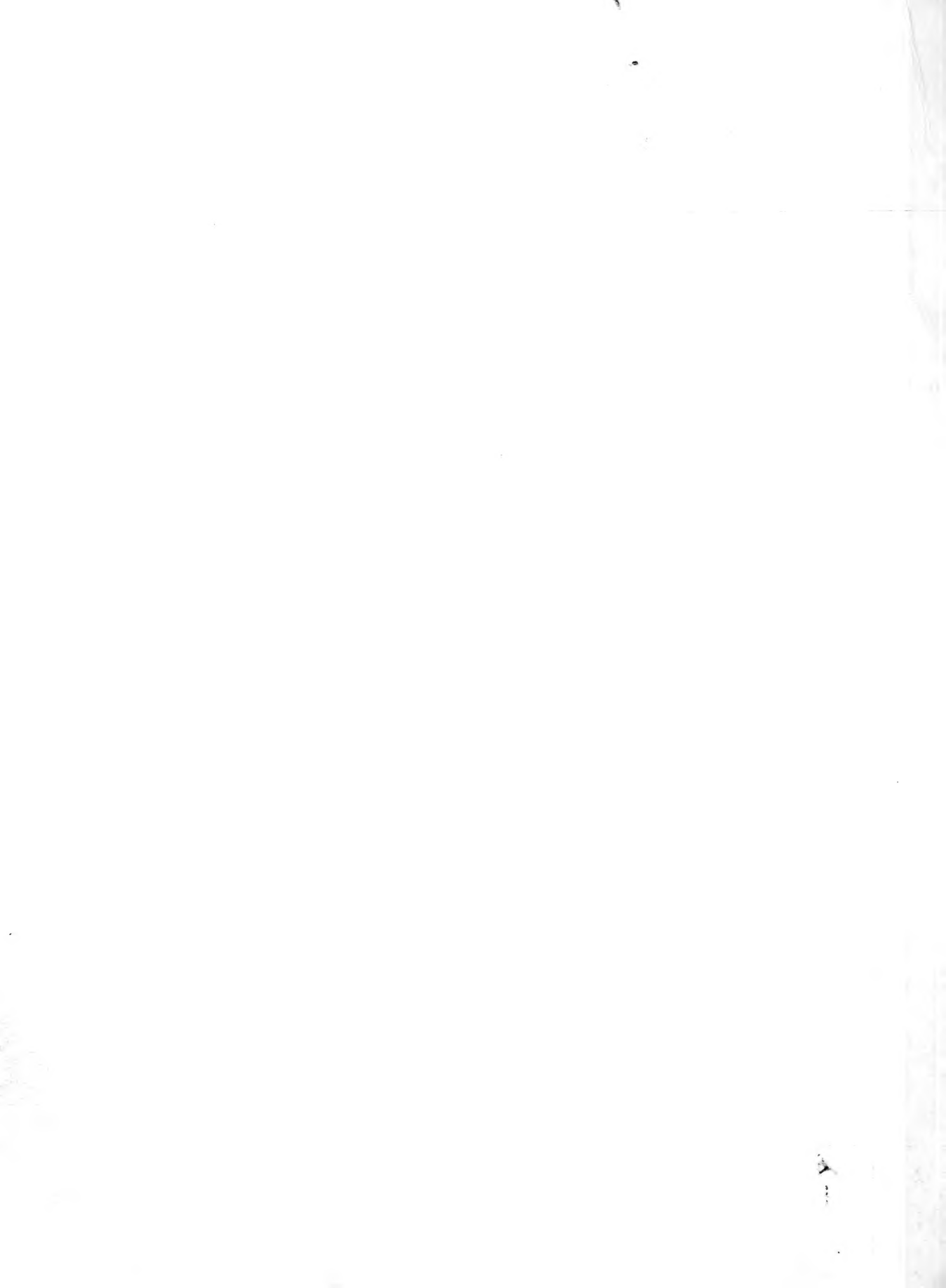
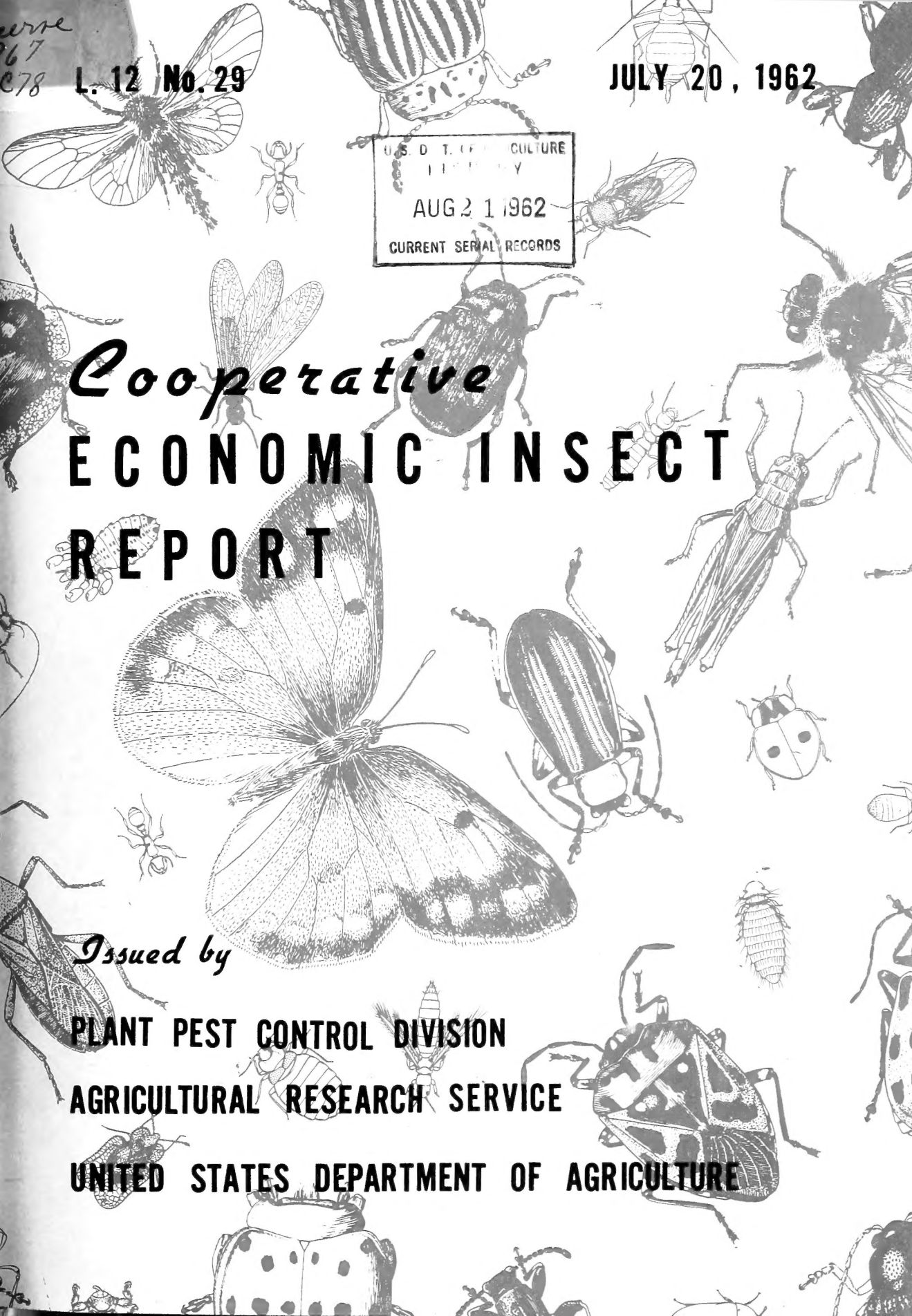


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.





curve
267
078

L. 12 No. 29

JULY 20, 1962

U. S. D. T. OF AGRICULTURE
LIBRARY
AUG 21 1962
CURRENT SERIAL RECORDS

Cooperative **ECONOMIC INSECT REPORT**

Issued by

**PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE**

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

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 Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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

Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

GRASSHOPPERS are a problem in areas of Missouri, Illinois, Wisconsin, Minnesota, North Dakota and Utah on various crops, as well as pastures, in some instances. Controls underway or recommended. Cooperative controls applied to 23,755 acres of rangeland in Wyoming. (pp. 785-786).

ARMYWORM moths very abundant in Wisconsin and Minnesota; some larval damage to crops noted. FALL ARMYWORM causing some damage in Missouri, Kansas, Oklahoma and Colorado. (p. 787). CORN ROOTWORMS continue to cause damage in some treated corn fields in all areas of Nebraska except panhandle, and SORGHUM MIDGE increasing on grain sorghum in areas of Texas. CORN LEAF APHID heavy on barley in area of Pershing County, Nevada, where many fields are being treated. (p. 788). BROWN WHEAT MITE causing severe damage to 1,800 acres of barley in Alturas area, Modoc County, California. (p. 789).

PEA APHID greatly increasing on most alfalfa hay and untreated alfalfa seed fields in southwest Idaho, and populations very high on alfalfa in Mesa, Montrose, Delta and Garfield Counties, Colorado. (p. 789). Some of the heaviest SPOTTED ALFALFA APHID populations of the season observed in areas of Tillman, Jackson, Kiowa, Washita and Caddo Counties, Oklahoma, and aphid spreading northward in South Dakota. Several other states report increasing populations. (pp. 789-790). POTATO LEAFHOPPER caused yellowing of alfalfa in areas of Illinois and Wisconsin and injury noted in Maryland. (p. 790). GRANULATE CUTWORM damaging to peanuts in areas of Georgia, and JAPANESE BEETLE causing foliage injury to soybeans in Delaware and Maryland. (p. 791). CLOVER APHID increasing on red clover seed fields in Idaho; treatments applied. (p. 792).

ORCHARD MITES, largely EUROPEAN RED MITE, continue a problem in orchards in a number of Eastern and Midwestern States. (p. 792). APPLE MAGGOT adults found in southern Minnesota, Wisconsin and Michigan; controls recommended in Minnesota. Adult emergence decreased in New York and Connecticut due to dry weather, but expected to increase after rains. (pp. 792-793). PEAR PSYLLA abundant and requiring controls in Polk and Marion Counties, Oregon, and PEAR-SLUG heavy on cherry, pear and plum in areas of Nevada. (p. 794).

GREEN PEACH APHID increasing on potatoes in Colorado and more numerous on potatoes and tomatoes in Utah than during 1961. (p. 795). POTATO LEAFHOPPER injuring beans in New York and Wisconsin, prevalent on beans and potatoes in Vermont and causing "hopperburn" on potatoes in Erie County, Pennsylvania. (p. 796). POTATO PSYLLID increasing in panhandle area of Nebraska, and IMPORTED CABBAGEWORM populations most extensive observed in past 25 years in Michigan. (p. 797).

BOLL WEEVIL populations continue to increase and controls applied in many areas. (pp. 798-799).

FALL WEBWORM present in New Jersey and New York, and JAPANESE BEETLE damaging ornamentals in several Eastern States. (pp. 804, 806). A THRIPS (Frankliniella occidentalis) unusually abundant this year in California. (p. 807).

MOSQUITOES recently very severe in coastal areas of Texas, and a nuisance to both man and animals in various other states across the Nation. (pp. 807-808).

(Continued on page 784)

HORN FLY continues a major pest of cattle in various areas of the country, and FACE FLY increasing in several Eastern and Midwestern States. (p. 809).

Seventeen KHAPRA BEETLE infestations found in Pima, Pinal and Santa Cruz Counties, Arizona, recently. Eradication underway. (p. 810). Number of JAPANESE BEETLE adults taken in 1961--infestation area in Sacramento area of California considerably reduced over previous year; 26 adults taken so far in West Sacramento area. (p. 811).

FORECASTS

CITRUS INSECTS in Florida. (p. 794).

DETECTION

New state records are a MIRID (Labops hesperius) in Arizona (p. 788), a BARK BEETLE (Scolytus mali) in Ohio (p. 794), ASH BORER (Podosesia syringae fraxini) in Utah (p. 804) and an ANT (Acanthomyops pogonogynus) in Idaho (p. 810).

SPECIAL REPORTS

Status of the Screw-worm in the Southwest. (p. 808).

Reports in this issue are for week ending July 13, unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

MID-JULY TO MID-AUGUST 1962

The Weather Bureau's 30-day outlook for mid-July to mid-August calls for temperatures to average below seasonal normals over the northern half of the Nation and also over the Far Southwest. Above normal temperatures are predicted for the Gulf States and Southern Plains. In unspecified areas, near normal temperatures are in prospect.

Precipitation is expected to exceed normal from the Pacific Northwest eastward to the western Great Lakes and also over the Central Plains and southwestern Plateau States. Subnormal precipitation is indicated for the Gulf States and also for the drought-plagued Northeast. In unspecified areas, about normal rainfall is predicted.

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 a half year.

(Weather of the Week ending July 16 on page 814).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - OREGON - Infestation covering 9,600 acres delimited on bombing range near Boardman week of July 1; counts averaged 5-23 per yard, with Melanoplus packardii, M. sanguinipes and Oedaleonotus enigma dominant species. (Jackson).

WYOMING - Following acres controlled for grasshoppers under cooperative control program: 7,555 in Niobrara County, 5,205 ten miles east of Wheatland and 10,995 north of Ft. Laramie. Considerable acreage infested east and northeast of Guernsey; high percentage of population adults. (Spackman). UTAH - Grasshoppers damaging throughout eastern Millard County; 5,000 acres treated once and 1,300 acres twice. Dominant species M. sanguinipes, M. packardii, M. bivittatus and Aulocara elliotti. (Knowlton, Rickenback). Numbers much above normal in many parts of western Millard County and extensively damaging wheat and range plants in San Juan County. (Knowlton). Considerable grasshopper control conducted in Iron County, particularly in Cedar Mountains and Summit areas. (Knowlton, Sjoblom). Total of 1,500 acres of wheat in Nephi-Levan area treated for grasshoppers by aircraft; A. elliotti, M. packardii, M. sanguinipes and M. bivittatus stripped leaves and damaged heads rather generally. (Knowlton). TEXAS - M. differentialis averaged 10-15 per square yard on rangeland in Montague County and 8-10 per square yard in Brown County. (Turney, Newton, July 6). KANSAS - Grasshopper populations quite variable in south central and southwestern areas on cropland and rangeland. Dominant species in cropland M. bivittatus, M. sanguinipes and M. differentialis. Counts ranged from less than 1 to 20-25 per square yard in margins of alfalfa. Dominant species in rangeland M. sanguinipes, M. bivittatus and Mermiria sp. Counts ranged from less than 1 to highs of 5-10 per square yard. (Peters). MISSOURI - High populations of Melanoplus spp. continue to cause concern in pastures and legumes in areas scattered throughout State; counts in central and southwest ranged 6-29 "hoppers" per square yard. Dominant species M. differentialis. In central area, size of M. differentialis ranged from second-stage nymph to adult. Controls being applied in central and northeast areas. (Munson, Thomas, Wood). NEBRASKA - Nymphs of Melanoplus spp. ranged 44-61 per 10 sweeps in alfalfa in northeast. (Bergman).

NORTH DAKOTA - Grasshopper populations becoming heavy in some areas of Benson and Pierce Counties; dominant species Camnula pellucida and M. sanguinipes. Most in fourth instar, with few adults of M. sanguinipes found. Feeding on small grains and other crops. (Wilson). In western McKenzie County, infestations of M. sanguinipes and Ageneotettix deorum ranged up to 20 per square yard, with average of 12. Development ranged from second instar through adult, mostly in fifth instar. (Brandvik). In Ward, Bottineau, Renville, Burke, Divide and Williams Counties, grasshopper counts ranged 1-150 per square yard. Marginal crop damage occurring in areas with higher counts. M. bivittatus dominant species in most areas, but C. pellucida and M. sanguinipes dominant in some places. Adults 20 percent of population. (Larsen). In southwestern and west central areas, "hopper" counts average 5 per yard in fields and 10-15 per yard in pasture. One Grant County alfalfafield has 100 per yard in field and 200 per yard at margin. M. bivittatus and M. sanguinipes dominant species. Most in fourth instar; 10 percent adults. (Schenck). County roadside control program continues in northwest and north central counties. It appears there will not be a rangeland control program this year. (N. D. Ins. Sur.). MINNESOTA - High numbers of grasshoppers reported in scattered locations in Kittson, west Marshall, Lac qui Parle, Yellow Medicine, Swift, Murray and Goodhue Counties. Damage to small grain, soybeans, alfalfa and corn observed. Controls started in both cropland and along roadsides in Kittson and west Marshall Counties. Hatch of M. femurrubrum continuing in all reporting districts. Populations of "hoppers" 15-50 per square yard in Kittson and western Marshall Counties in fields, field margins and roadsides; dominant species M. bivittatus and M. sanguinipes, mostly third and fourth instars. In Swift, Lac qui Parle and Yellow Medicine Counties, populations ranged 20-100 plus per square yard along roadsides and field margins; damage to small grain and soybeans very evident in some fields; dominant species M. femurrubrum. In northeastern Murray County, counts 100 plus per square yard found in soil bank land; dominant species M. femurrubrum. (Minn. Ins. Rpt.). WISCONSIN - Attaining dangerous

proportions in certain areas; treatments recommended to protect third-crop alfalfa. Injury to alfalfa becoming evident in certain areas. Some treatments underway in parts of Oconto and Washburn Counties. M. femurrubrum predominates, although M. differentialis comprised 50 percent of population in areas of La Crosse County. Counts 30 per square yard in alfalfa in northern La Crosse County and few fields had as high as 80 per square yard. Development of both species ranged from first to fourth instar and damage evident in this area. In Trempealeau County, counts up to 100 per square yard noted. Populations in Rock, Green, Lafayette, Grant, Vernon, Crawford, Iowa, Dane, Marathon, Portage, Waupaca and Adams Counties ranged 0-50 per square yard. (Wis. Ins. Sur.). ILLINOIS - Melanoplus spp. abundant and damaging clover and alfalfa in west district; 25-30 percent leaf area already removed from plants in some fields. "Hoppers" mostly 2-4 instar and vary 80-180 (average 130) per square yard. In northwest district, grasshoppers vary 1-3 instar, with hatching still occurring in northern 2 tiers of counties; populations vary 3-90 (average 46) nymphs per square yard. (Ill. Ins. Rpt.).

EUROPEAN CORN BORER (Ostrinia nubilalis) - RHODE ISLAND - Abundant on untreated early corn on several farms in Johnston area of Providence County. Likely to be troublesome this year. (Mathewson). NEW YORK - Sweet corn plantings near harvest in Hudson Valley had pupae and large larvae; plantings in whorl to early green tassel stage had larvae down to second stage. One untreated planting in Hudson Valley showed heavy larval feeding on 97 of 100 plants. Larvae entering ears of sweet corn in Niagara County and feeding signs noted on corn about to tassel in Monroe County. (N. Y. Wkly. Rpt., July 9). NEW JERSEY - Pupating in Middlesex County. (Ins.-Dis.-Weed Newsltr., July 10). MARYLAND - First-generation larvae moderate to heavy in earliest planted corn in Frederick, Queen Annes and Worcester Counties. Most larvae full grown or nearly so. Second-generation moth activity increasing. (U. Md., Ent. Dept.). VIRGINIA - Locally medium on field corn in Madison County. (Tarpley, McLearn, July 6). PENNSYLVANIA - Small sweet corn 20 percent infested in Erie County. (Adams). OHIO - First-brood pupation observed at Marietta on July 2 and at Lima on July 5, both on early sweet corn. Infestation of dent corn over State appears light, with little damage expected from first-brood larvae. (Triplehorn). MICHIGAN - Larvae feeding heavy in Wayne County. (Guyer, July 2). ILLINOIS - Development in western area about 10 percent third instar, 15 percent fourth instar, 65 percent fifth instar and 10 percent pupa. In northern area, larvae mostly in third and fourth instars. (Ill. Ins. Rpt.). WISCONSIN - Treatment of sweet corn continues in Rock and Columbia Counties and possibly in other areas. Counts of leaf feeding vary 0-50 percent in field corn throughout southern and western areas. Few fifth instars found in Rock and Trempealeau Counties, but second and third instars predominate. (Wis. Ins. Sur.). NORTH DAKOTA - Pupation complete; egg laying still in progress in southeastern area. (N. D. Ins. Sur.). SOUTH DAKOTA - Percent infestation in southeast ranged 4-100, number of larvae per infested plant 1-19 and height of corn (leaves extended) 30-72 inches. Development first to third instar. First and second instars predominant. (Hintz). NEBRASKA - Early planted corn 50-75 percent infested in northeast; larvae second to fourth instar. (Bergman). KANSAS - First-generation larval development on July 10 as follows: Jefferson County - 7 percent third instar, 12 percent fourth instar, 7 percent fifth instar, 67 percent pupa, 7 percent adult; Douglas County - 33 percent fifth instar, 45 percent pupa, 11 percent emerged pupa, 11 percent adult; Shawnee County - 42 percent fifth instar, 33 percent pupa, 17 percent emerged pupa, 8 percent adult; Riley County (July 12) - 60 percent pupa. (Burkhardt).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - KANSAS - Large percentage of first-generation larvae left whorls of corn plants in Edwards County and entered stalks. (DePew). Examination of several corn fields in other south central and southwestern counties negative. (Peters).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - SOUTH CAROLINA - Apparent in soybean fields in Hampton County. (Nettles et al., July 11). GEORGIA - Heavy infestations on grain sorghum in Lee County. (Andrews).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - MARYLAND - Lightly infested whorls of field corn in Worcester County. (U. Md., Ent. Dept.).

STALK BORER (Papaipema nebris) - RHODE ISLAND - Troublesome in corn in Providence and Washington Counties. (Mathewson, King). DELAWARE - Light in corn in southwest Sussex County. (Burbutis). WISCONSIN - Unusually high number of larvae in corn throughout much of State. (Wis. Ins. Sur.). NEBRASKA - Larval damage present in corn and alfalfa in northeast. (Bergman).

CORN EARWORM (Heliothis zea) - OHIO - Infested 27 percent of early sweet corn ears in control test check plots at Marietta on July 2. Populations higher than usual at Lima and Wooster. (Triplehorn). VIRGINIA - Locally medium on field corn in Madison County. (Tarpley, McLearn, July 6). OKLAHOMA - Generally light on alfalfa in Cotton and Tillman Counties, southwest; 0-4 per 10 sweeps. Averaged 6 per head in grain sorghum in Jefferson County and 108 per 100 heads in Tillman County area. (Okla. Coop. Sur.). TEXAS - Heavy, local infestation, 3-12 larvae per head, on sorghum in experimental breeding plots near College Station. (Randolph). Heavy, local population attacking peanuts in Atascosa County. (Texas Coop. Rpt.). UTAH - Some early local sweet corn on Provo market infested. (Knowlton).

ARMYWORM (Pseudaletia unipuncta) - WISCONSIN - Populations vary greatly within fields as well as between fields. Several thousand acres treated in Arlington area where light traps showed moth numbers greatest. (Wis. Ins. Sur.). MINNESOTA - Reported in southeast, southwest, east central, west central and northwest districts. Populations generally light, but locally high numbers reported. (Minn. Ins. Rpt.). NORTH DAKOTA - Larvae, one-fourth to one-half grown, taken in wheat in Stark County; counts 10-15 per 10 sweeps. (N. D. Ins. Sur.).

FALL ARMYWORM (Laphygma frugiperda) - COLORADO - Causing considerable damage to corn in Prowers County; recommended controls have not been effective. (Read). KANSAS - Considerable leaf-feeding damage noted in late corn in several fields in Riley County. All stages, early instars to almost full-grown larvae, present. From 12 to 15 percent of plants in infested fields show extensive feeding. (Burkhardt). MISSOURI - Light infestations in few late planted corn fields in southwest; less than 1 percent of plants infested. (Munson, Thomas, Wood). OKLAHOMA - About 50 percent of corn whorls infested in Perkins area, north central. Also observed "ragging" plants in Stillwater area. (Okla. Coop. Sur.).

BLACK CUTWORM (Agrotis ipsilon) - CALIFORNIA - Heavy on barley in Tulelake area of Siskiyou County; grain planted on game refuge. (Cal. Coop. Rpt.). KANSAS - Continued to damage some corn in Douglas County to extent that replanting was necessary by July 3. (Burkhardt). MISSOURI - Activity in northwest and north central areas ceased; larvae collected in northwest 90 percent parasitized. No reports of damage received. (Munson, Thomas, Wood).

BEE T ARMYWORM (Spodoptera exigua) - CALIFORNIA - Damaging sweet corn in Westminster area, Orange County. (Cal. Coop. Rpt.).

WHEAT HEAD ARMYWORM (Faronta diffusa) - COLORADO - Causing some damage to wheat in Kit Carson County; controls not needed; crop being harvested. (Croissant).

SORGHUM WEBWORM (Celama sorghiella) - TEXAS - Larvae 3-8 per 5 heads in grain sorghum in Brazos and Burleson Counties. (Randolph).

SOD WEBWORMS - SOUTH CAROLINA - Damaged many types of grasses at Clemson, especially Bermuda grass. (Alexander, Senn, June 11). VIRGINIA - Acrolophus sp. completely riddled a lawn in Richmond. (Tarpley, Davis, June 27). MARYLAND - Acrolophus sp. caused considerable injury to bluegrass lawn at Lexington Park, St. Marys County. (U. Md., Ent. Dept.).

CORN ROOTWORMS (Diabrotica spp.) - NEBRASKA - Pupation well underway in south-east. Adults emerging rapidly; some counts as high as 12-20 adults per plant. In northeast, about 75 percent entering pupal stage, with adult emergence just beginning. Damage continues in aldrin and heptachlor treated corn fields in all corn areas of State except panhandle area. (Roselle, Bergman).

NORTHERN CORN ROOTWORM (Diabrotica longicornis) - KANSAS - Development 88 percent pupae and adults, and 12 percent larvae in Douglas County on July 9; counts ranged 0-21 individuals per plant. (Burkhardt).

CORN FLEA BEETLE (Chaetocnema pulicaria) - DELAWARE - Adults becoming numerous on field corn throughout most of State. (Burbutis). MARYLAND - Moderate to heavy on corn in Frederick and Worcester Counties. (U. Md., Ent. Dept.).

NITIDULIDS - INDIANA - Glischrochilus fasciatus very abundant in silks of corn and tips of ears at Agronomy Farm, Lafayette. (Everly). WISCONSIN - Adults of Glischrochilus spp. becoming very common in tassels fed on by European corn borer in southwestern and western parts of State. Single Carpophilus lugubris observed on corn in Green County. (Wis. Ins. Sur.).

SORGHUM MIDGE (Contarinia sorghicola) - TEXAS - Damage to grain sorghum in Nueces County ranged from light to rather heavy. Later fields damaged up to 60 percent, while older grain sorghum escaped damage. (Garner, July 6). Few larvae being found in developing grain sorghum seed as adult activity continues to increase in Brazos and Burleson Counties. (Randolph). Light, local infestation in seeds noted in Medina County. (Garner).

CORN BLOTCH LEAF MINER (Agromyza parvicornis) - DELAWARE - Becoming very common in corn in Kent and Sussex Counties. (Burbutis).

HESSIAN FLY (Phytophaga destructor) - NORTH DAKOTA - "Flax-seeds" taken from Pembina wheat in Barnes County. (N. D. Ins. Sur.).

RICE STINK BUG (Oebalus pugnax pugnax) - ARKANSAS - Populations increased. Several fields in area of State being checked weekly. Average per 100 sweeps 42.8 adults and 27.3 nymphs, compared with 25 adults and 10 nymphs previous week. Percentage of nymphs 39, compared with approximately 29 previous week. All counts taken in fields with barnyard grass. Practically none present in fields with no barnyard grass; averaged 0.5 per 100 sweeps. One ricefield in Jefferson County with spangletop grass had 38 adults and 110 nymphs. Spangletop grass not controlled with herbicides currently being used for grass control in rice. Small numbers found in soybean fields, but only in fields with various grasses present. (Ark. Ins. Sur.).

A MIRID (Labops hesperius) - ARIZONA - Specimens collected in late May from intermediate wheatgrass near Sedona in Coconino County determined as this species. Infestation was heavy on one large ranch and considerable damage to grass occurred. This is first known recorded occurrence in State. (Ariz. Coop. Sur.).

A CHINCH BUG (Blissus leucopterus insularis) - TEXAS - Light, local infestations appearing in St. Augustine grass lawns in Denton County. (Turney, July 6). Continues a problem on St. Augustine grass in local areas in eastern one-third of State. Latest report from Denton County. (Newton, Turney).

CORN LEAF APHID (Rhopalosiphum maidis) - NEVADA - Heavy on barley in Lovelock area, Pershing County; many fields being treated. (Lauderdale, Snyder). UTAH - Scarce on barley and wheat in Millard, Juab and Summit Counties. (Knowlton). OKLAHOMA - Light on grain sorghum throughout southwest, west central, north central and east central areas. (Okla. Coop. Sur.). SOUTH DAKOTA - Found throughout southeastern and east central areas; ranged 5-20 per leaf. (Hintz).

NORTH DAKOTA - Counts 100 per linear foot in 24-36 inch corn in Logan and Eddy Counties. (N. D. Ins. Sur.). WISCONSIN - Few winged forms and few nymphs appearing on field corn in Prairie du Chien area of Crawford County. (Wis. Ins. Sur.). PENNSYLVANIA - Fairly heavy on sweet corn plantings in Erie County. (Adams).

ENGLISH GRAIN APHID (Macrosiphum granarium) - NEVADA - Light, spotted infestations on wheat in Lovelock area, Pershing County. (Lauderdale, Snyder). NORTH DAKOTA - Counts 150 per linear foot in oats in Logan County. (N. D. Ins. Sur.).

GREENBUG (Toxoptera graminum) - NORTH DAKOTA - Averaged 100 per linear foot on wheat in Foster County. (N. D. Ins. Sur.).

APHIDS - IDAHO - Abundant in barley fields in Idaho Falls area. Infestations extensive; some controls initiated. Barley still in boot stage, but to July 13 no yellow dwarf disease shown up. (Kohl).

BROWN WHEAT MITE (Petrobia latens) - CALIFORNIA - Causing severe damage to 1,800 acres of barley in Alturas area, Modoc County. A general infestation, with about 50 percent of barley affected. (Cal. Coop. Rpt.). UTAH - Light in Juab and Utah County wheat fields; present in barley. (Knowlton).

PEA APHID (Macrosiphum pisi) - IDAHO - Greatly increasing in most alfalfa hay and untreated alfalfa seed fields in southwest area. Most fields have full range of predators and parasites, but aphids outproducing natural enemies at present. Many seed fields being treated and hay fields being cut to offset heavy populations. Occasionally, numbers range up to one-fourth cup per sweep in hay stands where growth is succulent. (Waters). NEVADA - Heavy infestations on alfalfa declining in Lovelock area, Pershing County, due to predators and parasites. Highest counts 150-200 per sweep, with most fields far below this level. (Lauderdale, Snyder). UTAH - Moderately numerous throughout Millard, Summit and Juab Counties on alfalfa. (Knowlton). WYOMING - Light on alfalfa in Teton County; averaged 300 per 100 sweeps. Counts in Sublette County averaged 250 per 100 sweeps. (Fullerton). COLORADO - Populations very high on alfalfa in Mesa, Montrose, Delta and Garfield Counties; 10,000-25,000 per 100 sweeps. In Arkansas Valley, populations 2,000-20,000 per 100 sweeps. Where extremely high populations exist, it may be necessary to cut hay early and apply controls after cutting is removed from field. (Bulla, Schweissing). OKLAHOMA - Very light and scattered in alfalfa in south central and west central areas. (Okla. Coop. Sur.). KANSAS - Counts in alfalfa in south central and southwestern areas ranged from less than 5 to 75 per sweep. (Peters). SOUTH DAKOTA - Averaged 65 per 10 sweeps on alfalfa in southeastern area. (Hintz). NORTH DAKOTA - Continues active on alfalfa in La Moure County; 50 per sweep. (N. D. Ins. Sur.). ILLINOIS - Remains very light in clover and alfalfa; counts per 100 sweeps varied 60-120 in west and 0-760 in northwest. (Ill. Ins. Rpt.). MARYLAND - Increased slightly over previous week on alfalfa in Frederick and Montgomery Counties; highest count 25 per sweep. (U. Md., Ent. Dept.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Some of heaviest populations this season observed in areas of Tillman, Jackson, Kiowa, Washita and Caddo Counties (800-4,000 per 10 sweeps). Heavy infestations causing sticky foliage and could become a serious problem with continuance of hot, dry weather. Populations in south central and north central areas much lighter. (Okla. Coop. Sur.). KANSAS - Counts in alfalfa in south central and southwestern areas ranged from a trace to 40 per sweep. (Peters). MISSOURI - Building up in spots in southwest where rainfall has been light; counts as high as 20 per sweep in some fields, but averaged 6 per sweep. (Munson, Thomas, Wood). NEBRASKA - Populations in Howard County ranged 30-640 per 100 sweeps, approximately 65 percent winged forms. Counts in Buffalo County 75-100 per 100 sweeps, with Hall County counts 16 per 100 sweeps. Counts 1.5 per 50 sweeps in Dawson County. Field observations in Platte Valley, west of Dawson County, showed no populations present. (Hill). SOUTH DAKOTA - Found in Davison and Hutchinson Counties; northernmost penetration into

State during current season. Populations increased rapidly over previous week's counts. Average per 10 sweeps 5 in Bon Homme and Charles Mix Counties, 1 in Gregory County, 2.5 in Davison County and 6 in Hutchinson County. (Hintz). COLORADO - Low on alfalfa south of Swink in Otero County; counts 10-30 per 100 sweeps. Continued hot weather favorable for increase. Presently noneconomic. (Schweissing). NEW MEXICO - Generally light to medium throughout State, except in isolated cases where populations remain heavy. Beneficials generally heavy in alfalfa and controlling infestations. (N. M. Coop. Rpt.). NEVADA - None found in Lovelock area, Pershing County, alfalfa. (Lauderdale, Snyder).

SWEETCLOVER APHID (Therioaphis riehmii) - SOUTH DAKOTA - Counts 2 per 10 sweeps on sweetclover in Union County. (Hintz).

POTATO LEAFHOPPER (Empoasca fabae) - ILLINOIS - Causing very light to severe yellowing in 23 percent of alfalfa in an area bounded by Mississippi River and a line extended roughly from East St. Louis to Springfield to Gulfport (Henderson County). In one severely yellowed field in area, 60 adults and 188 nymphs per sweep found. In northwest, no yellowing observed and populations varied 0.5-13 adults and 0-3 nymphs per sweep. (Ill. Ins. Rpt.). WISCONSIN - Increasing rapidly on alfalfa and beans, particularly in some lighter soiled areas. Damage also appearing on second-crop red clover in Taylor County. Nymphs very common in many fields in western part of State and yellowing becoming evident in alfalfa. (Wis. Ins. Sur.). SOUTH DAKOTA - Ranged 1-3 per 10 sweeps in southeast and east central areas on alfalfa. (Hintz). MARYLAND - Injury noted in several fields over State; ranged 5-14 per sweep on alfalfa in Frederick and Howard Counties. (U. Md., Ent. Dept.). DELAWARE - Nymphs and adults present to fairly common on soybeans in eastern Kent and Sussex Counties. (Burbutis).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - TEXAS - Noticeable in Brazos and Burleson County alfalfa; counts 20-30 per 10 sweeps. (Randolph). ARKANSAS - Increased slightly on soybeans; averaged 3 adults and 5 nymphs per 30 feet of row. (Ark. Ins. Sur.). OKLAHOMA - Light, 15 per 10 sweeps, in alfalfa in Bryan County; only occasional specimen noted in southwest. (Okla. Coop. Sur.).

MEADOW SPITTLEBUG (Philaenus spumarius) - MARYLAND - Adults very abundant in alfalfa and red clover in Frederick and Howard Counties. (U. Md., Ent. Dept.). ILLINOIS - Adults per 100 sweeps varied 10-800 (averaged 448) in clover and alfalfa in northwest district. (Ill. Ins. Rpt.).

STINK BUGS - ARKANSAS - Euschistus servus and Acrosternum hilare continue present in majority of soybean fields checked; averaged approximately 1 per 30 feet of row. Nymphs hatched from about two-thirds of egg masses. (Ark. Ins. Sur.). OKLAHOMA - A. hilare light, 0-3 per 10 sweeps, in Frederick area. (Okla. Coop. Sur.). WYOMING - Chlorochroa sayi adults averaged 28 per 100 sweeps on alfalfa in Teton County. (Fullerton).

PLANT BUGS - DELAWARE - Adults and nymphs of Lygus lineolaris present to fairly common on soybeans in eastern Kent County. (Burbutis). ILLINOIS - Populations per 100 sweeps in clover and alfalfa, by district, averaged as follows: West - Adelphocoris lineolatus adults 10 and nymphs 113; A. rapidus adults 30 and nymphs 60; L. lineolaris adults 87 and nymphs 13. Northwest - A. lineolatus adults 3.3 and nymphs 200; A. rapidus adults 17 and nymphs 34; L. lineolaris adults 22 and nymphs 0. (Ill. Ins. Rpt.). SOUTH DAKOTA - A. lineolatus, A. rapidus and L. lineolaris increasing; counts ranged 10-75 per 10 sweeps on alfalfa in southeastern area. (Hintz). OKLAHOMA - L. lineolaris light in alfalfa in southwest and south central areas; counts considerably lower than earlier this season. (Okla. Coop. Sur.). NEW MEXICO - Medium to heavy infestations of Lygus spp. on seed alfalfa in Dona Ana, Chaves, Eddy and Socorro Counties. (N. M. Coop. Rpt.). UTAH - Lygus spp. adults and nymphs very abundant on alfalfa in Mona-Levan area of Juab County. (Knowlton). Several species of plant bugs numerous on timothy and pasture-mix grasses in several Summit and Wasatch County localities. (Knowlton, Moore). WYOMING - Adults of

Lygus spp. averaged 12 per 100 sweeps in alfalfa in Teton and Sublette Counties; only an occasional nymph found. (Fullerton). CALIFORNIA - Immatures, possibly Lygus sp., heavy on barley in Tulelake area, Siskiyou County. (Cal. Coop. Rpt.).

ALFALFA LOOPER (Autographa californica) - NEVADA - Light to medium, general infestations on alfalfa in Elko and northern Eureka Counties. (Menke). Larvae in Reese River Valley, Lander County, heavily parasitized by tachinids and also being killed by a bacteria or virus. (Bechtel, Parker). UTAH - Common but moderate in Summit County alfalfa; 1 per 5 sweeps. Spottedly more numerous in some eastern Millard County alfalfa. (Knowlton). WYOMING - Larvae averaged 40-50 per 100 sweeps in alfalfa in Teton and Sublette Counties. (Fullerton).

ALFALFA CATERPILLAR (Colias eurytheme) - OKLAHOMA - Adults numerous in alfalfa and along roadsides throughout southwest and west central areas. Larvae light in Frederick and Hollister areas, 3 and 4 per 10 sweeps, respectively. (Okla. Coop. Sur.). SOUTH DAKOTA - Averaged 3 per 10 sweeps on alfalfa in Yankton County. (Hintz). ILLINOIS - Larvae, per 100 sweeps, vary 20-40 (average 30) in clover and alfalfa in west district and 10-60 (average 25) in northwest district. Diseased and parasitized larvae common. (Ill. Ins. Rpt.). MARYLAND - Averaged 1 per 5 sweeps on alfalfa in Frederick County. (U. Md., Ent. Dept.).

GREEN CLOVERWORM (Plathypena scabra) - MARYLAND - Larvae light on alfalfa in Frederick County. (U. Md., Ent. Dept.). ARKANSAS - Counts decreased considerably from previous week on soybeans; averaged about 1 per 30 feet of row. (Ark. Ins. Sur.). OKLAHOMA - Light, 0-4 per 10 sweeps, on alfalfa in Tipton area. Counts 1 per 10 sweeps in Bryan County. (Okla. Coop. Sur.).

GRANULATE CUTWORM (Feltia subterranea) - GEORGIA - Light to moderate damage to peanuts noted in southern area. (Johnson). Damage to peanuts severe in Houston County. (Allmond).

WEBWORMS (Loxostege spp.) - KANSAS - Counts in alfalfa in south central and southwest areas ranged 0-200 per 100 sweeps. (Peters). OKLAHOMA - Light webbing by Loxostege sp., probably similalis, observed in alfalfa in southwest and west central areas; counts up to 4 per 10 sweeps. Heavy counts reported damaging soybeans in Vinita area, Craig County; controls initiated. Light, 5 per 10 sweeps, in Bryan County, south central area. (Okla. Coop. Sur.).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Feeding injury on soybeans rather conspicuous in many areas of State. (Burbutis). MARYLAND - Adults causing spotty but conspicuous foliage injury to soybeans on Eastern Shore. (U. Md., Ent. Dept.). PENNSYLVANIA - Very heavy infestation on 3-inch high corn in Lebanon County on June 29. (Sleesman, Balsbaugh). This species and Cotinis nitida, at ratio of 1 to 5, destroyed pasture in Lawrence County. Skunks rooting heavily. Grubs and adults present. (Adams, June 5).

BEAN LEAF BEETLE (Cerotoma trifurcata) - ARKANSAS - Counts remain rather low in soybeans; averaged 1.5 adults per 30 feet of row. Few fields with high counts previous weeks had reduced numbers. (Ark. Ins. Sur.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - SOUTH CAROLINA - Some controls applied to soybeans in Allendale County. (Nettles et al., July 11).

PALE-STRIPED FLEA BEETLE (Systema blanda) - DELAWARE - Adults present on soybeans in eastern Kent County. (Burbutis).

A CHRYSOMELID (Maecolaspis sp.) - ARKANSAS - Counts decreased on soybeans. (Ark. Ins. Sur.).

BLISTER BEETLES (Epicauta spp.) - OKLAHOMA - Epicauta sp. medium on soybeans in Mayes County, northeast. Several species active but light in alfalfa in southwest. (Okla. Coop. Sur.). SOUTH DAKOTA - E. fabricii generally distributed throughout southeast one-fourth of State on alfalfa; ranged 1-3 per 10 sweeps. (Hintz).

ALFALFA WEEVIL (Hypera postica) - WYOMING - Considerable larval activity on alfalfa in Teton County in fields where spring treatments not applied; counts averaged 368 per 100 sweeps. Counts on National Elk Refuge averaged 1,180 per 100 sweeps where controls not applied. (Fullerton). UTAH - Damage in western Millard County most severe in past 10 years. (Knowlton, Ogden). Larvae remain common in alfalfa throughout State; occasionally still holding back second growth. A few old adults still surviving from last winter. (Knowlton).

CLOVER ROOT CURCULIO (Sitona hispidula) - IDAHO - Rather large migration of adults occurred July 5-10 in Parma area. Adults observed crawling over bare ground quite some distance from nearest legume plantings; counts ranged up to 1 per square foot. (Waters).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - SOUTH DAKOTA - Counts 9 per 10 sweeps on sweetclover in Union County. (Hintz).

THRIPS - OKLAHOMA - Frankliniella sp. light on peanuts in Bryan County, south central, and Caddo County, west central, areas. (Okla. Coop. Sur.). UTAH - Numerous in alfalfa blossoms in Delta-Fillmore areas of Millard County; largely F. occidentalis. (Knowlton). DELAWARE - Sericothrips variabilis decreased slightly on soybeans in most areas; averaged 2-4 per leaf. (Burbutis).

CLOVER APHID (Anuraphis bakeri) - IDAHO - Increasing in red clover seed fields; treatments applied. Aphids present in all fields. (Waters).

STRAWBERRY SPIDER MITE (Tetranychus atlanticus) - MARYLAND - Infestations increasing on soybeans in 4 Eastern Shore counties; some growers applying miticides. (U. Md., Ent. Dept.). DELAWARE - Mites, probably this species, rather numerous in soybeanfield in northeast Sussex County. (Burbutis).

CRICKETS - MINNESOTA - Hatching out in western edge of State. Some boll clipping of flax reported in Polk County. (Minn. Ins. Rpt.).

FRUIT INSECTS

ORCHARD MITES - INDIANA - Control of orchard mites continues major problem in apple orchards in Vincennes area of Knox County; at least 50 percent of orchards need protection. (Hamilton, July 10). MICHIGAN - Infestations of Panonychus ulmi and Tetranychus telarius intensive in some orchards; several orchards showing serious bronzing in Sparta area. (Guyer, July 2). NEW YORK - P. ulmi building up in Orleans County and extremely serious in Monroe County. (N. Y. Wkly. Rpt., July 9). CONNECTICUT - P. ulmi increase general; also T. telarius reported from scattered localities. (Savos, July 10). NEW JERSEY - P. ulmi continues a problem in some apple orchards in southern and central areas. (Ins.-Dis.-Weed Newsltr., July 10). PENNSYLVANIA - P. ulmi population increased rapidly on apples in south central area. Several orchards with trees showing bronzing. (Pepper). P. ulmi severe on peaches in Huntingdon County; trees showing injury. (Udine). T. telarius just beginning to appear on apples in south central area. (Pepper). MARYLAND - Heavy numbers of P. ulmi causing noticeable bronzing of some apple tree foliage in orchards in Hancock area. Prolonged hot and dry weather favorable for the buildup. (U. Md., Ent. Dept.). MISSOURI - Eggs of T. telarius noted in central area apple orchards and few P. ulmi and T. telarius reported in northwest and west central areas. In southeast, P. ulmi and T. canadensis light. (Wkly. Rpt. Fr. Grs.). COLORADO - T. telarius increasing on cover crops in orchards in Garfield, Delta and Mesa Counties; use of miticides should be considered in future cover treatments. (Bulla).

APPLE MAGGOT (Rhagoletis pomonella) - MINNESOTA - Adults found in all southern orchards. Early emergence appears light at present, but normally 1 or 2 peaks of heavy emergence can be expected late in July or in August. Controls recommended. (Minn. Ins. Rpt.). WISCONSIN - Total of 19 adults caught on "sticky board"

trap in Winnebago County July 4-9. (Wis. Ins. Sur.). MICHIGAN - Adults at peak in Kalamazoo area and generally abundant in untreated trees. (Guyer, July 2). NEW YORK - Emergence declined steadily; since July 3, males more abundant than females in eastern area. True peak apparently not reached; abnormal emergence probably due to extended drought. (N. Y. Wkly. Rpt., July 9). CONNECTICUT - Emergence decreased, probably due to dryness; expected to increase sharply after first good rain. (Savos, July 10). VERMONT - Adults observed at Cornwall, Addison County. (MacCollom).

A CHERRY FRUIT FLY (Rhagoletis cingulata indifferens) - CALIFORNIA - Light to medium populations taken in Frick trap in Mt. Shasta area for first time this season. (Cal. Coop. Rpt.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - CONNECTICUT - Second-generation adults active in New Haven; peaches need protecting. A major problem only in 2 or 3 scattered localities to date. (Savos, July 10). NEW YORK - Second-brood entries observed in fruit in several eastern area counties; populations building up in several areas. (N. Y. Wkly. Rpt., July 9). PENNSYLVANIA - Almost full-grown larvae found on untreated peach trees in York County. (Pepper). MARYLAND - Larvae caused heavy damage to peaches at Baltimore. (U. Md., Ent. Dept.). INDIANA - Few adults coming to bait traps in Vincennes area of Knox County, indicating that third-brood larval activity started. (Hamilton, July 10). MISSOURI - No new entries reported, but new brood due in southeast. (Wkly. Rpt. Fr. Grs.).

CODLING MOTH (Carpocapsa pomonella) - VERMONT - Last instar of first brood almost ready to leave fruit in untreated orchard in Shoreham, Addison County. (MacCollom). INDIANA - Second-brood entries continue to be found in Vincennes area, Knox County, but populations remain extremely light in most orchards. (Hamilton, July 10). Second-brood entries reached peak in south central counties; attack expected to subside over long period. (Marshall, July 10). MISSOURI - New entries still noted in southeast; controls appear exceptionally good elsewhere. (Wkly. Rpt. Fr. Grs.). CALIFORNIA - Medium larval infestation in pear fruit in Princeton, Colusa County. (Cal. Coop. Rpt.).

PEACH TREE BORER (Sanninoidea exitiosa) - NEW YORK - Eggs deposited on June 18 at Geneva hatched on July 1; larval appearance about two weeks earlier than usual. Two trunk treatments recommended for 1962 in western area. (N. Y. Wkly. Rpt., July 9). COLORADO - Adults active in Mesa and Delta Counties. (Bulla).

LESSER PEACH TREE BORER (Synanthedon pictipes) - MICHIGAN - Adults active and winter injury appears to provide ideal source for larval infestations. (Guyer, July 2).

PEACH TWIG BORER (Anarsia lineatella) - COLORADO - Moths of second generation started to emerge in Mesa and Delta Counties. Treatments should be applied where earlier controls not obtained; precautions of spray tolerances on apricots and early peaches should be followed. (Bulla).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - MISSOURI - Newly full-grown larvae found on untreated young trees in central area on July 11, and few young larvae reported attacking stem end of apples in northwest. (Wkly. Rpt. Fr. Grs.). MICHIGAN - Second-brood larvae active. (Guyer, July 2). PENNSYLVANIA - Up to 55 adults per trap in Erie County, northeast area, on July 10. Grapes may need an additional treatment. (Cox). MARYLAND - Second-brood larvae present but light on apples in Hancock area. (U. Md., Ent. Dept.).

APPLE APHID (Aphis pomi) - WISCONSIN - A problem on apple in Walworth, Iron, Rusk and Door Counties; heavy on some trees in Door County. (Wis. Ins. Sur.). MICHIGAN - Common on water sprouts in all fruit-growing areas. (Guyer, July 2). CONNECTICUT - Continues to build up on sucker growth over most of State. (Savos, July 10).

WOOLLY APPLE APHID (Eriosoma lanigerum) - NEVADA - Heavy infestation on apples in Lovelock area, Pershing County. (Lauderdale, Snyder).

AN APHID (Anuraphis helichrysi) - IDAHO - Seriously injuring plum trees in Caribou County. (Gittins, July 6).

ITALIAN PEAR SCALE (Epidiaspis piricola) - CALIFORNIA - Medium local infestation on apple trees in Nevada City, Nevada County, and heavy on plums in Grimes, Colusa County. (Cal. Coop. Rpt.).

SAN JOSE SCALE (Aspidiotus perniciosus) - OREGON - Hatched in Medford area pear and apple orchards in early July; many settled down by July 10. (Berry).

PEAR PSYLLA (Psylla pyricola) - OREGON - Abundant and requiring controls in Polk and Marion County pear orchards. (Stephenson).

BUFFALO TREEHOPPER (Stictocephala bupalus) - VERMONT - First adults found July 11. (MacCollom).

PEAR-SLUG (Caliroa cerasi) - NEVADA - Heavy infestations on cherry, pear and plum in Reno, Washoe County; Dayton, Lyon County; and Carson City, Ormsby County. (Bechtel, Lauderdale, Weaver).

A BARK BEETLE (Scolytus mali) - OHIO - Found at Seville, Medina County, breeding in trunk and limbs of dying apple tree from which numerous adults emerged during June. First known occurrence of this species in the State. (Griswold).

OLIVE SCALE (Parlatoria oleae) - CALIFORNIA - Medium populations on olive trees in Murray, Kings County. (Cal. Coop. Rpt.).

A LEAF ROLL MITE (Aceria granati) - CALIFORNIA - Occurring on pomegranate trees in Palo Alto, Santa Clara County. (Cal. Coop. Rpt.).

FILBERTWORM (Melissopus latiferreanus) - OREGON - First emergence of adults occurred in Lane and Benton Counties on July 12. (Jones).

A LEAF ROLLER (Archips rosana) - OREGON - Adults abundant in Willamette Valley blacklight trap collection. (Larson, July 10).

Citrus Insect Forecast in Florida - July through September 1962 - CITRUS RUST

MITE (Phyllocoptruta oleivora) will tend to increase rapidly through August, then decline. Because most infestations in late June were lighter than usual, summer treatments should be effective in holding rust mite populations at low levels. Some groves are expected to develop heavy infestations after mid-August. TEXAS CITRUS MITE (Eutetranychus banksi) - A rapid decrease will occur after mid-July. Only scattered groves will have heavy infestations. CITRUS RED MITE (Panonychus citri) population will be below average. Light infestations of PURPLE SCALE (Lepidosaphes beckii) and FLORIDA RED SCALE (Chrysomphalus aonidum) will occur in most groves. BLACK SCALE (Saissetia oleae) will continue to be above average abundance until mid-August, then decline. Although a new generation of crawlers will appear in late July, most infestations will be unimportant. GLOVER SCALE (Lepidosaphes gloverii) will continue to be above average abundance and will increase in September. Heavy infestations on inside fruit, leaves and branches may be expected in scattered groves. CHAFF SCALE (Parlatoria pergandii) will be more numerous than usual. Increased infestations of fruit will be noted in September. NOTE - The outlook given here is based on the assumption that weather beyond the period of the current U. S. Weather Bureau's 30-day Outlook will be normal. Departures from these normal conditions may affect citrus insect and mite populations directly or indirectly in a number of ways. Therefore, the forecast above should not be viewed with the same degree of confidence as the "Citrus Insect Situation" reports published twice each month in the Cooperative Economic Insect Report. (W. A. Simanton, July 9).

GRAPE ROOT BORER (Vitacea polistiformis) - MISSOURI - First adult taken in Steelville area on July 9; 2 additional species taken on July 11. (Wkly. Rpt. Fr. Grs.).

A GALL MIDGE (Cecidomyia viticola) - PENNSYLVANIA - Galls on number of grape leaves in south central area; very heavy on infested leaves. (Udine, July 6).

A CICADA (Diceroprocta apache) - CALIFORNIA - Adults heavy on grapevines in Borrego Springs, San Diego County. (Cal. Coop. Rpt.).

RHODODENDRON BORER (Ramosia rhododendri) - MICHIGAN - Adults continue to emerge in blueberry plantations in Kent County. (Guyer, July 2).

TRUCK CROP INSECTS

DIAMONDBACK MOTH (Plutella maculipennis) - IDAHO - Larvae abundant in peafield in Moscow area, Latah County; extensive leaf injury occurred throughout field. Pupation now general. (Manis). UTAH - Adults and larvae much less numerous on wild mustards than during May and June. (Knowlton). NORTH DAKOTA - Infestation observed on cultivated mustard in Pierce County; averaged 10 per sweep. (N. D. Ins. Sur.). MARYLAND - Severe on home plantings of cabbage and turnips at Quantico, Wicomico County. (U. Md., Ent. Dept.).

TOMATO FRUITWORM (Heliothis zea) - DELAWARE - Injury common in tomatoes in some large fields in New Castle County; most larvae full grown and rather scarce. (Burbutis). CALIFORNIA - Light in plantings of blackeye peas in Caruthers, Fresno County. (Cal. Coop. Rpt.).

CABBAGE LOOPER (Trichoplusia ni) - MARYLAND - Larvae light on commercial tomatoes in Worcester County. (U. Md., Ent. Dept.). NORTH CAROLINA - Damaging garden cabbage in Wilson County, but not as numerous as imported cabbageworm. (Mount).

CROSS-STRIPED CABBAGEWORM (Evergestis rimosalis) - NORTH CAROLINA - Found in only 1 of 6 gardens examined in Wilson County; only small numbers present. (Mount).

EUROPEAN CORN BORER (Ostrinia nubilalis) - MARYLAND - No entries in peppers to July 13 in Worcester County. (U. Md., Ent. Dept.). PENNSYLVANIA - Infesting stalks of rhubarb in Bedford County. (Udine, July 2).

FLEA BEETLES - VERMONT - Injuring tomatoes in home gardens. (MacCollom). DELAWARE - Common in field of watermelons in southern Sussex County. (Burbutis). NORTH DAKOTA - Adults abundant on cultivated mustard in Pierce County; averaged 5 per sweep. (N. D. Ins. Sur.).

A STRIPED BLISTER BEETLE (Epicauta sp.) - TEXAS - Spotted, heavy populations causing concern in home vegetable gardens locally in Jefferson County. (Texas Coop. Rpt., July 6).

GREEN PEACH APHID (Myzus persicae) - DELAWARE - Common on peppers and infesting squash in Kent County. (Burbutis). MARYLAND - Light to moderate on commercial peppers and tomatoes in Worcester County. (U. Md., Ent. Dept.). COLORADO - Populations showed slight increase on early potatoes during past week in Weld County. Populations on late potatoes remain at same level as previously reported; numbers reduced in many fields due to controls. Rapid increase usually occurs during late July and reaches peak late in August; control schedules should be followed closely where potatoes being produced for seed production. (Simpson, Berry). UTAH - More numerous on potatoes and tomatoes throughout State than during 1961. (Knowlton). IDAHO - Populations generally low in southeastern area. (Gittins, July 6).

APHIDS - RHODE ISLAND - Populations building up in some Washington County fields. (Kerr). CONNECTICUT - Populations variable, but have been building up on some crops. (Savos, July 10). NEW YORK - Heavy in untreated crucifer seed beds and on many other crops in Suffolk County. (N. Y. Wkly. Rpt., July 9). INDIANA - Infesting watermelons in some fields in Vincennes area, Knox County. (Klinker, Hamilton, July 10).

POTATO LEAFHOPPER (Empoasca fabae) - VERMONT - Prevalent on beans and potatoes. (MacCollom). NEW YORK - Second-generation nymphs hatching in sufficient numbers to cause considerable injury; beans should be treated. (N. Y. Wkly. Rpt., July 9). PENNSYLVANIA - Averaged 1 per 6 sweeps on potatoes in Erie County. "Hopperburn" appearing in field of untreated potatoes in same county. (Adams). WISCONSIN - Counts remain high on lima beans in Rock and Trempealeau Counties; 3 per plant not uncommon. Populations in field in Trempealeau County were as high 3 days after treatment as before. (Wis. Ins. Sur.).

TARNISHED PLANT BUG (Lygus lineolaris) - NEW YORK - Especially numerous on beans and causing considerable blossom drop. Growers advised to treat if beans coming into blossom July 9-20. (N. Y. Wkly. Rpt., July 9). PENNSYLVANIA - Averaged 1 per 5 sweeps in potatoes in Erie County; some injury noted. (Adams).

WHITEFLIES - CONNECTICUT - Numbers have been building up on vegetable crops during recent dry spell; present on squash, cucumbers, melons and tomatoes. (Savos, July 10).

MITES - TEXAS - Heavy, widespread populations of undetermined species attacking tomatoes, southern peas, beans and cucurbits in Mason County. (Garrett, July 6). MARYLAND - Tetranychus sp. causing conspicuous foliage injury to several fields of lima beans and watermelons in Wicomico County. (U. Md., Ent. Dept.).

FLEA BEETLES (Epitrix spp.) - IDAHO - E. subcrinita abundant in Butte and Custer County potato fields. (Gittins, July 6). UTAH - E. cucumeris caused light to moderate damage in most potato and tomato fields examined in Box Elder, Weber, Davis, Salt Lake, Utah, Millard and Summit Counties. (Knowlton). MARYLAND - E. hirtipennis light to moderate on peppers in Worcester and Wicomico Counties. (U. Md., Ent. Dept.).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - IDAHO - Adults and eggs abundant in potato fields throughout upper Snake River Valley. (Gittins, July 6). DELAWARE - Adults and larvae very heavy on potatoes on small truck farm in southern Sussex County. (Burbutis).

WIREWORMS - IDAHO - Undetermined species infesting potato seed pieces in several Bingham County fields. (Gittins, July 6).

POTATO APHID (Macrosiphum euphorbiae) - DELAWARE - Few nymphs on most tomato plants in area of New Castle County; heavy on few plants. (Burbutis). MARYLAND - Light to moderate on commercial potatoes in Worcester County. (U. Md., Ent. Dept.). PENNSYLVANIA - Heavy in one field of potatoes in Erie County; trace numbers present in other fields. (Adams).

AN APHID (Trifidaphis radicolata) - CALIFORNIA - Immatures and adults, probably this species, medium on tomato roots in commercial plantings at Rio Vista, Solano County. (Cal. Coop. Rpt.).

Potato Aphids in Maine - Aphids continue scarcer than usual for this time of season in vicinity of Presque Isle, but substantial increases recorded in some fields, both in numbers and percent of plants infested. POTATO APHID (Macrosiphum euphorbiae) and BUCKTHORN APHID (Aphis nasturtii) present in about equal abundance; FOXGLOVE APHID (Myzus solani) very scarce. First infestations of GREEN PEACH APHID (Myzus persicae) of season found in 2 fields on Aroostook Farm. (Shands et al.).

POTATO PSYLLID (Paratrioza cockerelli) - NEBRASKA - Ranged 8-96 per sweep on Lycium halimifolium, culls and early potatoes in Scotts Bluff County. (Hagen). UTAH - Potatoes in home gardens in Logan, Cache County, show severe psyllid yellows, although nymphal numbers reduced 98 percent without controls. Nymphs scarce in potato and tomato fields in Millard and Summit Counties. (Knowlton).

HORNWORMS (Protoparce spp.) - UTAH - Defoliating many tomato plants in 2 fields at Oak City, Millard County. (Knowlton). DELAWARE - Eggs present on tomatoes in New Castle County. (Burbutis).

STALK BORER (Papaipema nebris) - RHODE ISLAND - Infesting tomatoes in Cranston, Providence County. (Mathewson, King).

LEAF MINERS - TEXAS - Heavy, spotted populations of undetermined species, requiring controls, present in tomato fields in Cameron County. (Texas Coop. Rpt., Day, July 6).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - DELAWARE - Adults common in large field of pumpkin squash in eastern Kent County, causing rather heavy injury in spots. (Burbutis). COLORADO - Populations low on cantaloup in Bent, Otero and Pueblo Counties. (Schweissing).

THRIPS - DELAWARE - Undetermined species very common and causing considerable injury to young pumpkin squash plants in area of eastern Kent County. (Burbutis).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - INDIANA - Damaging watermelons in locations in Vincennes area, Knox County. (Klinker, Hamilton, July 10).

IMPORTED CABBAGEWORM (Pieris rapae) - MICHIGAN - Larvae extremely abundant on all crucifers. Populations the most extensive observed in past 25 years over entire State. (Guyer, July 2). NEW YORK - Building up in some cabbage fields in Onondaga County area. (N. Y. Wkly. Rpt., July 9). MARYLAND - Heavy on moderate-size cabbage planting at Quantico, Wicomico County. (U. Md., Ent. Dept.). NORTH CAROLINA - Larvae abundant in abandoned field of cabbage near Faison, Duplin County; all larval stages present. Also quite abundant and causing considerable damage to garden cabbage in Wilson County. (Mount).

STRIPED FLEA BEETLE (Phyllotreta striolata) - OHIO - Light to moderate and damaging cabbage in Wayne County. (Sleesman).

MEXICAN BEAN BEETLE (Epilachna varivestis) - DELAWARE - Larvae heavy on beans in several fields, especially in eastern Sussex County. (Burbutis, Kelsey).

MICHIGAN - Larvae generally abundant; active on snap beans and on some field beans in central area. (Guyer, July 2). COLORADO - Adults light on beans in many areas. No eggs or larvae found on beans in Montrose, Otero, Crowley and Pueblo Counties. (Schweissing, Bulla). UTAH - Damage common in home gardens in northern and some central area communities. (Knowlton).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MARYLAND - Caused moderate foliage injury to large acreage of lima beans in Wicomico County. (U. Md., Ent. Dept.).

BEAN APHID (Aphis fabae) - DELAWARE - Nymphs present on lima beans in New Castle and eastern Kent Counties. (Burbutis).

PEA APHID (Macrosiphum pisi) - UTAH - Ranged light to moderate on canning peas in northern and central areas this season. (Knowlton).

BEET LEAFHOPPER (Circulifer tenellus) - COLORADO - Light, 1-2 per 100 sweeps, on sugar beets in Montrose County. Incidence of curly top ranges 1-5 percent. (Bulla). UTAH - Averaged 1 per 15 sweeps on radishes at Nephi, Juab County. (Knowlton).

ONION THRIPS (Thrips tabaci) - COLORADO - Populations increasing; controls being applied. Range 5-50 per plant in Otero, Crowley and Pueblo Counties; 15-20 per plant in Montrose County. (Schweissing, Bulla).

ONION MAGGOT (Hylemya antiqua) - IDAHO - Infesting onions in all gardens checked in Grace, Caribou County. In most instances, owners reportedly used one of several chlorinated hydrocarbons as preplant soil treatment. (Gittins, July 6).

WHEAT CURL MITE (Aceria tulipae) - CALIFORNIA - Medium on garlic plants locally in Santa Clara County. (Cal. Coop. Rpt.).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - MICHIGAN - Generally abundant; aster yellows as high as 15 percent on lettuce in Newaygo County area. (Guyer, July 2).

EUROPEAN EARWIG (Forficula auricularia) - UTAH - Damaged raspberry foliage at Woodland and Coalville, Summit County. (Knowlton).

CYCLAMEN MITE (Steneotarsonemus pallidus) - MINNESOTA - Heavy on June-bearing strawberries at Duluth, St. Louis County. (Minn. Ins. Rpt.).

TOBACCO INSECTS

GREEN PEACH APHID (Myzus persicae) - MARYLAND - Several threatening infestations occurring on tobacco in St. Marys County. Treatment underway. (U. Md., Ent. Dept.).

APHIDS - NORTH CAROLINA - Undetermined species present on tobacco in Robeson, Columbus, Pender and Wilson Counties; numbers not great at present. (Mount).

TOBACCO BUDWORM (Heliothis virescens) - GEORGIA - Light to moderate infestations on tobacco in several southern counties. (Johnson). VIRGINIA - Local, severe infestation of this species and cutworms on tobacco in Lee County; 50 percent of buds destroyed. (Tarpley, Lyle, June 27). MARYLAND - Infestations increasing on tobacco generally in St. Marys County. (U. Md., Ent. Dept.).

CABBAGE LOOPER (Trichoplusia ni) - NORTH CAROLINA - Caused some damage to field of tobacco in southwest part of Wayne County; mostly pupae at present. Considerable cabbage damaged in area. (Rabb).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - MARYLAND - Larvae caused heavy injury to tobacco at Sandgates, St. Marys County. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - More abundant in southern Columbus County than in other areas observed; however, damage slight. (Mount).

GRASSHOPPERS - WISCONSIN - Counts 20-30 per square yard in grass margins of tobacco fields in Crawford County; some feeding on crop has commenced. Species predominantly Melanoplus femurrubrum. (Wis. Ins. Sur.).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - SOUTH CAROLINA - Emergence of overwintered weevils completed. First-generation weevils increasing rapidly in Coastal Plain and underway in many Piedmont fields. Infestations in untreated fields dangerously high. Percent infested squares 37.1 in untreated fields and 8.7 in treated fields. (Cott. Ltr., July 9). First-generation weevils increasing in all fields examined in Florence area. Infestations will be increasing in treated fields

and increasing rapidly in untreated fields. Larval infestation ranged 2-19 percent in treated fields and 8-15 percent in untreated fields. (Taft et al., July 11). GEORGIA - Counts made in 140 middle and southern area cotton fields. Percent punctured squares ranged 1-49 and averaged 10. (Johnson et al.). ALABAMA - Infestation less than 10 percent in Colbert, Fayette and Pickens Counties. Major emergence of new generation expected in area by July 23. Average infestation for State below normal for time of year. (Buttram). MISSISSIPPI - Hot, dry weather and effective treatments reduced infestations generally in delta counties. Heavy fruiting of cotton further reduced apparent number of weevils. Some localized "hot spots" still causing concern, but infestations generally low. (Merkl et al.). LOUISIANA - Infestations generally light in Tallulah area, but increased considerably in some fields. Highest percent square infestation 16 in treated fields, but in several untreated fields infestations above 25 percent, with one field being as high as 53 percent. (Smith et al.). TENNESSEE - Scattered showers throughout regularly weevil-infested portion of western area causing varying conditions in weevil infestations. Some weevil mortality noted in some dryer sections. Some first-generation weevils emerging and expected to peak latter part of week ending July 20. Percent infested squares dropped to 19 compared with 23 previous week. Controls recommended at regular intervals. (Locke). ARKANSAS - First-generation emergence underway in most cotton, and second generation present in early planted cotton in southeast; 75 percent of fields scouted have weevils present compared with 71.2 percent previous week. Number of punctured squares per acre ranged 0-108,917 in southeast, 0-125,000 in central, 0-52,280 in upper Arkansas River Valley, 0-54,900 in northeast and 0-52,280 in southwest. Infestations on increase; fields in danger zone 703 compared with 267 previous week; around 1,700 fields expected to be in danger zone week ending July 20. (Cott. Ins. Rpt.). MISSOURI - Only 6 of 1,177 fields scouted infested; percent punctured squares ranged 0-5, (French). OKLAHOMA - Light to heavy populations present in scattered areas of State. Activity expected to start in all cotton-producing areas by July 27. Percent infested squares ranged 0-33 in southwest, 1-33 in south central, 15-45 in east central and light in parts of north central. Some controls started in localized areas. (Okla. Coop. Sur.). TEXAS - Populations still considered relatively light in all areas. Infestation continues to increase at steady rate, particularly in coastal and south central areas. Severe weevil pressure experienced during last few weeks in lower Rio Grande Valley, but cotton maturing rapidly. (Texas Coop. Rpt., July 6). Beginning to move from maturing cotton to younger cotton in lower Rio Grande Valley. Other areas experiencing heavy buildups and controls being applied in all areas of State. (Newton). In McLennan and Falls Counties, activity of new-generation adults evident in many fields. Infestation becoming saturated in many fields which received no late treatment or in which regular schedule of treatments not maintained. Punctured squares averaged 21.1 percent in late-treated fields and 63.5 percent in untreated fields. (Cowan et al.). NEW MEXICO - Surveys conducted in southern Dona Ana County negative. (N. M. Coop. Rpt.).

BOLLWORMS (*Heliothis* spp., et al.) - SOUTH CAROLINA - Reported to be more of a problem in many fields than boll weevil. (Cott. Ltr., July 9). Infestation counts now on decline in Florence area after several weeks of severe damage in some fields. Percent larval infestation ranged 0-2 in treated fields and 3-5 in untreated fields. (Taft et al., July 11). GEORGIA - Counts per 100 terminals made in 140 middle and southern area cotton fields. Eggs ranged 0-32 and averaged 5 and larvae ranged 0-24 and averaged 2. (Johnson et al.). ALABAMA - Populations subsided but some spotty infestations reported; however, none are alarming. (Buttram). MISSISSIPPI - Light trap catches of moths very low in delta counties. Field counts extremely low; presently between broods. Increase in moth activity expected week ending July 20. (Merkl et al.). LOUISIANA - In Tallulah area, egg and larval terminal counts remained low and percentage of damaged squares light. Infestation counts differed little between treated and untreated fields. (Smith et al.). TENNESSEE - Infestations continue spotty and pests causing some damage over cotton-growing section of western area. Some small boll damage occurring. Heavier infestations in weevil-infested area. (Locke).

ARKANSAS - Activity increased slightly statewide; increased in northern area, but lighter in southern area. Infestation levels expected to edge upwards week of July 22. (Cott. Ins. Rpt.). MISSOURI - Of 1,177 fields scouted, 62 infested, with 0-3 larvae and 0-1 egg per 100 terminals. (French). OKLAHOMA - Light in southwest and south central areas. All larvae small, but activity expected to increase. (Okla. Coop. Sur.). TEXAS - Generally light in most areas of State, with few fields in all areas supporting moderate infestations and increasing numbers of eggs. Reports from Polk, Kaufman, Wharton and Milam Counties indicate moderate numbers of larvae present, with increased numbers of eggs. (Texas Coop. Rpt., July 6). Heavy buildups and increased egg deposition occurring over most of State. Next 10 days will be a very critical period for bollworm control. (Newton). Collections of bollworms over State indicate that H. virescens comprises up to 25 percent of cotton bollworm-tobacco budworm complex, except in far western areas where none have been collected to July 13. (Brazzel). Infestations increased in McLennan and Falls Counties. Eggs averaged 8.6 and larvae 6 per 100 terminals in 53 fields. Square injury averaged 3.6 percent in same fields and boll injury 5.6 percent in 52 fields. Collection of moths in light trap heaviest of season. (Cowan et al.). ARIZONA - Infestations not increasing in most areas and apparently declining in some fields; probably between generations. (Ariz. Coop. Sur.). CALIFORNIA - Generally light in El Centro area, Imperial County, and low in Bakersfield area, Kern County. (Roth, Black, July 10).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Survey in San Patricio and Nueces Counties indicated rather severe infestations in certain areas; infested bolls ranged 0-40 percent. Other counties in area may also have economic infestations. (Cott. Ins. Sit., July 9).

CABBAGE LOOPER (Trichoplusia ni) - NORTH CAROLINA - Caused very slight damage to several fields in southwest part of Wayne County. Larvae in late instars or pupating. Infestation highly local, probably because of considerable amount of cabbage grown in areas. (Mount). GEORGIA - Light to moderate infestations on cotton in 140 middle and southern area fields examined. (Johnson et al.). TEXAS - Few scattered infestations in lower Rio Grande Valley requiring controls. (Cott. Ins. Sit., July 9). NEW MEXICO - Present in most cotton fields in state; however, all populations light or of minor importance. (N. M. Coop. Rpt.).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - CALIFORNIA - Light in El Centro area, Imperial County, on cotton. (Roth, July 10).

GARDEN WEBWORM (Loxostege similalis) - TEXAS - Becoming a problem on young cotton in Midland County area. Several stands of very young cotton almost completely destroyed. (Green).

LYGUS BUGS (Lygus spp.) - NEW MEXICO - Not a problem generally; counts per 25 sweeps ranged 2-4 in Chaves County and 3-5 in Virden and Animas areas of Hidalgo County. However, some controls for both Lygus spp. and fleahoppers in progress in Luna and Dona Ana Counties. (N. M. Coop. Rpt.). ARIZONA - Infestations high in much of cotton statewide, particularly in areas with fields of safflower and alfalfa. (Ariz. Coop. Sur.). CALIFORNIA - In Bakersfield area, Kern County, beginning to build up in larger cotton. Populations mostly adults in Wheeler-Arvin area. Nymphs expected to show by July 14. In Seco area, economic populations of 6-8 adults and 2-3 nymphs require control. (Thomas, July 4). Migration continues in Bakersfield area from alfalfa and safflower. Insect situation similar to that of past two weeks. Cotton adjacent to these crops shows a fairly high adult population. Some nymphs beginning to appear. (Black, July 10). Some treatments applied in El Centro area, Imperial County; pests of cotton generally at lowest numbers in many years. (Roth, July 10).

COTTON FLEAHOPPER (Psallus seriatus) - TEXAS - Generally reported as light from all areas except Cottle, King, Wharton, Liberty and Calhoun Counties where infestations are becoming moderate. (Texas Coop. Rpt., July 6). NEW MEXICO - Nymphs present on cotton in Hidalgo and Socorro Counties; counts per plant ranged 1-3 in both areas. Counts of adults ranged 2-4 per 25 sweeps in Chaves County and 4-6 per 25 sweeps in Dona Ana County. (N. M. Coop. Rpt.).

FLEAHOPPERS and PLANT BUGS - MISSISSIPPI - Populations variable in delta counties. Some damage reported from untreated fields, but infestations generally light. (Merkl et al.).

STINK BUGS - ARIZONA - Infestations heavier than in recent years in central area cotton. Damage to bolls very evident in some fields. (Ariz. Coop. Sur.).

COTTON APHID (Aphis gossypii) - NORTH CAROLINA - Generally present in Robeson, Columbus, Pender, Sampson and Wilson Counties, but populations light. (Mount). SOUTH CAROLINA - Heavy infestations occurring in Florence area in fields receiving treatments which do not control aphids. (Taft et al.). GEORGIA - Light infestations on cotton in 140 middle and southern area cotton fields examined. (Johnson et al.). OKLAHOMA - Light, scattered populations in southwest and west central areas. (Okla. Coop. Sur.).

SPIDER MITES - GEORGIA - Light to moderate infestations on cotton in 140 middle and southern area fields examined. (Johnson et al.). MISSISSIPPI - Light, spotty infestations general over delta counties. Medium to heavy infestations causing economic damage in Leflore and Tallahatchie Counties. (Merkl et al.). TENNESSEE - Infestations light and spotty over western area. Conditions much more favorable for buildup at this time. (Locke). ARKANSAS - Activity increased over previous week. If dry weather persists in heavy spider mite areas, rapid buildup could occur. (Cott. Ins. Rpt.). MISSOURI - Spot or marginal infestations present in 289 of 1,177 fields scouted. (French). TEXAS - Several species appearing in Ellis and Trinity Counties; might be a problem before season is over if weather is favorable. (Texas Coop. Rpt., July 6). NEW MEXICO - Populations, probably Tetranychus cinnabarinus, building up on cotton in Chaves County. (N. M. Coop. Rpt.). ARIZONA - Light to medium on cotton in some central areas. (Ariz. Coop. Sur.). CALIFORNIA - Treatment continues in Bakersfield area, Kern County, as T. telarius and T. pacificus buildup rapid as of July 10; T. atlanticus appears to be declining. (Black).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

JACK-PINE BUDWORM (Choristoneura pinus) - MICHIGAN - Approximately 12,500 acres treated on Hiawatha National Forest, June 27-28. Effectiveness being evaluated. (Lucht, FS). WISCONSIN - Population on Washburn District, Chequamegon National Forest, declined so rapidly, pending control operations suspended June 30. Of endemic population, pupation about 25 percent July 6. (Lucht, FS). Populations collapsed in most stands of jack pine by end of June. Pupation complete in north-west counties by June 6. Parasites in these counties killed estimated 80-90 percent of larvae and pupae. Apanteles spp. numerous in area. In Marinette County, about one-third of larvae pupated and most remaining larvae in last instar. Large numbers of ants observed feeding on larvae and pupae; pentatomids and Apanteles spp. also plentiful in area. Many larvae collected July 3 parasitized by a species of fly and maggots were pupating July 6. (Wis. Ins. Sur.). MINNESOTA - Present as late instars and pupae; some moths emerging. (Minn. Ins. Rpt.).

PINE TUSSOCK MOTH (Dasychira plagiata) - WISCONSIN - Controls applied to 8,735 acres of jack pine on Washburn District, Chequamegon National Forest, May 26 to June 2; control approximately 93 percent. (Lucht, FS). Light in stand of jack pine in Marinette County on July 6; mostly fifth instar, but some pupae and eggs found. Pupation approximately 60 percent in Douglas and Bayfield Counties by same date. (Wis. Ins. Sur.). MINNESOTA - Larvae, mostly late instar, still defoliating jack pine in some untreated areas in vicinity of Willow River, Pine County. (Minn. Ins. Rpt.).

A PINE SHOOT MOTH (Rhyacionia pasadenana) - CALIFORNIA - Medium on Pinus sp. in Los Angeles, Los Angeles County. This species has been local problem in several areas of county in past years. (Cal. Coop. Rpt.).

SILVER-SPOTTED TIGER MOTH (Halisidota argentata) - CALIFORNIA - Larvae, apparently this species, more numerous this year than in past few years. Local defoliation of white fir in Speas Ridge area, Sequoia National Forest, involved about 20 trees. (A. S. Lee, USFS).

A JUNIPER MOTH (Periploca nigra) - CALIFORNIA - Causing moderate damage to prostrate juniper in Sacramento, Sacramento County. Described by R. Hodges, USNM. (Cal. Coop. Rpt.). Notes carried in CEIR 11:155, 229, 324, 340, 358, 870, 931, 951, 1034, probably refer to this species.

PINE TIP MOTHS - ARKANSAS - Third-brood adults depositing eggs in southern part of State; eggs hatching, larvae entering tips. (Ark. Ins. Sur.). PENNSYLVANIA - Larvae and pupae present in almost every terminal of mugho pines at a locality in Lancaster County. (Pepper, July 10).

A PINE MOTH (Dioryctria sp.) - NORTH CAROLINA - This and Rhyacionia sp. present in seedling pine nursery in Dare County. Dioryctria sp. most prevalent and causing considerable damage. Det. by M. H. Farrier. (Mount).

BARK BEETLES - NEVADA - Dendroctonus monticola adults attacking ponderosa pine in Incline Beach area, Lake Tahoe, Washoe County; galleries averaged 1.5-2 inches in length. (Nevada Coop. Rpt.). NORTH CAROLINA - Outbreak of D. frontalis present on loblolly pine in Mecklenburg and Union Counties. (Greene). Outbreak of Ips spp. occurring on 200 acres of longleaf, pond and loblolly pines in Richmond County; attacking an area damaged by fire during spring. (Whitfield).

FIR ENGRAVER (Scolytus ventralis) - CALIFORNIA - Damage to white fir increasing in Long Canyon area, El Dorado National Forest; groups of 10-20 trees being killed. (B. S. Bever, USFS). Damaging white fir in 200-acre stand in Summit Valley along Stony Ford Road in Mendocino National Forest; groups of 30-40 trees involved. (J. C. Gilman, USFS). Some 500 single white fir trees in 3,000-acre stand killed in Plum Creek area, El Dorado County. Apparently infestation which has been active for about one year, now decreasing. This is first indication of

decreasing activity in an outbreak area so far this year. (K. Betchell, H. F. Wise).

WHITE-PINE WEEVIL (Pissodes strobi) - WISCONSIN - Damage to leaders of white and jack pine apparent in light to moderately infested stands in Langlade and Marinette Counties July 6. (Wis. Ins. Sur.).

A PINE REPRODUCTION WEEVIL (Cylindrocopturus eatoni) - CALIFORNIA - Causing 5-10 percent kill of 5-year-old private plantation of ponderosa pines in Mt. Shasta, Siskiyou County. (V. Osburn).

PINE BARK APHID (Pineus strobi) - DELAWARE - Common on some pine in southern New Castle County. (Burbutis).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - UTAH - Causing moderate damage to blue spruce at Wanship, Summit County, and at Ogden and Huntsville, Weber County. (Knowlton).

APHIDS (Cinara spp.) - CALIFORNIA - Cinara sp. caused severe damage and dieback of lodgepole pines in Santa Cruz Mountains, Santa Cruz County. (W. E. Todd, USFS). UTAH - Heavy population of C. braggii made cars parked under blue spruce unsightly at Payson, Utah County, during June. C. pseudoschwarzii was very abundant on yellow pine in Flaming Gorge area, Daggett County, June 13. Det. by F. C. Hottes. (Knowlton). TEXAS - Moderate, local populations of Cinara spp. attacked pines in Bowie County during May. Det. by L. M. Russell. (Newton).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - Nymphal surveys completed on Chequamegon and Nicolet National Forests, WISCONSIN, and Ottawa and Hiawatha National Forests, MICHIGAN, indicate 2,095 acres in need of control of which 1,815 acres located on Lakewood Ranger District, Nicolet National Forest. Of 34 nymphs collected July 3, 80 percent in fifth instar at Lakewood. Control operations to begin about July 20. At Lakewood, 1,000 acres to be aerial treated. (Lucht, FS). WISCONSIN - Generally light, except for severe infestations in few scattered plantings in Oneida, Clark, Marinette and Florence Counties. (Wis. Ins. Sur.).

PINE SPITTLEBUG (Aphrophora parallela) - WISCONSIN - Populations generally high on coniferous trees in northeastern and east central counties. (Wis. Ins. Sur.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - CALIFORNIA - Causing severe defoliation and some tree killing of sugar pine in young stands in Hells Half Acre area, Stanislaus National Forest; ponderosa pine less affected. (L. S. Price, USFS).

PENNSYLVANIA - Heavy on mugho pine at a location in Lancaster County. (Pepper, July 10).

BLACK PINE LEAF SCALE (Aspidiotus californicus) - CALIFORNIA - Causing severe defoliation and some tree killing of sugar pine in young stands in Hells Half Acre area, Stanislaus National Forest; ponderosa pine less affected. (L. S. Price, USFS).

PINE TORTOISE SCALE (Toumeyella numismaticum) - WISCONSIN - Populations high in 2 Polk County jack pine plantations previously severely damaged by black pine leaf scale. Lady beetle populations in these plantations increased sharply over those present during 1961. (Wis. Ins. Sur.).

SPRUCE BUD SCALE (Physokermes piceae) - WISCONSIN - Damaged windbreak and ornamental white spruce in Door County early in July. (Wis. Ins. Sur.). MINNESOTA - Eggs still unhatched in Duluth area, St. Louis County. (Minn. Ins. Rpt.).

A GALL MIDGE (Janetiella coloradensis) - DELAWARE - Fresh galls very numerous on many young Virginia pines in northeastern Sussex County. (Burbutis).

CONIFER SAWFLIES - MINNESOTA - Neodiprion lecontei hatching principally on open grown jack pine and roadside plantings. First generation of Diprion similis in middle to late instars in northeastern and east central areas; white and jack pine principal hosts. (Minn. Ins. Rpt.). WISCONSIN - D. similis and D. frutetorum observed in various stages of larval development, but populations do not appear significant as of first week in July in northern counties. (Wis. Ins. Sur.).

SAWFLIES - MINNESOTA - All instars of Pristiphora erichsonii observed in north-eastern area. Late instars of Pikonema alaskensis causing some spotty and local damage to spruce in northeastern area. (Minn. Ins. Rpt.).

A HORNTAIL (Xeris morrisoni) - CALIFORNIA - Causing defoliation of all stages of white fir trees in groups in Crane Flats area, Yosemite National Forest. (J. L. Orr).

SPIDER MITES - NORTH DAKOTA - Tetranychus telarius building up and damaging new growth of spruce in Rugby area, Pierce County. (N. D. Ins. Sur.). DELAWARE - Probably Oligonychus ununguis, causing heavy injury to spruce in northern New Castle County. (Burbutis).

FALL WEBWORM (Hyphantria cunea) - OREGON - Populations in Willamette Valley blacklight trap collections much reduced over those recorded in past several years. Parasitism believed to account for much of this reduction. (Capizzi). NEW MEXICO - Webs appearing on cottonwoods and poplars in southern counties. (N. M. Coop. Rpt.). TEXAS - Widespread throughout much of central area; causing moderate to heavy damage to pecan trees. (Texas Coop. Rpt., July 6). OKLAHOMA - Continues damaging a variety of trees in eastern half and southern part of State. (Okla. Coop. Sur.). ILLINOIS - Populations very light in few spots in central and west districts. (Ill. Ins. Rpt.). VIRGINIA - Tents becoming conspicuous on persimmon in area of Grayson County, July 11. (Tarpley). NEW JERSEY - Infesting deciduous trees and some shrubs. (Ins.-Dis.-Weed Newsltr., July 10). NEW YORK - First nest noted on apple June 27 in Tompkins County; this is rather early, compared with average years. (N. Y. Wkly. Rpt.).

GREEN-STRIPED MAPLEWORM (Anisota rubicunda) - MARYLAND - Larvae caused moderate defoliation of red maples in Prince Georges County. (U. Md., Ent. Dept.). NEW JERSEY - Several stages of development present. (Ins.-Dis.-Weed Newsltr., July 10).

ASH BORER (Podosesia syringae fraxini) - KANSAS - Killing some young ash trees in Riley County, northeast, by attacking bases of trunks. (Thompson). UTAH - Larvae of a clearwing moth reported in CEIR 12(21):526 as killing many ash trees at Springville, Utah County, during May, have been determined as this species by H. W. Capps. This is a new State record. (Knowlton).

GYPSY MOTH (Porthetria dispar) - NEW YORK - Completely defoliated untreated areas on forest land in Schoharie County; where treatment applied, control appears good on about 8,000 acres. In untreated areas, because of relationship to cropland or mink ranch, complete defoliation has occurred within past 7 days. Moving into many areas in county, away from treated areas; will build up during next 2 years unless treated. (N. Y. Wkly. Rpt., July 9).

HEMLOCK LOOPER (Lambdina fiscellaria) - OREGON - Spray program in Clatsop County reached halfway point July 9 with 16,273 acres treated. Actual timber loss expected to be light. (Harter).

PECAN NUT CASEBEARER (Acrobasis caryae) - TEXAS - Emergence of second-generation adults began about July 1 in Denton County; second-generation larvae began entering nuts July 6. (Turney, Garner). Infestations light to moderate in Grayson County; about 65 percent parasitized and 80 percent of remainder of population emerged. (Turney).

WALNUT CATERPILLAR (Datana integerrima) - ILLINOIS - Feeding injury noticeable throughout central, west and northwest districts, with some trees near Hamilton, Hancock County, almost completely defoliated. (Ill. Ins. Rpt.).

LEAF BLOTCH MINERS - NEW MEXICO - Blotch mines of Phyllonorycter spp. quite heavy on poplars and cottonwoods in Sierra County. (N. M. Coop. Rpt.). RHODE ISLAND - Mining activity by Parectopa robiniella light on black locust in Kingston, Washington County. (Mathewson).

LEAF SKELETONIZERS (Bucculatrix spp.) - MARYLAND - Larvae caused conspicuous foliage injury to oaks and river birch over State. (U. Md., Ent. Dept.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - OKLAHOMA - Continues damaging in many areas. (Okla. Coop. Sur.). COLORADO - Damaging foliage of elms in Larimer County. (Kincaid, Hantsbarger). NEVADA - Pupation of first brood underway in Reno-Sparks area, Washoe County. (Bechtel, Parker).

A LEAF BEETLE (Anomoea laticlavata) - KANSAS - Adults moved from weeds to locust trees July 3 in Franklin County. Control program initiated immediately, with good results. (Thompson).

COTTONWOOD BORER (Plectrodera scalator) - KANSAS - Collected in Japanese beetle trap near cottonwood trees in Wyandotte County (Guldner) and on locust in Riley County (Peters).

TWIG PRUNER (Elaphidion villosum) - CONNECTICUT - Injury quite noticeable over large areas of State. (Savos).

PACIFIC FLATHEADED BORER (Chrysobothris mali) - CALIFORNIA - Medium in bark of oaks in Dunsmuir, Siskiyou County. (Cal. Coop. Rpt.).

LOCUST LEAF MINER (Xenochalepus dorsalis) - INDIANA - Damage becoming noticeable at Cloverdale, Putnam County. (Schuder). NEW YORK - Mines cover three-fourths of leaves; beginning to extend from midribs on others. (N. Y. Wkly. Rpt., July 9).

A NAUTICAL BORER (Xylotrechus nauticus) - CALIFORNIA - Adults heavy on oak leaves and twigs in Escondido, San Diego County. (Cal. Coop. Rpt.).

ELM BARK BEETLES - WISCONSIN - Total of 2,486 cases of Dutch elm disease confirmed as of July 11. Diseased elms reported for first time from Sauk County. (Wis. Ins. Sur.).

NORWAY-MAPLE APHID (Periphyllus lyropictus) - MARYLAND - Populations and resulting honeydew heavy on Norway maples over State. (U. Md., Ent. Dept.). PENNSYLVANIA - All stages very abundant on Norway maple in Altoona, Blair County. Causing leaves to fall on large number of trees. Homeowners concerned. (Udine). Honeydew and many leaves of Norway maples dropping in south central area. (Pepper).

POPLAR TWIG GALL APHIDS (Pemphigus spp.) - NEW MEXICO - Forming galls on cottonwoods in Sierra County along Rio Grande. Becoming a problem on cottonwood shade trees in Truth or Consequences. (N. M. Coop. Rpt.).

SYCAMORE LACE BUG (Corythucha ciliata) - DELAWARE - Abundant on sycamores in New Castle County. (Kelsey). OKLAHOMA - Continues to increase on sycamores in Stillwater area, Payne County. (Okla. Coop. Sur.).

PERIODICAL CICADA (Magicicada septendecim) - NEW JERSEY - Injury present in several areas; tender growth of oak, maple and ash broken, leaves brown. Few adults still persist. (Ins.-Dis.-Weed Newsltr., July 10). NEW YORK - Branch tips killed by oviposition punctures becoming more prominent in Columbia County; no hatching noted to July 9. Only adults still singing July 3, noted in patch of woods north of Roelif Jansen Hill in same county. (N. Y. Wkly. Rpt.).

COCCIDS - MISSOURI - Low populations of Aspidiotus liquidambaris, apparently second-generation crawlers, feeding on leaves of sweetgum in east central area. (Munson, Thomas, Wood). UTAH - Lepidosaphes ulmi heavy on lilacs in Coalville-Oakley area, Summit County. (Knowlton). CALIFORNIA - L. ulmi heavy on Acer macrophyllum in Yosemite National Park, Merced County. (Cal. Coop. Rpt.).

A GALL WASP (Neuroterus saltatorius) - OREGON - Damaging oak foliage in mid-Willamette Valley. Galls observed dropping from leaves July 12 in Salem area. (Capizzi).

SPIDER MITES - CONNECTICUT - Unspecified species a problem on many ornamentals due to continued hot, dry weather. Ornamentals, especially evergreens, showing yellowing should be checked for mite activity. (Savos). NEW YORK - Eotetranychus multidigituli already very heavy on infested honeylocust trees; yellowing usually appears in late July and August. Oligonychus bicolor widespread and heavy on oaks, beech and other trees. (N. Y. Wkly. Rpt., July 9). PENNSYLVANIA - Probably Oligonychus bicolor, heavy on some pin oaks at a location in York County. (Pepper).

A GALL MITE (Aculus toxicophagus) - CALIFORNIA - Now occurring on poison-oak in Alamo, Contra Costa County. Probably more prevalent than known, because susceptibility of many individuals restricts survey. (Cal. Coop. Rpt.).

BAGWORM (Thyridopteryx ephemeraeformis) - OKLAHOMA - Continues active throughout State; severe damage noted in many areas. (Okla. Coop. Sur.). ILLINOIS - Damage quite noticeable on many evergreens, locust, sycamore and other ornamentals in west, central and east districts. (Ill. Ins. Rpt.). DELAWARE - Young forms common on pines in area of New Castle County. (Burbutis).

MIMOSA WEBWORM (Homadaula albizziae) - MARYLAND - Heavy on mimosa and honeylocust over State. (U. Md., Ent. Dept.). PENNSYLVANIA - Webbing and browning of honeylocust foliage conspicuous in Dauphin County. (Sleesman, Balbaugh). Foliage injury to honeylocust and Moraine locust becoming noticeable in south central area. (Pepper). INDIANA - Emergence of first-generation adults began July 10 at Lafayette, Tippecanoe County. (Schuder). ILLINOIS - Causing severe browning on some honeylocust trees in Mason City, Mason County. (Ill. Ins. Rpt.).

AILANTHUS WEBWORM (Atteva aurea) - MISSOURI - Defoliated Ailanthus altissima in spots in southwest area. (Munson, Thomas, Wood).

EIGHT-SPOTTED FORESTER (Alypia octomaculata) - RHODE ISLAND - Larvae feeding on ivy on university buildings, Washington County. (Mathewson).

BLACK CUTWORM (Agrotis ipsilon) - CALIFORNIA - Larvae medium on azalea cuttings in nursery plot at Geyserville, Sonoma County. (Cal. Coop. Rpt.).

OMNIVOROUS LEAF TIER (Cnephasia longana) - CALIFORNIA - Adults heavy on variety of thistle in Davenport, Santa Cruz County. (Cal. Coop. Rpt.).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - General emergence began statewide. Spectacular populations on individual properties, mostly involving new lawns in residential developments. (Mathewson, Cartier, King). CONNECTICUT - Attacking large number of ornamental plants. Primarily heavy in localized areas, where new lawns have not received grub controls. (Savos). NEW JERSEY - Adults feeding on many ornamentals throughout State. (Ins.-Dis.-Weed Newsltr., July 10). DELAWARE - Feeding heavily on roses in areas of New Castle County. (Burbutis). MARYLAND - Adults continue a statewide problem on roses, althea, linden and other ornamentals. (U. Md., Ent. Dept.).

FULLER ROSE BEETLE (Pantomorus godmani) - CALIFORNIA - Medium populations damaging home geranium gardens in Grimes, Colusa County. (Cal. Coop. Rpt.). NORTH CAROLINA - Present on rose at a residence in Burke County. Det. by G. D. Jones. (Mount).

A JAPANESE WEEVIL (Pseudocneorhinus bifasciatus) - DELAWARE - Adults common on chrysanthemums and geraniums in Dover, Kent County. (Bray). VIRGINIA - Reported feeding on foliage of lilac and chrysanthemum in Richmond, July 3. (Tarpley).

A WEEVIL (Aphrastus taeniatus) - RHODE ISLAND - Present on arborvitae in nursery in North Kingstown, Washington County. (Cartier).

APHIDS - NEVADA - Various species generally heavy on ornamentals in many counties. (Nevada Coop. Rpt.). UTAH - Unspecified species heavy on rose foliage at Fillmore, Millard County. Also numerous on iris at same locality. (Knowlton). NEW JERSEY - Unspecified species heavy on many trees and plants. (Ins.-Dis.-Weed Newsltr., July 10).

FLETCHER SCALE (Lecanium fletcheri) - RHODE ISLAND - Hatching on yews in Wakefield nurseries, Washington County, and in Newport County. (Cartier).

LACE BUGS - MARYLAND - Very abundant on oaks, sycamores and azaleas over State. (U. Md., Ent. Dept.). CONNECTICUT - Continue to discolor leaves of andromeda, rhododendron and azalea. (Savos).

A TREEHOPPER (Campylenchia latipes) - CALIFORNIA - Heavy on variety of thistle in Montague area, Siskiyou County. In areas where species occurred during 1961, thistle failed to reseed. (Cal. Coop. Rpt.).

A THRIPS (Frankliniella occidentalis) - CALIFORNIA - Adults and nymphs heavy on Nandina domestica in Brea, Orange County. This species has been unusually abundant on fruit trees, ornamentals and native vegetation this year. (Cal. Coop. Rpt.).

PEAR-SLUG (Caliroa cerasi) - NEVADA - Light to heavy on hawthorn in Reno, Washoe County. (Bechtel, Parker).

MILLIPEDS - SOUTH CAROLINA - On camellia grafts before the scions budded. Even if scions budded, millipeds seemed to destroy the young leaf. (Nettles et al., July 11).

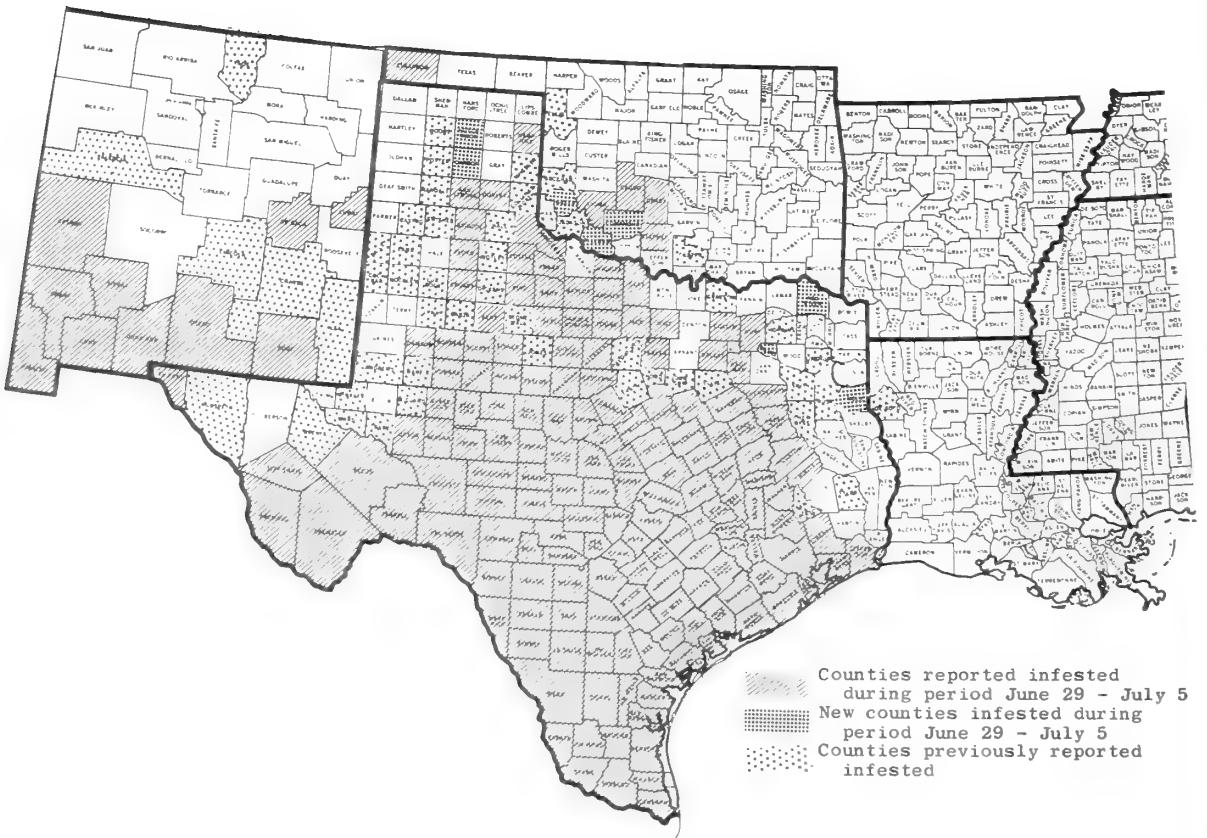
INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - TEXAS - The invasion along the southeast coast is worst since at least 1948. Species involved in outbreak include Aedes sollicitans, A. taeniorhynchus, Anophels crucians, Psorophora confinnis, Culex salinarius and other species of Culex. It is reported that cattle and horses have suffocated in some instances as a result of breathing adult mosquitoes. Numerous cases of pneumonia in cattle and horses. (Jefferson Co. Mosq. Control Comm., June Rpt; Newton). NEW MEXICO - Mosquitoes heavy along Rio Grande above Elephant Butte Reservoir. (N. M. Coop. Rpt.). UTAH - Mosquito annoyance continues in Duchesne, Jensen and Ouray areas of Uintah Basin. Some annoyance to people in Payson-Benjamin area of Utah County, and Coalville-Chock Creek and Wanship-Kamas woodland areas of Summit County. (Knowlton). WYOMING - Several species very annoying to ranchers and homeowners in Teton and Sublette Counties. (Fullerton). SOUTH DAKOTA - Culex spp. causing much discomfort to man and animals throughout State. (Ent.-Zool. Staff). NORTH DAKOTA - Mosquitoes the most numerous in a southside Fargo yard since abundance counts were started there in 1946. Due to discomfort, it was impossible to use the "bare arm and shoulder 5-minutes swat and count" method used in the past. (Post). MINNESOTA - Of 1,700 larval collections during week July 1-7, Aedes vexans made up 47 percent, Culex tarsalis 6 percent and Culiseta inornata 8 percent. Light traps numbers lowest since early May; of 6,500 adults taken, A. vexans dominant. Mansonia perturbans composed 22 percent of total, and is largest weekly collection in 5 years. A. vexans was dominant in biting collections, M. perturbans second. Mosquito nuisance expected to increase week of July 15. (Minn. Ins. Rpt.). NORTH CAROLINA - Quite abundant along the coastal areas of Carteret and Pamlico Counties. Fresh-water species outnumber

salt-water species two to one. Aedes atlanticus dominant species of fresh-water group, but Psorophora ferox, P. howardii and P. confinnis also present. Aedes triseriatus rare and a few P. ciliata present in Carteret County. Aedes sollicitans dominated the other group, but about 2 percent were A. taeniorhynchus. Salt-water species were biting in the open while others biting in wooded areas. (Ashton). CONNECTICUT - Unspecified species a problem at Storrs, Tolland County. (Savos). VERMONT - Unspecified species irritating cattle in South Hero, Grand Isle County. (MacCollom).

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST

During the period June 29-July 5, a total of 21,452,000 sterile flies was released in areas involving 41,936 square miles. Release rates of 200 flies per square mile were made over an area of 36,626 square miles and 400 flies per square mile over an area of 5,310 square miles. A total of 2,053 screw-worm cases was reported this period. New counties reporting screw-worm cases include: Red River, Rains, Carson, Hutchinson, Panola, Texas; and Greer, Comanche, Tillman, Oklahoma. (Anim. Dis. Erad. Div.).



HORN FLY (*Haematobia irritans*) - UTAH - Numerous and very troublesome generally in Millard, Tooele, Juab and Weber Counties. Not too abundant yet in Summit County. (Knowlton). WYOMING - Adults causing much irritation to many cattle herds in Teton and Sublette Counties. (Fullerton). OKLAHOMA - Populations down somewhat from last week in Stillwater area and in southwest. Populations of 200 per animal in Mayes County area and 100-300 per cow in McCurtain County. (Okla. Coop. Sur.). KANSAS - Continuous pest of cattle. Counts remain same as previous weeks. (Peters). SOUTH DAKOTA - Distributed generally throughout southeastern and east central regions. Average populations 150-250 per side per animal, but herd in Bon Homme County heavily infested with 3-5,000 per side per animal. Flies completely covered sides of many of animals causing much discomfort. (Hintz). NORTH DAKOTA - Beginning to annoy range cattle in McKenzie County. (Brandvik). WISCONSIN - Of concern in Door County. (Wis. Ins. Sur.). ILLINOIS - Varied 5-400 (averaged about 60) per animal on cattle in west and northwest districts. (Ill. Ins. Rpt.). VIRGINIA - Adults heavy on dairy herd in Bland County; light to absent on other herds checked in Bland, Pulaski, Montgomery, Carroll, Wythe and Grayson Counties. (Tarpley). MISSOURI - Heavy populations persist throughout most of State. Ranged from 20 to over 500 flies per animal in untreated herds in southwest area. (Munson, Thomas, Wood).

FACE FLY (*Musca autumnalis*) - VERMONT - Populations continue high, causing much annoyance to pastured cattle. (MacCollom). VIRGINIA - Adults ranged from light (Carroll, Grayson, Wythe and Bland Counties, average 2-5 per head) to heavy (Pulaski and Bland Counties, average 20 per head) on dairy and beef herds. (Tarpley). PENNSYLVANIA - Very troublesome to animals in northwest and southwest. No control effective. Animals held indoors and pastured every evening. (Adams, Udine). ILLINOIS - Very abundant in western and northwestern areas. In addition to heavy populations on face of animals, many flies also clustered over back and neck of many animals. Populations on face of cattle varied 4-75 (averaged 25). (Ill. Ins. Rpt.). WISCONSIN - A problem in Richland, Green, Dunn, Rusk and Walworth Counties. Pinkeye reported prevalent in East Troy area, Walworth County. (Wis. Ins. Sur.). MINNESOTA - Heavy in southwest district. (Minn. Ins. Rpt.). SOUTH DAKOTA - Ranged 5-20 per face throughout southeastern area. (Hintz). KANSAS - Ranged 1-12 per head on beef cattle in Riley County. (Pitts).

HOUSE FLY (*Musca domestica*) - OKLAHOMA - Populations down from last week and averaged about 80 per scudder grid in the Stillwater area. (Okla. Coop. Sur.).

STABLE FLY (*Stomoxys calcitrans*) - ILLINOIS - Still plentiful with 0-24 (averaged 8) per animal in west and northwest districts. (Ill. Ins. Rpt.). WISCONSIN - Annoying in scattered areas. Controls warranted in La Crosse County. (Wis. Ins. Sur.). MINNESOTA - Heavy in southwest district. (Minn. Ins. Rpt.).

TABANIDS - CONNECTICUT - A problem on cows at Norwalk, Fairfield County. (Savos). NORTH CAROLINA - Undetermined tabanids in Carteret and Onslow Counties reported in CEIR 12(25):671 now identified as *Tabanus lineola*, *T. nigrovittatus*, *Chrysops vittatus*, *C. vittatus floridanus* and *C. atlanticus*. (Mount). ILLINOIS - Horse flies still very light; 0-1 per animal in west and northwest districts. (Ill. Ins. Rpt.). WISCONSIN - Annoying in scattered areas of State. (Wis. Ins. Sur.). OKLAHOMA - Count of 4-6 horse flies per cow on animals in McCurtain County. (Okla. Coop. Sur.). UTAH - Annoying cattle in western Tooele and Box Elder Counties. *Chrysops discalis*, *C. fulvaster* and other *Chrysops* very annoying to horses, cattle and people over most of Summit County. (Knowlton).

CATTLE GRUBS (*Hypoderma* spp.) - UTAH - Adults more annoying to cattle in Millard County than in number of years. Number of frightened cattle received injuries this season, especially in eastern Millard County. (Knowlton, Rickenbach). Some cattle being annoyed in Summit County. (Knowlton). WISCONSIN - Adults troublesome in Grant County. (Wis. Ins. Sur.).

BLOODSUCKING CONENOSSES (*Triatoma* spp.) - ARIZONA - Adults moving in from desert areas are problem to homeowners in some southern areas. Cases of severe reactions from bites reported. (Ariz. Coop. Sur.). TEXAS - *T. gerstaeckeri* seriously annoying man in Kendall County. (Boenig).

AMERICAN DOG TICK (Dermacentor variabilis) - PENNSYLVANIA - Noted at Harrisburg, Dauphin County. (Sleesman). MINNESOTA - Still active in northern areas. (Minn. Ins. Rpt.).

BROWN DOG TICK (Rhipicephalus sanguineus) - OKLAHOMA - Causing some concern in homes in Stillwater area. (Okla. Coop. Sur.). CONNECTICUT - A problem at Manchester, Hartford County. (Savos).

A TICK (Ornithodoros coriaceus) - CALIFORNIA - Many adults on a human in Auburn, Placer County. (Cal. Coop. Rpt.).

A CHIGGER (Eutrombicula alfreddugesi) - OKLAHOMA - Annoying to humans in Stillwater area. (Okla. Coop. Sur.).

BLACK WIDOW SPIDER (Latrodectus mactans) - DELAWARE - Adult collected in Newark area. (MacCreary).

A BROWN SPIDER (Loxosceles reclusa) - OKLAHOMA - Causing concern around homes in Stillwater area. Over 50 taken from one home. (Okla. Coop. Sur.).

HOUSEHOLD AND STRUCTURAL INSECTS

OLD HOUSE BORER (Hylotrupes bajulus) - PENNSYLVANIA - Noted in Dauphin County. (Sleesman). NORTH CAROLINA - Larvae noted in Rowan County. (Moore, Mount).

WHARF BORER (Nacerdes melanura) - RHODE ISLAND - Adults emerging in house in Newport. (Cartier, July 5).

A ROUNDHEADED WOOD BORER (Eburia quadrigeminata) - KANSAS - Fifteen to 20 adults collected in home in Riley County, northeast. (Thompson).

A WEEVIL (Calomycterus setarius) - WISCONSIN - Creating a nuisance by crawling on walls of houses and entering dwellings in La Crosse, La Crosse County, and Hartland, Waukesha County. (Wis. Ins. Sur.).

BROWN BANDED COCKROACH (Supella supellectilium) - COLORADO - Control in El Paso County has developed into a problem. (Hantsbarger).

ORIENTAL COCKROACH (Blatta orientalis) - UTAH - Very troublesome in dozens of Davis County homes. (Knowlton).

A FALSE CHINCH BUG (Nysius sp.) - COLORADO - Migration from crop and weed areas causing nuisance in and around homes in Fremont County. (Seaton, Hantsbarger).

RED HARVESTER ANT (Pogonomyrmex barbatus) - OKLAHOMA - Swarming on roofs of homes in Stillwater, Tulsa and Guthrie. (Okla. Coop. Sur.).

AN ANT (Acanthomyops pogonogynus) - IDAHO - Collected in basement of home in Moscow, Latah County, June 26, 1962. This is a new State record. Det. by M. R. Smith. (Barr).

STORED-PRODUCT INSECTS

KHAPRA BEETLE (Trogoderma granarium) - ARIZONA - Seventeen new or reinfestations recently found in Pima, Pinal and Santa Cruz Counties. Eradication underway. (Ariz. Coop. Sur.).

BENEFICIAL INSECTS

LADY BEETLES - NEVADA - Heavy adult and larval populations of Hippodamia convergens and H. quinquesignata assisting in control of pea aphid in alfalfa in

Lovelock, Pershing County. (Lauderdale, Snyder). NEW MEXICO - Hippodamia spp. heavy in cotton and alfalfa fields throughout State. (N. M. Coop. Rpt.). OKLAHOMA - H. convergens and other species ranged medium to heavy in all crops checked in south central, southwestern and west central areas. (Okla. Coop. Sur.). COLORADO - Hippodamia sp. increasing in all areas. Numerous in Arkansas Valley; 10-50 per 100 sweeps in Garfield County. (Schweissing, Bulla). WYOMING - Hippodamia sp. adults averaged 25 per 100 sweeps in alfalfa in Teton and Sublette Counties. (Fullerton). SOUTH DAKOTA - Unspecified species present throughout southeastern quarter of State; ranged 1-20 adults and larvae per 10 sweeps. (Hintz). OHIO - Coleomegilla maculata fuscilabris adults unusually abundant in dent corn plots at Wooster, Wayne County. (Triplehorn). PENNSYLVANIA - All stages of Adalia bipunctata present on Norway maples in Altoona, Blair County, infested with Norway-maple aphid. (Udine).

LACEWINGS - CALIFORNIA - Unspecified species abundant in many cotton fields at Bakersfield, Kern County. (Thomas, July 4). NEW MEXICO - Unspecified species very numerous in cotton and alfalfa fields. (N. M. Coop. Rpt.). COLORADO - Unspecified species being observed more frequently in all areas. (Schweissing, Ferkovich). OKLAHOMA - Chrysopa sp. light in alfalfa in southwest. (Okla. Coop. Sur.).

DAMSEL BUGS - NEW MEXICO - Nabis spp. active in cotton throughout southern counties. (N. M. Coop. Rpt.). COLORADO - Unspecified species being more frequently observed in all areas. (Schweissing, Ferkovich). WYOMING - Nabis sp. adults averaged 14 per 100 sweeps in alfalfa in Teton and Sublette Counties. (Fullerton). SOUTH DAKOTA - Unspecified species ranged 1-20 per 10 sweeps in southern quarter of State. (Hintz).

BIG-EYED BUGS - CALIFORNIA - Unspecified species abundant in many fields of cotton at Bakersfield, Kern County. (Thomas, July 4).

A CINNABAR MOTH (Tyria jacobaeae) - OREGON - Continued to increase in 2 release areas in Polk and Lynn Counties, where introduced for control of tansy ragwort. Large larval numbers and some feeding damage noted in early July. (Every).

ALKALI BEE (Nomia melanderi) - UTAH - Numerous and active in Pahvant area, Millard County. (Knowlton).

PREDATORY MITES (Typhlodromus spp.) - IDAHO - Very numerous on red clover in Parma area, Canyon County, feeding on Tetranychus telarius. Numbers often exceed those of host. (Waters).

MISCELLANEOUS INSECTS

JAPANESE BEETLE (Popillia japonica) - Substantial adult populations exist at Cleveland Hopkins Airport, OHIO, and Philadelphia International Airport, PENNSYLVANIA. All flights leaving these fields during beetle-flight hours and proceeding to noninfested destinations being treated. Planes originating from fields at Boston, New York and Washington, D. C., and touching down at Cleveland or Philadelphia enroute to southern and western destinations also being treated. (PPC). CALIFORNIA - Eradicative treatment continues in known infested area in Sacramento, Sacramento County, and West Sacramento, Yolo County. No beetles found since single male taken June 18 in West Sacramento. Total number of beetles taken in 1961-infestation area in Sacramento area remains at 5 for 1962; over 500 were recovered during 1961. In West Sacramento, 26 beetles have been taken. Weather conditions have been favorable for several weeks. (Cal. Coop. Rpt.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - RHODE ISLAND - Present generally throughout State. Taken in blacklight trap in Kingston, Washington County. (Mathewson).

A SOLDIER BEETLE (Tegrodera latecincta) - CALIFORNIA - Extremely large numbers defoliating desert brush in Big Pine, Inyo County, along Tinemaha Reservoir. (R. M. Cox).

PSYCHIDS - CONNECTICUT - Fumea casta continues a nuisance in many areas. (Savos). UTAH - Apterona crenulella widely annoying to damaging in Salt Lake County and in some orchards in Spanish Fork, Alpine and Payson areas of Utah County. (Knowlton).

IO MOTH (Automeris io) - RHODE ISLAND - Adults common in blacklight trap in Kingston, Washington County. (Mathewson).

A CICADA (Tibicen sp.) - VIRGINIA - Adults common throughout Fluvanna County where first appeared about July 3. (Watts). Adult received for determination from Westmoreland County. (Tarpley, Dawson, July 10).

GROUND MEALYBUG (Rhizoecus falcifer) - CALIFORNIA - Local, heavy ground populations occurring in Lafayette, Contra Costa County. (Cal. Coop. Rpt.).

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. ips.	Perid. saucia	Ostrinia nubilalis	Prod. ornith.	Protoparce sexta	Heliothis quinq. zea	vires.
CALIFORNIA								
Shafter Exp.Sta. 7/5-11	8	12	21			3	9	
COLORADO								
Dolores 7/6-13	34	34	48			2		
Two Buttes 7/6-13			98			17		
New Liberty 7/6-13	2					7	26	
Rocky Ford 7/6-13	130	13				8		
GEORGIA								
Tifton 7/5-11						2	2	87 53
ILLINOIS (County)								
Champaign 7/6-12	1036	23	44		63	1		
INDIANA (Counties)								
Jasper 7/3-10	164	24	3	2	28	5	8	4
La Porte 7/2-9	624	29	1		1	2	8	
Lawrence 6/30-7/8	57	11	5		27	10	11	
Tippecanoe 7/5-9	420	5			3	1	1	
Vanderburgh 7/5-10	84	4			45			5
KANSAS								
Garden City 7/5-6	54	10	3	1				
Hays 7/4,6,9	305	25	5		36			
Manhattan 7/6-12	132	36	7	2	611			
MARYLAND (County)								
Queen Annes 7/2-8	37	6		34				1
MISSISSIPPI								
*Stoneville 7/6-12	23	44			380	8	50	1
NEBRASKA								
Scotts Bluff Exp. Sta. 7/3-9	125	3	11				1	

*Two traps - Stoneville.

LIGHT TRAP COLLECTIONS (Continued)

	Pseud. unip.	Agrot. ips.	Perid. saucia	Ostrinia nubilalis	Prod. ornith.	Protoparce sexta	quinq.	Heliothis zea	vires.
NEW JERSEY (Counties)									
Cumberland 7/5, 9	98				1			2	
Burlington 7/5, 9	115			2	4	3	2	3	
Gloucester 7/5, 9	50			3	2	2		1	
NORTH DAKOTA									
Fargo 7/7-13	16			63					
Linton 7/7-13	6			5					
Wood Lake 7/7-13				4					
SOUTH CAROLINA									
Charleston 7/2-15	8	4			147	28		9	3
Clemson 7/7-13	17	3	5		259	10	1	2	
TEXAS									
Brownsville 7/6-13	172	33			8	114	28	2561	16
Waco 7/7-13	73		44		149			733	
WISCONSIN									
Janesville 7/3-9	1359			1					
Platteville 7/5-10	2503	84	27						
Madison 7/5-11	469	86	9						
Middleton 7/5-11	238	68	7	4					
Mazomanie 7/3-9	720	46	8	8					
Columbus 7/3-9	537	13		12					
Arlington 7/3-9	3796	75							
Wayne 7/3-9	323			5					
Theresa 7/3-9	289			37					
Beaver Dam 7/3-9	201			13					
Fox Lake 7/3-9	264			13					
Brandon 7/3-9	418			143					
Cedar Grove 7/1-7	628			53					
Waldo 7/3-9	883			99					
Winneconne 7/5-9	380			194					
Rosendale 7/3-9	1560			101					
Ripon 7/3-9	1853			184					
Green Bay 7/3-9	17						1		

WEATHER OF THE WEEK ENDING JULY 16

Unseasonably cool weather dominated the northern half of the country and the entire Far West. East of the Rockies, a slow moving frontal system was responsible for much of the week's weather. This frontal zone separated cool Canadian air from the hot, moisture-laden, tropical air which dominated southern sections. The Far West was mostly under the influence of a cool Pacific air mass which moved in at midperiod.

Temperatures averaged up to 4° below normal in northern New England where rain fell almost daily. Caribou, Maine, had 4.67 inches for the week. A funnel cloud was observed in Vermont on the 9th, and during severe storms of the last 3 days lightning damage, hail, and high winds were reported. However, western New England, New York, and Pennsylvania were beset with high evaporation and low precipitation amounts.

Sections of the northern Great Plains, the east-central Minnesota area, and northern Ohio had temperature averages more than 6° below normal. Just to the south of these areas were the heavy precipitation regions, from eastern Montana to eastern Kansas and from Iowa to southern Ohio. Locally heavy thundershowers, some accompanied by tornadoes, hail, and high winds, were also reported. Tornadoes were observed in Kansas, Indiana, Illinois, and Wisconsin on the 11th, but no major damage or injuries were reported. The ground at Kenosha, Wisconsin, was covered with hailstones on Wednesday, some of 1-inch diameter, and on Friday, near Goodland, Kansas, hailstones to baseball size were observed. Winds to 85 m.p.h. hit the outskirts of Springfield, Illinois, causing power failures and property damage on Friday, the 13th.

Temperatures as high as 108° were recorded in Okoahoma, and 100° maxima were observed much of the period in Texas to help account for weekly averages as high as 9° above normal at Abilene. Over much of the Southeast, daily maxima were in the 90's and weekly averages were up to 4° above normal. Precipitation in these areas was variable and mostly light. However, the eastern Florida Peninsula received amounts exceeding 3.00 inches from almost daily thundershower activity, and little or no rain fell in eastern and southern Texas. A locally severe storm hit the airport at Borger, Texas, with winds to 95 m.p.h. One small building was knocked down and a plane was damaged. A tornado dipped down between Abilene and Big Springs, Texas, inflicting some property damage. In the same State, many cars were stalled when flash flooding from heavy rains hit near Wichita Falls on Sunday.

In the Far West, temperatures averaged up to 10° below normal in north-central Nevada, and were below normal in the Central Valley of California despite daily highs in the 90's. Redmond, Oregon, had a 28° low on Saturday morning. Very little rain fell in the West Coast States and Arizona, but the airport at Salt Lake City, Utah, registered 2.28 inches on the 13th which was the greatest 24-hour amount recorded in that city for any July during the last 89 years. (Summary supplied by U. S. Weather Bureau).



UNITED STATES DEPARTMENT OF AGRICULTURE

WASHINGTON 25, D. C.

Official Business

POSTAGE AND FEES PAID



