cockerelli) - WYOMING - Expected to cause considerable damage in a few untreated fields. (Wallis). COLORADO - All stages continue to be reported on tomatoes and potatoes in Pueblo, Otero and Adams Counties. No serious reduction in yield expected although "psyllid yellows" present. (Colo. Exp. Sta.).

TUBER FLEA BEETLE (Epitrix tuberis) - WYOMING - Good control in all fields examined. (Wallis).

POTATO LEAFHOPPER (Empoasca fabae) - NORTH DAKOTA - Severe injury to potatoes. (N. D. Ins. Rept. Serv.).

FLEA BEETLES - NORTH DAKOTA - Severe injury to potatoes. (N. D. Ins. Rept. Serv.).

CABBAGE LOOPER (Trichoplusia ni) - NEW YORK - Continues to be principal problem in Monroe County. (N. Y. Wkly. News Lett., Sept. 6). SOUTH CAROLINA - Extremely heavy infestations on several farms in Lexington County. (Johnson). COLORADO - Taken on tomato foliage in Pueblo County. (Colo. Exp. Sta.). NEW MEXICO - In complex with Laphygma exigua are causing damage to seedling lettuce in Dona Ana County. (Durkin, September 2).

IMPORTED CABBAGEWORM (Pieris rapae) - INDIANA - Generally abundant. (Davis).

MEXICAN BEAN BEETLE (Epilachna varivestis) - RHODE ISLAND - Numbers declining but some on beans in several areas. (Caroselli).

PEA WEEVIL (Bruchus pisorum) - NORTH CAROLINA - Very light attacks on garden peas in Union and Davidson Counties. (Farrier).

PICKLEWORM (Dirophania nitidalis) - SOUTH CAROLINA - Heavy infestation in cantaloupes in Lexington County. (Johnson).

MELON APHID (Aphis gossypii) - NEW MEXICO - Heavy on 300 acres of cantaloupes and honeydews in the Tucumcari area of Quay County. (Durkin, Sept. 2). UTAH - Moderately severe on cucumbers at Springville. (Davis).

EUROPEAN CORN BORER (Pyrausta nubilalis) - ALABAMA - Of 10,000 acres of pimentos in 35 fields in four counties in northeastern Alabama, 29 were infested. Damage severe. Harvesting has stopped in Marshall County where the greatest borer damage has occurred. Infestations by counties: DeKalb, 6 fields up to 10 percent; Marshall, 6 fields up to 30 percent; Cullman, 13 fields up to 3 percent; Blount, 4 fields up to 5 percent. (Moore).

BEEF LEAFHOPPER (Circulifer tenellus) - UTAH - Caused curly top in 17 canning tomato fields in northern area, averaging 8 percent. Of the 8 percent curly top, now present, about 4 percent resulted from migration of leafhopper. Curly top averages about 65 percent on beets of central area. In remainder of Sevier Valley, average of 28 percent curly top present. (Dorst).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - LOUISIANA - Infesting sweetpotato foliage at 32 per 100 sweeps in St. Landry Parish, 36 per 100 sweeps in Evangeline Parish, and 60 per 100 sweeps in Acadia Parish. (Oliver). ARIZONA - Heavy infestation



of eggs and larvae in sugar beets in Maricopa County. Oviposition and hatching continuous. Moderate to heavy infestation on 1000 acres of lettuce in Phoenix and Mesa, causing light damage. All fields in Maricopa County heavily infested with eggs and larvae. (Ariz. Coop. Rept.).

A SWEETPOTATO BEETLE (Agroiconota bivittata) - LOUISIANA - Infesting sweetpotatoes at 18 per 100 sweeps in Acadia Parish and 8 per 100 sweeps in Evangeline Parish. (Oliver).

SOUTHERN GARDEN LEAFHOPPER (Empoasca solana) - LOUISIANA - Infestations 50 per 100 sweeps in sweetpotatoes in St. Landry Parish, 7 per 100 sweeps in Evangeline Parish, and 60 per 100 sweeps in Acadia Parish. (Oliver).

HOP APHID (Phorodon humuli) - OREGON - Continues to build up on hops in Willamette Valley. (Morrison).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - OREGON - Continues to build up on hops in Willamette Valley. (Morrison).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - TENNESSEE - Burrowing into and destroying runner plants of strawberries in Cumberland Plateau area. (Mullett).

SPOTTED CUTWORM (Amathes c-nigrum) - TENNESSEE - Clipping runners of strawberry plants in the Cumberland Plateau area. (Mullett).

RASPBERRY ROOT BORER (Bembecia marginata) - OREGON - Moths first emerged in Willamette Valley, August 20. (Rosenstiel).

GRASSHOPPERS - VIRGINIA - Causing medium damage to tobacco throughout Washington County up to August 27. (Gorsline).

APHIDS - VA. - Damaging tobacco in Buckingham County, (Nichols, Morris). CALIFORNIA - Some damage to lettuce in Monterey County by Myzus persicae. (Cal. Coop. Rept.).

HORNWORMS (Protoparce spp.) - INDIANA - Generally abundant. (Davis). VIRGINIA - Damage expected only to a few late tobacco plantings in Chatham area of Pittsylvania County. (Morris). Mature larvae causing medium damage to tomatoes in the Manassas area of Prince William County. (Cox).

## COTTON INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - LOUISIANA - All fields inspected (159) were infested in Tallulah area. Average infestation was 60 percent compared with 45% last week. Infestations ranged from 11 to 25 percent in five fields, from 26-50 percent in 56 fields, and over 50 percent in 98 fields. (Gaines, Pfrimmer et al). SOUTH CAROLINA - Top damage on young cotton in upper Piedmont continues. (Nettles).

BOLLWORMS (*Heliothis* spp.) - CALIFORNIA - Generally light; some damage reported in spotted infestations in Fresno, Tulare, Kings and Imperial Counties, probably from new hatch. (Cal. Coop. Rept.). ARIZONA - On the decrease generally. (Ariz. Coop. Rept.). NEW MEXICO - Causing severe damage to cotton in Hidalgo and Luna Counties. Light to heavy in Dona Ana, Sierra, Eddy and Chaves Counties, depending on control measures. (Durkin, September 2). LOUISIANA - Found in 172 of 173 fields examined in Tallulah area at an average of 7.3 eggs per 100 terminals for infested fields. Larvae found in 161 of the 173 fields at an average of 3.8 larvae per 100 terminals for the infested fields. (Gaines, Pfrimmer et al). MISSISSIPPI - Reports of damage to large bolls in some counties. (Hutchins). SOUTH CAROLINA - Top damage continues on young cotton in upper Piedmont area. (Nettles).

PINK BOLLWORM (*Pectinophora gossypiella*) - TEXAS - Inspection of green bolls continued to show a heavy infestation in all Coastal Bend counties. Bolls inspected during the period showed a 100 percent infestation in Duval and Brooks Counties, followed by Jim Wells 99.6, Nueces 98.5, Bee 95, Live Oak 94, and San Patricio 90 percent. Falls County has highest infestation (22 percent) in central area. A comparatively heavy infestation in El Paso County about seven miles east of El Paso. A marked increase found in counties on both sides of Brazos River and in Williamson and Fayette Counties. (PBW Proj., August 16-31). LOUISIANA - First larva of season found in trash from Lake Charles gin on August 29. Trash was partly from Cameron Parish and believed to be source of larva. (PBW Proj., August 16-31).

SPIDER MITES - NEW MEXICO - *Tetranychus telarius* building up to damaging populations in Dona Ana County. (Durkin, September 2). OKLAHOMA - Very numerous in north central area. (Stiles). LOUISIANA - Present in nearly all fields in Tallulah area in small numbers with damaging infestations in a few fields. (Gaines, Pfrimmer et al).

APHIDS - NEW MEXICO - Light in Sierra County and light and spotty in Eddy County. (Durkin, September 2). LOUISIANA - Present in nearly all fields in Tallulah area. Some honeydew in many fields. (Gaines, Pfrimmer et al).

PLANT BUGS - CALIFORNIA - Lycus spp. reported increasing in cotton in Fresno, Kings and Tulare Counties. (Cal. Coop. Rept.).  
ARIZONA - Adelphocoris superbus still heavy in a few fields in Greenlee County. (Ariz. Coop. Rept.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Moths of new brood numerous and oviposition begun from Phoenix westward to Buckeye, Maricopa County. Further control expected to be needed. (Ariz. Coop. Rept.).

BROWN COTTON LEAFWORM (Acontia dacia) - TEXAS - Heavy, widespread infestation in Burleson County. (Davis).

CABBAGE LOOPER (Trichoplusia ni) - TEXAS - Heavy, widespread infestation on cotton in Burleson County. (Davis).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - ARKANSAS - Continues somewhat persistent, doing damage to injured trees. Less active than a month ago. Most of increased activity in south central area. (Ark. State For. Com.).

RED TURPENTINE BEETLE (Dendroctonus valens) - ARIZONA - Some complaints from northern area that ponderosa pines have been killed in Navajo and Coconino Counties. (Ariz. Coop. Rept.).

PINE ROOT COLLAR WEEVIL (Hyllobius radialis) - WISCONSIN - More abundant than usual, destroying scotch, red and jack pines in windbreaks with considerable damage to young plantings. (Chambers).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - ARKANSAS - Damaging young pines in southern and western areas. Only a few infested trees each area. (Ark. State For. Com.).

A JACK PINE BUDWORM (Choristoneura pinus) - WISCONSIN - More abundant than usual this summer, causing damage mostly to jack pine plantations but reported abundant on scotch and red pine, and some spruces in 12 northern counties. (Chambers).

IPS ENGRAVER BEETLES (Ips spp.) - ARKANSAS - Activity continues to decline throughout most of State. Less damage now than at any time for two years. Main damage in western area in Ouachita National Forest where small scattered groups are infested. Some build-up in Dallas and Bradley Counties. (Ark. State For. Com.).

ORANGE-STRIPED OAKWORM (Anisota senatoria) - VIRGINIA - Light on oak trees in Warm Springs area of Bath County. Longer limbs of some trees defoliated. Larvae mature. (Morris). RHODE ISLAND - Light infestations on scrub oak in West Kingston and Scituate. Evidence of parasitism in younger instars. (Caroselli, Mathewson).

TENT CATERPILLARS - UTAH - Damaging cottonwood trees at North Creek, Beaver County. (Esplin, Knowlton, September 1).

BRONZE BIRCH BORER (Agrius anxius) - INDIANA - Has been responsible for death of many specimen birches in all parts of State. (Davis).

GREEN-STRIPED MAPLEWORM (Anisota rubicunda) - MISSOURI - Second-generation larvae range from half to full grown. About 25 percent of soft maples 60-100 percent defoliated in central and northern areas. (Kyd, Thomas).

A LEAF MINER (Lithocolletis tremuloidiella) - WISCONSIN - Very abundant on aspen and attracting attention in northwestern counties. (Chambers).

WHITE-LINED SPHINX (Celerio lineata) - WASHINGTON - Numerous adults now active around ornamentals. Larvae abundant in local areas in barley and wild grasses in Garfield County during August. (Johansen).

BAGWORM (Thyridopteryx ephemeraeformis) - INDIANA - Has been more abundant throughout State than for a number of years. (Davis). VIRGINIA - Mature larvae in medium infestation in spots on red cedar along U. S. No. 11 from Harrisonburg to Winchester and in Page County. Heavy defoliation and in some cases complete defoliation in past two weeks. (C. L. Morris). Damaging evergreens in Radford and in other parts of State. (A. P. Morris).

FALL WEBWORM (Hyphantria cunea) - NORTH CAROLINA - Trees and shrubs attacked in Union County with small trees defoliated. (Farrier).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Populations declining throughout State. (Caroselli).

INSECTS AFFECTING MAN AND ANIMALS

HOUSE FLIES - KANSAS-Musca domestica build-up in Riley County but infestations light compared with other years. (Matthew). ARIZONA - Flies, mainly Musca domestica, population index of two small towns in southeast Maricopa and northwest Pinal Counties: Average of five highest grill counts in nine blocks for week of August 29-September 2: 71.0. (Richards). UTAH - Annoyingly abundant throughout much of State. (Knowlton, September 1).

MOSQUITOES - RHODE ISLAND - Quite prevalent during past week in various parts of State. (Caroselli). PENNSYLVANIA - Mosquitoes, mostly Aedes sp., very heavy with biting severe in Northumberland and Snyder Counties. (Gesell). VIRGINIA - Psorophora howardii heavy in one area in Prince George County. (Noblin, Morris). NORTH CAROLINA - Aedes sollicitans commonest species taken in light traps at Faison. (Farrier). UTAH - Sharp decrease in activity at the end of August in Cache County. (Mail, Henninger, September 1). Annoyingly abundant in several areas of Millard County. (Knowlton, Rickenbach, September 1).

BROWN-BANDED ROACH (Supella supellectilium) - VIRGINIA - Extremely heavy infestation in a home in Martinsville, Henry County. (Rowell). OHIO - Rather heavy infestation in Wooster. First record for this area. (Rings). UTAH - Infesting a hotel at Salt Lake and other infestations in homes in Logan, Provo and Ogden. (Knowlton).

BED BUGS (Cimex sp.) - RHODE ISLAND - Reported infesting many homes in Providence area. (Mathewson).

FLEAS (Ctenocephalides spp.) - RHODE ISLAND - Numerous in homes in Providence and vicinity. (Mathewson, Caroselli). PENNSYLVANIA - Calls still being made for control measures in Centre County. (Gesell).

BLACK WIDOW SPIDER (Latrodectus mactans) - KANSAS - Reported from several areas of State. (Matthew). COLORADO - Reports of unusual number in Larimer County. (Exp. Sta.). PENNSYLVANIA - Numerous specimens brought in for identification in Armstrong County. (Adams).

MASKED HUNTER (Reduvius personatus) - UTAH - Woman bitten on finger at Beaver. Reported that finger still bothers her after more than three months. (Knowlton, September 1).

HORN FLY (Siphona irritans) - UTAH - Annoyingly abundant throughout much of State. (Knowlton, September 1).

SCREW-WORM (Callitroga hominivorax) - OKLAHOMA - Reported as numerous in northwestern Woods County. (Stiles).

A SCAB MITE (probably Psoroptes equi ovis) - VIRGINIA - Of 205 sheep inspected in August in the State, 95 were infested. (Morris).

### STORED PRODUCTS INSECTS

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis) - UTAH - Infesting some dry milk powder and flour in Logan. (Fillmore, Davis, Knowlton, September 1).

### BENEFICIAL INSECTS

A NEMESTRINID (Neorhynchocephalus sackenii) - OREGON - Larvae responsible for 50-90 percent parasitism of Melanoplus mexicanus and 93 percent of M. bivittatus in Hinton Creek area, 10 miles east of Heppner. Heaviest parasitism seen, heaviest in draws where teasel abundant and where grasshoppers numerous. Parasitism in many draws over many miles of range land. (Prescott).

LADY BEETLES - OKLAHOMA - Hippodamia convergens with Chrysopa plorabunda most important predators in alfalfa fields in Payne County, but somewhat fewer than two weeks ago. (Fenton).

### MISCELLANEOUS INSECTS

PHALAEINID MOTHS - SOUTH DAKOTA - Heavy nocturnal flights. (Hantsbarger).

OLD HOUSE BORER (Hylotrupes bajulus) - INDIANA - Reported as a heavy infestation in a home in Kokomo. (Davis).

POWDER POST BEETLES - VIRGINIA - Damaging joists of a home in Page County. (Allison, Morris). NORTH CAROLINA - Stephanopachys rugosus attacking beams in a house in Raleigh. (Scott).

MONARCH BUTTERFLY (Danaus plexippus) - WISCONSIN - Large swarms in Door County apparently migrating, August 31. (Chambers).

BOXELDER BUG (Lectocoris triivittatus) - INDIANA - Reported abundant throughout State. (Davis).

EUROPEAN EARWIG (Forficula auricularia) - IDAHO - Causing severe damage to corn and potatoes in vegetable gardens in Idaho City area. Extremely heavy populations in several areas of State. Particularly abundant in Latah County. (Manis, September 3).

#### ADDITIONAL NOTES

PENNSYLVANIA - PICKLEWORM reported as injuring cucumbers in Centre County. (Udine). ORIENTAL FRUIT MOTH infestation very heavy in late peaches in central area. (Gesell). APPLE MAGGOT infestations light in apples in commercial orchards and moderate to heavy in home orchards in Beaver, Butler, Armstrong and Lawrence Counties. (Adams).

NORTH CAROLINA - BOLLWORMS heavily infesting a few late fields in Anson County and reported to have done more damage in Union and Anson Counties than the boll weevil. (Farrier).

MINNESOTA - A survey of adult grasshoppers in 85 counties, with at least five legume fields examined in each county, revealed a higher population throughout the State than in 1954. Most counties showed populations sufficiently high to cause economic damage in 1956. Populations sufficiently high to potentially produce severe damage in southeastern counties of Wabasha, Winona, Olmsted, Mower, Fillmore and Houston; southwestern counties of Lincoln, Lyon, Pipestone, Murray and Nobles; west central counties of Douglas, Todd and Big Stone. The Red River Valley area from Wilkin and Wadena Counties to the Canadian border and large areas of central and east central sections show somewhat less abundant adults, but sufficiently high populations that serious problems may face farmers in these areas in 1956. (Graeber).

MEXICO - MEXICAN FRUIT FLY female was trapped in Ensenada, Baja California, on August 18. This is the second specimen trapped here. One in July, 1954. (Mex. Fr. Fly and Citrus Blackfly Cont. Proj., August 16-31).

#### RECENT INTERCEPTIONS AT PORTS OF ENTRY

Of recent interest was the interception of specimens of Leucaspis loewi Colvee on leaves of pines in baggage from Greece and Italy at New York, N. Y. (Amyx, Lineham). This insect has been reported injurious to pines in Southern and Central Europe. Observations on its biology in Switzerland indicate oviposition begins in late April or early May, and continues until July. On hatching, crawlers migrate to the needles of new shoots to attach themselves, and begin feeding.

(Continued on p. 897).

LIGHT TRAP COLLECTIONS

	Pseudal. unipun.	Laphyg. frugip.	Agrotis marg.	Feltia subter.	Helioliths armig.	Protoparce sexta	Protoparce quin.
LOUISIANA							
Tallah* 9/2-8	329	163	183	4	1257	59	17
B. Rouge 9/3-9	8	65	5	3	147		
KANSAS							
Haye 8/27-9/2					115		6 spp.
Garden City 9/1-7					79		1 sp.
Manhattan 9/3-9					342		46 spp.
MISSISSIPPI (Counties)							
Coahoma 9/3-9	63		87	1	689	68	
Humphreys	34		113	81	94	8	
Oktibbeha	63		133	13	66	30	
Pearl River	33		15	8	53	1	
ALABAMA							
Auburn 9/3-9	12	38			35		
GEORGIA (Counties)							
Tift 8/29-9/3	17	88			71	3	15
Clarke 8/23-9/2	4				54		
Spalding 8/28-9/2	36	113	27	17	239	4	
SOUTH CAROLINA (County)							
Charleston 9/7-12		24	5	1	46	1	43
NORTH CAROLINA (County)							
Duplin 9/3-9	1		1		10	2	3
VIRGINIA (County)							
Pittsylvania 8/28-9/2						563	261
MARYLAND (County)							
Montgomery 9/1-6	38	5	8	12	49		2

188  
99

\*Three traps at Tallulah



WEATHER FOR THE WEEK ENDING SEPTEMBER 12, 1955

Last week was very dry except in a few sections in the Atlantic Coastal States, and in eastern parts of Texas and Oklahoma. Hot weather continued in the far West, while east of the Rockies temperatures averaged near normal in most sections, although fluctuating sharply in northern areas.

In a large area of the South and in most of the northern Great Plains and far West the week was rainless. Continued lack of rain combined with hot winds intensified the drought in Kansas and Nebraska where all vegetation continued to deteriorate. In the Midwest, where some local areas have had no rain since July, dry soil continued to hamper tillage and fall seeding. The soil is becoming very dry even in some sections along the north Atlantic Coast, where unusually heavy rains fell in August. Beneficial rains in the East, ranging from 1 to over 4 inches, were mainly limited to coastal areas of the Carolinas and Georgia and the Florida Peninsula. The tropical storm "Gladys" was responsible for beneficial light to moderate rain in eastern Oklahoma and heavy rains in the Texas coastal areas.

Unusually high temperatures for so late in the season prevailed in most sections east of the Rockies during the early part of the week, reaching the 100° levels as far north as La Crosse, Wisconsin, on the 9th. A cool Canadian air mass overspread this area over the weekend, reducing temperatures as much as 35° in the Midwest and bringing the season's first extensive freeze and frost to northern areas. No serious damage to crops was reported, however. The week was cooler than normal in Pennsylvania for the first time since June, and a low of 32° was the first reported in the State since May.

The cooler air also reduced temperatures in the far West at the end of the week, ending a period of late season highs which set new records at many points in the Great Basin.

(Summary Supplied by U. S. Weather Bureau).

RECENT INTERCEPTIONS AT PORTS OF ENTRY (Continued from p. 895)

Growth is slow at first, apparently halting completely during the hot months and then speeding up in the fall and winter. Adult scales appear from January to April. L. loewi has been intercepted on a number of occasions in recent years on Pinus sp. from Austria, Germany, Greece, Italy, Israel, Netherlands, Norway, Portugal and Sweden. It is not known to occur in the United States.

(Compiled - Plant Quarantine Branch).







*Coffey*

**VOL. 5 No. 38**

**SEPTEMBER 23, 1955**

*SB  
823  
C77  
Ent*

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPERS very numerous in South Carolina, continue to damage alfalfa and pastures in south central and southeastern areas of Nebraska and beginning to feed on new wheat in southeastern Kansas. (p. 901).

HESSIAN FLY survey results in Missouri. (p. 902).

SOUTHWESTERN CORN BORER reported from Louisiana for first time; found in Bossier and Caddo Parishes. Also taken in Hempstead County, Arkansas; new county record. (p. 901).

CORN EARWORM attacking grain sorghum generally in Tennessee. Late corn heavily infested in several areas of Michigan. (p. 901). Heavy on beans and peppers in eastern Virginia. Increase in eggs on tomatoes in some Colorado counties. (p. 908). Destructive numbers of FALSE WIREWORMS in some Kansas wheat fields. (p. 903).

YELLOW CLOVER APHID increasing in southwestern Nebraska and causing damage in some Utah areas. Heavy infestations in alfalfa in San Bernardino County, California. (p. 903). Some build-up of PEA APHID in alfalfa in Nebraska, South Dakota and Utah. (p. 904).

PLANT BUGS continue abundant in most alfalfa fields in Nebraska and many areas of Utah. (p. 904). BEAN LEAF BEETLE abundant on soybeans in some areas of Kentucky and in southeastern Virginia. (p. 905). VELVETBEAN CATERPILLAR serious on soybeans in Gilchrist County, Florida. (p. 905).

CODLING MOTH unusually heavy in some orchards in northern Utah and unsprayed trees heavily infested at Pullman, Washington. (p. 906). TWO-SPOTTED SPIDER MITE numerous in orchards in Adams County, Idaho; at Pullman, Washington; El Dorado County, California. (p. 907).

TOMATO PSYLLID building up on commercial tomatoes in eastern Colorado. (p. 909). FLEA BEETLE larvae causing down-grading of potatoes at Bay City, Michigan. (p. 909). CABBAGE LOOPER problem in several areas of Michigan. (p. 910). BEET LEAFHOPPER-transmitted curly top averaging 50 percent in beets in eastern Utah. (p. 910). PICKLEWORM may cause extensive damage to cucurbits in eastern Virginia. (p. 911).

(Continued on next page).

EUROPEAN CORN BORER reported from cotton in western Tennessee. (p. 911).

FOREST INSECT situation in several southern States. (p. 912).

MOSQUITO-borne equine encephalomyelitis shows increase over last year in eastern Colorado. (p. 914).

WEATHER OUTLOOK and SUMMARY. (pp. 916, 917).

States reporting this week - 33.

\*\*\*\*\*

CORRECTIONS in SURVEY METHODS (Issued September 16, 1955):

In table of contents "Cotton leafhopper" should read "Cotton fleahopper" and under "Sweetpotato weevil" change page 21 to 22.

\*\*\*\*\*

Reports in this issue are for the week ending September 16, 1955, unless otherwise designated.



CEREAL AND FORAGE INSECTS

GRASSHOPPERS - SOUTH CAROLINA - Extremely numerous. More abundant than ever noted in Pickens County. (Anderson). KANSAS - Adult grasshopper infestations remain light to severe in many areas. Heaviest populations in southwestern and western counties during recent adult survey. Beginning to feed on new wheat in southeastern area. Roadsides and wheat field margins in many western counties ranged from 4-22 per square yard. Heavier populations local, but threatening populations in many places. (Matthew). NEBRASKA - Melanoplus differentialis, M. femur-rubrum and M. mexicanus continue to damage alfalfa and pastures in the south central and southeastern areas. (Andersen). UTAH - Causing local damage to alfalfa. (Knowlton).

EUROPEAN CORN BORER (Pyrausta nubilalis) - ARKANSAS - Found for the first time in Arkansas County, bringing total counties infested to 13. (Warren). SOUTH DAKOTA - Majority in northeastern area in fifth instar. An average of 45 percent of corn plants infested with an average of 120 borers per 100 plants. (Hantsbarger).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - LOUISIANA - Found in Bossier and Caddo Parishes. One corn field at least 40 percent infested. (Oliver). ARKANSAS - Found for the first time in Hempstead County. Fourth instar. (Warren).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - NORTH CAROLINA - Eleven overwintering and one summer form per 10 stalks of corn in one field in Scotland County. (Farrier).

FALL ARMYWORM (Laphygma frugiperda) - NORTH CAROLINA - Attacking lawns in New Hanover County. (Scott). LOUISIANA - Infesting at least 50 percent of young corn in a 6-acre field in Caddo Parish. (Oliver). TEXAS - Light infestation on alfalfa in Brazos County. (Randolph).

CORN SAP BEETLES (Carpophilus spp.) - UTAH - Some damage to sweet corn in southern counties. Less damage than in 1954. (Knowlton).

CORN EARWORM (Heliothis armigera) - RHODE ISLAND - A few infestations on corn in various localities in Providence, Scituate, Cranston and Bristol. (Caroselli). NORTH CAROLINA - Attacking sudan grass in Alamance County and milo heads in Scotland County. (Farrier, Scott). Light damage to alfalfa in Piedmont. (Dogger). TENNESSEE - Grain milo being attacked generally. (Mullett). MICHIGAN - Late sweet corn heavily infested at East Lansing, Lake Odessa and St. Johns. (Hutson, September 11). UTAH - Infestations 1-4 percent generally in field corn examined in northern area. (Knowlton, Lieberman). On late canning corn averages 12 percent. (Dorst).



CORN LEAF APHID (Rhopalosiphum maidis) - UTAH - Moderately abundant in field corn in Weber and Davis Counties. (Knewlton).

CORN ROOTWORMS (Diabrotica spp.) - COLORADO - Peaks were reached in light traps August 28 at Hartman, Prowers County and at Vineland, Pueblo County. (Colo. Exp. Sta.).

CHINCH BUG (Blissus leucopterus) - LOUISIANA - Infesting two fields of young corn in Cadco Parish with up to ten per stalk. (Oliver). SOUTH CAROLINA - Destroying 15 acres of cattail millet in Lexington County. (Evans). NORTH CAROLINA - One field of corn with 10-30 nymphs and adults under each sheath almost entire length of plant. (Farrier). NEBRASKA - A few adults beginning to appear in alfalfa fields in south central and southeastern areas. (Andersen).

FALSE WIREWORMS (Eleodes spp.) - KANSAS - A limited survey in wheat fields in Russell, Ellis, Rush, Pawnee, Hodgeman and Finney Counties showed that infestations of larvae were widespread with destructive numbers in some fields. Counts from 1-11 per square yard. (Matthew).

RICE STINK BUG (Solubea pugnax) - LOUISIANA - Populations remain low with two per 100 sweeps in St. Landry Parish, 10 per 100 sweeps in Acadia Parish, 19 per 100 sweeps in Jefferson Davis Parish, and six per 100 sweeps in Lafayette Parish. (Oliver).

A SOD WEBWORM (Pachyzancla phaeopteralis) - TEXAS - Severe local infestation on St. Augustine grass in Hidalgo County. (Deer).

SORGHUM WEBWORM (Celama sorghiella) - TENNESSEE - Grain milo infested generally. (Mullett).

SPIDER MITES - IDAHO - Build-up in red clover, corn and beans, but damage not severe enough to warrant control. (Walz).

WHEAT CURL MITE (Aceria tulipae) - KANSAS - Light infestation of volunteer winter wheat in McPherson and Reno Counties, September 14-15. No mites found on volunteer wheat in Finney, Hodgeman and Pawnee Counties. (Somsen).

YELLOW CLOVER APHID (Myzocallis trifolij) - KANSAS - Limited survey of alfalfa showed non-economic to light infestations in nearly all fields examined in these counties: Geary, Dickinson, Saline,

Ellsworth, Russell, Ellis, Rush, Barton, Pawnee, Hodgeman and Finney. Counts ranged from 5-45 per sweep of 15-inch net. Predators numerous in all infested fields. Infestations ranged from 150-350 per sweep in some fields in Marion County, compared with 500-800 per sweep a week ago. (Burkhardt). NEBRASKA - Infestations increasing in legumes in southwestern counties. Up to 200 or more per sweep. Populations north of the Platte River Valley 10-25 per 25 sweeps. Big-eyed bug, lacewing larvae, and lady beetle larvae active. Fungus apparent in many fields. New areas where aphid found: Nuckolls, Thayer, Jefferson and Gage Counties. Populations in these counties range from 2-15 per 25 sweeps. (Connin, Andersen). TEXAS - Moderate infestation on alfalfa in Brazos County. (Randolph). UTAH - Causing damage in Juab County and in other areas. (Knowlton). CALIFORNIA - Infestations in three locations in Tehama County and infestations in alfalfa in San Bernardino County heavy. (Cal. Coop. Rept., September 12).

PEA APHID (Macrosiphum pisi) - NEBRASKA - Continue to build up in alfalfa. Counts from 15-40 per 25 sweeps. (Andersen). SOUTH DAKOTA - Some build-up noted in alfalfa fields with up to 13 per 10 sweeps. (Hantsbarger). UTAH - Threatening Duchesne County alfalfa. (Knowlton).

GREEN CLOVERWORM (Plathypena scabra) - VIRGINIA - Still very numerous in southeastern area on soybeans. (Hofmaster). MARYLAND - Light infestation on soybeans in Worcester, Wicomico and Somerset Counties. (U. Md., Ent. Dept.).

CLOVER APHID (Anuraphis bakeri) - IDAHO - Populations quite low in small clover seed-growing area of Long Valley throughout season. Some fields show spotted infestations beginning to develop. (Manis).

APHIDS - NEBRASKA - Myzocallis sp. appearing on red clover, from 3-15 per 25 sweeps, in southeastern area. (Andersen).

STINK BUGS - SOUTH DAKOTA - Quite abundant in alfalfa, from 3-5 nymphs per 10 sweeps. (Hantsbarger).

POTATO LEAFHOPPER (Empoasca fabae) - NEBRASKA - Populations declining in alfalfa, averaging three per 25 sweeps in south central and southeastern area. (Andersen). SOUTH DAKOTA - Over two adults per sweep in some alfalfa fields in northeastern area. (Hantsbarger).

PLANT BUGS - NEBRASKA - Adelphocoris lineolatus, A. rapids and Lygus lineolaris still very abundant in most alfalfa fields. A. lineolaris has spread into the panhandle region. Formerly not found much beyond the North Platte area. (Andersen). UTAH - Lygus bugs very

abundant in alfalfa in many areas. A. superbus has been more numerous in alfalfa than for several years in a number of counties. (Knowlton).

LESPEDA WEBWORM (Tetralopha scortealis) - SOUTH CAROLINA - Heavy infestation on sericea lespedeza in Pickens County. (Nettles).

LEAFHOPPERS - NORTH CAROLINA - Several species causing moderate damage to alfalfa in Piedmont. (Dogger). NEBRASKA - Aceratagallia uhleri average 20-25 per 25 sweeps in south central area and Endria inimica adults and nymphs from 10-25 per 25 sweeps. (Andersen). UTAH - Unusually numerous in many alfalfa fields in Duchesne County. (Knowlton).

BEAN LEAF BEETLE (Cerotoma trifurcata) - KENTUCKY - Abundant on soybeans in Ballard and Carlisle Counties. (Price). VIRGINIA - Still very numerous on soybeans in southeastern area. (Hofmaster). MARYLAND - Heavy foliage damage to 20-acre soybean field in Worcester County. (U. Md., Ent. Dept.).

ALFALFA WEBWORM (Loxostege commixtalıs) - TEXAS - Medium infestation alfalfa in Brazos County. (Randolph).

ALFALFA CATERPILLAR (Coias philodice eurytheme) - NEVADA - Larvae reaching economic numbers in local fields in Churchill County. (Galloway, September 10). TEXAS - Destructive to alfalfa in Brazos County. (Randolph).

CLOVER SEED CHALCID (Bruchophagus gibbus) - SOUTH DAKOTA - Still quite prevalent in eastern areas and causing some damage to alfalfa seed production. (Hantsbarger).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - NORTH CAROLINA - Moderate damage to alfalfa in Piedmont. (Dogger). LOUISIANA - Infesting alfalfa in Bossier Parish at 274-581 per 100 sweeps and in Caddo Parish at 300 per 100 sweeps. (Oliver). TEXAS - Heavy infestation on alfalfa in Brazos County. (Randolph).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - FLORIDA - Seriously infesting soybeans all over Gilchrist County. (Hodges, Cobb).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - UTAH - Appearing in alfalfa fields in Wasatch, Summit and Morgan Counties. (Knowlton).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - OHIO - A field experiment near Cincinnati shows populations highly resistant to DDT and methoxychlor. (Cutright). UTAH - Damage heavy generally in home orchards. Some commercial orchards have unusually heavy infestations in northern area. (Knowlton). WASHINGTON - Unsprayed trees in Pullman area heavily infested, 2-5 exit holes per apple. Most larvae have emerged from fruit. (Johansen).

CLOVER MITE (Bryobia praetiosa) - CALIFORNIA - Did not decline as usual in pear orchards in El Dorado County and oil sprays were necessary. (Cal. Coop. Rept., September 12).

APPLE APHD (Aphis pomi) - WASHINGTON - Numerous on apples in Pullman area. (Johansen). CALIFORNIA - Heavy infestations in some Santa Cruz County apple orchards. (Cal. Coop. Rept., September 12).

EUROPEAN FRUIT LECANIUM (Lecanium corni) - CALIFORNIA - Deposits of honeydew heavy in some El Dorado pear orchards. (Cal. Coop. Rept., September 12).

EUROPEAN RED MITE (Metatetranychus ulmi) - CALIFORNIA - Medium and some heavy infestations in orchards in Santa Cruz County; light to heavy in pear orchards in El Dorado. Light to medium infestations in English walnut plantings in Santa Barbara County. (Cal. Coop. Rept., September 12).

GREENHOUSE THRIPS (Heliothrips haemorrhoidalis) - CALIFORNIA - Light infestations but increasing in avocados in San Diego County. (Cal. Coop. Rept., September 12).

LEAFHOPPERS - MICHIGAN - Erythroneura sp. very abundant on cherries at Shelby. (Hutson, September 12).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - MICHIGAN - Damage not as extensive as second-brood abundance indicated. (Hutson, September 12). NORTH CAROLINA - Attacking peach trees in Macon County. (Scott).

PEACH TWIG BORER (Anarsia lineatella) - CALIFORNIA - Some serious infestations in peach fruit in Riverside County. (Cal. Coop. Rept., September 12).

PEAR-SLUG (Calireia cerasi) - UTAH - Damaging fruit trees and ornamentals in Cache, Davis, Weber and Uintah Counties. (Knowlton).

TORTRICIDS - TEXAS - Platynota rostrana and Amorbia sp. damaging citrus rootstock in a nursery near Weslaco, Hidalgo County. Medium local infestation. (Deer).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - IDAHO - Extremely heavy infestations in fruit orchards in Adams County. (Manis). WASHINGTON - Numerous on apples at Pullman. (Johansen). CALIFORNIA - Some heavy infestation in pear orchards in El Dorado County. (Cal. Coop. Rept., September 12).

WOOLLY APPLE APHID (Eriosoma lanigerum) - WASHINGTON - Colonies at Pullman have multiplied until some apple suckers are completely covered. (Johansen).

ACHEMON SPHINX (Pholus achemon) - CALIFORNIA - A heavy infestation in vineyards in Coachella Valley of Riverside County. (Cal. Coop. Rept., September 12).

WALNUT APHID (Chromaphis juglandicola) - CALIFORNIA - Medium infestations in English walnuts in Santa Barbara County. (Cal. Coop. Rept., September 12).

OLIVE SCALE (Parlatoria oleae) - CALIFORNIA - Medium infestations in olive orchards in eastern Fresno County. (Cal. Coop. Rept., September 12).

WALNUT CATERPILLAR (Datana integerrima) - VIRGINIA - Damaging host trees in parts of Carroll County. (Rowell). Practically stripped walnut and pecan trees in New Hope area of Stafford County. Larvae small to mature. (Tulless). ALABAMA - Defoliating pecan trees in Florala. (Owen). MISSISSIPPI - Infesting walnut and pecan trees in Choctaw and Oktibbeha Counties. (Hunsucker).

WALNUT HUSK FLY (Rhagoletis completa) - WASHINGTON - First record in 1954. As many as 34 taken in a trap week ending August 22. About three weeks later than last year. (Lanchester).

Citrus Insect Situation in California, Week of September 12:

CITRUS RED MITE infestations light in Riverside and San Bernardino Counties and medium in some Orange County orchards. Below normal populations in San Diego County and medium to light in Santa Barbara County. SIX-SPOTTED MITE infestations medium in Santa Barbara County. BLACK SCALE infestations light to medium in Riverside County; some medium infestations in Orange County; some heavy infestations in San Bernardino County and medium infestations in small acreage in San Diego County. COTTONY-CUSHION SCALE infestations

heavy in some orchards in Riverside County. CALIFORNIA RED SCALE lighter than usual in Riverside County. Some medium infestations in Orange and Santa Barbara Counties. Light to medium infestations in San Bernardino County. (Cal. Coop. Rept.).

ORCHARD MITES - ARIZONA - Mite populations high on navel oranges in Mesa area. (Ariz. Coop. Rept.).

A LAMPYRID (*Ellychnia* sp.)- OREGON - Adults at six per bush on blueberries, feeding on berries at Bandon August 17. (Capizzi).

### TRUCK CROP INSECTS

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - RHODE ISLAND - Populations diminishing rapidly over State. (Caroselli). UTAH - Have damaged many northern area gardens and required control in commercial plantings. (Knowlton).

LYGUS BUGS (*Lygus* spp.) - CALIFORNIA - *L. elisus* infestations medium in bean fields in Orange County and light on beans in San Bernardino County. (Cal. Coop. Rept., September 12).

LESSER CORNSTALK BORER (*Elasmopalpus lignosellus*) - CALIFORNIA - Heavy damage to two plantings of beans in San Diego County. (Cal. Coop. Rept., September 12).

CORN EARWORM (*Heliothis armigera*) - VIRGINIA - Numerous on snap and lima beans and on peppers in eastern area. (Hofmaster). SOUTH CAROLINA - Considerable infestation on tomatoes in Edgefield. (Fere, September 9). MARYLAND - Depositing eggs on snap beans in Somerset County. (U. Md., Ent. Dept.). COLORADO - Increase in number of eggs on canning tomatoes in Pueblo, Otero and Bent Counties. (Colo. Exp. Sta.). CALIFORNIA - Medium infestations in tomatoes in Riverside County and light infestations in tomatoes in Orange County. (Cal. Coop. Rept., September 12).

BEAN LEAF BEETLE (*Cerotoma trifurcata*) - VIRGINIA - Numerous on snap and lima beans in eastern area. (Hofmaster).

WESTERN YELLOW-STRIPED ARMYWORM (*Prodenia praefica*) - CALIFORNIA - Heavy infestations on tomatoes in Yolo County. (Cal. Coop. Rept., Sept. 12).

A VINEGAR GNAT (*Drosophila melanogaster*) - UTAH - Infestation increasing on tomatoes. (Dorst).



TOMATO RUSSET MITE (Vasates lycopersici) - UTAH - Light infestations on canning tomatoes in two fields in Salt Lake County and one in Davis County. First time observed this season. (Dorst). CALIFORNIA - Light infestations on tomatoes in Santa Barbara County. (Cal. Coop. Rept., Sept. 12).

TOMATO PSYLLID (Paratrioza cockerelli) - COLORADO - Building up on commercial tomato plantings in eastern area. Eggs appearing in large numbers, up to 954 per 100 leaves in Pueblo County. (Coio. Exp. Sta.).

POTATO TUBERWORM (Gnoringoschema operculella) - VIRGINIA - A few have been noted in potato foliage but weather has cut down infestation in eastern area. (Hofmaster).

HORNWORMS (Protoparce spp.) - IDAHO - Damage severe in some gardens in Moscow. (Manis).

FLEA BEETLES (Epitrix spp.) - MICHIGAN - Larvae responsible for down-grading of a considerable tonnage of potatoes in Bay City area. Adults of E. cucumeris very numerous at East Lansing and Bath; apparently third generation. (Hutson, September 12). UTAH - Flea beetles causing moderate damage to potatoes some fields. (Knowlton).

BLISTER BEETLES - VIRGINIA - Infesting eggplant, tomatoes and other truck crops in eastern area. (Hofmaster).

BANDED CUCUMBER BEETLE (Diabrotica balteata) - LOUISIANA - Infesting sweetpotatoes at 10-12 per 100 sweeps in East Feliciana Parish. (Oliver).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - CONNECTICUT - One spinach field completely destroyed and larvae moving into an adjacent one near North Haven. Tachinid eggs attached to all specimens examined. (Quinton). MARYLAND - In complex with variegated cutworm and garden webworm, damaging newly-emerged spinach in Kent County. (U. Md., Ent. Dept.). LOUISIANA - Infesting sweetpotato foliage at 8-12 per 100 sweeps in East Feliciana and St. Landry, Acadia and Lafayette Parishes. (Oliver). UTAH - Causing some damage to tomato fruits after migrating from adjacent alfalfa. (Dorst).

CABBAGE WEBWORM (Hellula rogatalis) - NORTH CAROLINA - Infesting turnips in Hoke County. (Scott).

HARLEQUIN BUG (Murgantia histrionica) - NORTH CAROLINA - Moderate infestation on cabbage in Moore County. (Scott).

CABBAGE LOOPER (Trichoplusia ni) - NORTH CAROLINA - Reported to be of concern on cabbage in Moore County. (Scott). MARYLAND - Moderately heavy on young cabbage plants in Kent County. (U. Md., Ent. Dept.). MICHIGAN - Extremely troublesome in scattered areas of South Haven, Tecumseh, Wayne and Kalamazoo, where moisture deficient. Burrowing into loose head of cabbage. (Hutson, September 12). ARIZONA - Moderate infestation on 400 acres of lettuce at Phoenix and causing light damage. (Ariz. Coop. Rept.).

FALL ARMYWORM (Laphygma frugiperda) - VIRGINIA - In complex with Prodenia ornithogalli and cabbage loopers is causing severe damage to cabbage and cole crops in some areas in eastern section. (Hofmaster). MISSISSIPPI - Feeding on young corn in Pike County, September 16. (Hunsucker).

CABBAGE APHID (Brevicoryne brassicae) - CALIFORNIA - Serious on kale crops in Santa Barbara County. (Cal. Coop. Rept., September 12).

SOUTHERN GARDEN LEAFHOPPER (Empoasca solana) - LOUISIANA - Infesting sweetpotatoes in East Feliciana Parish at 100-125 per 100 sweeps and in St. Landry Parish at 50-150 per 100 sweeps. (Oliver).

SWEETPOTATO FLEA BEETLE (Chaetocnema confinis) - LOUISIANA - Infesting sweetpotato foliage at 1200 per 100 sweeps in East Feliciana Parish. (Oliver).

ONION MAGGOT (Hylemya antiqua) - IDAHO - Third generation maggots in many onion fields of southwestern area. Up to one percent infestation. (Walz).

CARROT RUST FLY (Psila rosae) - MICHIGAN - Adults have reappeared after recent hot spell in the vicinity of an infestation on celery at Beulah. (Hutson, September 12).

BEEF LEAFHOPPER (Circulifer tenellus) - UTAH - Curly top of resistant sugar beets in eastern area averaged 50 percent. (Dorst).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - CALIFORNIA - Heavy infestations in some strawberry fields of Santa Barbara County. (Cal. Coop. Rept., September 12).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - VIRGINIA - Very numerous on cucurbits in eastern area. (Hofmaster).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - VIRGINIA - Very numerous on cucurbits in eastern area. (Hofmaster).

PICKLEWORM (Diaphania nitidalis) - VIRGINIA - Infesting fall planting of cucurbits in eastern area and may cause extensive damage. Severe damage to pumpkins on Virginia Truck Crop Experiment Station at Norfolk. This is unusual. (Hofmaster).

MELON APHID (Aphis gossypii) - CALIFORNIA - Heavy infestations on melon in Yolo County. (Cal. Coop. Rept., September 12).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Infestation in several fields in Payne County was 14 percent. (Fenton). ARKANSAS - Infestations leveling off except in some succulent cotton. Boll damage common and late control measures being taken. (Warren). TENNESSEE - Large numbers still persist in southern half of western area. Many half-grown bolls being attacked. (Mullett).

BOLLWORMS (Heliothis spp.) - CALIFORNIA - Light to heavy infestations in San Joaquin Valley cotton where control not used. Medium to heavy infestations in Riverside County. (Cal. Coop. Rept., September 12). ARKANSAS - Egg deposition heavy but control for boll weevil has prevented build-up. (Warren).

PLANT BUGS - CALIFORNIA - Lycus, probably elisus, causing medium damage in Riverside County and continues as a pest in Imperial County. (Cal. Coop. Rept., September 12).

SPIDER MITES - CALIFORNIA - Lighter in number than usual for this time of year, but some defoliation has occurred in Tulare County. (Cal. Coop. Rept., September 12).

COTTON LEAFWORM (Alabama argillacea) - MISSISSIPPI - Observed in Pike County, September 16. (Hunsucker).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Built up to high populations in the Roll area of Yuma County. (Ariz. Coop. Rept.).

POTATO LEAFHOPPER (Empoasca fabae) - OKLAHOMA - Average of 36 per 50 sweeps in a late-planted field in Payne County. (Fenton).

EUROPEAN CORN BORER (Pyrausta nubilalis) - TENNESSEE - Larvae burrowing in terminal stalk of cotton near the top in local area at the Experiment Station field in western area. (Mullett).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

Forest Insect Situation in Southern States

A total of 5250 miles of flight lines were flown in mid-May in Texas, Arkansas, Louisiana, Mississippi and Alabama to determine insect damage. Only a few areas, notably in southern Arkansas and southern Alabama, showed pine mortality greater than normal and attributable to Ips. SOUTHERN PINE BEETLE damage occurred only in epidemic areas of northern Alabama. Defoliation in southern Alabama was on a greatly reduced scale compared with 1953. Three outbreaks of SOUTHERN PINE BEETLE--on Bankhead National Forest, on Talladega National Forest, and in Tallapoosa County near Alexander City. The outbreak in Homochitto National Forest of southwestern Mississippi continues at a greatly reduced rate. Beetle activity increased in mid-summer in all areas and the infestation is especially alarming in Tallapoosa County because a large acreage of pole-size plantations may be susceptible to attack. IPS BARK BEETLE infestations heavy in eastern Texas, central Louisiana, southern Arkansas, Pickens County, Alabama and Henderson County, Tennessee. BLACK TURPENTINE BEETLE infestations heaviest in southeastern Texas, southern Louisiana, southeastern and central Louisiana, southwestern Mississippi and northern Alabama. SMALLER EUROPEAN ELM BARK BEETLE infestation at Platt National Park, Sulphur, Oklahoma has increased considerably compared with the infestation in March. ELM LEAF BEETLE defoliated many elm trees in central Alabama during August. RED-HEADED PINE SAWFLY was abundant locally throughout the six states. About 450 acres of southern bald-cypress near Hope, Arkansas, were completely defoliated by A CYPRESS LOOPER (Anacamptodes pergracilis). A high percentage of second and third year Monterey pine seedlings were killed in western Florida by a PINE TIP MOTH. A local outbreak of COTTONWOOD LEAF BEETLE caused serious defoliation of cottonwood in vicinity of Stoneville, Mississippi. First outbreak since 1944. (Southern For. Pest Reporter, September 6).

EASTERN SPRUCE GALL APHID (Chermes alietis) - MICHIGAN - Heavy infestations in natural spruce growth at Boyne City. (Hutson, September 12).

NANTUCKET PINE MOTH (Phyaicionia frustrana) - VIRGINIA - Has heavily damaged tips of young pines in the Norfolk area. (Harvell).

IPS BEETLES - TEXAS - Scattered mortality of pines throughout eastern area and heavy mortality of pines in Anderson and Newton Counties. (Tex. For. Pest. Com.).

FALL WEBWORM (Hyphantria cunea) - NORTH CAROLINA - Infesting native shrubs and trees in Scotland County. (Farrier).

CALIFORNIA OAKWORM (Phryganidia californica) - CALIFORNIA - Severe infestations in Santa Clara County and heavy infestations in Santa Cruz County. (Cal. Coop. Rept., September 12).

MIMOSA WEBWORM (Homadenia albizziae) - VIRGINIA - Severe on occasional mimosa trees in Spotsylvania County. (Kash). NORTH CAROLINA - Attacking locust trees in Warren County. (Scott).

ORANGE-STRIPED OAKWORM (Anisota senatoria) - RHODE ISLAND - Scattered infestations reported on oak in Portiac. (Warwick). Some evidence of parasitism by tachina flies. (Mathewson).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - VIRGINIA - Heavily damaged needles of Mugho and Austrian pines in Norfolk County. (Harrell).

MAPLE TRUMPET SKELETONIZER (Epinotia aceriella) - MICHIGAN - Causing some defoliation of hard maples at Leland. (Hutson).

A TREEHOPPER (Umbonia crassicornis) - FLORIDA - Causing widespread damage to pithecellobium trees at Tampa. (Hatcher).

TURPENTINE BEETLES - TEXAS - Causing heavy mortality to pines in Cherokee County. (Tex. For. Pest Com.).

TWO-LINED CHESTNUT BORER (Agrilus bilineatus) - RHODE ISLAND - Evidence of injury due to this pest on oaks in Garden City area of Cranston. (Caroselli).

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - VIRGINIA - Has damaged lilac, peach, ash, philodendron and red dogwood in Norfolk County. (Harrell).

A WAX SCALE (Ceroplastes ceriferus) - VIRGINIA - Has damaged boxwood, holly, camellias, and many other plants in the Norfolk area. (Harrell).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - CALIFORNIA - Heavy infestations on ornamentals in Lassen County. (Cal. Coop. Rept., September 12).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - MICHIGAN - Numerous and feeding on gladiolus at East Lansing. (Hutson, September 13).

A PEONY SCALE (Pseudaulnidia paeoniae) - VIRGINIA - Damaging camellias in Warwick City, Norfolk and Nansemond Counties. Damage heavy some camellias. (Harrell).

JUNIPER SCALE (Diaspis jarrovi) - VIRGINIA - Infesting junipers in Warwick City, Hampton City, Nansemond, Norfolk and Princess Anne Counties. (Harrell).

JAPANESE BEETLE (Poecilium japonica) - RHODE ISLAND - Infestations light over State. A few larvae found in lawns in Providence and Cranston. (Caroseili). VIRGINIA - Up to 15 larvae per square foot found in Nansemond County. (Harrell).

EUROPEAN EARWIG (Forficula auricularia) - CALIFORNIA - Some heavy infestations on ornamentals in Lassen County. (Cal. Coop. Rept., September 12).

EUONYMUS SCALE (Unaspis euonymi) - VIRGINIA - Has heavily damaged various kinds of euonymus in Norfolk County. (Harrell).

CAMELLIA SCALE (Lepidosaphes camelliae) - VIRGINIA - In complex with Ficinia theae has damaged camellias in Nansemond, Southampton, Norfolk and Princess Anne Counties. (Harrell).

AZALEA BARK SCALE (Eriococcus azaleae) - VIRGINIA - Caused light damage to azaleas in Southampton County. (Harrell).

BAGWORM (Thyridopteryx ephemeriformis) - VIRGINIA - Medium infestation damaging evergreens in Nansemond and Norfolk Counties. (Rowell). Damaging occasional evergreens and shrubs in Floyd and Roanoke Counties. (Rowell, Talley).

#### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - COLORADO - An appreciable increase over last year in equine encephalomyelitis of horses in eastern area, according to reports of veterinarians. (U. S. Public Health Encephalitis Lab. and Colo. Exp. Sta.). UTAH - Annoying in Daggett and Duchesne Counties. (Knowlton).

FLEAS - NORTH DAKOTA - Reports from various sections. (N. D. Ins. Rept. Serv.).

COMMON CATTLE GRUB (Hypoderma lineata) - OKLAHOMA - From 6-10 mature larvae per animal in Osage County. Smaller numbers in central area. (Howell).

HOUSE FLIES - MARYLAND - Heavy at State Fair Grounds, Timonium, Baltimore County. (U. Md., Ent. Dept.). NORTH DAKOTA - Annoying to householders following frosts. (N. D. Ins. Rept., Serv.). ARIZONA - Flies, mainly Musca domestica, population indices of two small towns in southeastern Maricopa and northwestern Pinal Counties average of five highest grill counts in nine blocks September 5-9: 73.0. (Ariz. Coop. Rept.).

BLACK WIDOW SPIDER (Latrodectus mactans) - MARYLAND - In houses in Harford and Prince Georges Counties. (U. Md., Ent. Dept.).

PUSS CATERPILLAR (Megalopyge opercularis) - SOUTH CAROLINA - Causing difficulty with children touching them in Wagener. (Smith). MISSISSIPPI - First report of person being stung in Attala County. Caused nausea and muscular pain. (Hutchins).

CHIGGER (Eutrombicula alfreddugesi) - MICHIGAN - Troublesome around camps and fields at Jackson, Lansing, Milford and Leland. (Hutson, September 13).

STICKTIGHT FLEA (Echidnophaga gallinacea) - FLORIDA - Adults averaging 25 per chicken in Gilchrist County. (Det. L. A. Hetrick). (Denmark).

STABLE FLY (Stomoxys calcitrans) - FLORIDA - Biting at the rate of one per minute for 30 minutes at Garcon Point, Santa Rosa County. (Mead, August 25).

### BENEFICIAL INSECTS

A FLOWER BUG (Orius insidiosus) - SOUTH DAKOTA - Moderate populations in clover and alfalfa with counts up to 10 adults per 10 sweeps. (Hantsbarger).

### MISCELLANEOUS INSECTS

EUROPEAN EARWIG (Forficula auricularia) - RHODE ISLAND - Specimens received from Bristol and Newport. (Caroselli).

BOXELDER BUG (Leptocoris trivittatus) - MICHIGAN - Continues as nuisance at Howell, Lansing, Jackson, Saginaw, St. Johns and Muskegon. (Hutson, September 12). VIRGINIA - Medium infestation on ash trees in the Barboursville area of Orange County (Estes) and congregating on houses in Montgomery County (Turner). NORTH DAKOTA - Numerous at scattered points in Fargo area. (N. D. Ins. Rept. Serv.).

A FAN PALM CATERPILLAR (Litoprosopus coachella) - CALIFORNIA - Larvae, migrating from palms, were nuisance in San Diego. (Cal. Coop. Rept., September 12).

A PHALAEINID (Sraelotia havilae) - IDAHO - Extremely abundant at lights in Moscow during past two weeks. (Manis).

#### STORED PRODUCTS INSECTS

GRAIN MITES - NORTH DAKOTA - Light infestations in several bins of 1955 spring wheat at Argusville on September 14. (N. D. Ins. Rept. Serv.).

CADELLE (Tenebroides mauritanicus) - MARYLAND - Heavy infestation in rye and other grains in Talbot County. (U. Md., Ent. Dept.)

STORED GRAIN INSECTS - OKLAHOMA - Infestations in grain bins in Kay and Grant Counties lower than last year. (Stiles).

#### WEATHER BUREAU'S 30-DAY OUTLOOK

Mid-September to Mid-October 1955

The Weather Bureau's 30-day outlook for the period from mid-September to mid-October calls for temperatures to average below seasonal normals over the northern third of the nation, above normal in the lower half, and near normal in the remaining area. Warmest weather is anticipated over the Southwest.

Precipitation is expected to exceed normal over the northern tier of states and also in the Southeast. Elsewhere subnormal amounts are predicted.

This report released by the Weather Bureau on September 16, 1955.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price \$4.80 a year, \$2.40 for six months.



WEATHER FOR THE WEEK ENDING SEPTEMBER 19, 1955

Hurricanes, more numerous than usual this season continued to rate high in the weather news last week. Hurricane "Hilda", moving westward from the vicinity of Turks Isle at the beginning of the period, crossed the Yucatan Peninsula on the 16th and 17th; no serious losses have been reported from there. Continuing westward, Hilda moved over land in the vicinity of Tampico, Mexico, early on the 19th, and according to reports at 4 p. m., on the 19th was breaking up over the mountains about 125 miles west of Tampico. Tampico was thought to be hard hit, and disastrous floods were feared from torrential rains over the watershed draining through the City. No damage or loss of life was reported in southern Texas, although tides covered beach roads from Corpus Christi southward.

Hurricane "Ione", the ninth tropical storm of the season, battered the North Carolina coast for many hours as the center of the storm crossed the northern coastal areas of the State on the 19th. Wind gusts exceeded 100 m. p. h. at Cherry Point, N. C., and high tides pounded the Coast. North Carolina coastal areas suffered heavy damage, but detailed reports are lacking. Ione was centered 55 miles east of Norfolk, Virginia, at 5 a. m., e. s. t., on September 20, and moving northeastward at 10 m. p. h., with highest wind gusts of 60 to 70 m. p. h. near the center.

Temperatures for the week averaged slightly below normal east of the Appalachians, except in Florida, well below in the Pacific Northwest, and above elsewhere.

A cool Canadian air mass moved across the Northeast early in the week, causing a hard freeze on the 14th in northern New England and sub-freezing minima at high elevations in Pennsylvania, but summer heat had returned by the weekend.

In the Pacific Northwest temperatures remained at unseasonably low levels after the passage of a cold front early in the week. The temperature averaged 8° below normal at Medford, Oregon, and a minimum of 25° was recorded at Ely, Nevada, on the 19th.

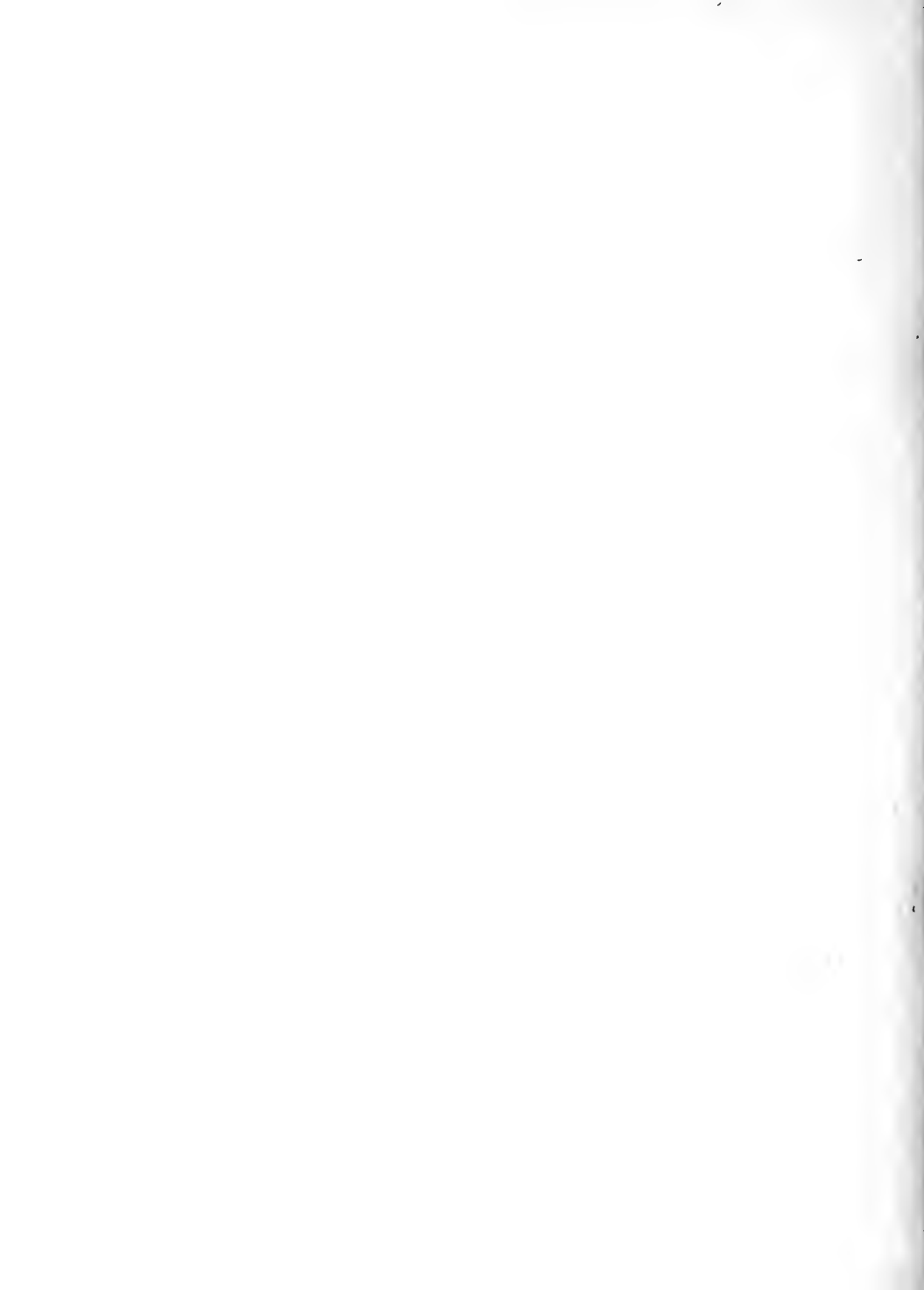
The week was unusually hot in central and north central Interior. Most areas received little or no rain. Weekly totals of one-half inch or more were limited to the north Pacific Coast and some inland areas of Washington, Oregon, Idaho, and western Montana, the middle and south Atlantic and Gulf Coasts, northeastern Minnesota and Upper Michigan, and some sections of the central Great Plains. The warm, dry weather favored rapid maturity and harvesting of late crops, but hampered fall seeding. Rains are badly needed in local areas from the central Great Plains eastward through the Ohio Valley. A few stations in southern Indiana have reported no rain since July 25.

(Summary Supplied by U. S. Weather Bureau).

LIGHT TRAP COLLECTIONS

		Pseudal. unipun.	Laphyg. frugip.	Agrotis ypsilon	Perid. marg.	Feltia subter.	Heliiothis armig.	vires sexta	Protoparce quin.
KANSAS									
Wathena	9/3-9			31			419		81 spp.
Manhattan	9/9-16			18			562		47 spp.
Hays	9/2-12			42			147		3 spp.
Garden City	9/9-10			13			36		
LOUISIANA									
B. Rouge	9/10-17	9	90	36		77	115		
Franklin	9/13-14	4	24	4		17	52		
ARKANSAS									
Stuttgart	9/2-14	26		56	1		213		
Van Buren	9/1-15	6		12			16		
Varner	9/1-14	85		174	2		887		
Fayetteville	9/3-9	16		4			99		
Clarksville	9/2-15	6		65	4		134		
MISSISSIPPI (Counties)									
Coahoma	9/10-16	79		103		19	2402	145	
Humphreys		45		147		37	86	1	
Oktibbeha		70		114	1	2	135	17	
Pearl River		88		61		3	193	4	
ALABAMA									
Auburn	9/10-16	270	80				47		
SOUTH CAROLINA (Counties)									
Charleston	9/13-19	20	4	17	7	40	558	2	220
Oconee	9/1-17	27	1				37 spp.	2	2
NORTH CAROLINA (County)									
Duplin	9/10-16	4		3			12		6
VIRGINIA									
Chatham	9/4 -10								2289
									375





VOL. 5 No. 39

SEPTEMBER 30, 1955

SB  
823  
c17  
Ent.

*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL BRANCH**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL BRANCH

### ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Economic Insect Survey Section  
Plant Pest Control Branch  
Agricultural Research Service  
United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

CORN EARWORM has been abundant in Massachusetts and serious on sweet corn in New Jersey. (p. 921). SOUTHWESTERN CORN BORER found in additional counties of Louisiana. (p. 921). EUROPEAN CORN BORER collected in Payne and Ottawa Counties, Oklahoma. (p. 921).

BROWN WHEAT MITE beginning to appear in volunteer wheat in southwestern Kansas. (p. 922). FALL ARMYWORM damaging late corn in Oklahoma and lawns in eastern South Carolina and central Texas. (p. 922).

SPITTLEBUG survey in Illinois indicates heavy infestation for northern area of State for next year. (p. 923).

PEA APHID showing build-up in alfalfa in Niobrara Valley, Nebraska and in northern Utah. Abundant also in Mora County, New Mexico. (p. 924). PLANT BUGS continue very abundant in alfalfa in Nebraska and Massachusetts. (p. 924). THREE-CORNERED ALFALFA HOPPER infestations remain high in Louisiana. As many as 12 per sweep on alfalfa in Brazos and Burleson Counties, Texas. Heavy damage to this crop in Sumter County, Georgia. (p. 924).

YELLOW CLOVER APHID reported from several Colorado counties. Infestations persist in some areas of Nebraska and requiring control in some California sections. (p. 924).

LESSER CORNSTALK BORER heavy on peanuts in Llano, Mason, Erath and Comanche Counties, Texas. (p. 925).

WALNUT CATERPILLAR more abundant than usual on pecans and other trees in southern Mississippi. Also heavy on pecans in Okaloosa County, Florida. (p. 926).

CUTWORMS heavy on truck crops in New Jersey. (p. 926). CABBAGE LOOPER severe on crucifers in New Jersey, threatening to fall plantings in eastern Virginia, and causing severe damage to broccoli in one area of Louisiana. (p. 927). CORN EARWORM infesting peppers in Tennessee. Controls being applied on tomatoes in some areas of Colorado. (p. 927). WIREWORMS abundant on potatoes in Wisconsin. (p. 927).

(Continued on next page).

PINK BOLLWORM heavily infesting late cotton in Brazos, Burleson, Robertson and Grimes Counties, Texas. A heavy infestation in New Mexico near El Paso, Texas. (p. 928).

PINE BARK APHID abundant in many pine plantations in Wisconsin. (p. 930). GIANT HORNET active in Massachusetts, North and South Carolina. (p. 930).

MOSQUITOES severe in flooded areas of Massachusetts and high populations in Rio Grande Valley, Texas, following floods. Numerous in Norfolk area of Virginia. (p. 931). Also severe infestations of HOUSE FLIES in Massachusetts. (p. 931). EAR TICK reported on cattle in Dundy County, Nebraska. (p. 932).

RICE WEEVIL heavy in stored grain sorghum in Brazos County, Texas. (p. 932). SAW-TOOTHED GRAIN BEETLE heavy in stored oats and corn in eastern South Dakota. (p. 932).

STATES reporting this week - 28.

WEATHER Summary. (p. 935).

ADDITIONAL NOTES. (p. 933).

\*\*\*\*\*

Reports in this issue are for the week ending September 23, 1955, unless otherwise designated.



CEREAL AND FORAGE INSECTS

GRASSHOPPERS - COLORADO - Southwestern Baca County has 100,000 acres of rangeland seriously infested. (ARS, Ext. Serv.). NEW MEXICO - Abundant on rangeland throughout State. Catron County reports 10,000 acres infested; 45,000 in Mora and 500 acres in Harding County. Causing damage to 5000 acres of hay, small grains and garden crops in Taos County. (Durkin, Sept. 16).

CORN EARWORM (Heliothis armigera) - MASSACHUSETTS - Very abundant generally this season. Increasing steadily each year. Attacked both early and late corn. (Bourne). NEW JERSEY - In complex with fall armyworm, seriously infested sweet corn. (Merrill, Sept. 14). VIRGINIA - Depositing eggs in grain sorghum in Sussex County. (Parson). Subsided on soybeans. (Rowell). NORTH CAROLINA - Very light infestation in late milo in Cleveland County. (Farrier).

EUROPEAN CORN BORER (Pyrausta nubilalis) - MASSACHUSETTS - Second brood heavy. (Bourne). NEW JERSEY - Infestation light during season on sweet corn. (Merrill, Sept. 14). OKLAHOMA - Collected in Ottawa and Payne Counties. (Arbuthnot). SOUTH DAKOTA - Average 34 percent infestation in central regions with average of 48 borers per 100 plants. (Hantsbarger). KANSAS - Examinations in several corn fields in the Kansas River Valley between Manhattan and Lawrence showed that infestations ranged from 4-64 percent with average of 1-3 larvae per infested stalk. Most larvae fourth and fifth instar. (Matthew).

FALSE CHINCH BUG (Nysius ericae) - NEW MEXICO - Damaging 2500 acres of grain sorghum in Curry County. (Durkin, Sept. 16).

MITES - UTAH - Damaging field corn in Weber County. (Knowlton, Burningham).

RICE WEEVIL (Sitophilus oryza) - NORTH CAROLINA - In complex with Angoumois grain moth attacking corn in Buncombe County. (Scott).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - LOUISIANA - Found in Sabine, DeSoto and Webster Parishes, making a total of five parishes known to have infestations. (Oliver).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - IDAHO - A survey of 73 dent corn fields and 18 sweet corn fields was made in the Twin Falls area between Rupert and Glenn Falls in the Snake River Valley. Seven of the fields were found infested. Most heavily infested field had five plants infested. First found attacking corn in the Twin Falls area in 1954 by J. R. Douglass. UTAH - A survey on August 4 of bean and corn fields in Box Elder, Weber and Davis Counties revealed

no infestation. A survey in the Logan area August 11-12 failed to show any infestation in 20 fields of corn. (ENT, ARS).

SORGHUM WEBWORM (Celama sorghicola) - MISSISSIPPI - Heavily infesting milo maize in Noxubee County. (Hutchins). GEORGIA - Heavy infestation in Sudan grass at Tifton, September 12. (Beck).

WHEAT CURL MITE (Aceria tulipae) - KANSAS - Found on clumps of old volunteer wheat near Merlo, Thomas-Sheridan County line, northwestern area. (Painter, Gibson, Sept. 1-2).

BROWN WHEAT MITE (Petrobia latens) - KANSAS - Beginning to appear in some fields of volunteer wheat in southwestern area. Populations very low and range from 0-10 per five clumps of wheat. None found on drilled wheat. (DePew).

RICE STINK BUG (Solubea pugnax) - LOUISIANA - Infestations remain low with nine per 100 sweeps in Allen Parish, 25 per 100 sweeps in Acadia Parish, 23 per 100 sweeps in St. Landry Parish, and 21-23 per 100 sweeps in Evangeline Parish. (Oliver).

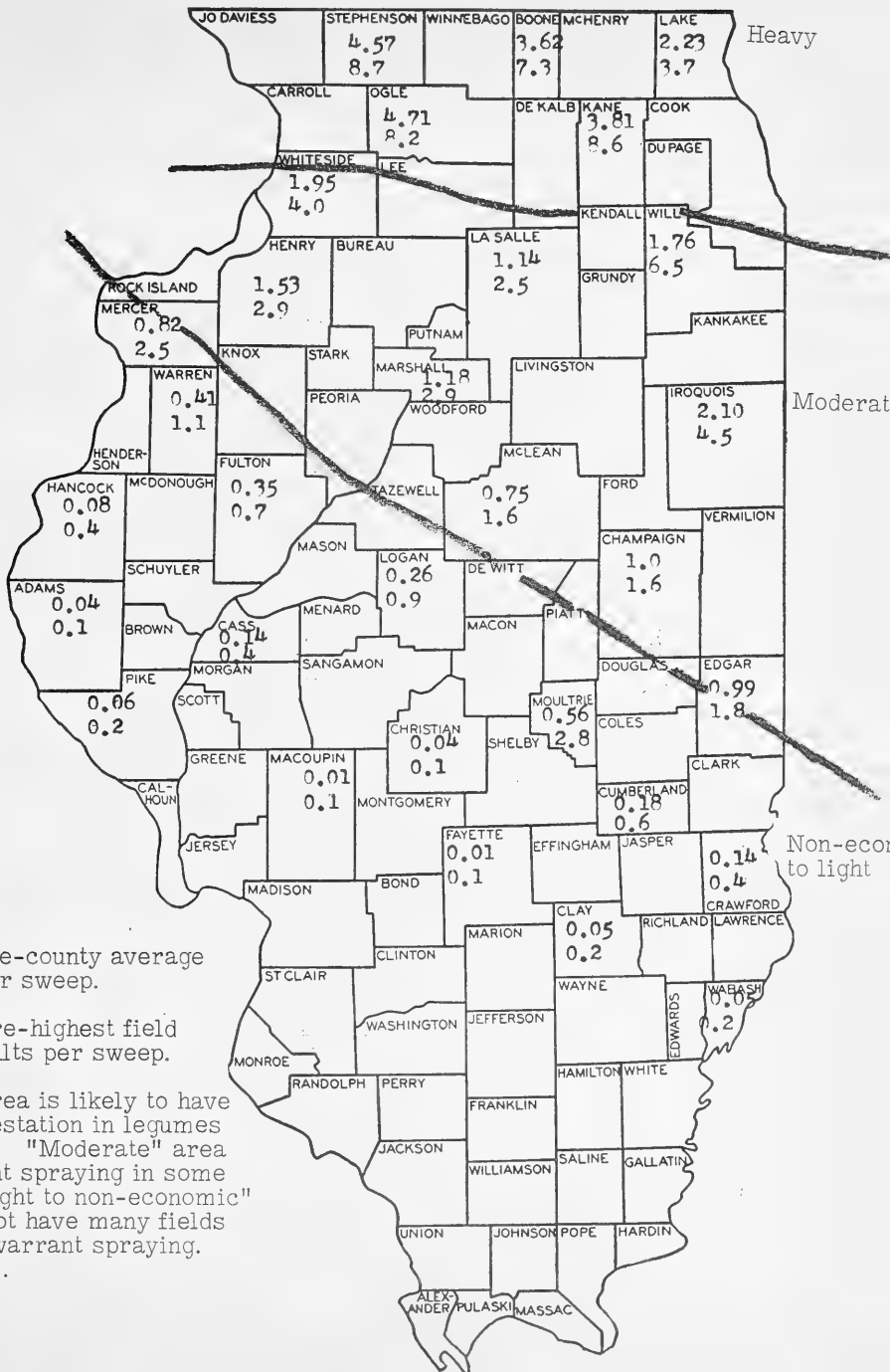
NORTHERN MASKED CHAFER (Cyclocephala borealis) - PENNSYLVANIA - Heavy infestation in lawns in Uniontown, Fayette County. (Udine).

FALL ARMYWORM (Laphygma frugiperda) - LOUISIANA - Several acres of second growth sorghum 100 percent infested in Tensas Parish. (Oliver). TEXAS - Medium to heavy populations of small larvae in many lawns in College Station area. (Randolph). OKLAHOMA - Causing serious, local damage to fall sweet corn plantings with 100 percent infestation and populations of 5-6 larvae per plant. (Walton). Damage to late field corn is about 40 percent to ear shanks and 3 percent droppage of ears. (Arbuthnot). SOUTH CAROLINA - Spotted outbreaks on lawns and Bermuda grass pastures in Allendale County. (Rogers, Sept. 16).

GRASSWORMS (Locis sp.) - GEORGIA - Heavy infestation stripping leaves in Coastal Bermuda and bahia grass pastures in Tift and Irwin Counties, September 16. (Beck). Heavy infestation in Coastal Bermuda grass in Bacon and Thomas Counties, September 12-13. (Morgan).

A SPITTLEBUG (Tomaspsis bicincta) - GEORGIA - Spotted infestation in 100 acres of Coastal Bermuda grass in Dougherty County causing browning of entire plants, September 2. (Manglitz, Beck). Moderate infestation in millet breeding plots at Tifton, September 9. (Beck).

ADULT SPITTLEBUG SURVEY IN ILLINOIS  
August 22-September 10, 1955



Upper figure-county average of adults per sweep.

Lower figure-highest field average adults per sweep.

Northern area is likely to have general infestation in legumes next spring. "Moderate" area may warrant spraying in some fields. "Light to non-economic" area may not have many fields that would warrant spraying. (Petty et al).

PEA APHID (Macrosiphum pisi) - NEBRASKA - Populations building up in Niobrara Valley. Counts 5-14 per 25 sweeps. (Andersen). UTAH - Increasing in succulent alfalfa in northern counties. (Knowlton).\*

PLANT BUGS - NEBRASKA - Adelphocoris lineolatus, A. rapidus and Lygus lineolaris populations continue very abundant in most alfalfa fields from the Niobrara to the Platte Valley. Counts 10-18 per 25 sweeps. (Andersen). MASSACHUSETTS - Lygus lineolaris very abundant all season generally over State. Numerous in alfalfa and other forage and severe in vegetables and flower gardens. (Bourne).

LEAFHOPPERS - NEBRASKA - Empoasca fabae declining in Niobrara area, with 1-6 per 25 sweeps. Endria inimica, in third and fourth instars, averages eight per 25 sweeps. (Andersen). SOUTH DAKOTA - Counts of Empoasca fabae up to 44 adults per 10 sweeps in alfalfa in east central area. Heavy infestation of Macrostelus fascifrons on alfalfa in Beadle and Kingsbury Counties with counts up to 248 adults per 10 sweeps. (Hantsbarger).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - LOUISIANA - Infestations remain high with 175-400 per 100 sweeps in Bossier Parish and 300-500 per 100 sweeps in Caddo Parish. (Oliver). TEXAS - From 10-12 per sweep on alfalfa in Brazos River bottom in Brazos and Burleson Counties. (Randolph). GEORGIA - Heavy damage to alfalfa in Sumter County, September 15. (Tippins).

ALFALFA WEBWORM (Loxostege commixtalis) - TEXAS - One to two larvae per sweep on alfalfa in Brazos River bottom of Brazos and Burleson Counties. (Randolph).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - TEXAS - Medium infestation on alfalfa in Brazos and Burleson Counties. (Randolph).

GREEN CLOVERWORM (Plathypena scabra) - MASSACHUSETTS - Abundant some fields this season. Severe damage in local areas. (Bourne).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - NEBRASKA - Rains favored increase. Counts in alfalfa 5-12 per 25 sweeps in Platte, Butler and Seward Counties. (Andersen).

YELLOW CLOVER APHID (Myzocallis trifolii) - PENNSYLVANIA - Moderate numbers on clover in Centre County. (Pepper). TEXAS - Medium infestation on alfalfa in Brazos and Burleson Counties. (Randolph). NEBRASKA - Infestation still persists in the Republican, Platte and Loup areas. Several areas, especially south of McCook,

\* NEW MEXICO - Abundant on 1500 acres of alfalfa in Mora County. (Durkin, Sept. 16).

Red Willow County have been cleared by predators. New areas of infestation: Holt, Wheeler, Boone, Antelope and Loup Counties. Counts in these areas are from 2-12 per sweep. (Andersen). COLORADO - Recorded from Pueblo, Otero, Crowley, Bent, Prowers, Washington and Yuma Counties. Damage heaviest on new alfalfa seedings and alfalfa in seed production. (Ext. Serv. and Colo. Exp. Sta.). NEW MEXICO - In most alfalfa fields in Dona Ana and Eddy Counties but no damaging infestations. (Durkin, Sept. 16). CALIFORNIA - Light to damaging numbers in most alfalfa fields in Tehama County. Reported for first time at Tracy in San Joaquin County and in the Ceres-Keyes area in Stanislaus County. Requiring control. (Cal. Coop. Rpt., 9/17). KANSAS - Low populations in alfalfa in Finney and immediately adjacent counties. Counts 5-75 per sweep. Predators, mainly lady beetles and lacewings, quite abundant. (DePew). Counts in fields in Marion County indicate populations lower than two weeks ago. (Burkhardt).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - TEXAS - Heavy widespread infestation on peanuts in Liano, Mason, Erath and Comanche Counties. (Sanchez). GEORGIA - Moderate seed and pod destruction in 20 acres of peanuts in Sumter County, September 15. (Morgan).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - GEORGIA - Heavy infestation in 30 acres of soybeans in Bacon County, September 14. (Morgan). FLORIDA - One to 5 per plant on Sesbania near Ft. Pierce, St. Lucie County. (Campbell).

#### FRUIT INSECTS

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - Found in seven northern counties. Only commercial infestation is in 400 acres of pears in Potter Valley, Mendocino County. (Cal. Coop. Rept., 9/17).

CODLING MOTH (Carpocapsa pomonella) - SOUTH DAKOTA - Second generation especially damaging to later varieties of apples of home orchards in southeastern area. (Lofgren, Hantsbarger). MASSACHUSETTS - Very heavy attack in some orchards this season. (Bourne).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - MASSACHUSETTS - Very heavy attack and serious foliage damage in several orchards during season. (Bourne).

RED-BANDED LEAF ROLLER (Arcyrotaenia velutinana) - MASSACHUSETTS - More severe this season than last, but normal in abundance. (Bourne).

APPLE MAGGOT (Rhagoletis pomonella) - MASSACHUSETTS - Severe attack late in summer. Very heavy generally during season. (Bourne).

RED-HUMPED CATERPILLAR (Schizura concinna) - VIRGINIA - Feeding on leaves of apple tree in Lee County. (Lyle, Rowell).

UNSPOTTED TENTIFORM LEAF MINER (Callisto geminatella) - PENNSYLVANIA - Light infestation on apple in the Arendtsville and the Cashtown areas, Adams County. (Asquith, Sept. 9).

PEACH TREE BORER (Sanninoidea exitiosa) - TEXAS - Reached peak of emergence about September 10 and is now on the decline. (King).

GREEN PEACH APHID (Myzus persicae) - COLORADO - First migrants began moving to peach trees this week in Mesa County. (Colo. Exp. Sta.).

FALL WEBWORM (Hyphantria cunea) - GEORGIA - Infesting persimmon and wild cherry in Fort Valley area but not so abundant as an average year. Considerably less abundant than usual on pecans at this season of the year, (Snapp, Sept. 19).

A MITE (Eotetranychus hicoriae) - TEXAS - Heavy infestation in pecan orchard in Wharton County. (Deer).

WALNUT CATERPILLAR (Datana integerrima) - VIRGINIA - Medium but spotted on pecan and walnut trees in vicinity of Hampton. (Adams). FLORIDA - Heavy infestation on pecan trees in Okaloosa County and causing moderate to heavy infestation of shade trees. (McMahon). MISSISSIPPI - More abundant than usual in the Gulf Coast counties. Pecan and other trees being damaged. (McGehee).

WALNUT HUSK FLY (Rhagoletis completa) - CALIFORNIA - Light infestation in Sonoma Valley, Sonoma County. In one area, all areas adjacent to walnut husk dump are infested. (Cal. Coop. Rept., 9/17).

### TRUCK CROP INSECTS

CUTWORMS - NEW JERSEY - Several species in outbreak numbers at this date. Damaging vegetable plantings from Cape May to Sussex Counties. (Merrill, Sept. 14). COLORADO - Flights of Agrotis orthogonia and Feltia subgothica to light traps have been increasing steadily in eastern areas. (Colo. Exp. Sta.).

CABBAGE LOOPER (Trichoplusia ni) - NEW JERSEY - Severe on crucifers and other vegetables. (Merrill, Sept. 14). VIRGINIA - Threatening to fall plantings of kale and other crucifers in eastern area. (Brubaker, Greenwood, Hofmaster, Sept. 17). LOUISIANA - Severely damaging broccoli in St. John the Baptist Parish with up to eight larvae per leaf. (Oliver).

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Slowly increasing on snap and lima beans in eastern area. (Brubaker, Greenwood, Hofmaster, Sept. 17).

CORN EARWORM (Heliothis armigera) - NEW JERSEY - In complex with fall armyworm and European corn borer, has caused damage to lima beans. (Merrill, Sept. 14). VIRGINIA - Continues as serious pest of older plantings of snap and lima beans in eastern area. (Brubaker, Greenwood, Hofmaster, Sept. 17). TENNESSEE - Infesting bell and pimento peppers, reported as being infested by European corn borer. (Mullett). COLORADO - Egg laying in 12 commercial tomato fields has averaged 16.4 per 100 leaves for the week of September 17. Highest count was 61. Insecticide treatments made to prevent heavy damage to fruit in Pueblo, Otero and Bent Counties. (Colo. Exp. Sta.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Light feeding on snap and lima beans in eastern area. (Brubaker, Greenwood, Hofmaster, Sept. 17).

BEEF LEAFHOPPER (Circulifer tenellus) - COLORADO - Curly top of sugar beets averages 62 percent and of tomatoes 18-20 percent in Mesa County. (ARS and Colo. Exp. Sta.)

CALIFORNIA - A second survey of curly top of tomatoes was made in early August in Contra Costa, Alameda, Santa Clara, San Benito and Monterey Counties. Monterey County averaged 1.1 percent while the remainder of the counties averaged less than one percent. (Green). Heavy infestation on Russian thistle in rangeland threatens 300 acres of sugar beets grown for seed in the Tehachapi area of Kern County. (Cal. Coop. Rept., Sept. 17).

TOMATO RUSSET MITE (Vasates lycopersici) - COLORADO - Infestation in Mesa County. (ARS, Colo. Exp. Sta.).

TURNIP APHID (Rhopalosiphum pseudobrassicae) - LOUISIANA - Appearing on young turnips in St. John the Baptist Parish with very little damage at present. (Oliver).

WIREWORMS - WISCONSIN - Quite abundant on potatoes in southern area and in some fields of north central area. (Chambers).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - LOUISIANA - Infesting sweetpotatoes at nine per 100 sweeps in Jefferson Davis Parish, eight per 100 sweeps in St. Landry, and 2-6 per 100 sweeps in Acadia Parish. (Oliver).

SOUTHERN GARDEN LEAFHOPPER (Empoasca solana) - LOUISIANA - Infesting sweetpotatoes at 75 per 100 sweeps in Evangeline Parish, 165 per 100 sweeps in Jefferson Davis Parish, and 150 per 100 sweeps in Acadia Parish. (Oliver).

SOUTHERN ARMYWORM (Prodenia eridania) - GEORGIA - Light feeding on sweetpotatoes in Tift County, September 6. (Morgan).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - MISSISSIPPI - Infestation found for the first time in Wilkinson County during August. (S. Weevil Prog.).

GARDEN WEBWORM (Loxostege similalis) - NEW JERSEY - Feeding on various vegetables. (Merrill, Sept. 14).

SQUASH BUG (Anasa tristis) - OKLAHOMA - Infestations of 1-3 adults in fall squash crops in Tulsa County. (Walton).

GARDEN CENTIPEDE (Scutigera immaculata) - WASHINGTON - Heavy local infestations damaging strawberries, sugar beets, cabbage, beans and other crops in east central Spokane County. (Waterhouse, Johansen).

### COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Continues to damage bolls of late cotton over eastern third of State. (Davis).

PINK BOLLWORM (Pectinophora gossypiella) - NEW MEXICO - Light on several acres of cotton in southern Dona Ana County. Infestations average 5-6 percent. One field in the El Paso area showed 98-99 percent infestation. Worst infestation in this area to date. (Durkin, Sept. 16). TEXAS - Heavily infesting late irrigated cotton in Brazos, Burleson, Robertson and Grimes Counties. (Davis, Martin).

BROWN COTTON LEAFWORM (Acontia dacia) - TEXAS - In complex with Trichoplusia ni is defoliating cotton in Brazos River bottoms of Brazos and Burleson Counties. Thousands of leafworm adults in light traps at College Station. (Davis, Randolph).



COTTON LEAFWORM (Alabama argillacea) - ARIZONA - One mature larva taken at Avondale, Maricopa County, September 22. (Ariz. Coop. Rept.). NEW MEXICO - Appearing in some areas of Dona Ana and Curry Counties, but no damaging infestations reported. (Durkin, Sept. 16). TEXAS - All succulent fields which did not receive boll weevil treatments heavily infested in central area. (Parenica).

SPIDER MITES - NEW MEXICO - Spotted infestations in some fields in Dona Ana County. Infestations heavy in poor-producing fields in dry areas. (Durkin, Sept. 16). NORTH CAROLINA - Moderate to severe infestations of Tetranychus telarius in Cleveland and Rutherford Counties with upper bolls reduced in size in some fields. Light to moderate infestations of T. schoenei less common than two-spotted spider mite but with it in some fields in Cleveland County. (Farrier).

APHIDS - NEW MEXICO - Generally light in Dona Ana, Eddy and Sierra Counties. (Durkin, Sept. 16). TEXAS - Heavy populations building up in some fields in Robertson County. (Hanna).

STINK BUGS - NEW MEXICO - Causing damage to large and small bolls in several cotton fields in Dona Ana County. (Durkin, Sept. 16).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

PITCH MASS BORER (Vespamina pini) - WISCONSIN - Abundant on pine in the Kettle Moraine forest area. (Chambers).

BAGWORM (Thyridopteryx ephemeraeformis) - VIRGINIA - Reported damaging Colorado spruce at one area in Tazewell County and damaging evergreens in Wythe County. Many have pupated. (Morris, Gillespie).

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - VIRGINIA - Severe local infestation in loblolly pines in three areas in Chesterfield County and in one area in Hanover County. Some trees are dead. (Matheny).

EASTERN SPRUCE GALL APHID (Chermes abietis) - WISCONSIN - Has been more abundant than usual in plantations and in nurseries. (Chambers).

IPS BEETLES - WISCONSIN - Ips pini reported abundant in several areas where trees injured with fumes and drought. (Chambers). VIRGINIA - Severe in three areas in Chesterfield County and in one area of Hanover County. (Matheny). NORTH CAROLINA - Moderate infestations in numerous areas of Wake County. (Jones).

PINE BARK APHID (Pineus strobi) - WISCONSIN - Reported quite abundant in many pine plantations and in a few nurseries. (Chambers).

RED-HEADED PINE SAWFLY (Neodiorion lecontei) - NORTH CAROLINA - Infesting pines in Caldwell County. (Scott).

SPRUCE BUD SCALE (Physokermes piceae) - WISCONSIN - Encountered frequently in nurseries and park plantings. (Chambers).

WHITE-PINE WEEVIL (Pissodes strobi) - WISCONSIN - Continues to be reported as injuring plantations of all species of pine and Norway spruce. (Chambers).

POPLAR AND WILLOW BORER (Cryptorhynchus lapathi) - RHODE ISLAND - Infesting willow in Rumford and Providence. (Caroselli).

LEAFHOPPERS (Erythroneura spp.) - OKLAHOMA - Have caused severe damage to elms and rebuds in many parts of State. Entered homes and caused annoyance. At least three species involved. (Fenton).

HACKBERRY NIPPLE GALL (Pachypsylla celtidis-mamma) - WISCONSIN - Has been very abundant in southern area where hackberry trees are grown extensively. Nuisance in homes. (Chambers).

FALL WEBWORM (Hyphantria cunea) - MASSACHUSETTS - Very light throughout State. Possibly natural enemies keeping in check. (Bourne).  
SOUTH CAROLINA - Injuring numerous hardwoods, shrubs and pecans throughout State. (Nettles, Sept. 21).

BRONZE BIRCH BORER (Agilus anxius) - RHODE ISLAND - Infesting a few specimen birches in Providence area. (Caroselli).

BALSAM MIDGE GALL (Itonida balsamicola) - WISCONSIN - Apparently increasing in the forest areas, where it is a problem on Christmas trees. (Chambers).

COMSTOCK MEALYBUG (Pseudococcus comstocki) - PENNSYLVANIA - Rather heavy infestation on catalpa in Snyder County. (Gesell).

A BLOTCH LEAF MINER (Paraleucoptera albella) - UTAH - Severely damaging cottonwood foliage in late August and early September for more than 10 miles along Sevier River in southern Sevier County and in Piute County. Det. H. W. Capps. (Knowlton).

GLANT HORNET (Vespa crabo germana) - MASSACHUSETTS - Several instances of occurrences. Appears to be extending range in State. Caused damage to lilacs and other thin-barked shrubs and trees. (Bourne).  
VIRGINIA - Damaged a lilac bush in Appomattox County. (Smith, Rowell).

NORTH CAROLINA - Capturing honey bees at an artificial feeding station in Caldwell County. (Stephen).

EYE-SPOTTED BUD MOTH (Spilonota ocellana) - NORTH CAROLINA - Attacking cherry-laurel in Pitt County. (Scott).

EUONYMUS SCALE (Unaspis euonymi) - RHODE ISLAND - Common on plants in various sections of State. (Caroselli).

CITRUS WHITEFLY (Dialeurodes citri) - VIRGINIA - Severe on gardenias in Hampton and vicinity. (Adams).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Scattered reports of some injury in Providence area. (Caroselli). MASSACHUSETTS - Very abundant this season. (Bourne).

HAWTHORN LACEBUG (Corythucha cydoniae) - SOUTH CAROLINA - Severely damaging pyracantha leaves generally. (Berly, Sept. 9).

TERMITES - NORTH CAROLINA - Severely injuring commercial plantings of chrysanthemums in Caldwell County. (Jones).

WEEVILS ON AZALEAS - MISSISSIPPI - Pantomorus spp. with P. godmani and P. taeniatus causing damage to azaleas in Forest and Lamar Counties. (Sheffield, Price).

ROSE-SLUG (Endelomyia aethiops) - WISCONSIN - Continues abundant in absence of rain. (Chambers).

#### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - MASSACHUSETTS - Severe flooding in many areas contributed to severe infestation. (Bourne). VIRGINIA - Numerous and annoying in Norfolk area. (Harrell). TEXAS - Very high populations throughout Rio Grande Valley after floods caused by hurricanes. (Deer).

HOUSE FLIES - MASSACHUSETTS - Serious flooding in many areas of the State contributed to severe infestation of flies. (Bourne). ARIZONA - Flies, mainly Musca domestica, population indices of two small towns in southeastern Maricopa and northwestern Pinal Counties: average of five highest grill counts in nine blocks for the week of September 12-16: 38.0. (Ariz. Coop. Rept.).

CHIGGERS - NORTH CAROLINA - Reported as a nuisance in Catawba County. (Jones).

MYIASIS - VIRGINIA - Unidentified larvae, probably sheep bot, found as cause of ocular myiasis in a child in Roanoke September 21. Nine larvae were removed. (Morris).

HORN FLY (Siphona irritans) - LOUISIANA - Averaged 100 per head of cattle in St. John the Baptist Parish and 50-60 per head of eight cattle in Livingston Parish. (Oliver). NEW MEXICO - Abundant on range cattle in Catron County. (Durkin, Sept. 16).

TABANIDS (Tabanus spp.) - LOUISIANA - T. atratus, T. americanus and T. lineola attacking cattle up to eight per head in a 15-minute period in one area of Livingston Parish and one per head in 15 minutes in one area of St. John the Baptist Parish. (Oliver).

SCREW-WORM (Callitroca hominivorax) - LOUISIANA - One case in livestock in Livingston Parish and one in East Baton Rouge Parish. (Oliver).

EAR TICK (Otobius megnini) - NEBRASKA - In ears of 93 percent of 500 cattle in one pasture in Dundy County. Last record of this pest in State was in 1937. (Roselle).

BROWN DOG TICK (Rhipicephalus sanguineus) - NORTH CAROLINA - Infestation in an apartment in Wake County. (Scott). ARIZONA - Ticks, probably this species, reported from scattered areas in Maricopa and Pinal Counties infesting houses and dogs. (Ariz. Coop. Rept.).

DOG AND CAT FLEAS (Ctenocephalides spp.) - RHODE ISLAND - Complaints from home owners in Cranston and Providence. (Caroselli).

A DRAIN FLY (Telmatoscopus albipunctatus) - VIRGINIA - Concentrating on buildings in an area in Roanoke. Det. A. Stone. (Morris).

#### STORED PRODUCTS INSECTS

RICE WEEVIL (Sitophilus oryzae) - TEXAS - Extremely heavy populations in complex with a psocid in stored grain sorghums in Brazos County. (Davis, Garner, Fuller).

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis) - SOUTH DAKOTA - Heavy infestations in eastern areas especially in farm-stored oats and corn. (Lofgren). NORTH DAKOTA - In complex with psocids and confused flour beetles reported from several areas of the State. (N. D. Ins. Rept. Serv.).

BENEFICIAL INSECTS

MANTIDS - MASSACHUSETTS - Quite abundant throughout the State this season. Heavier population each season during past 2-3 years. (Bourne).

MISCELLANEOUS INSECTS

WOOLLYBEARS - MASSACHUSETTS - Unusually abundant generally this season. (Bourne).

EUROPEAN EARWIG (Forficula auricularia) - MASSACHUSETTS - Abundant in infested areas. Has spread into entire North Shore, into Essex County, and inland for several miles from shore.

BOXELDER BUG (Leptocoris trivittatus) - RHODE ISLAND - Infestations causing complaints in Cumberland area and also found in North Providence. (Mathewson). TENNESSEE - Appearing throughout State. (Mullett).

POWDER POST BEETLES - TENNESSEE - Infesting homes and lumber yards, Knox County. (Mullett).

OLD HOUSE BORER (Hylotrupes batulus) - RHODE ISLAND - Reported in Warwick. (Mathewson). PENNSYLVANIA - Several infestations in a house in Union County. (Gesell).

ADDITIONAL NOTES

IDAHO - Adults of a CHRYSOMELID (Altica plicipennis) were found very abundant on willow in Salmon River canyon. High populations of COTTONY MAPLE SCALE (Pulvinaria innumerabilis) continue on maple shade trees in city of Emmett. Scattered infestations of FALL WEBWORM (Hyphantria cunea) on apples, chokeberries, and poplars in Boise Valley area. A GOATWOOD BEETLE (Chrysolina gemellata) - Emergence of aestivated adults has begun in Salmon River and Clearwater River canyons, following heavy rains. GRASSHOPPER (Melanoplus mexicanus and M. bivittatus) populations in an alfalfa seed field near Sweet ran as high as eight to ten per square yard. LYGUS (Lycus spp.) - Large populations on an alfalfa seed field in Twin Falls County. (Barr, Gittins).



WEATHER FOR THE WEEK ENDING SEPTEMBER 26, 1955

Moderate to heavy rains and cooler weather east of the Continental Divide featured the weather of the week. These, the first general rains during September and in some areas the first effective rainfall in the past two months, ended the drought in the central Great Plains and the long, dry spell in the Ohio Valley and Northeast. Rains falling on two to five days totaled from two to five inches in most of the Great Plains, one to five inches in the mid-Mississippi and Ohio Valleys, and from one-half to over two inches in the Northeast. Soil moisture and fall crops were greatly improved in most sections, the principal exception being in the area from Tennessee to the Gulf, where rains were very light and the soil generally remained too dry. Light showers also fell in the northern Mountain and Pacific States, furnishing needed soil moisture and diminishing the fire danger. Little or no rain fell in southern areas west of the Divide.

Hot weather with maxima in the 90's continued over the southern half of the Nation the first part of the period. Highs of 96° were recorded at Evansville, Indiana and Wichita, Kansas on the 21st. The southern edge of a cool air mass centered over Hudson Bay covered the Northeast most of the week, holding temperatures at about seasonal levels.

An extensive cold air mass from northwestern Canada brought the coolest weather of the week to the entire Nation. The cool weather first affected the Pacific Northwest and thereafter gradually spread southward and eastward, covering all except some extreme southern areas by the end of the week. Temperatures were generally reduced by 15° to 20°. Freezing, causing no crop damage, occurred in northern New York and New England, along the Canadian Border west of the Great Lakes, and in the central portions of the Great Basin and Rocky Mountains.

(Summary Supplied by U. S. Weather Bureau).

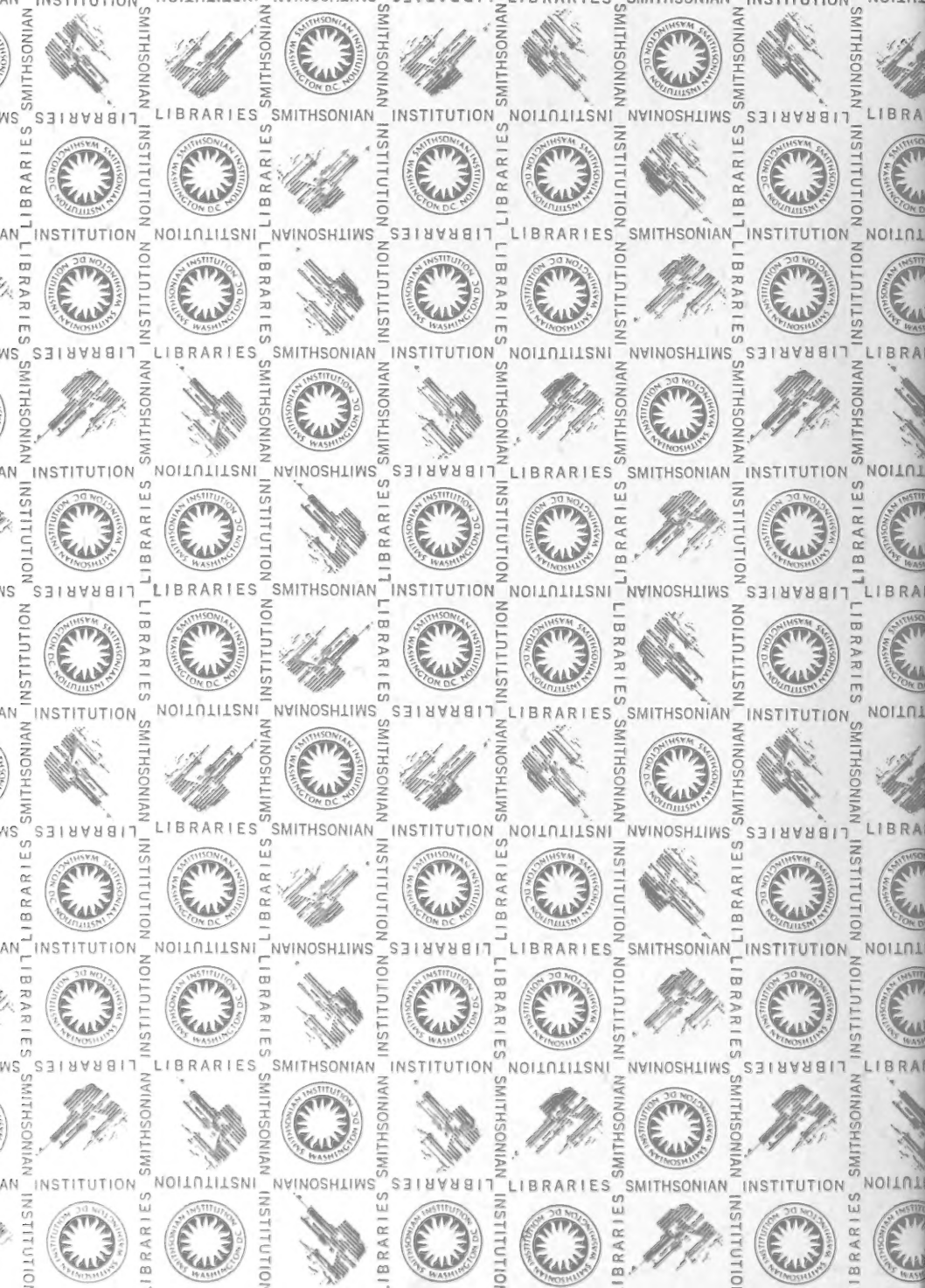


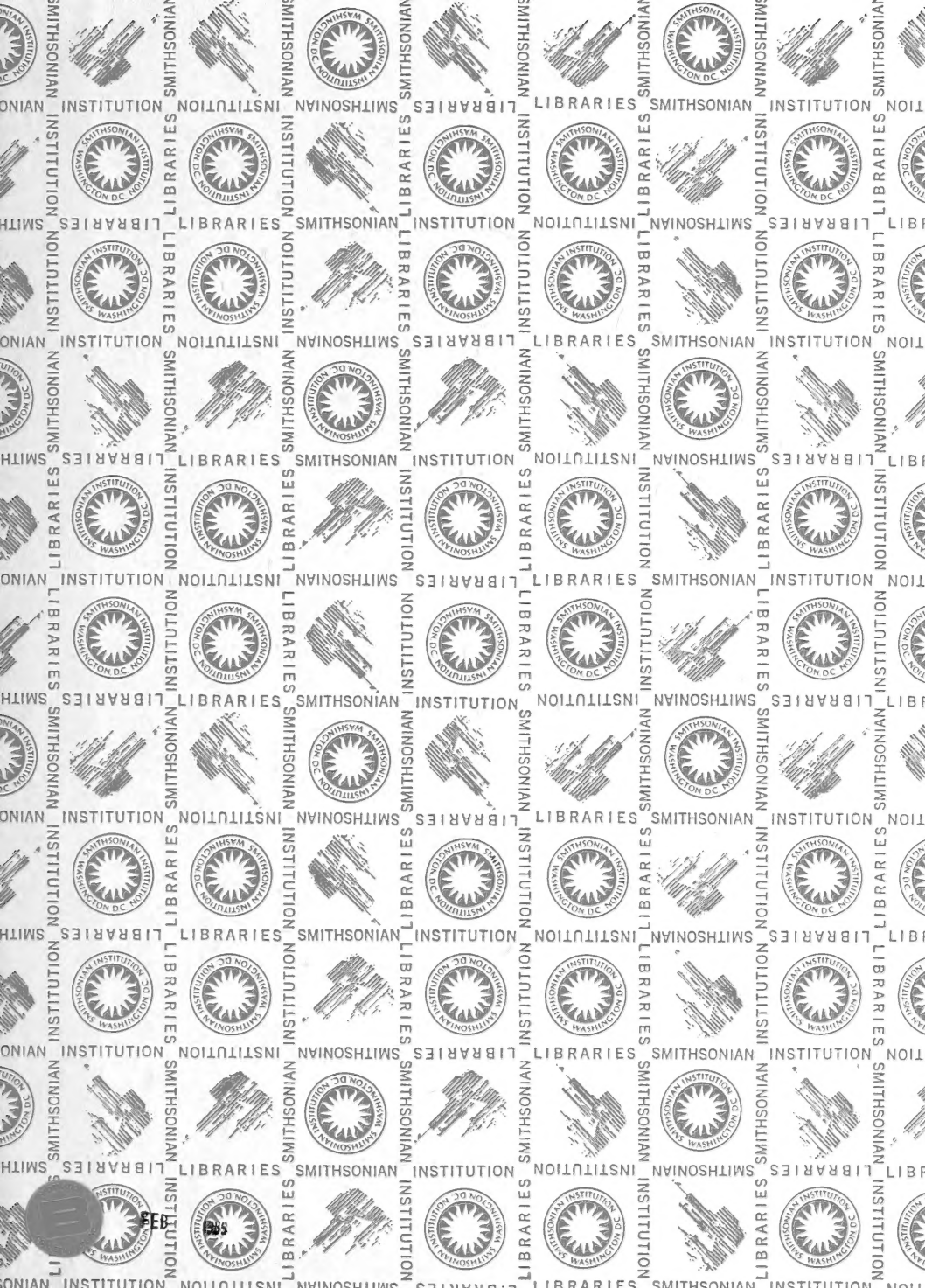












SMITHSONIAN INSTITUTION



3 9088 01271 7344