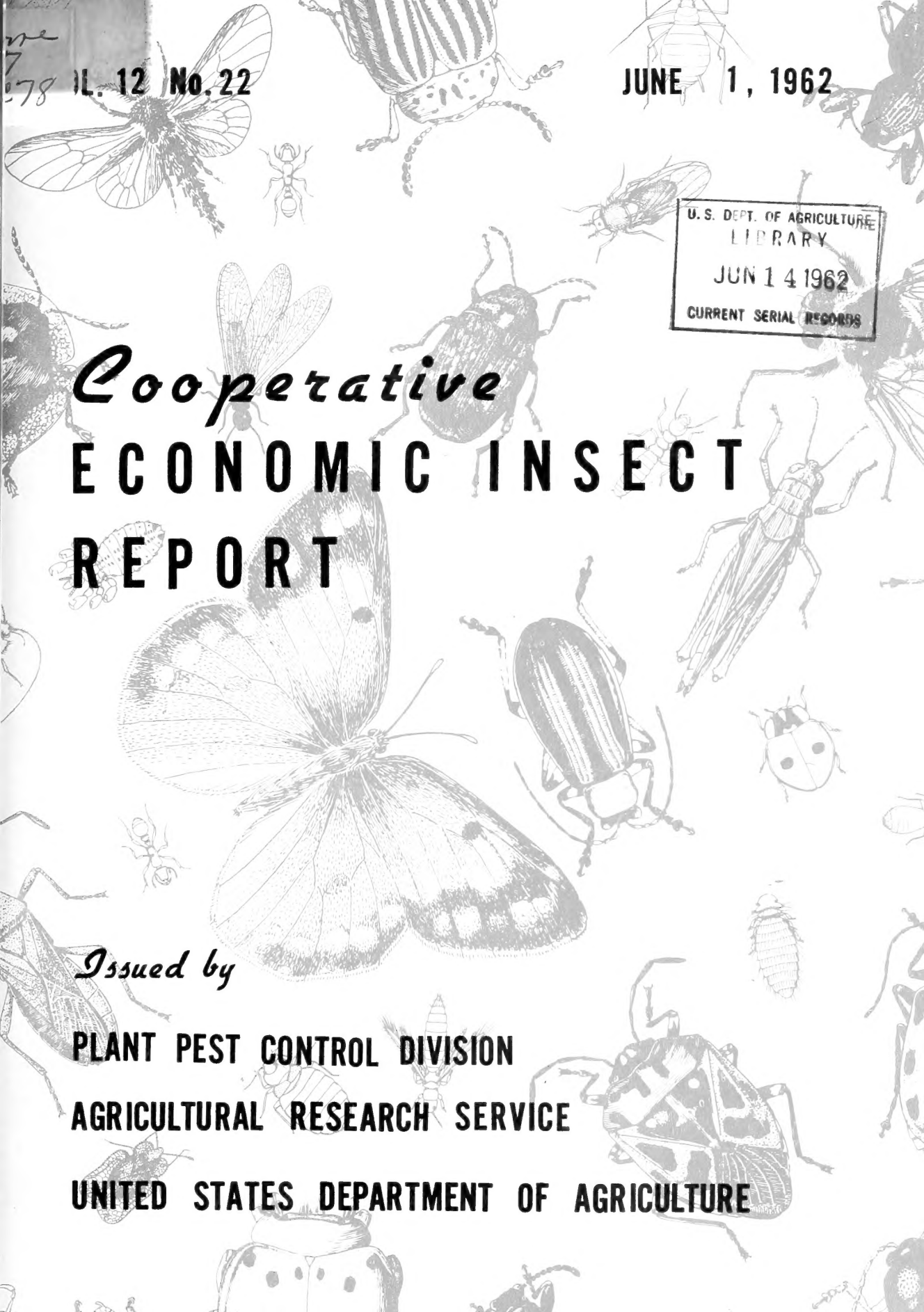


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Cooperative
**ECONOMIC INSECT
REPORT**

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.

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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 approaching threatening proportions in areas of Beaver, Harper and Ellis Counties, Oklahoma. Surveys in western portions of Kansas do not indicate any general problem areas; highest counts found on rangeland in Clark County (25-50 per square yard). Some high counts recorded in parts of Utah. Melanoplus spp. reported hatching in Missouri, Illinois, Indiana, South Dakota and Washington. (p. 545).

ALFALFA WEEVIL damaging in parts of Pennsylvania, Maryland, Colorado and Wyoming, but activity appears less than in 1961 and much less severe than in 1960 in Ulster County, New York. (p. 546). SWEETCLOVER WEEVIL damaging to sweetclover in areas of Minnesota, North Dakota and Nebraska. (p. 546). BEAN LEAF BEETLE adults injuring soybeans in Maryland and Delaware and adults present on alfalfa in South Dakota and Nebraska. (p. 547). Several species of PLANT BUGS increasing, becoming numerous in some cases on legumes in several states. (pp. 548-549). GREENBUG reported in Wisconsin (p. 548); and LESSER CORNSTALK BORER moderate to heavy on young corn in Baldwin and Mobile Counties, Alabama, and locally heavy in Hidalgo County, Texas, grain sorghum. (p. 550). ARMYWORM, up to 12 per square foot of row, found in lodged barley in southwest Illinois. (p. 550). CORN EARWORM larvae found feeding on corn in southeast Missouri and HESSIAN FLY damage evident in most wheat fields in 3 northeast Oklahoma counties. (p. 551). An ERIOPHYID MITE (Aceria neocynodonis) damaging 50,000 acres of Bermuda grass in Brevard County, Florida. (p. 551).

CODLING MOTH flights reported in numerous states; entries in fruit noted in Missouri and California. (p. 552). PLUM CURCULIO adults becoming more active generally; damage noted in New York, Connecticut, Pennsylvania and Maryland. (p. 553). EUROPEAN RED MITE eggs common in parts of New York and more abundant than normal on sour cherry in Erie County, Pennsylvania. Activity severe in many Vermont orchards and troublesome in parts of Missouri. (p. 554).

Several FLEA BEETLES troublesome on various truck crops in several Northeastern States. (pp. 556-557). COLORADO POTATO BEETLE activity increasing on potatoes in several states. (p. 557). PEA APHID heavy on beans in Mobile County, Alabama, and causing heavy damage to southern peas in Bee and Live Oak Counties, Texas. Populations sufficiently abundant on peas in York County, Pennsylvania, to warrant controls. BEAN APHID also locally heavy in Alabama and Texas. SEED-CORN MAGGOT caused serious damage to beans and watermelon plantings in parts of Oregon and is severe in Niles-South Haven-New Buffalo triangle area of Michigan. BEET ARMYWORM and ALFALFA LOOPER heavy on table beet plantings in Pomona, Los Angeles County, California. (p. 558). GARDEN SYMPHYLAN caused heavy damage to mint in Clark County, Washington. (p. 559).

SPIDER MITES building up on cotton in Alabama, Arkansas and Mississippi; could become a problem. BOLLWORMS building up on cotton in southern and central Alabama and generally increasing in southern Texas where some fields required chemical controls. FLEAHOPPERS damaged 10-30 percent of squares commonly in Arizona and THRIPS damaging to cotton in parts of Georgia, Louisiana, Texas and New Mexico. (p. 561).

Gross epidemic area of SOUTHERN PINE BEETLE in eastern Texas now 2 million acres. (p. 562). EASTERN TENT CATERPILLAR numerous in Connecticut, New York and Rhode Island, and in parts of Virginia. LINDEN LOOPER outbreak reported in Connecticut. (p. 563). CANKERWORMS a problem in parts of New York, Connecticut, Minnesota,

(Continued on page 544)

Nebraska and North Dakota. (p. 564). ELM LEAF BEETLE most commonly reported pest in Oklahoma. (p. 564). BIRCH LEAF MINER major pest of ornamentals in Vermont and Massachusetts and active in New York and New Jersey. (p. 565). PERIODICAL CICADA emergence reported in Virginia, Maryland and New Jersey. (pp. 565-566). BAGWORM hatching in Illinois, Missouri and Oklahoma. (p. 566). OBSCURE SCALE surveys in Sacramento, California, negative. (p. 567).

MOSQUITOES troublesome and increasing in Rhode Island, Wisconsin, Minnesota, Nebraska, Wyoming and Utah. (p. 569). HORN FLY becoming more of a problem on livestock in several states and FACE FLY appearing in several additional states for first time this season. Face fly counts increased in Nebraska. (pp. 569-570). HOUSE FLY becoming more troublesome in feedlots, dairy barns and poultry houses in wide areas of southern Texas. BLACK FLIES annoying in North Dakota, Nebraska, Maryland and Rhode Island. (p. 570). SCREW-WORM noted in several additional Texas counties. TABANIDS very annoying in tidewater areas of Calvert and St. Marys Counties, Maryland, and increased in Indiana. (p. 571). SHEEP KED numerous in some flocks in Summit County, Utah, and ROCKY MOUNTAIN WOOD TICK appears more abundant than usual in Blue Mountains area of northern Umatilla and Wallowa Counties, Oregon. (p. 572). JAPANESE BEETLE emergence reported in California, Georgia and North Carolina. (p. 575).

DETECTION

New state records reported were an ERIOPHYID MITE (Aceria neocynodonis) in Florida (p. 551); an EARWIG (Euborellia annulipes) in North Dakota (p. 574); and a HANGING-FLY (Bittacus pilicornis) in Florida (p. 574). A BROWN SPIDER (Loxosceles reclusa), taken in Illinois, may be a new state record. (p. 572). New county records were ALFALFA WEEVIL in Lawrence County, Pennsylvania (p. 546); FACE FLY in Patrick, Floyd, Prince William, Fauquier and Clarke Counties, Virginia (p. 570); and Brood II of PERIODICAL CICADA in Patrick, Henry, Prince William and Orange Counties, Virginia. (p. 566).

SPECIAL REPORT

Status of the Screw-worm (Cochliomyia hominivorax) in the Southwest, May 18-24. (p. 571).

Reports in this issue are for week Ending May 25, unless otherwise indicated.

WEATHER OF THE WEEK ENDING MAY 28

The week was showery over much of the country, with temperatures about evenly divided between cool and warm. Positive departures were observed in the eastern half of the country except the Far Northeast, Wisconsin, Minnesota and the northern Great Plains. Temperatures averaged 9° above normal from southeastern Kansas to South Carolina, with a few stations in the central Mississippi Valley having higher departures. Oklahoma, Kansas and Iowa have now recorded 6 consecutive weeks of temperatures above normal. A repeat of last week's cool temperatures over the Far West was led by deficits of 12° in northern Nevada and western Wyoming. Below-normal departures of 10° and 13° were observed at Yuma, Arizona, and Lander, Wyoming, respectively. Freezing temperatures were recorded, but mostly at mountain stations.

Precipitation was mostly negligible along the southern tier of states. Most sections of Texas and Georgia have had the driest 4-week period on record for (weather continued on page 577).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - TEXAS - Light, widespread hatching of several species occurring in western panhandle area. Increased hatching expected following general thunder showers. (Texas Coop. Rpt., Russell). OKLAHOMA - Nymphal surveys made in cropland and rangeland areas of Beaver, Blaine, Dewey, Ellis, Harper, Major, Woods, Woodward, Greer and Jackson Counties. Populations approaching threatening proportions in areas of Beaver, Harper and Ellis Counties, with counts 6-30 nymphs per square yard. Predominant species Ageneotettix deorum, Aulocara elliotti and Phlibostroma quadrimaculatum. Cropland counts noneconomic. (Okla. Coop. Sur.). KANSAS - Grasshopper counts in south central, southwestern, west central and northwestern areas ranged from less than 1 to 25-50 nymphs per square yard. High counts of 25-50 per square yard made in rangeland in Clark County, southwest area. This site had by far the highest counts of any area within State. Other stops in range and cropland over western portion of State had maximum counts of 10 per square yard. Dominant species A. deorum (2-4 instar), Melanoplus confusus (adult), M. bivittatus (2-5 instar), M. sanguinipes (2 instar to adult), Aulocara elliotti (2-4 instar) and Hesperotettix spp. (2-4 instar). No general problem areas, with possible exception of Clark County rangeland area, exists in State at present. However, farmers should be advised to check their pastures and field margins for possible local concentrations of grasshoppers. (Bell, Peters). MISSOURI - Small nymphs of Melanoplus spp. observed in hatching areas throughout State. (Munson, Thomas, Wood). ILLINOIS - Nymphs of Melanoplus spp. varied 0-180 and averaged 35 per 100 sweeps in roadside grass in central and western districts; mostly first instar, with occasional second instar observed. Some grasshoppers hatching in clover fields; peak of this hatch will probably occur about June 8 in southern and central areas and about June 15 in northern area if weather continues unseasonably warm. (Ill. Ins. Rpt.). INDIANA - Melanoplus spp. hatching over southern half of State; early instars observed in Tippecanoe County May 24. (Matthew). WISCONSIN - Development of Melanoplus femurrubrum eggs not advanced appreciably; mostly in coagulated stage. M. sanguinipes nymphs appearing in alfalfa, but counts low; highest 2 per sweep in alfalfafield in Waushara County. (Wis. Ins. Sur.) MINNESOTA - Egg development observations made in southeast, east central and central districts week ending May 18. In southeast, M. differentialis and M. femurrubrum coagulated, M. sanguinipes coagulated to eye-spot, Camnula pellucida segmented (some first instars also present). In central district in Sherburne and Scott Counties, M. femurrubrum coagulated. Few first instars of Melanoplus spp. present in Scott County on alfalfa and adjacent oats. In east central district in Anoka County, M. femurrubrum and M. differentialis eggs coagulated, M. packardii segmented. Warm weather has accelerated egg development and general hatch of early species expected before June 1. (Minn. Ins. Rpt., May 18). NORTH DAKOTA - Hatching of grasshoppers scattered and light. (N. D. Ins. Sur.). SOUTH DAKOTA - M. differentialis and M. femurrubrum populations heavy, 550-600 per 100 sweeps, on alfalfa in Gregory County, May 21. (Walstrom, Hintz). MONTANA - Areas with heavy grasshopper populations in 1961 checked for eggs; 3 areas of Dawson and 1 each in Prairie and Richland Counties checked. With exception of 1 stop in Dawson County, eggs fairly numerous, consisting mostly of Melanoplus sanguinipes (migratory grasshopper) and Ageneotettix deorum. Hatching of 50 percent of eggs collected occurred April 29 in laboratory. Indications are that eastern part of State will have hatch earlier than 1961. Although range grass looks good, rain badly needed. Efforts to control infestations in eastern Custer County on voluntary basis; ranchers believe adequate control obtained by alternate swath treatment. (PPC, West. Reg.; Apr. Rpt.). UTAH - Grasshoppers, up to 1,000 per square yard, hatching out in Flat Canyon of Sanpete and southern Juab Counties. (Thornley, Knowlton). Hatching in warmer areas of Salt Lake and Weber Counties, sometimes up to 200 per square yard. Largely first instar, small numbers second and third instars. (Knowlton). NEW MEXICO - Grasshopper nymphs appearing in alfalfa and in waste areas near Belen, Valencia County; counts 30-60 per 100 sweeps in alfalfa. (N. M. Coop. Rpt.). NEVADA - Unidentified grasshoppers hatching and causing some damage to clover fields in Orovada, Humboldt County. (Lauderdale). Early instars of Camnula pellucida light to medium in Pine Valley, Eureka County. (Earnist, Maloney). WASHINGTON - Melanoplus sp. hatching in Colville, Stevens County. (Maxwell, Brannon).

MORMON CRICKETS - NEVADA - Second instars appearing in some areas but hatch very spotty; annual nymphal survey underway in State. (PPC, West. Reg.; Apr. Rpt.). UTAH - Occur over an area of approximately 20,000 acres in San Juan County; control program contemplated. (Thornley, Knowlton).

ALFALFA WEEVIL (Hypera postica) - NEW YORK - Survey in alfalfa field at Mattituck, Suffolk County, May 12, yielded 4 adults and 30 larvae per 20 sweeps at north end of field and 5 adults and 3 larvae in south end of field. Sweeps made with smaller than average net in field not treated last fall. Activity increased fairly rapidly in Ulster County. Large larvae found fairly regularly at tops of plants and in some fields fairly large numbers of very small larvae noted. Activity appears less than 1961 for same date and much less severe than in 1960. (N. Y. Wkly. Rpt., May 21). PENNSYLVANIA - Adults and larvae collected on alfalfa in Lawrence County; new county for State. (Adams). Very dry weather has greatly accentuated weevil damage this spring in Greene and Westmoreland Counties; larvae, 100 plus per 10 sweeps, completely defoliated plants in area which last year had 1/2 cup per 10 sweeps. Farmers cutting alfalfa and treating stubble hoping for a good second cutting. (Udine). MARYLAND - Damage to untreated first-growth alfalfa in State ranged from moderate to very heavy; damage heaviest in Chesapeake Bay counties. First-generation adults becoming common in most alfalfa over State. (U. Md., Ent. Dept.). VIRGINIA - Light, local infestation of adults on sweetclover at Glade Hill, Franklin County (Welch, May 18) and adults common on beanvines locally in Roanoke County (Allen, May 18). Adults swarming out of adjacent untreated alfalfafield, which was practically destroyed, to home and crawling up sidewalks and into house. Extreme nuisance around home. (Ptucha). COLORADO - Larval damage to alfalfa noticeable in Arkansas River Valley. Larval counts in Montezuma County 200 per 100 sweeps in untreated fields and 8-50 per 100 sweeps in treated fields. (Hantsbarger, Jenkins). WYOMING - Adults averaged 23 per 100 sweeps in alfalfa in Platte County; larvae averaged 27 per 100 sweeps. (Fullerton). UTAH - Some alfalfa being cut in northern area to prevent weevil damage. (Knowlton). NEVADA - Third instars present in Reno-Sparks area, Washoe County, but eggs still present and hatch continues. Cool weather prolonging hatch and peak populations will probably occur later than usual. (Arnett).

CLOVER LEAF WEEVIL (Hypera punctata) - KANSAS - Adults found in most alfalfa examined in southern and western areas; counts averaged 20 per 100 sweeps. (Peters). WISCONSIN - First to third instars causing considerable injury to alfalfa in an area of southern Grant County; estimated 40 percent loss to one field observed and 3-4 larvae per clump of alfalfa not uncommon. (Wis. Ins. Sur.). UTAH - Adults and larvae light in alfalfafield near Magna, Salt Lake County. (Knowlton).

CLOVER HEAD WEEVIL (Hypera meles) - MARYLAND - First-generation adults swept from red clover at Huntingtown, Calvert County. (U. Md., Ent. Dept.).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - MARYLAND - First-generation adults moderate in red clover at Huntingtown, Calvert County. (U. Md., Ent. Dept.).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - MINNESOTA - Sweetclover seedlings in small grains being severely damaged in southwest. (Minn. Ins. Rpt., May 18). NORTH DAKOTA - Damage heavy, 12 notches per leaf, on second-year growth of sweetclover along roadsides in Emmons and McIntosh Counties; one adult per 12 sweeps in alfalfa in Wells County. (N. D. Ins. Sur.). NEBRASKA - Larval counts per square-foot soil sample in Lancaster County averaged 79.75. (Stevens). Adults ranged 44-183 per 200 sweeps taken at 2-hour intervals for 24 hours and averaged 102.5 per 200 sweeps. Highest counts obtained between 8:00 p.m. and 4:00 a.m. (Calkins). Moderate injury occurred to seedling sweetclover in Platte County. (Roselle). Adults commonly found hiding in oat fields in last year's corn stalks. (Bergman).

A WEEVIL (Sitona scissifrons) - MINNESOTA - Counts per 100 sweeps averaged 106 in southeast and 12 in central area. (Minn. Ins. Rpt., May 18). SOUTH DAKOTA - Populations ranged 20-210 per 100 sweeps on alfalfa in east central area. (Hintz).

MAIZE BILLBUG (Sphenophorus maidis) - ALABAMA - Moderate to heavy infestations on young corn under 2 feet high in Baldwin and Mobile Counties; all fields examined under attack. (Seibels).

A WEEVIL (Sphenophorus sp.) - KANSAS - From 0 to about 5 percent of wheat stems broken over in a few fields in Harper and Barber Counties, south central area. (Peters).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - ILLINOIS - Few adults observed feeding on corn in east district. (Ill Ins. Rpt.). OKLAHOMA - Light, 3-5 per 10 sweeps, in alfalfa in Stephens County, southwest area. (Okla. Coop. Sur.). NEBRASKA - Adults averaged 1 per 10 sweeps in eastern and northeastern alfalfa. (Bergman).

CORN FLEA BEETLE (Chaetocnema pulicaria) - MARYLAND - Continues high on young sweet corn in eastern and central sections. (U. Md., Ent. Dept.). ILLINOIS - Adults varied 2-6 per corn plant in 2 Perry County corn fields; 100 percent of plants showed feeding scars. (Ill. Ins. Rpt.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MARYLAND - Adults caused moderate injury to young soybeans in St. Marys County. (U. Md., Ent. Dept.). DELAWARE - Adults rather common on young soybeans in southwestern Sussex County; feeding injury light. (Burbutis). SOUTH DAKOTA - Populations 36 per 100 sweeps on alfalfa in Clay County, May 21. (Walstrom, Hintz). NEBRASKA - Counts 3-7 per sweep in eastern area alfalfa. (Bergman).

SAND WIREWORM (Horistonotus uhlerii) - ALABAMA - Heavy population reported causing extensive damage to young corn in Clarke County. (Lemons). MISSOURI - Spots of damage to corn noted in few fields in extreme southeast area. (Munson, Thomas, Wood).

WIREWORMS (undetermined) - ILLINOIS - Found in corn in southwest district; damage to any field less than 0.5 percent. (Ill. Ins. Rpt.).

PEA APHID (Macrosiphum pisi) - NEW JERSEY - Has been very numerous and several fields have been severely damaged. (Ins.-Dis.-Weed Newsltr., May 22). MARYLAND - Continues to decline on alfalfa in eastern and southern sections; predators very active. (U. Md., Ent. Dept.). ILLINOIS - Varied 8-600 per sweep in clover and alfalfa; only occasional fields with higher numbers. (Ill. Ins. Rpt.). WISCONSIN - Populations generally low, but near normal for time of year in alfalfa. Counts averaged 20 per sweep in western portion of State; substantial increase compared with survey 2 weeks ago in area. Percentage of winged forms low and parasites and predators relatively uncommon in western area. Counts ranged 2-10 per sweep in parts of northwest, central and southeast; parasites and predators appear somewhat more common in these areas. (Wis. Ins. Sur.). MINNESOTA - Counts in alfalfa, per 100 sweeps, averaged 56 in southeast and 43 in central district week ending May 18; no winged forms observed. Counts in alfalfa averaged 100 per 100 sweeps in central district week ending May 25, with some winged forms noted in alfalfa in south central and central districts; no movement to canning peas observed. (Minn. Ins. Rpt.). SOUTH DAKOTA - Counts on alfalfa 10-400 per 100 sweeps in east central area and 2-3 apterous forms per 10 sweeps in Clay, Turner and Lincoln Counties. (Hintz, Orlob). NEBRASKA - Light to moderate on alfalfa in Montezuma County; counts 40-100 per 100 sweeps. (Jenkins). WYOMING - Beginning to increase in Platte County; counts in alfalfa averaged 87 per 100 sweeps, with one field averaging 250 per 100 sweeps. (Fullerton). UTAH - Light to moderate in alfalfa in Lynndyl-Delta area, Millard County; counts 0.5-3 per sweep; a little higher in Salt Lake County. (Knowlton). NEW MEXICO - Relatively light in most alfalfa in Eddy, Chaves, Valencia, Bernalillo and Dona Ana Counties; beneficials numerous. (N. M. Coop. Rpt.). OKLAHOMA - Generally light on alfalfa and vetch throughout State. (Okla. Coop. Sur.).

ENGLISH GRAIN APHID (Macrosiphum granarium) - PENNSYLVANIA - This species 10-20 per 10 sweeps and Sipha agropyrella 3-5 per 10 sweeps on wheat in Franklin County. (Pepper). ILLINOIS - Varied 1-10 per sweep in small grains. (Ill. Ins. Rpt.). WISCONSIN - Populations static; counts in oats in western area averaged 9 per 100 sweeps. (Wis. Ins. Sur.). MINNESOTA - Low in both spring and winter grains; ranged 0-50 per 100 sweeps in southeast and central districts. (Minn. Ins. Rpt., May 18).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Light on alfalfa in Stephens County, southwest area; 30-50 per 10 sweeps. (Okla. Coop. Sur.) KANSAS - Found only in 1 alfalfafield in Comanche County, south central area. All other alfalfa fields checked in southern and western areas negative. (Peters). SOUTH DAKOTA - Decreased to 1-4 per 100 sweeps due to rain and cold weather. (Walstrom, Hintz). NEBRASKA - Counts ranged 0.6-2.4 per 10 sweeps in Howard County. (Calkins). NEW MEXICO - Relatively light in most alfalfa in Eddy, Chaves, Valencia, Bernalillo and Dona Ana Counties. Large numbers of beneficials, such as larvae and adults of lady beetles, nabids and lacewings observed in these fields. (N. M. Coop. Rpt.). ARIZONA - Infestations low in alfalfa statewide. (Ariz. Coop. Sur.).

GREENBUG (Toxoptera graminum) - ILLINOIS - Found for first time this season in very small numbers, 0-30, and average 5 per 100 sweeps, in wheat and oats in central and western districts. (Ill. Ins. Rpt.). WISCONSIN - Found in several oat fields in Dane, La Crosse, Crawford and Trempealeau Counties, western area. Counts averaged about 3 per 100 sweeps; no red leaf disease observed. (Wis. Ins. Sur.). MINNESOTA - Found in Scott, Nicollet, Le Sueur, Watonwan, Blue Earth, Faribault, Martin, Steele, Jackson, Redwood, Brown, Lyon and Sibley Counties week ending May 18; populations quite widespread and generally light, with counts 20-25 per linear foot in oats highest found. No buildup noted week ending May 25 in central and south central districts; heavy rains and high winds probably responsible for extremely low numbers in some areas. (Minn. Ins. Rpt.). SOUTH DAKOTA - Heavy rains caused substantial decrease in populations in Clay, Turner and Lincoln Counties. Although feeding damage observed in all fields inspected, only 2-3 per foot of row found. One oatfield in Centerville area, Turner County, had 20 per plant. (Orlob).

CORN LEAF APHID (Rhopalosiphum maidis) - TEXAS - Heavy, local infestation in Harris County causing great amounts of honeydew on forage sorghums. No yellowing apparent. (Goldsmith). OKLAHOMA - Light on young grain sorghum seedlings in Nowata County area, northeast. Only occasional winged individual noted on corn in northeast. Terminals of Johnson grass 80 percent infested in areas of Mayes County. (Okla. Coop. Sur.).

SMALL GRAIN APHIDS - COLORADO - None found on spring grain in southwestern area. (Jenkins). OREGON - Populations remain low in Gilliam, Sherman and Morrow grain fields week of May 21. (Dickason).

TARNISHED PLANT BUG (Lygus lineolaris) - MARYLAND - Adults and nymphs 5-7 per sweep on red clover in Calvert and St. Marys Counties. (U. Md., Ent. Dept.). ARKANSAS - Increased in northwest on red clover and vetch; counts up to 150 per 100 sweeps. (Ark. Ins. Sur.). OKLAHOMA - Populations 20-25 per 10 sweeps on alfalfa in Nowata County. (Okla. Coop. Sur.). ILLINOIS - Adults varied 0-20 (averaged 11) and nymphs 0-100 (averaged 3) per 100 sweeps in clover and alfalfa in central and west districts. (Ill. Ins. Rpt.). MINNESOTA - Populations low; counts per 100 sweeps 9 in southeast and 7 in central district. (Minn. Ins. Rpt., May 18). SOUTH DAKOTA - Counts averaged 1 per 10 sweeps in alfalfa in Clay, Turner and Lincoln Counties. (Orlob).

LYGUS BUGS (Lygus spp.) - NEBRASKA - High nymphal populations averaged approximately 75 per sweep in alfalfa in Saunders County. Populations averaged 15 per sweep in northeastern area. (Bergman). WYOMING - Adults numerous, but only few nymphs found in alfalfa in Platte County; adults averaged 84 and nymphs 15 per 100 sweeps. (Fullerton). NEW MEXICO - Counts in alfalfa, per 100 sweeps, averaged 8-15 in Chaves and Eddy Counties and 12-28 in Valencia County; mostly nymphs. (N. M. Coop. Rpt.). ARIZONA - Infestations in alfalfa continue to increase statewide; counts average 100-300 adults and nymphs per 100 sweeps. (Ariz. Coop. Sur.).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - KANSAS - Counts in alfalfa in southern and western areas ranged 100-2,000 per 100 sweeps. (Peters). ILLINOIS - Adults varied 0-40 (averaged 16) and nymphs 0-480 (averaged 192) per 100 sweeps in alfalfa in central and west districts. (Ill. Ins. Rpt.).

RAPID PLANT BUG (Adelphocoris rapidus) - ILLINOIS - Adults varied 0-120 (averaged 48) and nymphs 40-160 (averaged 102) per 100 sweeps in clover and alfalfa in central and west districts. (Ill. Ins. Rpt.).

PLANT BUGS - SOUTH DAKOTA - Lygus lineolaris, Adelphocoris lineolatus and A. rapidus averaged 150 per 100 sweeps in Bon Homme County, May 21. (Walstrom, Hintz). MINNESOTA - First-stage nymphs of A. lineolatus and A. rapidus appeared in central district; counts 10 per 100 sweeps. (Minn. Ins. Rpt.).

MEADOW PLANT BUG (Leptopterna dolabratus) - ILLINOIS - Adults varied 0-140 (averaged 65) and nymphs 50-200 (averaged 120) per 100 sweeps in grass in west district; adults 10-1080 (averaged 288) and nymphs 0-880 (averaged 235) in central district on same host. (Ill. Ins. Rpt.).

MIRIDS - ILLINOIS - All stages of Trigonotylus ruficornis found in wheat in southeastern area, May 8. Det. by Milton Sanderson. This species common in grass in southeastern part of State. (Ill. Ins. Rpt.). WYOMING - Adults of Conostethus americanus found damaging bluestem grass in Campbell County. (Lynch, Robb). Adults of Labops hesperius infesting 1 field of crested wheatgrass and areas of western wheatgrass in Platte County; very little feeding damage found; counts averaged 71 per 100 sweeps. (Fullerton). UTAH - Undetermined species again damaging range grasses in some areas of Cedar Mountains, Iron County (Knowlton, Sjoblom) and on some Salt Lake County dryfarms (Knowlton).

BROWN STINK BUGS (Euschistus spp.) - ARKANSAS - Reproducing in northwest. Both adults and nymphs ranged 20-25 per 100 sweeps on red clover in Washington County. (Ark. Ins. Sur.).

MEADOW SPITTLEBUG (Philaenus spumarius) - NEW YORK - Found in alarmingly increasing numbers May 18 in Broome County, especially on birdsfoot trefoil, in field severely infested last year. (N. Y. Wkly. Rpt.). MARYLAND - Nymphal populations very light on red clover in Calvert County. (U. Md., Ent. Dept.). WISCONSIN - Spittle masses becoming more noticeable, with third stage nymphs present, in Prairie du Chien area. Populations variable, but generally lower than in 1961. (Wis. Ins. Sur.).

POTATO LEAFHOPPER (Empoasca fabae) - PENNSYLVANIA - About 10 per 10 sweeps on alfalfa in Greene County. (Udine). About 1 per 100 sweeps in alfalfa in Butler and Lawrence Counties. (Adams). ILLINOIS - Adults varied 20-720 per 100 sweeps in alfalfa in southern two-thirds of State. Nymphs varied 0-3,000 per 100 sweeps in southern area. Second-growth alfalfa should be checked closely. (Ill. Ins. Rpt.). WISCONSIN - Few adults observed in Madison blacklight trap on May 15, and on May 16 considerable numbers observed around and in trap. Few adults appearing in alfalfa, but populations insignificant. (Wis. Ins. Sur.).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - MINNESOTA - Counts in alfalfa ranged 0-20 per 100 sweeps in southeast and central districts week ending May 18 and averaged 16 per 100 sweeps in alfalfa in central district week ending May 25. Also averaged 23 per 100 sweeps in central area on small grains week ending May 25. (Minn. Ins. Rpt.). SOUTH DAKOTA - Counts 10-130 per 100 sweeps on small grains in east central area. (Hintz).

CLOVER LEAFHOPPER (Aceratagallia sanguinolenta) - SOUTH DAKOTA - Counts per 100 sweeps 30 in Hamlin County on May 24 and 50 on alfalfa in Yankton County on May 21. (Walstrom, Hintz). UTAH - Light to moderate in Millard County alfalfa. (Knowlton).

LEAFHOPPERS - WYOMING - Adults of Aceratagallia sp. averaged 76 per 100 sweeps in alfalfa in Platte County. (Fullerton). UTAH - Dikraneura carneola very numerous in margin of wheatfield and on roadside grasses adjoining, west of Murray in Salt Lake County. (Knowlton).

EUROPEAN CORN BORER (Ostrinia nubilalis) - DELAWARE - Adult collections in blacklight trap in Sussex County remain high; 73 from May 18-21. (Burbutis). ILLINOIS - Developing about one week earlier than usual throughout most of State; some moths emerged as far north as central area. It appears that only a few more advanced corn fields may have damaging populations. (Ill. Ins. Rpt.). WISCONSIN - Adults caught in blacklight trap at Mazomanie on May 15; at Middleton on May 16; and total of 9 at Mazomanie May 17-20. Pupation 70 percent, and a single adult observed near Centerville, Trempealeau County, on May 22. (Wis. Ins. Sur.). MINNESOTA - First pupation observed in Scott County on May 17. No pupation noted in central district week ending May 25; cool weather slowed development. (Minn. Ins. Rpt.). NEBRASKA - Pupae comprised nearly 100 percent of population in Cuming County. Winter mortality rates approximately 96 percent. (Bergman).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - ALABAMA - Moderate to heavy infestations in young corn under 2 feet high; all fields examined under attack in Baldwin and Mobile Counties. (Seibels). TEXAS - Heavy, local infestation in Hidalgo County has almost completely destroyed 25 acres of grain sorghum. (Deer).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - MISSOURI - Adults, pupae and empty pupal cases observed in and around last year's corn stubble in southwest area. (Munson, Thomas, Wood).

STALK BORER (Papaipema nebris) - OKLAHOMA - Occasional stalks infested along margin of cornfield in Nowata County. Also found infesting wheat and volunteer wheat along roadsides in Nowata and Craig Counties, northeast area. (Okla. Coop. Sur.).

ARMY CUTWORM (Chorizagrotis auxiliaris) - NORTH DAKOTA - Infestations reported on alfalfa in Adams, Bowman and Golden Valley Counties. (Colberg). SOUTH DAKOTA - Moths very abundant in eastern area; larval damage possibly very heavy. (Mast). UTAH - Few larvae still feeding in alfalfa in Delta-Sutherland area, Millard County; spotted injury to alfalfa occurred earlier this spring in area. (Knowlton). NEVADA - Heavy infestation on alfalfa by half-grown larvae occurring in Carlin area of Elko County; damage to alfalfa medium. (Earnist).

CUTWORMS - DELAWARE - Adults of Amathes c-nigrum noted in New Castle County. (MacCreary). SOUTH CAROLINA - Unspecified cutworms caused more than 50 percent loss of corn stand on approximately 20 acres in Lee County; replanting necessary. (Nettles et al., May 23). ALABAMA - Very heavy infestation of Peridroma saucia on corn in Mobile County. (Seibels). MISSOURI - Feltia subgothica and Agrotis ipsilon damage continues light to moderate in corn in northern and southeast areas. Counts averaged 4-5 larvae per 100 plants in infested fields. (Munson, Thomas, Wood). ILLINOIS - Occasional specimen of F. subgothica found in central district in corn. (Ill. Ins. Rpt.).

ARMYWORM (Pseudaletia unipuncta) - MARYLAND - First larvae of season light in barley in Princess Anne, Somerset County. (U. Md., Ent. Dept.). VIRGINIA - Larvae collected in Russell County. (Tarpley, Altizer). OKLAHOMA - Reported in small grains from Grady and Caddo Counties, southwest area. (Okla. Coop. Sur.). MISSOURI - Activity continues throughout State. Larvae maturing in extreme southern portions of State. Counts in grasses, small grains and alfalfa ranged 0-12 per square foot. (Munson, Thomas, Wood). ILLINOIS - Small numbers found in wheat and oats in central, west and southwest districts; 0-0.5 per linear foot of row. Up to 12 per square foot of row found in lodged barley in southwest. (Ill. Ins. Rpt.).

CORN EARWORM (Heliothis zea) - TEXAS - Heavy, widespread in sweet corn in Bexar County; corn just beginning to tassel and silk. (Brown). MISSOURI - Small larvae observed feeding in whorls of corn in southeast. (Munson, Thomas, Wood).

ALFALFA CATERPILLAR (Colias eurytheme) - NORTH DAKOTA - Adults observed in alfalfa-field in Foster County. (N. D. Ins. Sur.). NEBRASKA - Adults very abundant in east and northeast areas. (Bergman). NEW MEXICO - Counts averaged 12-25 per 100 sweeps in alfalfa near Ft. Sumner, De Baca County. (N. M. Coop. Rpt.).

ALFALFA LOOPER (Autographa californica) - UTAH - Moths still numerous at lights in Cache, Salt Lake, Tooele and Utah Counties. Damage anticipated in view of unusually high adult populations. (Knowlton).

GREEN CLOVERWORM (Plathypena scabra) - ARKANSAS - Counts low in northwest; 8-10 per 100 sweeps in legumes. (Ark. Ins. Sur.).

HESSIAN FLY (Phytophaga destructor) - OKLAHOMA - Damage evident in most wheat fields in Nowata, Craig and Mayes Counties, northeast area. Up to 5 percent of stalks down in 2 fields in Craig and Mayes Counties, with lighter damage in other fields. In Mayes County, 1-4 flax-seed stage common in field with most damage. (Okla. Coop. Sur.)

WHEAT STEM MAGGOT (Meromyza americana) - NEBRASKA - One percent of wheat heads infested in Saunders County. (Roselle).

THRIPS - MARYLAND - Undetermined species, apparently favored by dry weather, abundant on leaves and heads of wheat in southwestern St. Marys County. Also causing noticeable streaking of young corn and soybeans in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

SAWFLIES - ILLINOIS - Larvae, mainly Dolerus unicolor, varied 0-100 and averaged 10 per 100 sweeps in wheat. (Ill. Ins. Rpt.). OREGON - Pachynematus sp. present in small numbers in Gilliam County barley and wheat fields. (Dickason).

AN ERIOPHYID MITE (Aceria neocynodonis) - FLORIDA - Found for first time in State on April 18, 1962, at Patrick Air Force Base, Brevard County, by R. Lagasse. Presently, only known to occur in the State at Patrick AFB (Cocoa Beach), but probably occurs elsewhere. Species causing considerable damage to Bermuda grass in a 50,000-acre area. Surveys underway to determine distribution of mite in Florida. Det. by H. H. Keifer. (Fla. Coop. Sur.). This mite has previously been recorded from California, Nevada, Arizona, New Mexico and Texas. The Florida record is the first in the Eastern United States. The species is a pest of Bermuda grass where it feeds in the terminal leaf sheaths, causing stunting - a witches-broom effect - and general decline of the grass. In Arizona, a fungus (Helminthosporium) was always found associated with heavy mite damage and probably contributed to the decline of the grass. (Information from S.H. Kerr and references footnoted 1/).

BROWN WHEAT MITE (Petrobia latens) - COLORADO - Very light, 1 per foot of drill row, on spring grain in Montezuma County. (Jenkins). UTAH - Light to scarce in Tooele County, but caused some damage to dryfarm wheat in Salt Lake County, largely south from Magna and west of Murray-Midvale. Populations low in Nephi-Levan area, Juab County; little foliage marking evident. (Knowlton). NEW MEXICO - Heavy infestations of mites, probably this species, in alfalfa near Belen, Valencia County. (N. M. Coop. Rpt.).

1/ 1. Keifer, H. H. 1960. Eriophyid Studies. Calif. Dept. Agr. Bur. Ent. B-1:1-20, 16 pl. 2. Tuttle, D. M. and G. D. Butler 1961. J. Econ. Ent. 54(5):836-838. 3. Plant Pest Control Division. 1962. U. S. Dept. Agr. Coop. Econ. Ins. Rpt. 12(9):136-137.

GRAY GARDEN SLUG (Deroceras reticulatum) - CALIFORNIA - Heavy populations of adults feeding in ladino clover in Sonora area, Tuolumne County. (Cal. Coop. Rpt.). OREGON - Causing serious damage to clover in Willamette Valley. (Every).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - CALIFORNIA - Heavy infestations in plums in few yard trees in Riverside, Riverside County. (Cal. Coop. Rpt.). MISSOURI - New entries first noted near Kansas City area; New Franklin area, Howard County; and in southeastern part of State as early as May 18. (Wkly. Rpt. Fr. Grs.). INDIANA - Only 50 percent of larvae under tree bands pupated, with few adults emerged by May 21 in Vincennes area, Knox County. Peak emergence not reached; some entries expected May 23-26. Entries will increase week of May 27; conditions ideal for heavy egg laying. (Hamilton, May 22). Entries in apples expected week of May 22 in south central counties. (Marshall). WISCONSIN - Adults caught in blacklight traps as early as May 17 in Dane County. In 1961, none caught prior to May 30. (Wis. Ins. Sur.). MICHIGAN - Adults began appearing at Grand Rapids, Kent County, May 19. (Hutson). PENNSYLVANIA - Current heavy emergence noted in apple orchards in Adams County. (Asquith). MARYLAND - No egg hatch observed as of May 24 in Hancock area, Washington County. (U. Md., Ent. Dept.). NEW JERSEY - Emergence noted May 15 in Burlington County apple orchards. (Ins.-Dis.-Weed Newsltr.). NEW YORK - No adults found in western part of State in emergence cages and bait pails before May 18. No cast skins noted on tree bands on that date; flight expected soon. First adults taken in Niagara County May 18 in bait traps. First emergence from "seeded" cages observed at Webster, Monroe County, May 21; first emergence last year occurred on June 12 in this location. (N. Y. Wkly. Rpt.). VERMONT - Pupation started in Shoreham area, Addison County; first emergence expected soon. (MacCollom).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - VERMONT - Egg masses scarce in orchards. (MacCollom). CONNECTICUT - Hatching begun in Niantic, New London County. (Savos, May 22). Most egg masses remain unhatched but occasional larva found at Storrs, Tolland County, and Woodstock, Windham County. (Savos). NEW YORK - Flights continued moderately heavy May 14-16 but dropped sharply May 18. Hatching started May 15; most masses tagged to May 7 hatched by May 18 in eastern part of State. In western part of State, eggs hatched May 16; 17 percent hatched May 18 in orchard between the ridge and Lake Ontario. Egg masses very difficult to find in Westchester County. Eggs hatching on May 15 in Niagara County; about 60 percent hatched by May 18. Egg hatch began May 16 and continued through week in Monroe County; approximately 70 percent hatched May 21. Indications are that populations will be light this year in Monroe County. First hatching observed in Wayne County May 16. (N. Y. Wkly. Rpt.). PENNSYLVANIA - Hatching started May 16 in Erie County and May 19 in northeastern areas; 90 percent hatched in former area. (Cox). Now ready to pupate in Franklin County on apple. (Pepper). MARYLAND - No pupation noted in Hancock area, Washington County, as of May 24. (U. Md., Ent. Dept.). INDIANA - Active, larval infestations observed in some orchards in northern area. (Matthew, Osmun). MISSOURI - Currently between broods; adults expected about second week of June and larvae shortly afterwards. (Wkly. Rpt. Fr. Grs.).

FRUIT-TREE LEAF ROLLER (Archips argyrospilus) - UTAH - Damaged few apple trees at Coalville, Summit County; light to moderate injury in home orchards in Salt Lake County. (Knowlton). MISSOURI - Most larvae now pupated. (Wkly. Rpt. Fr. Grs.). WISCONSIN - Larvae noted feeding on apple foliage and buds in Door County. (Wis. Ins. Sur.). NEW YORK - Noted in abundance in orchards in Columbia County. (N. Y. Wkly. Rpt., May 21). CONNECTICUT - Abundant on untreated trees in Cheshire, New Haven County, and Storrs, Tolland County. (Savos, May 22). Currently found on branches not completely covered during treatment; very common on check trees. (Savos). VERMONT - Probably this species, caused severe injury to young trees in Shoreham, Addison County. (MacCollom). NEW JERSEY - This and about 5 other species active in blueberries, including A. georgiana and Sparganothis spp. (Ins.-Dis.-Weed Newsltr., May 22).

EYE-SPOTTED BUD MOTH (Spilonota ocellana) - RHODE ISLAND - Larvae noted on new growth of untreated apples in Kingston area, Washington County, May 23. (Mathewson). WISCONSIN - Larvae noted feeding on apple foliage and buds in Door County. (Wis. Ins. Sur.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - MISSOURI - Nearly half-grown larvae found on peach terminals in orchard near St. Louis May 18. (Wkly. Rpt. Fr. Grs.). INDIANA - First entry of larvae in twigs found May 23 in Vincennes area, Knox County. (Hamilton). DELAWARE - Larvae nearly fully grown in peach twigs locally in Kent County. (MacCreary). CONNECTICUT - Now active on peaches in Cheshire, New Haven County; pest relatively scarce last year but may be problem this season. (Savos, May 22). Additional adults captured in traps at New Haven. (Savos). NEW YORK - Adults collected in codling moth traps in Niagara County May 17, probably active several days earlier; eggs began hatching on quince May 19. (N. Y. Wkly. Rpt.).

CHERRY FRUITWORM (Grapholitha packardi) - NEW JERSEY - Adults began flight period but few eggs laid by May 20. (Ins.-Dis.-Weed Newsltr.).

GREEN FRUITWORM (Lithophane antennata) - NEW YORK - Abundant in orchards in Columbia County. Appeared feeding in opening bud clusters in orchards in Clinton County May 16. (N. Y. Wkly. Rpt., May 21).

SPRING CANKERWORM (Paleacrita vernata) - MICHIGAN - Caused some difficulty in cherry orchards in Benzonia area, Benzie County; Empire and Northport areas, Leelanau County; and Transverse City area, Grand Traverse County. (Hutson).

CANKERWORMS - NEW YORK - Quite heavy generally in Westchester County and appear more numerous on fruit trees in Ulster County than in past. (N. Y. Wkly. Rpt., May 21). CONNECTICUT - Abundant on untreated trees in Cheshire, New Haven County, and Storrs, Tolland County. (Savos, May 22). Found on branches not completely covered during treatment; very common on check trees. (Savos).

A PEACH TREE BORER (Sanninoidea sp.) - NEW MEXICO - Infested about 25 percent of peach trees in Corrales area, Sandoval County. (N. M. Coop. Rpt.).

LESSER PEACH TREE BORER (Synanthedon pinctipes) - PENNSYLVANIA - Pupation noted May 16 on peach in Erie County and northeastern areas. (Cox).

PLUM CURCULIO (Conotrachelus nenuphar) - MARYLAND - Caused moderate damage to peaches in Hancock area, Washington County. (U. Md., Ent. Dept.). NEW JERSEY - Adults very active and laying eggs in untreated peach orchards. (Ins.-Dis.-Weed Newsltr., May 22). PENNSYLVANIA - Caused considerable damage to untreated apple trees in Lackawanna County May 22. (Gesell). Fruit injury and egg laying continue on peach and apple in York County. (Pepper). NEW YORK - Adults first collected from host trees May 14 in western part of State. Some injury noted on apples and peaches in Westchester County. Egg laying underway on neglected blocks of sweet cherries in Ulster County. Injury noted on sweet cherries May 15 in Columbia County. First egg laying evident in Niagara County May 19 on sweet cherries; only a few noted on untreated trees where activity was heavy last year. First observed in Monroe County May 16; egg laying scars noted May 19. (N. Y. Wkly. Rpt.). CONNECTICUT - Active in much of State; reported in Glastonbury, Hartford County, May 18; now found in New Haven, New Haven County, and Niantic, New London County. Some scars appearing on small fruit at latter place. (Savos, May 22). Egg laying scars now seen in many areas; activity just beginning and many more adults expected. (Savos). MASSACHUSETTS - Continued cool weather holding peak activity; some injury found in spots of early maturing varieties. (Crop Pest Cont. Mess.). VERMONT - Higher temperatures expected to favor activity; controls recommended. (MacCollom). MICHIGAN - Damaging populations noted as far north as Traverse City, Grand Traverse County, on cherry, apple and plum. (Hutson). WISCONSIN - Adults appeared in Dane County May 14. (Wis. Ins. Sur.).

SHOT-HOLE BORER (Scolytus rugulosus) - NEW YORK - Active infestations observed in apple orchard in Wayne County May 11. (N. Y. Wkly. Rpt.). NEW MEXICO - Scattered infestations noted in orchards in Bernalillo County; especially heavy on weakened trees. (N. M. Coop. Rpt.).

A BOSTRICHID (Melalgus confertus) - OREGON Adults infested and killed some young seedling fruit trees in Medford area, Jackson County; adults observed in twigs May 18. (Berry).

A LEAF BEETLE (Derocrepis erythropus) - PENNSYLVANIA - Collected on sweet cherries May 3 in Lancaster County. Det. by E. U. Balsbaugh. (Raub).

WESTERN FIELD WIREWORM (Limonijs infuscatus) - OREGON - Damaged cherry foliage in Marion County week ending May 19. Det. by M. C. Lane. (Capizzi).

APPLE APHID (Aphis pomi) - CONNECTICUT - Abundance low and scattered throughout State. (Savos, May 22). MARYLAND - Populations increasing steadily on apples in Hancock area, Washington County. (U. Md., Ent. Dept.). MISSOURI - Present on untreated trees near Columbia, Boone County; colonies beginning to form. (Wkly. Rpt. Fr. Grs.). UTAH - Moderately numerous on home apple orchards in Coalville-Woodland area, Summit County, and in some orchards in Salt Lake County. (Knowlton).

ROSY APPLE APHID (Anuraphis rosea) - RHODE ISLAND - Present on apples at Kingston, Washington County. (Mathewson). CONNECTICUT - Populations remain low and scattered over State. (Savos, May 22). NEW YORK - First generation noted in Niagara County May 15. (N. Y. Wkly. Rpt.). MARYLAND - Moderate numbers continue to infest apples in Hancock area, Washington County. (U. Md., Ent. Dept.).

GREEN PEACH APHID (Myzus persicae) - PENNSYLVANIA - Curled leaves of peach in south central area. (Pepper).

SAN JOSE SCALE (Aspidiotus perniciosus) - INDIANA - Newly hatched crawlers readily found May 21 in Vincennes area, Knox County. (Hamilton).

PEAR PSYLLA (Psylla pyricola) - NEW YORK - Most advanced nymphs reached third instar by May 10 in western part of State and, by May 18, advanced nymphs numerous. Seasonal development in Lake Ontario area considerably behind Geneva. (N. Y. Wkly. Rpt.). CALIFORNIA - Light, adult populations noted on pear orchards in Smartville, Yuba County. (Cal. Coop. Rpt.).

APPLE LEAFHOPPER (Empoasca maligna) - PENNSYLVANIA - Averaged 4 per leaf on untreated apple trees in Lackawanna County. (Gesell).

APPLE RED BUG (Lygidea mendax) - CONNECTICUT - Nymphs appeared on untreated trees at Storrs, Tolland County. (Savos).

EUROPEAN APPLE SAWFLY (Hoplocampa testudinea) - CONNECTICUT - Adults active May 19. Larvae present at Storrs, Tolland County, May 25; infestation light. (Savos).

A CHERRY FRUIT FLY (Rhagoletis cingulata indifferens) - OREGON - Adults began emergence May 18 in Jackson County. (Berry).

EUROPEAN RED MITE (Panonychus ulmi) - MISSOURI - Heavy infestations at New Franklin, Howard County, caused bronzing of foliage. Becoming noticeable in Kansas City area. Low numbers found in treated orchards. (Wkly. Rpt. Fr. Grs.). PENNSYLVANIA - More abundant than normal on sour cherry in Erie County. (Adams). NEW JERSEY - Large populations observed in 2 apple orchards where oil not used. (Ins.-Dis.-Weed Newsltr., May 22). CONNECTICUT - Populations remain low, but egg laying began at Storrs, Tolland County. (Savos). NEW YORK - Eggs appeared rather numerous, considering low number of adults present, in Ulster County; some control failures noted. Eggs noted May 15 in Columbia County. Readily found in most orchards in Monroe County and not hard to find in Wayne County. (N. Y. Wkly. Rpt., May 21). VERMONT - Activity severe in many orchards. (MacCollom). WISCONSIN - Hatching and feeding began in Door County. (Wis. Ins. Sur.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - CONNECTICUT - Appearing in low numbers in Woodstock area, Windham County. (Savos, May 22). MARYLAND - Infested peaches at Hancock, Washington County, and at Fairland, Montgomery County. (U. Md., Ent. Dept.). INDIANA - Nymphs noted in orchards in northern counties. (Matthew, Osmun).

A FRUIT-TREE MITE (Bryobia rubrioculus) - NEW MEXICO - Caused severe damage to untreated foliage in orchards in Bernalillo County. (N. M. Coop. Rpt.). UTAH - Light to moderate numbers on apple foliage in Salt Lake and Summit Counties; fewer numbers on peaches. (Knowlton).

PEAR RUST MITE (Epitrimerus pyri) - NEW YORK - Found May 15 in Niagara County orchards. (N. Y. Wkly. Rpt.).

PEAR LEAF BLISTER MITE (Eriophyes pyri) - UTAH - Severe infestation in home apple orchard at Hoytsville, Summit County, and near Ogden, Weber County. (Knowlton).

SPIDER MITES - SOUTH CAROLINA - Caused some damage to apples in Oconee County; expected to cause serious damage; controls recommended. (Nettles et al.).

PECAN NUT CASEBEARER (Acrobasis caryae) - OKLAHOMA - Limited activity noted in Jefferson and Oklahoma Counties. (Okla. Coop. Sur.).

PECAN LEAF CASEBEARER (Acrobasis juglandis) - ALABAMA - Extremely heavy infestation in grove in Baldwin County. (Seibels).

PECAN PHYLLOXERA (Phylloxera devastatrix) - OKLAHOMA - Light infestations noted on pecan in Washington, Nowata and Craig Counties; noted in Lincoln and Oklahoma Counties. (Okla. Coop. Sur.).

A SOFT SCALE (Lecanium prunosum) - OREGON - Inspection of 13 plantings in walnut orchards indicated 10 infested; probably this species. (Parker).

OBSCURER SCALE (Chrysomphalus obscurus) - MISSOURI - Moderate to heavy infestations on pecans in several extreme southeastern counties; many limbs one-half to one and one-half inches in diameter killed. (Munson, Thomas, Wood).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Webs appearing on pecans in Bee and Live Oak Counties; no damage of concern presently. (Texas Coop. Rpt., Edgar).

PECAN LEAFROLL MITE (Aceria caryae) - MISSOURI - Moderate infestations on pecan in southeastern area; up to 5 percent of new leaves infested. (Munson, Thomas, Wood).

Coccids in Florida - Infestations of Unaspis citri moderate to severe on orange at Apopka, Orange County, May 7; at Altamonte Springs, May 9; and at Forest City, Seminole County, May 10-11. Lepidosaphes beckii lightly infested orange at Ocoee, May 4, and Winter Garden, May 15, Orange County. This species lightly infested orange at Brownville, De Soto County, May 11, and Citrus sp. at Lake Jem, Orange County, May 9. Parlatoria pergandii lightly infested grapefruit between Wabasso and Winter Beach, Indian River County, May 8. Infestations moderate to severe on orange at Oakland, Orange County, May 8, and light at Brownville, De Soto County. Coccus acutissimus lightly infested lychee at White City, St. Lucie County, May 9. (Fla. Coop. Sur.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - TEXAS - Survey in Brooks, Cameron, Hidalgo, Jim Hogg and Starr Counties negative during month. (PPC, So. Reg.; Apr. Rpt.). MEXICO - Biological Control Zone - Total of 360,000 parasites collected in field; 356,600 recolonized, remainder moribund or dead. Locations of captures and releases were: Campeche, Campeche - 40,600 Prospaltella opulenta captured and released locally; Colima, Colima - 313,000 Amitus hesperidum captured and released

locally; Ciudad Obregon, Sonora - 6,400 P. opulenta captured; Villahermosa, Tabasco - 3,000 P. opulenta released. Total of 16 properties with 32,405 trees inspected at Padilla, with 5 infested properties and 2,905 infested trees. At Guemez, 29 properties inspected with 56,116 trees; 11 properties infested, with 1,179 infested trees. At City of Victoria, 45 properties inspected with 323 trees; 23 properties infested, with 84 infested trees. All infestations light except one grove at Padilla with few moderately infested trees. Chemical Control Zone - Eradicative operations began in Allende area, Nuevo Leon, on April 23. Inspection in Kino Bay area to begin first week of May. Total of 7,707 trees on 276 properties in States of Baja California and Sonora negative. Dead forms found on 3 trees on 2 properties in Municipio Allende and on tree in Municipio Montemorelos in areas not previously known to be infested. Treatment of 17,119 trees on 86 properties in Municipio Allende, and 2,132 trees on 8 properties in Municipio Montemorelos, Nuevo Leon, made. (PPC, Mex. Reg.; Apr. Rpt.).

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - CALIFORNIA - Single adult taken visually in infested area in Kerman, Fresno County, May 18; no additional moths observed since. All 1961 infested properties outside of Kerman received one chemical application. (Cal. Coop. Rpt.).

GRAPE PLUME MOTH (Pterophorus periscelidactylus) - NEW YORK - Larvae found in Niagara County May 19. (N. Y. Wkly. Rpt.).

OREGON WIREWORM (Melanotus oregonensis) - CALIFORNIA - Heavy populations occurred in soil around young grape rootstock in Rutherford, Napa County. (Cal. Coop. Rpt.).

A LEAFHOPPER (Erythroneura sp.) - CALIFORNIA - Immatures medium on grape leaves in Fresno, Fresno County. (Cal. Coop. Rpt.).

CRANBERRY FRUITWORM (Acrobasis vaccinii) - NEW JERSEY - Adult flights began but only 2 newly deposited eggs found on examination of 2,000 cranberries in normally heavily infested areas. (Ins.-Dis.-Weed Newsltr., May 22).

CURRANT BORER (Ramosia tipuliformis) - OREGON - Adults emerged in Marion County. (Larson).

IMPORTED CURRANTWORM (Nematus ribesii) - MINNESOTA - Reported on gooseberries and currants in Twin City area; controls recommended. (Minn. Ins. Rpt., May 18).

TRUCK CROP INSECTS

FLEA BEETLES - RHODE ISLAND - Undetermined species feeding heavily on Chinese cabbage and broccoli in Kingston, Washington County, (Mathewson). NEW YORK - Unspecified species troublesome on commercial rhubarb and tomato plants in Suffolk County; ranged 7-8 per cabbage plant, May 15, in Orange County. Activity noted in many cabbage seedbeds in Ontario County and real threat on tomatoes in every field examined in Niagara County May 15. (N. Y. Wkly. Rpt., May 21). PENNSYLVANIA - Unspecified species heavy on potatoes and tomatoes in south central area. (Pepper). DELAWARE - Several species fairly common on cucurbits, tomatoes and sweetpotatoes in Sussex County. Remain common to abundant in several fields of potatoes in Kent County; injury rather noticeable. (Burbutis).

CUTWORMS - NEW YORK - Unspecified species noted on tomatoes in Niagara County. (N. Y. Wkly. Rpt., May 21). CONNECTICUT - Unspecified species becoming more numerous in home vegetable gardens; controls recommended. (Savos).

APHIDS - NEW YORK - Numerous unspecified species appeared on cabbage plants in Orange County May 15. (N. Y. Wkly. Rpt.). NEW JERSEY - Reported increasing on cabbage. (Ins.-Dis.-Weed Newsltr., May 22). MARYLAND - Undetermined species ranged 2-9 per leaf on 2 strawberry plantings in Wicomico County. (U. Md., Ent. Dept.).

GARDEN FLEAHOPPER (Halticus bracteatus) - DELAWARE - First adults of season found on watermelon and tomatoes in southwestern Sussex County. (Burbutis).

MEADOW SPITTLEBUG (Philaenus spumarius) - WASHINGTON - Very heavy on strawberries, alfalfa, grass, weeds, flowers and other plants in southwestern area. (Shanks).

THRIPS - MARYLAND - Several species building up on beans, cucumbers and onions in home gardens in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - NEW YORK - Overwintered adults moderate on potatoes in Suffolk County week of May 14. (N. Y. Wkly. Rpt.).

RHODE ISLAND - Large numbers moving into fields of late potatoes; feeding and oviposition noted on early potatoes in Kingston, Washington County. (Mathewson, Sheehan).

NEW JERSEY - Adults abundant and laying eggs in New Brunswick area, Middlesex County, and in Burlington County. (Ins.-Dis.-Weed Newsltr., May 22).

MARYLAND - Eggs and small larvae abundant on untreated potatoes in Calvert and St. Marys Counties; eggs noted on tomatoes in Princess Anne, Somerset County. (U. Md., Ent. Dept.).

MISSOURI - Larvae observed feeding on potatoes in southeastern area. (Munson, Thomas, Wood).

OKLAHOMA - Damage to potatoes continues in southeastern area. (Okla. Coop. Sur.).

NEBRASKA - Averaged 2 per potato plant in eastern part of State; eggs being deposited. (Roselle).

POTATO FLEA BEETLE (Epitrix cucumeris) - RHODE ISLAND - Large numbers noted on early potatoes in Kingston, Washington County; probably this species. (Mathewson, Sheehan).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - MARYLAND - Adults abundant on untreated potatoes in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

POTATO APHID (Macrosiphum euphorbiae) - MARYLAND - Appeared light on tomatoes at Princess Anne, Somerset County. (U. Md., Ent. Dept.).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - First-season populations ranged 10-30 per 100 sweeps in Weld and Larimer Counties May 11 as compared with 40 per 100 sweeps on May 12, 1961. (Jenkins).

TOMATO FRUITWORM (Heliothis zea) - ALABAMA - Caused extensive boring damage to newly formed tomatoes. (Seibels).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Heavy populations damaged cantaloup plantings in Calexico area, Imperial County. (Cal. Coop. Rpt.).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - NEW JERSEY - Active on cucurbits. (Ins.-Dis.-Weed Newsltr., May 22).

MARYLAND - Adults abundant on young cucumber plants at Barstow, Calvert County. (U. Md., Ent. Dept.).

CABBAGE LOOPER (Trichoplusia ni) - OKLAHOMA - Populations up to 15 larvae per head of cabbage in Bixby area, Tulsa County; general over area. Reported in Bryan County. (Okla. Coop. Sur.).

IMPORTED CABBAGEWORM (Pieris rapae) - NEW YORK - Adults active across State; occasional egg noted on cabbage, May 15, in Orange County. Few eggs and adults noted in Ontario County. Adults numerous in Erie County. (N. Y. Wkly. Rpt., May 21).

NORTH DAKOTA - First adults seen in Foster County; 4 adults appeared in 5-acre alfalfafield. (N. D. Ins. Sur.).

STRIPED FLEA BEETLE (Phyllotreta striolata) - ALABAMA - Heavy attack on Chinese cabbage in Mobile County. (Seibels).

NEW YORK - Appeared very numerous on cauliflower seedbed at Cooperstown, Otsego County; controls recommended. (N. Y. Wkly. Rpt., May 21).

MAGGOTS - MICHIGAN - Drosophila spp. and some Hylemya sp. damaged spinach at Fremont, Newaygo County; unusually good weather, factor in lack of protection. (Hutson).

PEA APHID (Macrosiphum pisi) - TEXAS - Widespread populations throughout Bee and Live Oak Counties caused heavy damage and destroyed stands of southern peas. Reported as heaviest ever seen in area. (Texas Coop. Rpt., Edgar). ALABAMA - Extremely heavy on beans in Mobile County. (Seibels). PENNSYLVANIA - Populations sufficiently abundant on peas to warrant control in York County. (Pepper). WISCONSIN - Populations presently low in peas; ranged 1-2 per 10 sweeps, but appearing in fields from Iowa County to Trempealeau County. (Wis. Ins. Sur.).

BEAN APHID (Aphis fabae) - ALABAMA - Extremely heavy on beans in Mobile County. (Seibels). TEXAS - Heavy, local population attacking Chinese red peas in Calhoun County. (Texas Coop. Rpt., Bales).

CITRUS MEALYBUG (Pseudococcus citri) - ALABAMA - Infested peas and beans in Mobile area, Mobile County. (Seibels).

POTATO LEAFHOPPER (Empoasca fabae) - MISSOURI - Adults and nymphs feeding on snap beans in southeastern area. (Munson, Thomas, Wood). WISCONSIN - Adults entered State on May 15; large flight recorded in blacklight trap at Middleton, Dane County, May 16. (Wis. Ins. Sur.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - Feeding activity noted on beans in Stillwater, Payne County, and in Hughes County. (Okla. Coop. Rpt.). MARYLAND - Adults caused noticeable foliage injury to snap bean plantings in Somerset and St. Marys Counties. (U. Md., Ent. Dept.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - NORTH CAROLINA - Caused heavy damage in field of beans in Cumberland County; noted heavy in garden beans in Hoke County. (Chadwick, Mount).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - GEORGIA - Moderate on string beans in Spalding County. (Dupree, May 18).

VARIEGATED CUTWORM (Peridroma saucia) - ALABAMA - Very heavy infestations found on beans in Mobile County. (Seibels).

SEED-CORN MAGGOT (Hylemya cilicrura) - OREGON - Caused serious damage to beans in Willamette Valley and to watermelon plantings in Hermiston, Umatilla County, week of May 21. (Every). MICHIGAN - Caused severe damage in Niles-South Haven-New Buffalo triangle area of State. (Hutson).

BEE T ARMYWORM (Spodoptera exigua) - CALIFORNIA - Heavy, larval infestation occurred on table beet plantings in Pomona, Los Angeles County. (Cal. Coop. Rpt.).

ALFALFA LOOPER (Autographa californica) - CALIFORNIA - Heavy, larval infestations occurred on table beet plantings in Pomona, Los Angeles County. (Cal. Coop. Rpt.).

ONION THRIPS (Thrips tabaci) - COLORADO - Appearing on onions in Otero County. (Hantsbarger).

ASPARAGUS BEETLE (Crioceris asparagi) - NEW YORK - Appeared in numbers in Niagara County. (N. Y. Wkly. Rpt., May 21). VERMONT - Appeared severe in Burlington area, Chittenden County. (MacCollom).

SPOTTED ASPARAGUS BEETLE (Crioceris duodecimpunctata) - RHODE ISLAND - First adult appearance noted in planting in East Greenwich, Kent County. (Mathewson).

A COREID BUG (Liorhyssus hyalinus) - CALIFORNIA - Medium on seed lettuce in Meloland Station, Imperial County. (Cal. Coop. Rpt.).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - WISCONSIN - Adults becoming increasingly more common in grain crops; some fields yield up to 8 per 100 sweeps. (Wis. Ins. Sur.).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - Initial survey complete in Houston, Monroe, Covington, Coffee, Crenshaw and Geneva Counties, ALABAMA. First phase of program completed in 17 FLORIDA counties concerned; second phase, dusting of seedbeds, started. Contacts with property owners in GEORGIA completed in all counties worked except Thomas and Grady. Only one new infested property found in LOUISIANA during month. Wild host inspection along Gulf Coast of MISSISSIPPI negative, but 147 newly infested properties found in other parts of State. One specimen trapped in Charleston County, SOUTH CAROLINA; all storage inspections negative. (PPC, So. Reg.; Apr. Rpt.). FLORIDA - Collected on sweetpotato at Live Oak, Suwannee County, May 1, and at Belle Glade, Palm Beach County, May 9. Det. by C. H. Lauffer. (Tompkins, Weaver).

GARDEN SYMPHYLAN (Scutigera immaculata) - WASHINGTON - Caused heavy damage to mint fields in Clark County. (Shanks).

STRAWBERRY WEEVIL (Anthonomus signatus) - NEW YORK - Injured 50 percent of blossoms in Suffolk County strawberry field, May 17. (N. Y. Wkly. Rpt.).

EASTERN RASPBERRY FRUITWORM (Byturus rubi) - RHODE ISLAND - Large numbers feeding on foliage and buds in plantings in Kingston, Washington County. (Mathewson).

LEAF ROLLER MOTHS - NEW JERSEY - Larvae of unspecified species noted in strawberry fields; controls recommended. (Ins.-Dis.-Weed Newsltr., May 22).

GREEN PEACH APHID (Myzus persicae) - NEW JERSEY - Numerous in some strawberry fields. (Ins.-Dis.-Weed Newsltr., May 22).

SPIDER MITES - MARYLAND - Tetranychus sp. building up on new planting of strawberries at Princess Anne, Somerset County. (U. Md., Ent. Dept.). MINNESOTA - Tetranychus telarius appears heavy on strawberries in some areas. (Minn. Ins. Rpt.).

MITES - NEW JERSEY - Unspecified species continue to build up on strawberries. (Ins.-Dis.-Weed Newsltr., May 22).

CYCLAMEN MITE (Steneotarsonemus pallidus) - MINNESOTA - Found on strawberries at Brainerd, Crow Wing County, and Minneapolis-St. Paul area. (Minn. Ins. Rpt., May 18). NORTH DAKOTA - Adults and eggs observed on strawberry at Fargo, Cass County; eggs averaged 10 per leaf, adults 2 per leaf. (N. D. Ins. Sur.).

TOBACCO INSECTS

TOBACCO WIREWORM (Conoderus vespertinus) - NORTH CAROLINA - Found in 2 tobacco fields in Montgomery County, 50 and 76 percent infested, respectively; and in 2 fields in Lee County, 60 and 72 percent infested, respectively. Found in 3 fields in Hoke County, 30, 70 and 80 percent infested, respectively; and in several plantings on farm in Warren County which were 20-80 percent infested. Infested plants died or doing poorly. Hot, dry weather accentuated damage and made replacement of plant difficult. Some pupation noted in Lee and Montgomery Counties. Det. by R. L. Rabb. (Mount).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - MARYLAND - Larvae caused conspicuous damage to tobacco in beds on several farms in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - MARYLAND - Adults ranged 1-5 per plant on newly transplanted tobacco in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Caused severe damage throughout western end of Columbus County. (Read).

COTTON INSECTS

SPIDER MITES - SOUTH CAROLINA - Present, but decreasing, on cotton in Aiken County. (Nettles et al., May 23). **ALABAMA** - Undetermined species appearing in many cotton fields over State. Presently not too much trouble but, if dry weather continues, they may be important pests to watch. (Buttram). **MISSISSIPPI** - Buildups reported on cotton in delta area; no economic damage noted. (Merkl et al.). **LOUISIANA** - No infestations observed or reported in Tallulah area. (Smith et al.). **ARKANSAS** - Undetermined species reported on cotton in Johnson County, west central area, and Lonoke County, east central area. Some slight defoliation occurred in Johnson County; however, plant buds still alive. Temperatures have been above normal and rainfall lacking for 4 weeks. These pests could become quite a problem over a wide area. (Ark. Ins. Sur.). **MISSOURI** - Infestations of Tetranychus spp. on cotton in southeast moving from marginal rows out into field. (Munson, Thomas, Wood). **NEVADA** - Light infestations of Tetranychus sp. in Pahrump Valley, Nye County, cotton. (Zoller). **CALIFORNIA** - Tetranychus telarius adults medium on cotton in Fresno area, Fresno County. (Cal. Coop. Rpt.).

BOLL WEEVIL (Anthonomus grandis) - NORTH CAROLINA - Emergence from hibernation began in Coastal Plain during week of May 14; cotton in 4-leaf stage. (Mistic). **SOUTH CAROLINA** - Weevils present on cotton in Aiken, McCormick, Abbeville and Allendale Counties. (Nettles et al., May 23). **MISSISSIPPI** - Activity light on cotton in delta area; weevils found on seedling cotton in 5 fields, only one of which has more than one weevil. None collected to May 25 on trap cotton. Movement to cotton expected to increase rapidly with first general rain. (Merkl et al.). **LOUISIANA** - Overwintered weevils found in 2 of 6 fields examined at rate of 50 and 100 per acre in Tallulah area. Activity unusually low for time of year. Very few weevils taken from trap plantings. (Smith et al.). **TEXAS** - Increasing in southern area, but populations still below economic level. So far, this is lightest year of weevil activity in southern area. In central and northern areas, weather conditions continue unfavorable for weevil activity. (Texas Coop. Rpt.). Emergence rather slow in McLennan and Falls Counties due to dry weather. Weevils found at average rate of 48 per acre in 59 fields inspected; mostly near wooded areas. Growers expected to start early season controls week ending June 1. Few fields producing squares large enough for oviposition. Two weevils collected on flight screens. (Cowan, Davis).

COWPEA CURCULIO (Chalcodermus aeneus) - ALABAMA - Heavy infestations observed in young, seedling cotton in De Kalb and Jackson Counties. (Buttram).

FLEA BEETLES (Systema spp.) - GEORGIA - S. blanda and S. elongata heavy on 5 acres of cotton in Spalding County. (Beckham, May 18).

BOLLWORMS (Heliothis spp., et al.) - TEXAS - Generally increasing in southern area where some fields required chemical controls. Additional increases in populations expected within next week. In central and northern areas, few eggs and larvae being found; no reports of economic damage yet received. (Texas Coop. Rpt.). In McLennan and Falls Counties, total of 9 eggs and 9 larvae observed in 4 fields. (Cowan, Davis). **LOUISIANA** - No eggs or larvae found on cotton in Tallulah area to May 25. (Smith et al.). **MISSISSIPPI** - Very little moth activity observed in delta area; one report of eggs on cotton received. No damage reported. (Merkl et al.). **ALABAMA** - Infestations beginning to increase throughout much of southern and central areas. Young larvae 8-10 and eggs 10-12 per 100 terminals in Elmore County, with some damage noted. (Buttram, Watson).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - First specimen of season found in same field in Cameron County as last year. (PPC, So. Reg.; Apr. Rpt.). **NEW MEXICO** - Adults continue to emerge in experimental cages at New Mexico State University; 64 emerged week ending May 26 and 81 emerged week ending May 19. (N. M. Coop. Rpt.). **ARIZONA** - Emergence continues in cage tests at Safford in Graham County. No recent collections made in central area light traps. (Ariz. Coop. Sur.).

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Light to medium infestations present on central area cotton. (Ariz. Coop. Sur.). NEVADA - Light infestations in Moapa Valley, Clark County, and Pahrump Valley, Nye County. (Zoller).

CUTWORMS - MISSISSIPPI - Damage to cotton very light and spotty in delta area. Some damage occurred where clovers, peas, etc. have been mowed or dried up in skip-row planting and cutworms migrated in search of food. (Merkl et al.).

COTTON APHID (Aphis gossypii) - GEORGIA - Light on cotton in Floyd, Gordon and Bartow Counties. (Johnson). ALABAMA - Light to moderate on cotton over most of State; few heavy populations appearing in scattered, isolated fields. (Buttram). TEXAS - Generally light on cotton, but several fields in each area of State supporting infestations sufficient to warrant controls. (Texas Coop. Rpt.). NEW MEXICO - Infestations spotty and localized on cotton in northern Dona Ana County. (N. M. Coop. Rpt.).

APHIDS (unspecified) - SOUTH CAROLINA - Present on cotton in Union, McCormick and Saluda Counties; present but decreasing in Aiken County. (Nettles et al., May 23). MISSISSIPPI - Light, general infestations have been common in delta area. Hot, dry weather kept populations below economic levels. (Merkl et al.). LOUISIANA - No infestations of importance observed or reported in Tallulah area. (Smith et al.).

AN APHID (Aphis sp., probably craccivora) - NORTH CAROLINA - Began to build up in light numbers on cotton in Coastal Plain area during week of May 14. (Mistic).

CITRUS MEALYBUG (Pseudococcus citri) - ALABAMA - Light to moderate over most of State on cotton, with a few heavy populations appearing in scattered, isolated fields. (Buttram).

COTTON FLEAHOPPER (Psallus seriatus) - TEXAS - General increase noted in southern area and few adults being found in early planted fields in central and northern areas. Generally, infestations below economic levels. (Texas Coop. Rpt.).

FLEAHOPPERS (Spanogonicus albofasciatus and Psallus seriatus) - ARIZONA - Mixed populations of adults and nymphs present in cotton statewide; 10-30 percent damaged squares common. (Ariz. Coop. Sur.).

LYGUS BUGS (Lygus spp.) - ARIZONA - Adults light on cotton in central area, particularly near alfalfa which has been cut. (Ariz. Coop. Sur.).

PLANT BUGS - MISSISSIPPI - Buildups being reported in delta area cotton; no economic damage noted. (Merkl et al.).

THRIPS - SOUTH CAROLINA - Present on cotton in Chester, Union, McCormick, Abbeville, Laurens, Saluda and Allendale Counties; increasing in Laurens County. (Nettles et al., May 23). GEORGIA - Moderate to heavy on cotton in Oconee, Morgan, Jasper, Spalding, Cowetta, Carroll, Polk, Floyd, Gordon, Bartow, Clarke, Madison, Hart and Franklin Counties. (Johnson). MISSISSIPPI - Damage and infestations on cotton very light in delta area. Most older cotton past thrips damage stage. Large numbers building up on alternate host plants and mass movement to fields of late cotton expected. (Merkl et al.). LOUISIANA - Damage became more general and severe in Tallulah area; infestations heavier on small cotton in black soils. Few fields treated 3 times. (Smith et al.). ARKANSAS - Species reported in CEIR 12(21):523 determined as Sericothrips variabilis by W. H. Whitcomb. (Ark. Ins. Sur.). MISSOURI - Counts in cotton in southeast area averaged less than one per plant. (Munson, Thomas, Wood). TEXAS - Infestations of several species general over State; spotted infestations causing damage to certain scattered areas. (Texas Coop. Rpt.). In McLennan and Falls Counties, late-planted cotton being severely injured; controls recommended. (Cowan, Davis). NEW MEXICO - Damage evident on seedling cotton in untreated fields in northern Dona Ana County. (N. M. Coop. Rpt.). ARIZONA - Few infestations increased but, generally, populations low statewide. (Ariz. Coop. Sur.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - TEXAS - Gross epidemic area now approximately two million acres. Most easterly spot is northwest of Buna, Jasper County; most northerly spot about 5 miles north of Indian reservation in Polk County; most westerly spot is near New Waverly, Walker County, on Sam Houston National Forest. Total of 386 spots located in zones of concentrated control efforts during period March 15 to April 30; spots ranged from 5 to several hundred trees in size; averaged 25 trees. It is estimated that average size tree killed has volume of 100 board feet; using this figure, approximately one million board feet of standing timber was killed in the six-week period on portion of epidemic area; number of trees attacked increases each day. In area outside concentrated control, number of infested trees increased 10-20 fold. Large spots, up to 2,000 trees, became larger and many new spots developed during latter part of April. Heavy showers during latter part of month hampered control operations. (Texas For. Pest Comm., Apr. Rpt.).

PINE ENGRAVERS (Ips spp.) - TEXAS - Reported as cause of mortality of merchantable pine timber in Montgomery, Sabine and Walker Counties. (Texas For. Pest Comm., Apr. Rpt.).

PINE ROOT COLLAR WEEVIL (Hylobius radicis) - MICHIGAN - Damage noticeable on red pine at Fremont, Newaygo County. (Hutson).

WHITE-PINE WEEVIL (Pissodes strobi) - CONNECTICUT - Injury appearing in many parts of State. (Savos).

PINE TUSSOCK MOTH (Dasychira plagiata) - WISCONSIN - Moderate to heavy on about 7,000 acres of jack pine on Washburn District, Chequamegon National Forest. Same area sustained heavy to severe jack-pine budworm defoliation in 1961. (Lucht).

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma) - WISCONSIN - First-generation eggs hatched in Dane County as of May 17. (Wis. Ins. Rpt.).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - NEW YORK - Caused severe damage to mugho pines in Nassau County. Some activity noted in Westchester County. (N. Y. Wkly. Rpt., May 21). RHODE ISLAND - Larvae one-half inch long in candles of 2-needle pine in Kingston, Washington County. (Mathewson).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - ARKANSAS - Adult emergence from first larval generation beginning in southern area. Larval size variable; adult emergence will be staggered. Damage ranges spotty to heavy. (Ark. Ins. Sur.).

SPRUCE NEEDLE MINER (Taniva albolineana) - PENNSYLVANIA - Adults abundant and laying eggs on blue and Norway spruce in Centre and Allegheny Counties. (Udine). INDIANA - Infesting blue spruce in a nursery at Centerville, Wayne County. (Schuder).

A PINE TIP MOTH - MISSOURI - Heavy infestations (92 percent of tips infested) of unspecified species observed in southeastern area. (Munson, Thomas, Wood).

JACK-PINE BUDWORM (Choristoneura pinus) - Early spring larval counts to begin May 28 on Chequamegon National Forest, WISCONSIN, and on Ottawa and Hiawatha National Forests, MICHIGAN. Control operations pending. (Lucht).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - UTAH - Severe on some blue spruce at Coalville and Hoytsville, Summit County. (Knowlton).

SPRUCE APHID (Aphis abietina) - WASHINGTON - Heavily attacking Norway spruce at Friday Harbor, San Juan County. (Baker).

BALSAM TWIG APHID (Mindarus abietinus) - WISCONSIN - Appearing on balsam fir in Dane County. (Wis. Ins. Sur.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - NEW YORK - Eggs hatched in Geneva, Ontario County; hatch completed by May 21, most crawlers appear to have settled. (N. Y. Wkly. Rpt.). RHODE ISLAND - Beginning to hatch in Kingston, Washington County. (Mathewson).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - WISCONSIN - First-stage nymphs collected on alternate host May 21 in Lakewood District, Nicolet National Forest. (Lucht). Relatively heavy on jack pines in northern Iowa County; spittle masses conspicuous, although nymphs only one-third grown. (Wis. Ins. Sur.).

PINE SAWFLIES (Neodiprion spp.) - CONNECTICUT - Larvae feeding on pine needles. (Savos). NEW YORK - Unspecified species active in Westchester County. (N. Y. Wkly. Rpt., May 21). PENNSYLVANIA - N. sertifer relatively heavy on Scotch pine, Chester County. (Cole, Millet). MARYLAND - Neodiprion sp. heavily infesting longleaf pines at Brinklow, Montgomery County. (U. Md., Ent. Dept.).

MITES - PENNSYLVANIA - Discoloration of evergreens, caused by several species, beginning to appear in south central part of State. (Pepper). SOUTH CAROLINA - Buildup can be expected with continued hot, dry weather. (Nettles et al.).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - RHODE ISLAND - Tents extremely heavy in portions of Johnston, North Providence, Pawtucket and East Providence, Providence County. (Mathewson, Cartier). CONNECTICUT - Much more serious than in 1961; reports indicate especially serious situation in Town of Vernon, Tolland County. Larvae now fully grown and migrating to pupation areas. Some reports indicate migration has involved commercial concerns, vegetable and flower gardens, and homes. (Johnson, Hicock, Brigham). NEW YORK - Some larvae nearly fully grown. Remains common pest on Long Island; appears heaviest in Nesconset-Yaphank area, Suffolk County, on native cherry. Up to 5 tents per small tree common. (N. Y. Wkly. Rpt., May 21). PENNSYLVANIA - Nests observed in Lackawanna County; practically all larvae dead, probably from disease. (Andreychik, Jeffery). VIRGINIA - Tents conspicuous on native cherry and other hosts in Campbell, Amherst, Nelson, Albemarle, Rappahannock, Greene, Fauquier, Loudoun, Clarke, Patrick, Henry, Carroll, Franklin and Montgomery Counties. (Tarpley). ALABAMA - Very common on native cherries throughout Chilton County. (Helms).

TENT CATERPILLARS (Malacosoma spp.) - COLORADO - M. disstria numerous in Denver area. (Swingle Tree Service). CALIFORNIA - M. constrictum locally heavy on oaks in Arcadia, Los Angeles County. (Cal. Coop. Rpt.).

LINDEN LOOPER (Erannis tiliaria) - CONNECTICUT - Outbreak present in northeastern Fairfield County in Town of Newtown; complete defoliation may occur. Larvae not as far advanced in north central part of Litchfield County, where situation is similar in Town of Cornwall. Reports indicate pest is probably numerous in this general area, which covers large portion of western section of State. (Johnson, Hicock, Brigham).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Webs appearing on ornamental trees in Bee and Live Oak Counties; damage not of concern at this time. (Texas Coop. Rpt., Edgar). ARKANSAS - Observed for first time this season in Union and Calhoun Counties; larvae in third and fourth stages. (Ark. Ins. Sur.). ALABAMA - Webs evident on about 10 percent of persimmon trees over Mobile County; noted as far north as Lee County on May 22. (Buttram).

GYPSY MOTH (Porthetria dispar) - VERMONT - Egg hatch noted at East Middlebury, Addison County, April 30. MASSACHUSETTS - Scouting revealed several small infestations on periphery of 3 nurseries and few egg clusters on debris on one nursery property. CONNECTICUT - Egg hatch noted at Windsorville, Hartford County, April 17. NEW YORK - Egg hatch noted April 15 at Saugerties, Ulster County; April 27 at Port Washington, Nassau County, Riverhead, Suffolk County, and Lewisboro,

Westchester County; April 28 in Albany County. Scouting in Queens County revealed 6 new egg masses on 5 sites. Plans approved for aerial treatment of approximately 26,000 acres in State within suppressive area and nonregulated locations. Infestations in Queens and Westchester Counties will be treated with ground equipment. NEW JERSEY - Scouting yielded egg clusters in scattered locations in Sussex, Morris and Passaic Counties. Total of 30,138 acres divided into 17 blocks to be treated in these counties. (PPC, East. Reg.; Apr. Rpt.). PENNSYLVANIA - Controls applied to 62,575 acres in 7 areas of Pike, Wayne and Lackawanna Counties, during period April 25 to May 19, where male moths were trapped during 1961 season. No serious complaints received at conclusion of program, and fish kill appears to be negligible. (Jeffery).

CANKERWORMS - RHODE ISLAND - Unspecified species active in Cranston, Providence County, and in Warwick, Kent County. (Mathewson, Catier, et al.). CONNECTICUT - Newly emerged larvae of unspecified species a problem in some areas on flowering crabapple; feeding on blossom buds prevented blooming. (Savos). NEW YORK - Alsophila pometaria and Paleacrita vernata about one-half inch long in Ithaca, Tompkins County, week of May 13; hot weekend brought considerable activity and terminal leaves about one-third defoliated in some areas. Heavy numbers of both species on shade trees in Westchester County. Unspecified species noted in Chemung County. (N. Y. Wkly. Rpt., May 21). MINNESOTA - Small larvae of unspecified species prevalent in Minneapolis-St. Paul and Mankota areas. (Minn. Ins. Rpt., May 18). Numerous reports of complete defoliation of elm, oak and other trees received from northern suburbs of Minneapolis and St. Paul (Minn. Ins. Rpt.). NORTH DAKOTA - First instars of Paleacrita vernata active on elm foliage in Cass County area; larvae averaged one per leaf in sample of 50 leaves observed. (N. D. Ins. Sur.). NEBRASKA - Moderate to heavy, spotted populations of P. vernata in eastern part of State causing some defoliation of trees. (Roselle).

A CLEARWING MOTH (Aegeria tibialis) - NEVADA - Heavy on small aspen (Populus tremuloides) in yard in Reno, Washoe County. (Bechtel).

LEAF ROLLER MOTHS - NEW YORK - Undetermined species causing considerable damage to white and red oaks in southeastern and Long Island areas. Larvae prevalent on oak in Nassau County. Larvae heavy on shade trees in Westchester County. (N. Y. Wkly. Rpt., May 21). CONNECTICUT - Larvae of undetermined species continue very abundant; many ornamentals appear ragged. (Savos).

MOURNING-CLOAK BUTTERFLY (Nymphalis antiopa) - CALIFORNIA - Populations heavy on some Chinese elms in Antioch, Contra Costa County. (Cal. Coop. Rpt.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - NEVADA - Beginning to hatch in Reno-Sparks area, Washoe County. (Arnett, Bechtel). UTAH - No damage to elm foliage noted to date; however, adults have been a nuisance invading homes in Holladay area, Salt Lake County. (Parrish, Knowlton). OKLAHOMA - Most commonly reported pest over State; damage severe in many areas. Some smaller trees in Stillwater area, Payne County, 30-50 percent defoliated. Infestation in Frederick area, Tillman County, heaviest ever noted for this time of year. Full grown larvae present in many trees and pupation underway. Damage from second generation may be anticipated. (Okla. Coop. Sur.). NEW YORK - Eggs found May 18 and one cluster of larvae observed May 21. (N. Y. Wkly. Rpt.). RHODE ISLAND - Light adult feeding appearing. (Mathewson).

A LEAF BEETLE - NEW MEXICO - Larvae of unspecified species damaging foliage of poplar trees along Rio Grande in Bernalillo and Valencia Counties. (N. M. Coop. Rpt.).

ELM CALLIGRAPH (Calligrapha scalaris) - OKLAHOMA - Infesting elms in Garfield and Blaine County areas. (Okla. Coop. Sur.).

WILLOW LEAF BEETLE (Plagiodera versicolora) - RHODE ISLAND - Adults feeding in Kingston, Washington County. (Mathewson).

POPLAR-AND-WILLOW BORER (Sternochetus lapathi) - PENNSYLVANIA - Leaves of pussy willow completely riddled in Franklin County; larvae full grown. (Pepper).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - WISCONSIN - Adults of this principal vector of Dutch elm disease emerged in Milwaukee County about May 15; increased somewhat by May 20. Peak emergence not expected until first week of June. (Wis. Ins. Sur.). NEW YORK - Adults noted about May 12-14 coming from logs infested during summer of 1961. (N. Y. Wkly. Rpt.).

NATIVE ELM BARK BEETLE (Hylurgopinus rufipes) - WISCONSIN - Adults of this vector of Dutch elm disease have been active since about May 12. (Wis. Ins. Sur.). NEW YORK - Considerable flight activity occurred May 12-14. (N. Y. Wkly. Rpt.).

BRONZE BIRCH BORER (Agrilus anxius) - DELAWARE - Heavily infested tree found in northern New Castle County. (Bray).

A CERAMBYCID (Phymatodes obscurus) - CALIFORNIA - Adult populations heavy on bark of oak trees in Lodi, San Joaquin County. (Cal. Coop. Rpt.).

ELM LEAF APHID (Myzocallis ulmifolii) - NORTH DAKOTA - Active on American elm foliage at Fargo, Cass County; ranged 5-10 per leaf. (N. D. Ins. Sur.).

WOOLLY ALDER APHID (Prociphilus tessellatus) - NORTH CAROLINA - Infested maple in Davidson County. (Jones).

LEAFHOPPERS - COLORADO - Nymphs of an undetermined species causing considerable damage to young cottonwood trees in Boulder County. (Roth, Gusse, Lawson). INDIANA - An undetermined species heavy on Moraine honeylocust trees in Tippecanoe County. (Schuder). NEW YORK - Unspecified species prevalent on oak in Nassau County. (N. Y. Wkly. Rpt., May 21).

SYCAMORE LACE BUG (Corythucha ciliata) - PENNSYLVANIA - Feeding heavily on native sycamore over large area in Lackawanna County and surrounding areas. (Jeffery, Andreychik).

A GALL MIDGE (Dasyneura communis) - MISSOURI - Defoliation of sugar maple caused by this species reported for second consecutive year in east central area. (Lenhardt).

A LEAF MINER - RHODE ISLAND - Line and blotch mines of an undetermined dipterous species forming on elms in Kingston, Washington County. (Mathewson).

BIRCH LEAF MINER (Fenusa pusilla) - NEW YORK - Mines on untreated birch trees up to one inch long in Nassau County. Populations heavy in Westchester County; injury evident in southern Chemung County; adults swarming in Broome County. (N. Y. Wkly. Rpt., May 21). NEW JERSEY - Beginning to emerge. (Ins.-Dis.-Weed Newsltr., May 22). MASSACHUSETTS - Is presently number one pest of ornamentals. Eggs have hatched and small mines are present in leaves. (Crop Pest. Cont. Mess.). VERMONT - Adults active; number one pest of ornamentals presently. (MacCollom).

ELM LEAF MINER (Fenusa ulmi) - NEW YORK - Eggs laid and larvae active, some mines up to 10 mm. across. (N. Y. Wkly. Rpt., May 21). MARYLAND - Larval mines prevalent on leaves of several American elms at College Park, Prince Georges County. (U. Md., Ent. Dept.). NORTH DAKOTA - Larvae averaged 1-2 per leaf on American elm at Fargo, Cass County. (N. D. Ins. Sur.).

MAPLE BLADDER-GALL MITE (Vasates quadripedes) - VIRGINIA - Spotted, medium infestations present on maple in Westmoreland County (Ptucha); infested maples in Buckingham and Bedford Counties (Rowell, Ellis, Boone).

PERIODICAL CICADA (Magicicada septendecim) - VIRGINIA - Emerging in springfield area of Fairfax County week ending May 18; appears relatively light in county. (Seal). Adults widespread, fairly severe over Campbell County (Ellis); reported

from 5 communities from Ashland west in Hanover County (Sanders); severe along James River area and mountains and spottedly severe through center of Amherst County (Wilkins). Present in Lynchburg, Campbell County, and adjacent counties; also in Appomattox County (Matheny). Moderate to heavy in southern and southwest sections of Pittsylvania County (Blair); abundant in area near Prince Edward Park and Goodwins Lake, Prince Edward County (Cassell); moderate in Pittsville, Pittsylvania County (Dominick); common in Rappahannock County and in one section of Bedford County (Lyne, Amos); severe in all parts of Buckingham County (Ellis); extremely abundant in Orange County (Shepherd). Present in extensive area south and southwest of Martinsville and about Preston and along Highway 58, Henry County; along Highway 58 in Patrick County near Patrick-Henry County line; about Lynchburg, Campbell County; along Highway 29 in Culpeper County; along Highway 17 north of and Highway 29 northeast of Warrenton, Fauquier County; along Highway 29 in Prince William County and in Fairfax County near Prince William County line; along Highway 50 in Loudoun County near Fairfax County line; near Blue Ridge Parkway in Page County. (Tarpley). Has appeared in the following counties, where predicted for 1962: Albemarle, Amherst, Appomattox, Bedford, Buckingham, Campbell, Culpeper, Fairfax, Fauquier, Fluvanna, Hanover, Henrico, Loudoun, Page, Pittsylvania, Prince Edward, Rappahannock, Spotsylvania. Predicted to appear, but not yet reported in Caroline, Charlotte, Goochland, James City, Louisa, Lunenburg, Madison, Powhatan and Stafford Counties. Counties in which this species was not predicted to appear this year but in which it has been detected are: Patrick, Henry, Prince William and Orange. (Tarpley). MARYLAND - Adults of Brood II have appeared at several localities in Anne Arundel, Calvert and St. Marys Counties. (U. Md., Ent. Dept.) NEW JERSEY - Adults emerging. (Ins.-Dis.-Weed Newsltr., May 22). CONNECTICUT - Should be emerging in southern Hartford, eastern New Haven and in Middlesex Counties by June 1. (Savos).

BAGWORM (Thyridopteryx ephemeraeformis) - OKLAHOMA - Larval activity beginning in Bartlesville area, Washington County, and in Stillwater area, Payne County. (Okla. Coop. Sur.). MISSOURI - Eggs have hatched in southern part of State. (Munson, Thomas, Wood). ILLINOIS - Hatching in many areas of State. (Ill. Ins. Rpt.).

ARMY CUTWORM (Chorizagrotis auxiliaris) - NEW MEXICO - Damaging foliage of plants around homes in Raton area, Colfax County. (N. M. Coop. Rpt.).

BOXELDER LEAF ROLLER (Gracilaria negundella) - UTAH - Damaged foliage of some boxelder trees in Holladay-East Mill Creek area, Salt Lake County. (Knowlton).

MIMOSA WEBWORM (Homadaula albizziae) - ILLINOIS - Present in southern part of State; feeding on mimosa and honeylocust. (Ill. Ins. Rpt.).

PLUTELLID MOTHS (Argyresthia spp.) - NEW YORK - Heavy, larval infestation on Pfitzer juniper in Nassau County probably A. freyella; considerable damage evident. Collected May 10 and emerged in laboratory May 17. (N. Y. Wkly. Rpt.).

WASHINGTON - Probably Argyresthia sp., severely damaging Thuja sp. and Chamaecyparis sp. at Friday Harbor, San Juan County. (Baker).

RED-HUMPED CATERPILLAR (Schizura concinna) - CALIFORNIA - Medium on liquidamber trees in Fresno, Fresno County, and on plum in Durham, Butte County. (Cal. Coop. Rpt.).

CABBAGE LOOPER (Trichoplusia ni) - FLORIDA - Moderately infesting 800 Chrysanthemum sp. at Alva, Lee County, and at Punta Gorda, Charlotte County, May 14. (Denmark, Walsh).

BEE T ARMYWORM (Spodoptera exigua) - FLORIDA - Moderate on 800 Chrysanthemum sp. at Punta Gorda, Charlotte County, May 14. (Denmark, Walsh).

EIGHT-SPOTTED FORESTER (Alypia octomaculata) - MICHIGAN - Larvae about full grown on Boston ivy at East Lansing, Ingham County. (Hutson).

A COTONEASTER WEBWORM (Cremona cotoneastri) - OREGON - Infested cotoneaster at

several locations in Willamette Valley during May. (Capizzi).

FRUIT-TREE LEAF ROLLER (Archips argyrospilus) - COLORADO - Numerous in Denver, Weld and Larimer Counties. (Swingle Tree Service, Daniels).

BEEF LEAF BEETLE (Erynephala puncticollis) - ALABAMA - Enormous populations attacked small persimmon trees in Tallapoosa County area; particularly concentrated about Lake Martin area. (Buttram).

LOCUST LEAF MINER (Xenochalepus dorsalis) - MARYLAND - Adults appearing on foliage of black locust in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

HOLLYHOCK WEEVIL (Apion longirostre) - MARYLAND - Numerous adults observed in buds of hollyhock at University Park, Prince Georges County, May 20. (U. Md., Ent. Dept.).

A BOSTRICHID (Melalgus confertus) - CALIFORNIA - Larvae medium on boxelder in Florin, Sacramento County. Strong winds have caused limb breakage due to infestations of this species on several hosts in the Sacramento area. (Cal. Coop. Rpt.).

BOXELDER APHID (Periphyllus negundinis) - NORTH DAKOTA - Active on boxelders in Emmons County; ranged 3-10 per leaf. (N. D. Ins. Sur.).

APPLE APHID (Aphis pomi) - MARYLAND - Heavy populations caused noticeable foliage injury to several crabapple trees at College Park, Prince Georges County. (U. Md., Ent. Dept.).

AN APHID (Amphorophora sonchi) - FLORIDA - Moderate on Pyrrhopappus carolinianus at Deland, Volusia County, May 10. (Roberts).

APHIDS - CONNECTICUT - Various species increasing on many different ornamentals. (Savos). NEW YORK - Populations increased tremendously on most shrubs and flowers in Chemung County. Active on roses in Niagara County. (N. Y. Wkly. Rpt., May 21). COLORADO - Unspecified species increasing rapidly and causing minor damage to juniper in Denver area. (Wiese). UTAH - Aphis spp. severely curled leaves of snowball bushes in Hoytsville-Coalville area, Summit County; moderately severe leaf curling common in Salt Lake County. (Knowlton). NEVADA - Heavy on roses in southern Washoe County. (Arnett, Bechtel). OKLAHOMA - Several species continue troublesome on flowers, shrubbery and shade trees throughout State; heavy populations noted on birch trees in southeast. (Okla. Coop. Sur.).

FOUR-LINED PLANT BUG (Poecilocapsus lineatus) - PENNSYLVANIA - Nymphs abundant on ornamentals in Lackawanna County. (Gesell).

LACE BUGS - MARYLAND - Several species active on azalea, oak, pyracantha and sycamore in Montgomery, Calvert and Prince Georges Counties. (U. Md., Ent. Dept.). NEW JERSEY - Unspecified species quite abundant. (Ins.-Dis.-Weed Newsltr., May 22).

OYSTERSHELL SCALE (Lepidosaphes ulmi) - UTAH - Severe on ash, lilac and dogwood at Coalville, Summit County; damage moderate in nearby communities. (Knowlton). COLORADO - Eggs have not developed as expected; cold weather has slowed development and crawlers may not appear for 1-2 weeks. (Kincaid, Jenkins). WISCONSIN - Reports indicate this pest is quite prevalent this season. (Wis. Ins. Sur.). INDIANA - Hatching at Columbus, Bartholomew County, and in Tippecanoe County; this is approximately 10 days earlier than usual and is due to unusually warm weather. (Schuder). PENNSYLVANIA - Abundant and hatching on several hosts in south central area. (Pepper). RHODE ISLAND - No hatch yet reported. (Mathewson).

OBSCURE SCALE (Chrysomphalus obscurus) - CALIFORNIA - Additional delimiting survey in area around Capitol Park in City of Sacramento, Sacramento County, negative; some 25 city blocks surveyed to date. (Cal. Coop. Rpt.).

EUONYMUS SCALE (Unaspis euonymi) - PENNSYLVANIA - Abundant and hatching on euonymus, pachysandra and lilac in south central area. (Pepper). INDIANA - Hatching in Tippecanoe County. (Schuder).

BARNACLE SCALE (Ceroplastes cirripediformis) - ARIZONA - Heavy infestation present on myrtle hedge in Mesa area, Maricopa County. (Ariz. Coop. Sur.).

Coccids in Florida - Chrysomphalus aonidium moderate on Strelitzia sp. at Cocoa Beach, Brevard County (May 9), and on Archontophoenix cunninghamiana at Oakland, Orange County (May 10). Chrysomphalus dictyospermi moderate on Vanda sp. at Pinellas Park, Pinellas County (May 10). Diaspis bromeliae moderate on 50 Cattleya sp. orchids at Apopka, Orange County (May 16). Eucalymnatus tessellatus infested 10 Trachycarpus fortunei at St. Petersburg, Pinellas County (May 14), and 50 Rhapis sp. at White City, St. Lucie County (May 9). Ischnaspis longirostris severely infested 10 Trachycarpus fortunei at St. Petersburg (May 14). Phenacaspis cockerelli moderate on Strelitzia sp. at Merritt Island, Brevard County (May 10), and at Lake Jem, Lake County (May 9). Protopulvinaria pyriformis moderate on 5 Fatsia sp. plants at White City (May 9), and light on 15 Brassaia actinophylla at Apopka (May 16). (Fla. Coop. Sur.).

COCCIDS - CALIFORNIA - Stamacoccus platani medium on sycamores in Pleasant Hill, Contra Costa County. Coccinellids present in large numbers and feeding on this coccid. (Cal. Coop. Rpt.). NORTH CAROLINA - Ceroplastes sp. infested Japanese holly in Sampson County and youpon in Robeson County. (Robertson). MARYLAND - Fiorinia externa crawlers active May 23 on hemlock in Baltimore area. (U. Md., Ent. Dept.). PENNSYLVANIA - Lepidosaphes sp. very heavy on Euonymus alatus in Greene County; several branches killed. (Udine). Lecanium cerasorum infested Norway maple in Norristown and Lansdale, Montgomery County, and Coccus hesperidum heavy on vinca in Steelton, Dauphin County. Det. by G. B. Slesman. (Millet, Cole, Balsbaugh). NEW YORK - Pseudococcus spp. more abundant this year than during past 3 years in Ithaca, Tompkins County, on Crataegus spp., Prunus spp., and Taxus spp. Nymphs about half developed. (N. Y. Wkly. Rpt., May 21).

AZALEA WHITEFLY (Pealius azaleae) - RHODE ISLAND - Puparia noted on Azalea ledifolia alba of trade in Cranston, Providence County. (Mathewson).

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) - PENNSYLVANIA - Most abundant pest on ageratum and geranium in greenhouses in Lackawanna County. (Gesell).

BOXWOOD PSYLLID (Psylla buxi) - PENNSYLVANIA - Abundant on boxwood in Bucks County. (Cole, Millet).

NATIVE HOLLY LEAF MINER (Phytomyza ilicicola) - DELAWARE - First generation in 1961 season new growth has now pupated in Sussex County. (Kelsey). RHODE ISLAND - Pupal development advanced in Kingston, Washington County; no emergence yet reported. (Mathewson).

BOXWOOD LEAF MINER (Monarthropalpus buxi) - PENNSYLVANIA - Noted on boxwood in Bucks County. (Cole, Millet). NEW JERSEY - Beginning to emerge. (Ins.-Dis.-Weed Newsltr., May 22). MASSACHUSETTS - Adults active in Waltham area, Middlesex County. (Crop Pest Cont. Mess.).

A LOCUST MIDGE - SOUTH DAKOTA - An undetermined species damaging locust trees in Clay County. (Mast).

EASTERN LUBBER GRASSHOPPER (Romalea microptera) - ALABAMA - Heavy populations causing severe damage to ornamentals and pastures at Clanton, Chilton County. (Helms).

EARWIGS - UTAH - Unspecified species causing moderate damage to flower gardens in Box Elder, Cache, Utah, Tooele, Salt Lake and Weber Counties. Also active in flower gardens in Nephi area, Juab County. (Knowlton).

SPIDER MITES - VIRGINIA - Tetranychus spp. heavy on juniper at 2 locations in Botetourt County. (Rowell, Boitnott). OKLAHOMA - Heavy populations of an undetermined species present on evergreens in Bartlesville area, Washington County, and in Stillwater area, Payne County. (Okla. Coop. Sur.). COLORADO - Populations of unspecified species developing on juniper and other shrubs in Denver area. (Wiese, Swingle Tree Service).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - UTAH - Outlook is for increased difficulty in control this season due to spring rains and increased availability of irrigation water. In Weber County, controls have been applied to approximately 3,000 acres. Prospects indicate tremendous Aedes spp. problem, particularly A. dorsalis. Culiseta inornata adults presently most abundant in light traps. Mosquito breeding in fish and lily ponds in Ogden area, Weber County, was earliest since control district was organized; fish have been placed in all pools. Larval counts of Aedes increpitus unusually high in river bottom; Culex tarsalis counts lowest. Light trap counts of various species are 2.5 times as high as in 1961. Adult annoyance also occurring in Davis, Millard, Duchesne and Cache Counties. (Fronk, Knowlton).

WYOMING - Unspecified species becoming a problem to man and animals in Wheatland area, Platte County. (Fullerton). NEBRASKA - Culicine larvae very abundant in north central area. (Rapp). MINNESOTA - Total of 823 larval collections made May 6-12 in Minneapolis-St. Paul area; 41 percent contained Aedes fitchii, 37 percent A. excrucians, 18 percent A. vexans, 15 percent A. flavescens, 13 percent A. cinereus; Culiseta inornata found in 29 percent of collections. Rainfall May 12-13 resulted in heavy hatch of Aedes vexans, with scattering of Aedes trivittatus. Above normal temperatures during week of May 19 accelerated development. Aedes sp. was numerous in brushy areas in St. Croix State Park May 16. (Minn. Ins. Rpt., May 18). In area of Anoka, Dakota, Hennepin, Ramsey, Scott and Washington Counties, 1,938 larval collections made during period May 13-19; 7 percent of collections contained Aedes fitchii, 4 percent A. excrucians, 3 percent A. trivittatus, 22 percent Culiseta inornata, 5 percent Culex restuans; total of 19 species taken in larval collections. Sixteen light traps operated during same period; of 1,476 adults collected, two-thirds were taken in 2 traps located outside the 6-county area. Female mosquitoes comprised 40 percent of the total collections, of which 9 percent were Aedes abserratus, 9 percent A. cinereus, 7 percent A. vexans, 1 percent A. sticticus, 1 percent A. dorsalis, 9 percent Culiseta inornata, 2 percent Culex restuans. As of May 24, twice the normal amount of rainfall for the month of May had been recorded. (Minn. Ins. Rpt.). WISCONSIN - Mosquitoes increasing and becoming annoying in northern counties; preventing cattle from grazing in Wood and Price Counties. (Wis. Ins. Sur.). TEXAS - In Jefferson County, light trap on Pleasure Island indicated considerable flight of salt-marsh Culex spp.; C. salinarius was predominant. Landing rates at Port Arther and on Pleasure Island quite high during April period. Culiseta inornata very numerous in 2 light traps at airport during same period. Brood of Aedes vexans located in pasture and on fallowed riceland; brood covered extensive area in northwest portion of county; however, water dried up before brood emerged. Salt marshes dried toward end of month, although supporting considerable breeding earlier. Anopheles crucians, Culiseta inornata and Culex nigripalpus only species collected. Culex restuans collected from roadside ditches and Culex pipiens quinquefasciatus was common in polluted water. (Jefferson Co. Mosq. Cont. Comm., Apr. Rpt.). RHODE ISLAND - Unspecified species troublesome in Pawtucket and East Providence areas, Providence County. (Pannone).

HORN FLY (Haematobia irritans) - OREGON - Adults observed in Gilliam and Morrow Counties. (Every). UTAH - Ranged 10-100 per animal in portions of Weber and Juab Counties. Few observed on cattle in Deseret area, Millard County. (Knowlton). NEBRASKA - Light populations of 2-8 per side of beef cattle present in Platte County (Roselle); approximately 25 per side of beef cattle present in Cuming and Dodge Counties (Bergman). KANSAS - Counts on cattle in southern and western areas ranged 25-50 per animal. (Peters). OKLAHOMA - Light to heavy in all cattle areas of State; ranged 150-600 per head on cows in northeast area. Controls being

undertaken in most areas. (Okla. Coop. Sur.). TEXAS - Continues economic on livestock in all areas; ranchers applying controls. (Texas Coop. Rpt.). GEORGIA - Average counts per animal by date and county, were as follows: May 3 - Wilkes, less than 10 per head; May 8 - Putnam, 490 and 217; May 14 - Lamar, 12.5; Sumter, 93; Macon, 14.5; May 15 - Spalding, 10.6 and 131.5; Putnam, 72 and 38; May 17 - Polk, 260; Whitfield, 83 and 20; Pickens, 20; White, 8.5; Rabun, 32; May 18 - Rabun, 16; Clarke, 325 and less than 10 per animal. (Roberts). WISCONSIN - Somewhat of a problem in Lafayette and Walworth Counties. (Wis. Ins. Sur.). ILLINOIS - Counts varied 0-300 (averaged 62) per animal. (Ill. Ins. Rpt.). VIRGINIA - Light to medium on cattle in Patrick, Carroll, Campbell, Franklin, Amherst, Nelson, Albemarle, Fauquier, Greene, Prince William, Fairfax and Warren Counties; heavy on cattle in Clarke and Floyd Counties. (Tarpley). NEW YORK - Low active on livestock. (N. Y. Wkly. Rpt., May 21). numbers active on livestock. (N. Y. Wkly. Rpt., May 21). FACE FLY (Musca autumnalis) - VIRGINIA - Ranged light to medium on cattle in Patrick, Carroll, Floyd, Montgomery, Prince William, Fairfax and Page Counties, and medium to heavy in Fauquier, Clarke and Warren Counties. New county records are Patrick, Floyd, Prince William, Fauquier and Clarke Counties. (Tarpley). NORTH CAROLINA - First report of season received from Yadkin County. (Smith). GEORGIA - Ranged 10-40 per animal, averaged 20, in Rabun County. This is first report of season. (Roberts). NEBRASKA - Adults ranged 4-6 per head on beef animals in Platte County; populations numerous in Thayer County. (Roselle). Averaged 6 adults per head in Lancaster County (McCoy) and 4-8 per face on beef and dairy animals in Cuming and Dodge Counties (Bergman). WISCONSIN - Adults beginning to appear in Rock County. (Wis. Ins. Sur.). ILLINOIS - Counts varied 0-7 (averaged 1.1) per face. (Ill. Ins. Rpt.). INDIANA - Populations reduced over previous week; now range 1-5 and average less than one per animal in Grant County. (Dobson). VERMONT - Not yet serious. (MacCollom).

HOUSE FLY (Musca domestica) - OKLAHOMA - Populations increased considerably in Stillwater area, Payne County; 50-60 per scudder grid. (Okla. Coop. Sur.). TEXAS - Becoming very troublesome in feedlots, dairy barns and poultry houses in wide areas of southern portion of State; one report indicated at least 10 bushels of flies killed during one day at a feedlot in De Witt County. (Texas Coop. Rpt., Smith, Goldsmith).

STABLE FLY (Stomoxys calcitrans) - NEW YORK - Active in low numbers on livestock. (N. Y. Wkly. Rpt., May 21). ILLINOIS - Ranged 0-8 (averaged 1.6) per animal. (Ill. Ins. Rpt.). NEBRASKA - Overwintering adults and first-generation larvae present in Lancaster County. (McCoy). OKLAHOMA - Populations remain unchanged in Stillwater area, Payne County. Counts of 3-5 per animal causing considerable annoyance to animals in feedlot in Craig County. (Okla. Coop. Sur.).

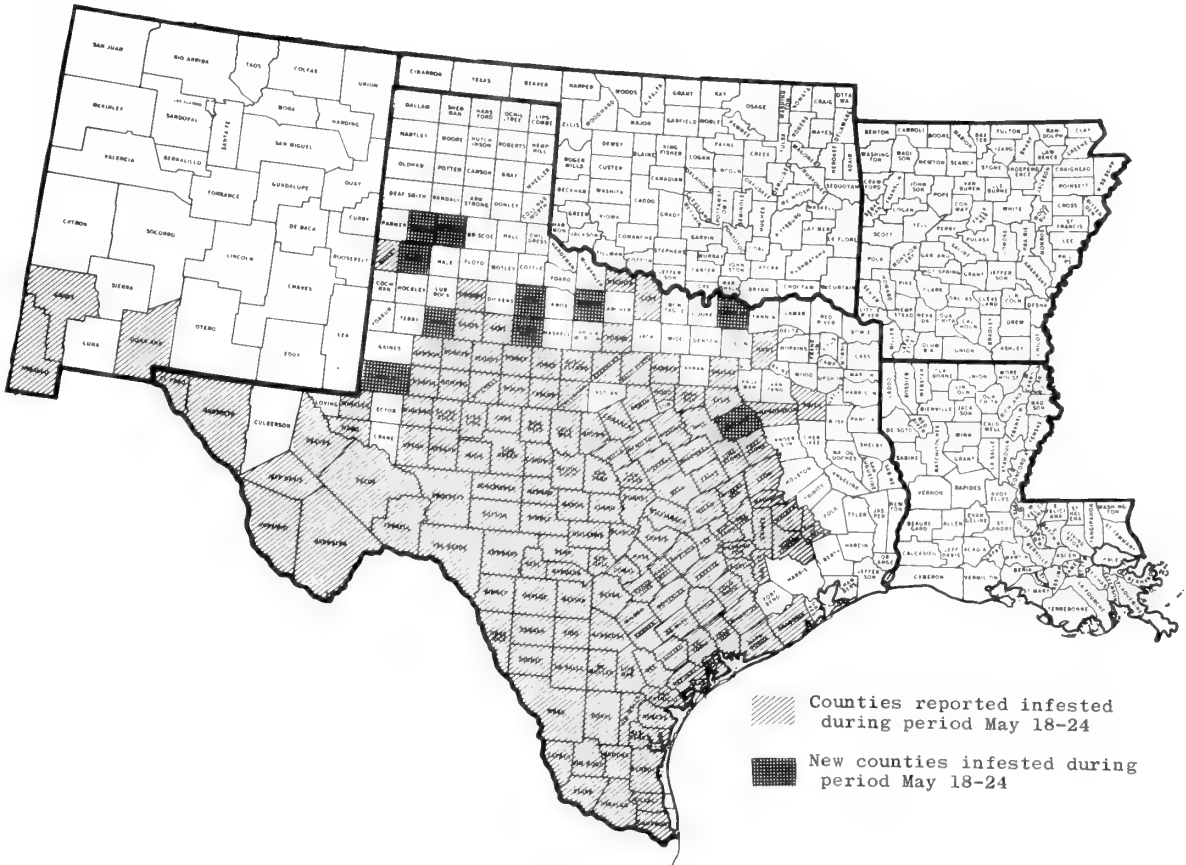
BLACK FLIES - NORTH DAKOTA - Fifty one specimens of Simulium venustum collected on one yard from 5:00 to 5:30 p. m. on May 24. As eggs are laid on blades of grass trailing at surface of water, water in ditches due to unseasonably heavy rains in area accounts for abundance and appearance of this species 5-7 days earlier than normal. This is highest number collected in a 30-minute period since 1950. (R. L. Post). NEBRASKA - Undetermined species continue to cause considerable discomfort in Gage, Jefferson and Saline Counties. (Rapp). MARYLAND - Simulium venustum annoying homeowners at Millersville, Anne Arundel County. (U. Md., Ent. Dept.). RHODE ISLAND - Complaints concerning unspecified species, widespread. (Mathewson, Cartier).

CATTLE GRUBS (Hypoderma spp.) - UTAH - Small numbers present in backs of cattle in Summit County. (Knowlton).

FLIES - WISCONSIN - Flies, principally Musca domestica, becoming noticeable throughout State, but not yet a problem. (Wis. Ins. Sur.). NEW YORK - Various species abundant on pasturing cattle. (N. Y. Wkly. Rpt., May 21) VERMONT - House flies building up in most areas. (MacCollom).

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST,
MAY 18-24

During the period May 18-24, a total of 24,345,200 sterile flies were released over an area of 52,723 square miles. Release rate was 200 flies per square mile over an area of 49,179 square miles and 400 per square mile over an area of 3,544 square miles. A total of 1,496 screw-worm cases were reported during the period. New counties reporting screw-worm were Andrews, Baylor, Castro, Grayson, King, Lamb, Lynn, Navarro, Stonewall and Swisher Counties, TEXAS. The map below shows the infested counties in TEXAS and NEW MEXICO as of May 24. (Anim. Dis. Erad. Div.).



TABANIDS - NEW YORK - Unspecified species present in low numbers on livestock. (N. Y. Wkly. Rpt., May 21). MARYLAND - Chrysops spp. very annoying in tidewater areas of Calvert and St. Marys Counties. (U. Md., Ent. Dept.). INDIANA - Incidence of Tabanus spp. increased; averaged 1-2 strikes per minute per animal in Grant County. (Dobson). ILLINOIS - Unspecified species ranged 0-1 (averaged 0.14) per animal. (Ill. Ins. Rpt.). MISSOURI - Tabanus spp. averaged 3 per animal on one herd in southeast area. (Munson, Thomas, Wood). High populations of Chrysops spp. reported in central area. (Wingo). OKLAHOMA - Light population (5 per 10 animals) of an undetermined species noted in Stillwater area, Payne County. (Okla. Coop. Sur.).

SHEEP KED (Melophagus ovinus) - UTAH - Numerous in some flocks in Summit County; moderate numbers present in other flocks. (Knowlton).

GNATS - CONNECTICUT - Unspecified species reported troublesome at New Hartford, Litchfield County. (Savos).

A GRASS BUG (Arhyssus barberi) - OREGON - Bothering homeowners in the Dallas area, Polk County. (Capizzi).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Continues to cause concern among stockmen throughout eastern third of State. (Okla. Coop. Sur.). MISSOURI - Populations continue heavy on cattle in southern and central areas. (Munson, Thomas, Wood).

AMERICAN DOG TICK (Dermacentor variabilis) - MISSOURI - Heavy populations continue on cattle in southern and central parts of State. (Munson, Thomas, Wood).

MINNESOTA - Numerous in St. Croix State Park. (Minn. Ins. Rpt., May 18).

ROCKY MOUNTAIN WOOD TICK (Dermacentor andersoni) - OREGON - Appears to be more abundant than usual in Blue Mountains area of northern Umatilla and Wallowa Counties. (Every).

TICKS - RHODE ISLAND - Complaints widespread. (Mathewson, Cartier). UTAH - Active and annoying to man in Nephi-Levan area, Juab County. (Knowlton).

A BROWN SPIDER (Loxosceles reclusa) - ILLINOIS - Taken in numbers in Massac County, week of May 14. Det. by M. W. Sanderson. (Ill. Ins. Rpt.). Possible new State record.

HOUSEHOLD AND STRUCTURAL INSECTS

TERMITES - RHODE ISLAND - Reports concerning alates continue statewide. (Mathewson, Cartier). CONNECTICUT - Swarming reported at 3 locations in Manchester, Hartford County, and at one location in Coventry, Tolland County. (Savos). NEW JERSEY - Swarming of unspecified species continues. (Ins.-Dis.-Weed Newsltr., May 22). WISCONSIN - Swarming of Reticulitermes flavipes about ceased; observed in winged stage as early as March 26 in La Crosse. This pest appears to be a serious problem in the city of La Crosse and possibly in area adjacent to Mississippi River. (Wis. Ins. Sur.). OKLAHOMA - Unspecified subterranean species continue to swarm in Stillwater area, Payne County, and in Delaware County. (Okla. Coop. Sur.).

BLACK CARPET BEETLE (Attagenus piceus) - PENNSYLVANIA - Abundant in an office in a converted feedmill in Montgomery County. (Cole).

A FALSE CHINCH BUG (Nysius sp.) - ARIZONA - Very heavy nymphal populations continue to invade housing areas near the desert in central part of State. (Ariz. Coop. Sur.).

ORIENTAL COCKROACH (Blatta orientalis) - MARYLAND - Infested a home at Bethesda, Montgomery County. (U. Md., Ent. Dept.).

SILVERFISH (Lepisma saccharina) - MARYLAND - Common in several homes at Hyattsville, Prince Georges County. (U. Md., Ent. Dept.).

ANTS - CONNECTICUT - Unspecified species swarming at Meriden, New Haven County. (Savos). RHODE ISLAND - Alates of Tetramorium caespitum frequently reported. (Mathewson). MARYLAND - Winged forms of T. caespitum appeared in home at Takoma Park, Montgomery County. (U. Md., Ent. Dept.). VIRGINIA - Camponotus pennsylvanicus common throughout home in Gloucester County. (Tarpley, Birdsall).

CARPENTER BEES - CONNECTICUT - Unspecified species active and damaging around State. (Savos). PENNSYLVANIA - Numerous reports of Xylocopa virginica in wood about homes in Harrisburg, Dauphin County (Sleesman, Balsbaugh); also reported

annoying to Apis mellifera in Clarion County (Udine). MARYLAND - Xylocopa virginica adults active in shingles and woodwork of several homes in Frederick and Prince Georges Counties, and in Baltimore. (U. Md., Ent. Dept.).

CLOVER MITE (Bryobia praetiosa) - PENNSYLVANIA - Continues pestiferous in homes in northeastern area. (Gesell). WYOMING - Infesting homes and lawns of many residences in Platte County. (Fullerton).

BENEFICIAL INSECTS

LADY BEETLES - WYOMING - Adults of Coccinella spp. and Hippodamia spp. averaged 27 per 100 sweeps in alfalfa and 17 in wheat in Platte County. (Fullerton). SOUTH DAKOTA - Unspecified species ranged 10-20 per 100 sweeps in east central area. (Hintz). NEBRASKA - Hippodamia convergens ranged 11-15 per 10 sweeps in Howard County alfalfa where buildup of spotted alfalfa aphid had been occurring; ranged 14-42 and averaged 29.4 per 200 sweeps in Lancaster County sweetclover. (Calkins). MINNESOTA - Adults of unspecified species per 100 sweeps in alfalfa averaged 7 in southeast district and 6 in central district. (Minn. Ins. Rpt., May 18). TEXAS - Several species becoming very abundant in cotton, vegetable and forage crops where aphids are becoming problems. (Texas Coop. Rpt.). ALABAMA - Numerous species, mostly Hippodamia convergens, Coleomegilla maculata fuscilabris and Coccinella novemnotata, abundant throughout much of southern and central portions of State. (Buttram). ILLINOIS - Adults of several species varied 20-80 (averaged 42) and larvae 0-60 (averaged 19) per 100 sweeps in clover and alfalfa in central and western districts. (Ill. Ins. Rpt.). NEW YORK - Numerous egg clusters noted in orchards in Clinton County, May 16; eggs noted in apple orchard in Niagara County on May 15, and larvae observed May 18. (N. Y. Wkly. Rpt.). OKLAHOMA - Light to heavy numbers of several species continue present in most habitats. (Okla. Coop. Sur.).

GREEN LACEWINGS (Chrysopa spp.) - ILLINOIS - C. oculata adults varied 0-40 (averaged 5) and larvae 0-10 (averaged 1) per 100 sweeps in clover and alfalfa in central and western districts. (Ill. Ins. Rpt.). ARKANSAS - Principal predators at present on cotton. (Ark. Ins. Sur.). OKLAHOMA - Averaged 4-5 per 10 sweeps in alfalfa in Stephens County area, southwest. (Okla. Coop. Sur.). UTAH - Numerous in alfalfa in Delta-Sutherland area, Millard County. (Knowlton).

DAMSEL BUGS - ILLINOIS - Unspecified species ranged 10-40 (averaged 18) per 100 sweeps in clover and alfalfa in central and western districts. (Ill. Ins. Rpt.). MINNESOTA - Counts per 100 sweeps in alfalfa averaged one in southeast district and 0.8 in central district. (Minn. Ins. Rpt., May 18). NEBRASKA - Nabis sp. ranged 1-5 per 10 sweeps in Howard County alfalfa, where buildup of spotted alfalfa aphid occurred. (Calkins). SOUTH DAKOTA - Unspecified species ranged 20-30 per 100 sweeps in east central area. (Hintz). WYOMING - Nabis spp. adults averaged 19 per 100 sweeps in alfalfa in Platte County. (Fullerton).

FLOWER FLIES - UTAH - Adults of unspecified species common in alfalfa at Delta, Millard County, and at Willard, Box Elder County. Few larvae also present. (Knowlton).

A ROBBER FLY (Leptogaster obscuripennis) - FLORIDA - Found on Asparagus plumosus at Fern Park, Seminole County, May 3. (Youtsey).

HONEY BEE (Apis mellifera) - CONNECTICUT - Continues to swarm because of warmer weather. (Savos). RHODE ISLAND - Swarming statewide; first reported May 5. (Mathewson, Cartier).

AN ICHNEUMONID (Bathyplectes curculionis) - UTAH - Very numerous in alfalfa in Cache County where alfalfa weevil (Hypera postica) is numerous; larval parasitism conspicuous. Parasite also numerous in Delta-Deseret area, Millard County, and in alfalfa in Tooele and Salt Lake Counties. (Knowlton).

MISCELLANEOUS INSECTS

A BLUE BUTTERFLY (Lycaenopsis argiolus) - FLORIDA - Collected at Florida Caverns State Park, Jackson County, April 14. This is first collection in western part of State. (Weems).

A CICADA (Magicicada cassinii) - OKLAHOMA - Large numbers present along creek bottoms in Stillwater area, Payne County. (Okla. Coop. Sur.).

FRUIT FLIES - FLORIDA - PAPAYA FRUIT FLY (Toxotrypana curvicauda) collected in McPhail trap at 2 locations at Miami Beach, Dade County, May 3 and 2 locations same area May 10 and one location at Hialeah, Dade County, May 11. Collected at 2 locations in Fort Myers, Lee County, May 15, 18 and 2 locations in Miami, Dade County, May 10, 17. Anastrepha interrupta collected in McPhail trap at Stuart, Martin County, May 18. (Fla. Coop. Sur.).

GRAIN THRIPS (Limothrips cerealium) - CALIFORNIA - Heavy populations invaded building in Santa Barbara, Santa Barbara County. (Cal. Coop. Rpt.).

A HANGINGFLY (Bittacus pilicornis) - FLORIDA - Collected at Gainesville, Alachua County, April 8; this is first State record. Det. by Dr. G. W. Byers, Univ. of Kan. (Weems).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - NORTH CAROLINA - Additional infestations found in Carteret and Onslow Counties. In former county, infestations found in small, open sites within large, heavily wooded areas all within area of general infestation. Infestations in latter county on golf course as well as farmlands; all mounds treated as well as railroads and road right-of-ways to infestations. First flights observed in Carteret County April 1. GEORGIA - Reappraisal surveys continued in Troup, Bibb, Muscogee, Pierce, Bleckley and Bulloch Counties; control excellent but some ants moving into portion of treated area in Columbus, Muscogee County. Ground treatments being applied to several areas including Augusta, Richmond County, Albany Marine Base, Dougherty County, and agricultural areas in Muscogee and Early Counties. (PPC, So. Reg.; Apr. Rpt.). FLORIDA - Collected at Auburndale, Polk County, May 17 and Trilby, Pasco County, by interception from shipment of stump wood from Hillsborough County on May 18; det. J. A. West. (Wiley, Racine, Smith). ALABAMA - First application of treatments in city parks and recreational areas in Mobile, Mobile County, nearing completion; treatments more than 90 percent effective. Control district involving 2,200 acres of cropland approved at Pleasant Hill, Dallas County. Control district involving a 10,000-acre block and a 5,000-acre block in Autauga County proposed. Resurveys of number of nurseries over State indicated some ants in environs of nurseries; infestations treated rapidly as possible. Treatment started on Birmingham Municipal Airport, Jefferson County. MISSISSIPPI - Controls continued in number of counties. TENNESSEE - Inspections in number of counties negative. ARKANSAS - Second application completed on approximately 20,000 acres in Union County. LOUISIANA - Surveys increased considerably, especially in northern part of State where efforts to treat infestations and determine if infestations present in parts of parishes not known to be infested. Survey in 19 parishes revealed infestations in 6 previously infested parishes. Extensions being found especially in Livingston, Concordia, and Madison Parishes. Aerial applications over 188,000 acres completed; second area of 182,000 acres practically completed as of April 27. TEXAS - Light infestations found in Gregg and Harrison Counties near previously treated areas; mounds treated. Thorough survey nearing completion in Harlingen district, Cameron County; infestations not found. Arrangements for treatment in Jersey Village involving 1,500 acres and 150 acres of industrial property in Houston, Harris County. (PPC, So. Reg.; Apr. Rpt.).

AN EARWIG (Euborellia annulipes) - NORTH DAKOTA - Specimens from established colony in North Dakota State University greenhouse determined this species by Dr. I. J. Cantrall. Normal range is Southern United States; this is a new State record. (R. L. Post).

JAPANESE BEETLE (Popillia japonica) - CALIFORNIA - Trapping in and near known infested areas in Sacramento and Yolo Counties started April 5. (PPC, West. Reg.; Apr. Rpt.). First adult taken in trap in area of heaviest infestation of 1961; second adult taken in shrub in same area, both on May 21. Cool weather probably delayed emergence in Sacramento, Sacramento County. Area now covered with insecticides and second application underway. Total of 3,129 traps operated on 3,045 properties. Two active grubs taken indicating long, drawn out emergence period. (Cal. Coop. Rpt.). ILLINOIS - Treatment of 683 acres in East St. Louis and Washington Park areas completed March 29. (PPC, Cent. Reg.). GEORGIA - First adult collected May 15 at Augusta, Richmond County. NORTH CAROLINA - First adult of season trapped at New Hanover County Airport May 20. (PPC, So. Reg.). OHIO - Community project in Butler County by residents; 1,250 pounds of insecticide applied to 73 properties. (PPC, Cent. Reg.; Apr. Rpt.).

A MAY BEETLE (Phyllophaga tristis) - NEW YORK - Hot weather brought swarms from soil in Chemung County during evenings and caused much alarm to homeowners. (N. Y. Wkly. Rpt., May 21).

A SCARAB (Onthophagus nuchicornis) - PENNSYLVANIA - Collected in Pike County May 16; det. E. U. Balsbaugh. (Raub).

WHITE-FRINGED BEETLES (Graphognathus spp.) - Control work accomplished in Duplin, Pender, Rowan, Wilson, Wayne and Onslow Counties, NORTH CAROLINA; all known infestations in Duplin County and 1 nursery in Wake County treated. All remaining acreage in Florence County, SOUTH CAROLINA, treated during month and retreatment of primarily industrial and residential areas in Darlington County continued. All known infestations in ARKANSAS with exception of one wheatfield at Blytheville, Green County, treated. Larval surveys made in number of counties in MISSISSIPPI; nurseries treated in George, Copiah and Harrison Counties and 125 acres for tomato transplants in Stone County. Inspections made in Fayette, Hardeman, Lauderdale, Shelby and Tipton Counties, TENNESSEE; 1 new find on Highway 70 west of Arlington, Shelby County, confirmed. Treatments applied in Franklin, Hardeman, Shelby and Tipton Counties. Combination imported fire ant-white-fringed beetle treatment in Baton Rouge, LOUISIANA, about 80 percent complete. Other treatments made in St. Tammany and Washington Parishes; U. S. Highway 51 near Louisiana-Mississippi State line in Tangipahoa Parish. Controls accomplished also in Acadia, Orleans and East Baton Rouge Parishes. Eradication treatment in Harlem, Columbia County, GEORGIA, progressing satisfactorily; about 35 acres of soil treatment and an 8-acre area for housing development only acreages remaining in county. In Bulloch County, 330 acres of soil treatments applied. Limited treatments applied in Decatur, Irwin, Schley, Bibb, Chandler and Toombs Counties. In latter county, larvae severely damaged 10-acre tomatofield prior to treatment. Cornfield in Irwin County damaged prior to treatment; no pupae were recovered. ALABAMA - Treatment of Birmingham Municipal Airport completed. Eradication program in Baldwin County continued; over 500 acres treated during month. First report of larval damage to crops noted in Mobile County. (PPC, So. Reg.; Apr. Rpt.).

LIGHT TRAP COLLECTIONS

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	Pseud. unip.	Agrot. ips.	Feltia subterr.	Perid. saucia	Prod. ornith.	Protoparce sexta quing.	Heliothis zea vires.
ARIZONA							
*Yuma 5/17-23			44				17
ARKANSAS							
Hope 5/17-23		8		2			4
Morrilton 5/17-23	4	5					4
Kelso 5/17-23	6	7		10			4
CALIFORNIA							
Shafter Exp. Sta. 5/19-23	1	6	4	2			1
COLORADO							
New Liberty 5/18-25		5				1	2
Two Buttes 5/18-25		22					
FLORIDA							
Quincy 5/20	1	1	6		1	5	9
Gainesville 5/18,20			12		3	2	
ILLINOIS (County)							
Champaign 5/18-24	37	18		3			
INDIANA (Counties)							
Jasper 5/11-21	6	6		1			
La Porte 5/15-21	56	4					
Lawrence 5/12-20	8	2		3			
Tippecanoe 5/17-23	5						
Vanderburgh 5/17-21		2					
KANSAS							
Garden City 5/17,21	14			4			
Hays 5/17,19,22	20			1	1		
Manhattan 5/19-22					3		
MINNESOTA							
Rochester 5/6-20	10	4					
Shakopee 5/15-18	1						
Fergus Falls 5/17-19		2					
MISSISSIPPI							
*Stoneville 5/18-24	1,584	173	34	682	42	28	59
NEBRASKA							
North Platte 5/11-23	57	3		73		2	3
Kearney 5/10-15	1						
NORTH DAKOTA							
Fargo 5/21-25	1						
SOUTH CAROLINA							
Clemson 5/19-25	19	13	5	6	35	8	5
Charleston 5/14-27	30	23	21	13	26	9	2
SOUTH DAKOTA (County)							
Brookings 5/22-23	18	4					
TEXAS							
Waco 5/19-25	12	3	6	14	10		21
Brownsville 5/17-23			214	4	2	1	4

* Three traps - Yuma; 2 traps - Stoneville.

(Continued on page 577)

LIGHT TRAP COLLECTIONS (Continued)

	Pseud. unip.	Agrot. ips.	Feltia subterr.	Perid. saucia	Prod. ornith.	Protoparce sexta quinq.	Heliothis zea vires.
WISCONSIN							
Platteville 5/14-20	27	14		5			
Middleton 5/17-22	23	3		4			
Madison 5/17-22	33	8		2			
De Forest 5/14-21	18	9					
Reedsville 5/15-21	13	2					
Wayside 5/15-21	3	2					

Additional Light Trap Collections

ARIZONA (*Yuma, 5/17-23) - Spodoptera exigua - 1,464.

CALIFORNIA (Shafter Exp. Sta., 5/19-23) - Loxostege sticticalis - 7; Prodenia praefica - 55; Proxenus mindara - 24; Spodoptera exigua - 56.

COLORADO - (Two Buttes, 5/18-25) - Loxostege sticticalis - 442.

KANSAS - Loxostege sticticalis - (Garden City, 5/17-21) - 91; (Hays, 5/17,19,22) - 2.

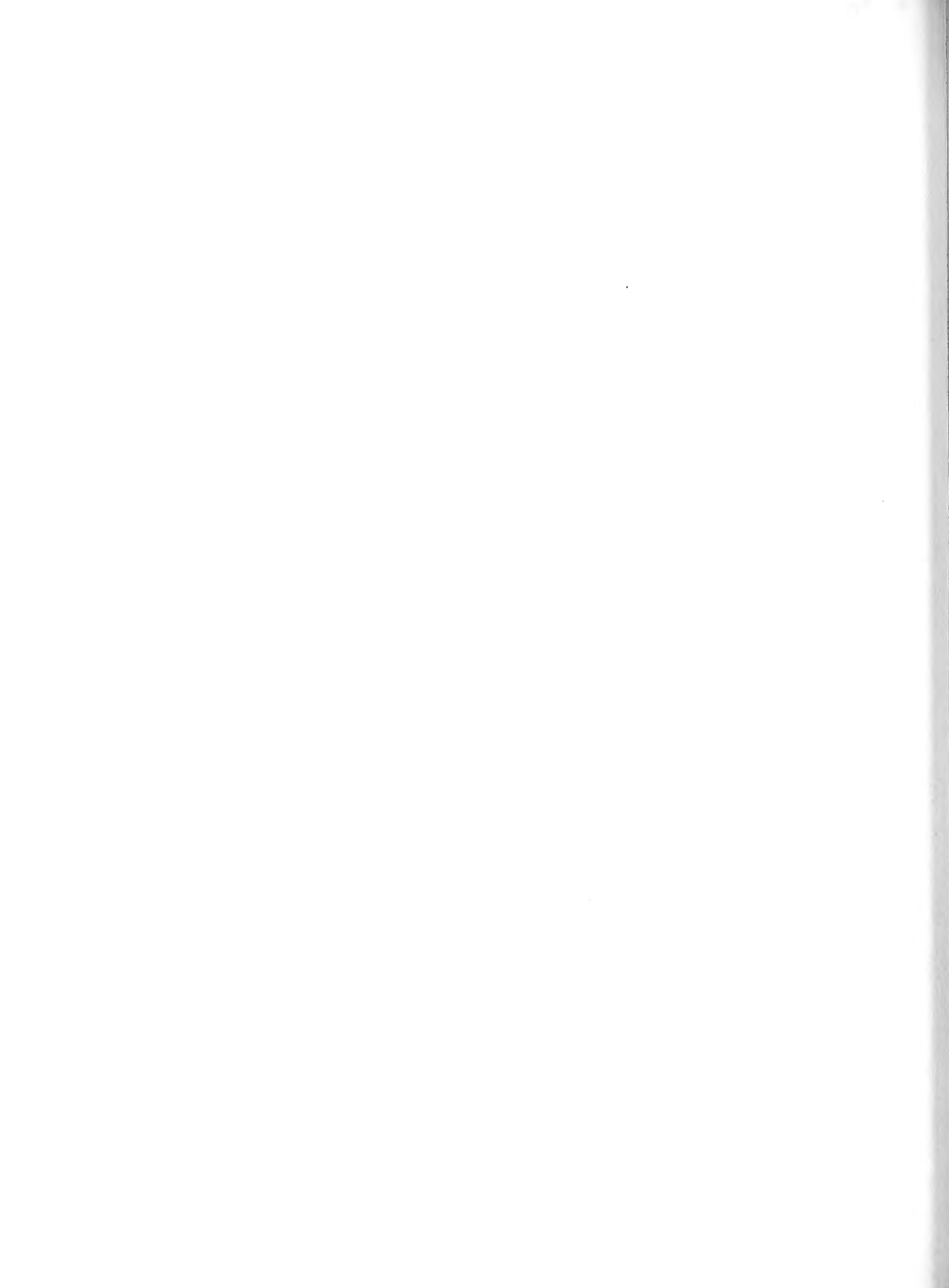
NEBRASKA - (North Platte, 5/18-23) - Ostrinia nubilalis - 1.

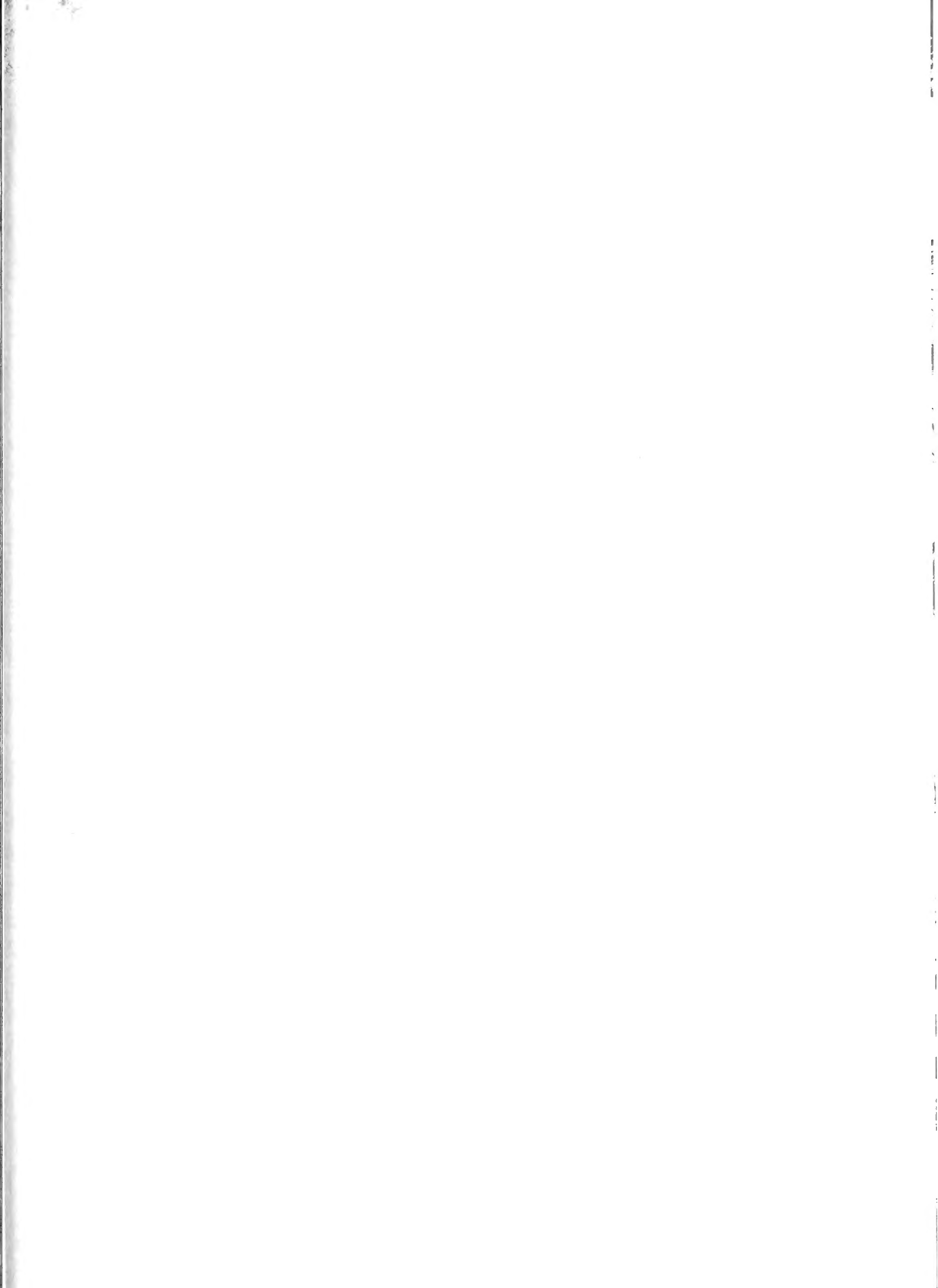
* Three traps - Yuma.

Weather of the Week Ending May 28 (Continued from page 544)

May, and forested areas of Florida are very susceptible to fires. Along the east coast, rainfall was light to moderate, and severe storms were reported from West Virginia into New England. Hailstones to 1-1/2 inches were reported from the storm area in Connecticut, where on the 24th a tornado killed 1 man and caused an estimated \$3.5 million damages along a 12-mile path from Bunker Hill section of Waterbury through Walcott and Southington. Interior sections of the country received the most precipitation even though areas such as the Pacific Northwest were cloudy all week. Portland, Oregon, reported only 12 hours of sunshine for the period. One of the cooler areas, Utah, had a report of 4 inches of snow on the 21st at Delta.

The northern and central Rocky Mountain States are reported to have some of the greatest May rainfall totals in many years. Amounts up to 5.00 inches fell during the past week in Wyoming. Numerous areas received amounts in excess of 1-1/2 inches in that State, and locally heavy rains caused flooding in Montana. Some of the most severe weather occurred over the northern and central sections of the Great Plains and Mississippi Valley where frequent squall lines touched off thunderstorms, occasionally accompanied by tornadoes, hail and strong winds. Such storms were nearly a daily occurrence in Nebraska, and a tornado at Tilden damaged 83 homes, while another caused scattered damage for more than 25 miles from Spencer, Nebraska, to Lake Andes, South Dakota. In the latter State, precipitation was quite general and ranged up to 6.53 inches. In Greer County, Oklahoma, only 30 minutes were needed to capture 4.00 inches of rain. Kansas observers reported numerous hailstorms, high winds and occasional tornadoes. In the Texas Panhandle, Spearman was swamped by heavy rain and hail up to baseball size as the week ended. (Summary supplied by U. S. Weather Bureau).





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