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THE INSECT PEST SURVEY
BULLETIN

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BUREAU OF ENTOMOLOGY
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THE STATE ENTOMOLOGICAL
AGENCIES COOPERATING

OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR SEPTEMBER, 1928.

Grasshoppers are numerous enough in Kansas and Montana to threaten seriously the new seeding of winter wheat.

The Hessian-fly situation in Kansas is not very encouraging. Volunteer wheat is very rank and there are indications that a considerable part of the crop will be planted before the fly-free date.

Scouting being carried on by the European corn borer control unit indicated that up to September 15 the one generation infestation of the borer had advanced about one tier of counties southwestward in Indiana and northwestward in Michigan; southward about one tier of counties in Ohio and southeastward about the same distance in Pennsylvania, crossing the northern third of New Jersey. It has extended northward and eastward into the Connecticut River Valley in Massachusetts and to cover the westernmost tier of counties in Vermont, and has crossed the southern part of the State into New Hampshire. It has also been reported from Marshall County, West Virginia.

A very severe outbreak of the fall armyworm occurred in Haiti late in August.

In the central portion of the infested area, the Japanese beetle seems to be somewhat less prevalent than during the past four or five years. *

The plum curculio was so unusually abundant this year in the Fort Valley section of Georgia that attempts are being made to control it even after the crop has been harvested.

A new blueberry pest, Frankliniella vaccinii Morg., is reported as doing rather severe damage in parts of Maine.

During the past season very considerable loss was occasioned by the pecan nut case bearer in parts of Texas.

The onion thrips seems to be more abundant in the Connecticut River Valley in Connecticut than last year.

*Recent scouting located beetles at New London, Connecticut, Sayre, Pennsylvania, and Frederick and Hagerstown, Maryland.

The bean leaf roller is reported as seriously attacking beans in parts of North Carolina and Florida.

The Bertha armyworm appeared late in August in the northwestern corner of Montana, seriously injuring sugar beets.

During the past summer the sweet-potato leaf beetle was reported for the first time from Maryland.

The sugarcane borer is very decidedly less abundant in the cane fields of Louisiana than it was this time last year, the average for all fields this year being 7.6 per cent as compared with an average of 79.1 per cent in 1927.

The satin moth appears to be increasing in Rhode Island.

Owing to wet weather, much of the wheat in Kansas went into storage in damp condition, which has resulted in very serious losses caused by stored-grain insects.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

Missouri L. Haseman (September 26): Melanoplus femur-rubrum DeG. and M. differentialis Thom., have continued to be abundant during September and have done considerable damage to late corn and to young orchards.

Kansas J. W. McColloch (September 21): Grasshoppers, Melanoplus atlantis Riley, are abundant throughout much of the State. At present they are causing considerable damage to fall-sown alfalfa and undoubtedly will be injurious to wheat when it comes up.

Montana W. B. Mabee (August 23): Grasshoppers are not abundant enough to do serious damage to this year's crop, but will probably necessitate some poisoning operations on this year's seeding of winter wheat, especially in eastern Montana.

MORMON CRICKET (Anabrus simplex Hald.)

Montana W. B. Mabee (August 23): The Mormon cricket, owing to poisoning operations and the work of the two parasites, has practically disappeared. After an extended search through its breeding grounds none could be found. Both parasites, however, were abundant.

WIREWORMS (Elateridae)

Indiana J. J. Davis (August 30): Wireworms were reported damaging potatoes at Indianapolis August 5.

North Carolina J. N. Tenhet (August): Adult elaterids of the genus Monocrepidius have been very numerous this summer. M. vespertinus Fab., M. bellus Say, and M. lividus DeG. have been taken very freely.

JAPANESE BEETLE (Popillia japonica Newm.)

General Monthly letter Bureau of Entomology, No. 172, August, 1928: The colony of the Japanese wasp, Tiphia popilliavora Rohwer, established near Riverton, N. J., has more than maintained its vigorous condition. During August sufficient adults were present to permit the release of 18 additional colonies. A total of 28 subcolonies in all have been released from the parent colony. A recent check-up of the points where colonies of this insect were set free in 1927 revealed the fact that the 10 subcolonies were well established. Centeter cinerea Aldrich, the introduced tachinid parasite of the adult Japanese beetle, were released in large numbers during July and August at Bridgeport, Conn., Harrisburg, Pa., and Nobile, Pa. Following the

release of the flies, many beetles were recovered upon which eggs had been deposited.

Conditions in the central portion of the area heavily infested by the Japanese beetle indicate a slight reduction in the population of the beetle, as compared with conditions during the last four or five years.

CEREAL AND FORAGE-CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Missouri

L. Haseman (September 26): Inquiries are being received from farmers regarding the fly-free date for different sections of the State, but no sign of any serious infestation of fly has been reported.

Kansas

J. W. McColloch (September 21): Present indications are that the Hessian fly is still a problem with us, and we anticipate some damage this fall. Apparently the area of infestation involves central Kansas. Owing to abundant rainfall, there has been a heavy growth of volunteer wheat, and we find maggots present in this. Because of the rank growth of volunteer wheat in some sections, the farmers are planning on letting this stand for pasture and possible crop. There is also going to be quite a bit of wheat planted before the safe-sowing date.

CORN

STALK BORER (Papaipema nebris nitela Guen.)

Maryland

E. N. Cory (August 16): We have received reports of damage to corn, dahlias, and lilies during the summer. Reports coming from Hagerstown, Mt. Airy, Waterbury, Street, Upper Marlboro, Cumberland, Baltimore, Harpers Ferry, and Bethesda.

Indiana

J. J. Davis (August 30): The stalk borer has been reported from the following localities during the past month: Monon, Remington, Plymouth, Owensville, Clinton, Tipton, Aurora, Petersburg, Albany, Peru, Jeffersonville, Fowler, Madison, Worthington, Heltonville, Frankford, Williamsport, and Cynthiana. In a few cases flowers such as dahlia, zinnia, and strawflower have been attacked, also pop corn, sweet corn, and tomato, but in the majority of cases, the host was field corn. They so severely infested the matured corn stalks in some cases that corn broke over.

Nebraska

M. H. Swenk (August 1-September 1): The stalk borer con-

tinued to be reported, but with diminished frequency during the month of August, especially from the counties in Nebraska lying north of the Platte River.

Missouri

L. Haseman (September 26): Some complaints of the stalk borer have been received during the month.

Kansas

J. W. McColloch (September 20): Corn stalks have been received from Maple Hill and Manhattan containing pupae of this insect. The moths are now emerging in the field.

CORN EAR WORM (Heliothis obsoleta Fab.)

South Carolina

Franklin Sherman (July-August): The boll worm has been reported more frequently than usual from all sections, the larvae has been very abundant in corn, while it has been less prevalent, though common, in tomatoes.

Ohio

E. W. Mendenhall (September 25): The tomato fruit worm is quite bad in Montgomery County this year, attacking tomatoes.

Missouri

L. Haseman (September 26): This pest has been unusually scarce in central Missouri during the summer, but it is attracting some attention on late corn.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

General

L. H. Worthley (September 15): Parts of the following counties are included in the areas found infested by the European corn borer this far this season: Hartford, Middlesex, New London, and Windham in Connecticut; Delaware, Grant, Huntington, Jay, Kosciusko, LaPorte, Randolph, St. Joseph, and Wells in Indiana; Berkshire, Franklin, Hampden, and Hampshire, in Massachusetts; Allegan, Cass, Clare, Gladwin, Gratiot, Ionia, Isabella, Kalamazoo, Kent, Mackinac, Midland, Montcalm, and St. Joseph in Michigan; Grafton in New Hampshire; Bergen, Middlesex, Morris, and Warren in New Jersey; Belmont, Clark, Darke, Fairfield, Fayette, Greene, Miami, Muskingum, and Pickaway in Ohio; Carbon, Greene, Mifflin, Monroe, Northampton, Pike, and Wayne in Pennsylvania; Addison, Bennington, Chittenden, Franklin, Grand Isle, Lamoille, Rutland, and Windham in Vermont; and Marshall in West Virginia.

Rhode Island

A. E. Stene (September 21): The corn borer is doing more damage than it has in the past years and is showing up in new places from which it had not hitherto been reported.

SADDLE-BACK CATERPILLAR (Sibine stimulea Clem.)

Indiana

J. J. Davis (August 30): The saddle-back caterpillar was

reported on corn at Franklin August 17 and Aurora August 28.

SOUTHERN CORN STALK BORER (Diatraea zeacolella Dyar)

Maryland

E. N. Cory (August 1): This insect is more abundant than for many years or the agitation over the European corn borer has made correspondents more observant. Reports have come from Easton, Upper Marlboro, and Berlin of attacks on corn.

Kansas

J. W. McColloch (September 8): Corn was received from Girard containing larvae of this insect.

CHINCH BUG (Blissus leucopterus Say)

Missouri

L. Haseman (September 26): The chinch-bug situation this fall is more favorable than for the past few seasons, as practically no complaints of infestation have come to this office during the summer.

Nebraska

M. H. Swenk (August 1-September 1): The only place in Nebraska where chinch bugs have been numerous enough in 1928 to attract attention has been in northwestern Dodge County, where during the latter part of August they were plentifully present in some of the cornfields.

CORN LANTERN FLY (Peregrinus maidis Ashm.)

North Carolina

B. B. Fulton (September 12): A small field of corn at Wilmington was severely infested, every leaf sheath, especially near the base of the stalk, harbored hundreds of nymphs.

W. A. Thomas (September 4): This insect has just begun to infest late corn in the vicinity of Chadbourne. Large numbers of Diptera and a few Hymenoptera are attracted to the infested plants by the exuding plant juice from the injured areas.

CORN ROOT WORM (Diabrotica longicornis Say)

Missouri

L. Haseman (September 26): Specimens of the adult beetles of the western corn root worm have been received from several points in the State and they are present at Columbia in greater numbers than I have ever seen them before.

TILE-HORNED PRIONUS (Prionus imbricornis L.)

Kansas

J. W. McColloch (September 8): A 40-acre field of corn on sod land at Girard has been injured by the grubs of this species.

ALFALFA

PEA APHID (Illinoia pisi Kalt.)

Utah

G. F. Knowlton (September 26): The pea aphid, Acyrtosiphora pisi Kalt., has been very abundant in the alfalfa seed raising areas of Beaver and Millard Counties during the past season. This aphid occurs throughout the alfalfa-growing area of Utah, and is usually present throughout the summer in moderate abundance.

COWPEAS

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

South Carolina

W. A. Thomas (August 24): Growers in the vicinities of Florence, Lynchburg, and Sumter report such large numbers of cowpea pod weevil larvae in green cowpeas as to render them unfit for food in the home.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

North Carolina

W. A. Thomas (August 31): An extremely heavy infestation of this insect, in both adult and nymphal stages, has recently developed on the green pods of cowpeas in the vicinity of Chadbourn. The injury is much more severe to the immature pods; which seem to dry out very rapidly and die following the attack.

COWPEA WEEVIL (Mylabris chinensis L.)

North Carolina

W. A. Thomas (September 4): This insect is now ovipositing heavily on green cowpeas in the fields about Chadbourn. Frequently two eggs were found on a single pod.

SORGHUM

SORGHUM WEBWORM (Celama sorghiella Riley)

Missouri

L. Haseman (September 26): One serious outbreak of the sorghum worm was reported from Dexter, during September. The epidemic has resulted in the almost complete defoliation of the grain in several fields of grain sorghum and related crops.

GRASS

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Haiti

R. C. Smith (August 27): This last month we have had an

outbreak of the old fall armyworm or grass worm around Port-Au-Prince. I saw bent grass entirely defoliated by these larvae. They were very numerous in isolated or scattered localities and the parasitism was very low.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Ohio

E. W. Mendenhall (September 25): I find a variety of grass Eragrostis major or strong scented Lose grass infested with the woolly apple aphid in Montgomery County, especially in the vicinity of Dayton.

FRUIT INSECTS

APPLE APHID (Aphis pomi DeG.)

Montana

W. B. Mabey (August 23): The green apple aphid has been unusually abundant on apple in the Bitter Root Valley.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Rhode Island

A. E. Stene (September 21): The apple maggot is worrying the fruit growers, but apparently is not much more numerous than in previous years.

HAG MOTH (Phobetrion pithecium S. & A.)

Connecticut

W. E. Britton (September 24): Reported on pear and apple from Hartford, Meriden and Shelton.

CODLING MOTH (Carpocapsa pomonella L.).

Indiana and
Kentucky

B. A. Porter (September 24): In the Vincennes section of Indiana the infestations have continued moderate, and very few third-brood worms have appeared. Near Henderson, Ky., seventy miles south, considerable numbers of third-brood worms have appeared and are causing serious losses.

Missouri

L. Haseman (September 26): As reported earlier, the codling moth in the Ozark section of Missouri emerged irregularly in the spring and in spite of careful spraying of orchards much wormy fruit resulted. During the early part of September a heavy epidemic of pin worms was present at Marionville. In central Missouri during the latter part of September pin worms of the partial third brood were fairly common, though the fruit in central Missouri is freer from apple worm infestation than for the three years past. In northwestern Missouri in the properly sprayed orchards very few wormy apples were found during the early part of September, though a sprinkle of pin worms also showed up.

APPLE LEAFHOPPER (Emmoasca mali LeB.)

Missouri

L. Haseman (September 26): During the middle of September the orchards in central Missouri were literally alive with the small green apple leafhopper.

Montana

W. B. Mabey (August 23): Leafhoppers have been unusually abundant in the Bitter Root Valley, and the damage is likely to cause a considerable loss to apple growers, as many of the apples can not be marketed in the fancy grade.

SCURFY SCALE (Chionaspis funfura Fitch)

Ohio

E. W. Mendenhall (September 7): The scurfy scale is very bad in some of the orchards at New Paris, and has even gotten into the nurseries, making the apple stock unsalable.

QUINCE

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

Indiana

J. J. Davis (August 30): Yellow-necked apple caterpillar was reported eating quince foliage at Franklin August 18.

PEACH

PEACH BORER (Aegeria exitiosa Say)

Georgia

O. I. Snapp (September 21): The emergence of adults is taking place later than normal this year.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Connecticut

Philip Garman (September 23): In the central part of the State this insect is reported attacking peach. Not over 12 per cent of pafasitism in heavily infested localities.

Georgia

O. I. Snapp and H. S. Swingle (September 21): At least one larva was found in each fruit examined in an orchard of October peaches in Crawford County. These peaches furnished a host for the late broods. There are only several small orchards of October peaches in this section of the Georgia Peach Belt. The lack of a host for the late brood of this insect in most sections of the peach belt keeps it from being of much economic importance.

E. Lee Worsham (September 26): There is normal injury to peach twigs and considerable damage to the fruit of apple, as much as 25 per cent infestation in the Arkansas black variety. This applies to northern Georgia.

South Carolina Franklin Sherman (July-Aug.): Although "typical injury" was recorded from this State several years ago, the first actual specimens from the State to be identified were sent from Florence County, where larvae were infesting peach twigs on July 19.

Ohio E. W. Mendenhall (September 1): The oriental peach moth is general all over Ohio, being found in nearly every county.

Indiana J. J. Davis (August 30): Reports received from New Albany last fall indicated the presence of the oriental fruit worm. However, no adults were reared. A visit to this area in July of the present year revealed typical infested twigs in every orchard visited in Floyd County. Specimens were obtained and determined as the adult of this insect. Since then it has been found in destructive numbers at Aurora, Vincennes, and Boonville. Apparently the pest is generally distributed in southern Indiana.

Indiana and Kentucky B. A. Porter (September 24): Though practically absent early in the season, the oriental fruit moth has become extremely abundant near Henderson, Ky., and Poseyville, and Vincennes, Ind. Late peaches are nearly 100 per cent infested in some orchards. The insect is probably well distributed over the southwestern portion of Indiana.

PLUM CUCURLIO (Conotrachelus nenuphar Hbst.)

Georgia O. I. Snapp (September 21): The insect was unusually abundant on peach this year at Fort Valley, and some growers have used post-harvest control methods to reduce the infestations.

BLUEBERRY

BLUEBERRY THRIPS (Frankliniella vaccinii Morg.)

Maine C. R. Phipps (August 27): This new blueberry pest, first noted in 1926 and later described as a new species, has been present in localized areas in 1928. Many "new burn" pieces have large spots where the plants have been completely defoliated by this pest. Such areas will fail to set fruit another season.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Nebraska M. H. Swenk (August 1-September 1): The grape leafhopper continued to be reported as injuring woodbine and grapevines up to the third week in August.

PECAN

PECAN NUT CASE BEARER (Acrobasis caryae Grote)

Texas

Monthly Letter of the Bureau of Entomology No. 172, August, 1928: During the week of August 6 to 11 H. S. Adair, in charge of the pecan insect field laboratory at Brownwood, Tex., visited Houston, Tex., and collected some pecan material there, finding that damage by the nut case bearer had been unusually heavy. The laboratory at Brownwood received some material from there earlier in the season, and a number of hyperparasites were reared. These insects may account for the heavy infestation in the vicinity of Houston in the present season. One grower estimated his loss at about 90 per cent of a full crop, and similar damage was reported by others.

AN APHID (Myzocallis fumipennellus Fitch)

Alabama

Monthly Letter of the Bureau of Entomology, No. 172, August, 1928: G. F. Moznette, in charge of the pecan insect laboratory at Albany, Ga., spent August 1 to 4 at Spring Hill, Ala., near Mobile, conducting control experiments with the black aphid of the pecan, Myzocallis fumipennellus Fitch, which has been causing serious damage to pecan trees in the vicinity. The feeding of this aphid leads to defoliation.

A JUMPING APHID (Melanocallis caryaefolia Davis)

Alabama

H. P. Loding (September 19): This jumping aphid, which has been noticed by growers for two or three years (later in the season), appeared in July this year in some numbers, and has caused quite a lot of damage to pecans in yellowing and defoliation, especially on the varieties Schley and Allen; it may be found, however, on all other varieties and seedlings in small numbers. At present a new brood is appearing on the new growth brought out by defoliation. It would look as if this pest is to become of major economic importance, primarily by causing premature defoliation with detriment to the present crop, and to next year's crop by forcing a new growth at this time of the year.

ENGLISH WALNUT

WALNUT APHID (Chromaphis juglandicola Kalt.)

California

Monthly News Letter, Los Angeles County Horticultural Comm. Vol. 10, No. 9, September 15, 1928: Field climatic conditions were particularly favorable to the walnut aphid this past season and a late severe infestation resulted as attested by the suddenly blackened trees from the "sooty mold" fungus developing in the honey dew excreted by this pest.

CITRUS

LEAF-FOOTED PLANT BUG (Leptoglossus phyllopus L.)

Alabama

H. P. Loding (September 19): This insect is abundant in some groves and doing much damage to green fruit of satsuma.

CITROPHILUS MEALYBUG (Pseudococcus gahani Green)

California

Monthly News Letter, Los Angeles County Horticultural Comm. Vol. 10, No. 9, September 15, 1928: High temperatures of the past few weeks have caused maximum activity on the part of liberated Cryptolaemus in mealybug infested citrus orchards, and though there is still considerable visible mealybug on the new fruit in many orchards, the abundance of beetles insures a rapid clean-up of the pest, according to Deputy Horticultural Commissioner H. A. Armitage, in charge of Los Angeles County Insectary. Recent checks have shown over 400 Cryptolaemus adults per tree in some orchards in the Rivera section.

Insectary liberations of Cryptolaemus, maintained at approximately 50,000 beetles per day during the month of August in the second covering of these properties in which the fumigation or spraying for other pests has interfered with the completing of the mealybug control, are being rapidly curtailed as the season advances. It is well understood by the growers that the control of the mealybug is accomplished not by the liberated beetles but rather by the increase in their progeny through succeeding generations. As their active working period ends with cold weather, the possibility of securing the necessary succeeding generations decreases rapidly as fall approaches. Liberations are now being limited to the few orchards showing more than the normal amount of mealybug and which have been subjected to late treatment for other insect pests.

BLACK SCALE (Saissetia olea Bern.)

California

Monthly News Letter Los Angeles County Horticultural Comm. Vol. 10, No. 8, August 15, 1928: Black scale in both the coast and interior citrus areas and Citricola in the east end of the county have reached a stage of complete hatch permitting the application of control measures throughout the county, reports Deputy Horticultural Commissioner H. H. Wilcomb, in Charge of Fumigation and Spraying in Los Angeles County.

PURPLE SCALE (Lepidosaphes beckii Newm.)

Alabama

H.P. Loding (September 19): The purple scale on satsuma oranges, which earlier in the season seemed under splendid control, has increased enormously in the last few months of hot and moist weather, and crawlers are abundant at this time in most groves.

TRUCK - CROP INSECTS

GARDEN WEBWORM (Loxostege similalis Guen.)

Texas F. L. Thomas (August 20): This insect was reported as destroying early fall vegetables, including tomato and cabbage, at Weslaco, Hidalgo County.

Haiti R. C. Smith (August 27): One of the most abundant insects here is the garden webworm, which at the present season of the year is very abundant. I did not find any larvae, but the moths are very plentiful at lights and in sweepings.

SEMITROPICAL ARMYWORM (Prodenia eridania Cram.)

Georgia E. L. Worsham (September 26): There is a general infestation of this insect throughout the State. It is badly infesting sweet potatoes, okra, tomatoes, and peppers.

ASH-GRAY BLISTER BEETLE (Macrobasis unicolor Kby.)

Nebraska M. H. Swenk (August 1-September 1): Blister beetles, apparently, from the description, Macrobasis unicolor, were reported doing serious injury to tomatoes, cucumbers, beets, and cabbage in Frontier County during the first week in August.

STRIPED BLISTER BEETLE (Epicauta vittata Fab.)

Maryland E. N. Cory (July 25): A correspondent says that this pest has been present and numerous since 1924, and that it was so abundant on potatoes last fall (1927) that they had to resort to burning at Cornfield Harbor.

BLACK BLISTER BEETLE (Epicauta pennsylvanica DeG.)

Ohio E. W. Mendenhall (September 7): These blister beetles are quite bad on sugar beets in Miami County. (September 8): The black blister beetle is quite bad on gladiolus and aster plants. It seems to feed entirely on the bloom.

Indiana J. J. Davis (August 30): The black blister beetle was reported damaging aster at Gary August 18.

EGGPLANT

EGGPLANT FLEA BEETLE (Epitrix fuscula Crotch)

Alabama L. W. Brannon (September 18): This insect is doing severe damage to eggplants in the vicinity of Birmingham. I have seen several patches of eggplant injured to the extent that the leaves were shedding.

SWISS CHARD

SPOTTED BEET WEBWORM (Hymenia perspectalis Hbn.)

Alabama

L. W. Brannon (September 18): This insect has not been very abundant this season and has caused practically no damage to Swiss chard near Birmingham. Moths are very scarce and larvae are extremely hard to find.

CRUCIFEROUS PLANTS

IMPORTED CABBAGE WORM (Pieris rapae L.)

Nebraska

M. H. Swenk (August 1-September 1): The usual trouble with the imported cabbage worm was encountered during the period here covered.

Alabama

L. W. Brannon (September 18): Adults of the imported cabbage worm are very numerous and larvae are doing considerable damage to cabbage and collards in the vicinity of Birmingham.

HARLEQUIN BUG (Murgantia histrionica Hahn)

South Carolina

Franklin Sherman (July-August): In the spring this insect was scarce in the western part of the State, but as the season has advanced, it has recovered somewhat, and for the State as a whole the volume of complaints for the year is about normal.

M. H. Brunson (September 27): Frequent complaints of damage to collards have been received from several parts of the State.

Alabama

L. W. Brannon (September 18): Adults, nymphs, and eggs of the harlequin bug are fairly numerous on cabbage and collards in the vicinity of Birmingham, but they are not so numerous as they were last season and the damage is not so great.

ONION THRIPS (Thrips tabaci L.)

Connecticut

E. H. Walden (September 14): Over 50 acres of cauliflower is generally infested with Thrips, probably tabaci, at Southington. This is more abundant than last year.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Maryland

E. N. Cory (September 4): Reports of the presence of the Mexican bean beetle have been received from all parts of the State and on all varieties of beans. Damage has been very general and serious in many sections.

- Virginia O. I. Snapp (August 29): This insect has ruined the second crop of lima beans in the vicinity of Winchester. The infestation has been very heavy and much damage done.
- South Carolina Franklin Sherman (July-August): This insect has been more destructive than usual at Clemson College and reported to be abundant close to the eastern known limits of last year's spread.
- Ohio E. W. Mendenhall (September 1): The Mexican bean beetle is very bad in Columbus and vicinity and very bad in the same latitude across the State. (September 2): This insect is quite bad in southwestern Ohio on the garden beans.
- Alabama L. W. Brannon (September 18): The Mexican bean beetle infestation in the Birmingham district is more severe now than at this time last season. All stages of the insect can be found in the field in large numbers, and where no control measures are used beans are completely defoliated. Third-generation beetles started emerging August 25 and are now present in the fields in large numbers. Damage to pole lima beans is now very severe, as bunch beans are scarce in the district. No beetles have been found in hibernation to date.
- Texas F. L. Thomas (August 20): This season this insect has attracted attention in the gardens of El Paso Valley. The summer rains have been more abundant than usual.

BEAN LEAF ROLLER (*Coniurus proteus* L.)

- North Carolina W. A. Thomas (August 30): For the first time in the writer's experience, the bean leaf roller has appeared in destructive numbers in the vicinity of Chadbourn. Plants were observed today on which more than half of the foliage was injured. Three larvae were observed on a single leaf on many plants.
- Florida F. S. Chamberlin (September 20): The bean leaf roller is doing severe damage to beans in Gadsden County.

CUCURBITACEOUS PLANTS

PICKLE WORM (*Diaphania nitidalis* Stoll)

- Indiana J. J. Davis (August 30): The pickle worm was reported destructive to pickles at Evansville August 20, Decatur August 25, and Bluffton August 28.
- Missouri L. Haceman (September 26): In the last few weeks considerable damage has been done, especially in the southeastern part of the State, by the pickle worm in cantaloupes, melons, and squashes.

SQUASH BORER (Melittia satyriniformis Hbn.)

Nebraska M. H. Swenk (August 1-September 1): During the middle and latter part of August, reports were received of injury to squash and pumpkin vines by the squash borer.

MELON APHID (Aphis gossypii Glov.)

Nebraska M. H. Swenk (August 1-September 1): The melon aphid continued to be reported up to about the middle of August, attacking cucumbers and melons.

SQUASH BUG (Anasa tristis DeG.)

Nebraska M. H. Swenk (August 1-September 1): The squash bug continued to be reported up to about the middle of August attacking squash.

SQUASH BEETLE (Epilachna borealis Fab.)

North Carolina J. N. Tenhet (August 25): The squash ladybird has completely defoliated many fields of watermelons and cantaloupes in the vicinity of Chadbourn and in some instances has eaten all of the green epidermis from the melons, rendering them unsalable.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Ohio E. W. Mendenhall (September 7): The striped cucumber beetle has done considerable damage to cucumbers in Franklin County.

Missouri L. Haseman (September 26): The striped cucumber beetle has been unusually abundant on late melons and cucumbers and it is going into the winter in goodly numbers.

ONIONS

ONION MAGGOT (Hylemyia antiqua Meig.)

Nebraska M. H. Swenk (August 1-September 1): In Scotts Bluff County during the second week in August, the onion maggot was found doing damage to onions. This is the first time this insect has been found in the State as a serious pest. Flies from maggots concerned in this injury that had pupated about the middle of August emerged from August 28 to September 4.

SIX-SPOTTED LEAFHOPPER (Cicadula sexnotata Fall.)

Indiana J. J. Davis (August 30): Onion growers in many sections of the State have experienced a blighting of onions, causing thousands of dollars damage. From all observations there is evidence that this trouble is caused by a leafhopper, Cicadula sexnotata, (tentatively determined by DeLong). Positive proof has not yet been obtained.

SUGAR BEET

BERTHA ARMYWORM (Barathra configurata Walk.)

Montana W. B. Mabee (August 23): The one outstanding development, aside from the lack of insect damage, has been the appearance of what is apparently the Bertha armyworm. These worms have appeared recently quite generally along the edge of the State, especially in Lincoln, Flathead and Lake Counties. As yet they have not done any considerable damage except in one small section near Ronan, where they have been rather seriously injuring sugar beets.

SWEEP-POTATO

SWEET-POTATO LEAF BEETLE (Typophorus viridicyaneus Grotch)

Maryland E. N. Cory (July 16): This insect was collected on sweet potato at Cambridge and determined by H. S. Barber, this being the first record.

S O U T H E R N F I E L D - C R O P I N S E C T S

TOBACCO

TOMATO WORM (Protoparce sexta Johan.)

North Carolina J. N. Tenhet (August 28): The damage to tobacco this season from the horn worm has been greater, in the South Carolina Bright belt, than for many years. All suckers left in standing in the fields around Chadbourn have been stripped, and the worms are pupating in immense numbers. This may presage an even more severe outbreak next year.

BUDWORM (Heliothis virescens Fab.)

North Carolina J. N. Tenhet (August); The budworm has been unusually prevalent in the vicinity of Chadbourn this season on tobacco. Injury was especially marked in the middle of the season.

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

North Carolina J. N. Tenhet (August 10): The tobacco flea beetle has been unusually prevalent this season all through the South Carolina Bright belt and has done considerable damage.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana T. E. Holloway and W. E. Haley (September 22): A survey during

August and September reveals a very low infestation this year by the sugarcane borer. The stalk infestation in sugarcane fields varies from zero to 34.5 per cent, with a few fields in on exceptional locality somewhat higher. An average of all fields is 7.6 per cent as compared with an average in October 1927 of 79.1 per cent. The infestation will increase slightly before the cane is cut, but it will not approach anywhere near the average for 1927.

F O R E S T A N D S H A D E - T R E E I N S E C T S

GIPSY MOTH (Porthetria dispar L.)

Rhode Island

A. E. Stene (September 21): The season in general has apparently been favorable to insects. Among those which have occurred in increasing numbers this year is the gipsy moth, which, while it has not caused very severe defoliation in any part of the State, has still been numerous enough in many places so that its work has been readily noticeable. Two tracts of about 500 acres badly damaged last year would have been stripped but for spraying.

BAGWORM (Thyridopteryx ephemeriformis Haw.)

South Carolina

M. H. Brunson (September 8): Considerable damage to evergreens is being done by the bagworm at Ware Shoals.

Ohio

E. W. Mendenhall (September 7): I find some of the apple orchards in Preble County infested with the bagworm and damage is being done.

Herbert Osborn (September 26): Numerous reports of serious injury to arborvitae and cedar trees in and about Columbus and reports of abundance over wider areas have been received.

Indiana

J. J. Davis (August 30): The bagworm was reported as seriously attacking evergreens at Indianapolis and Franklin August 2.

FALL WEBWORM (Hyphantria cunea Drury)

Rhode Island

A. E. Stene (September 21): The fall webworm showed up in large numbers earlier in the season, but present indications are that it has been parasitized more vigorously than in previous seasons.

West Virginia
and
Virginia

O. I. Snapp (September 5): This insect is more abundant than usual around Charles Town, W. Va., and in northern Virginia. One of the heaviest infestations ever observed on apple was seen today at Charles Town.

North Carolina

W. A. Thomas (September 4): A very light infestation of this

insect has been observed working on sweet gum in the forests near Chadbourn.

Ohio E. W. Mendenhall (September 7): The fall webworm is quite prevalent in southwestern Ohio on deciduous trees and shrubs. (September 25): The fall webworm is quite general in Ohio attacking apple and other trees.

Missouri L. Haseman (September 26): This caterpillar has attracted a great deal of attention during the past few months and it has been more abundant than usual.

Kansas J. W. McCulloch (September 15): The fall webworm is rather general in the State this year. Injury has been noted on a variety of shade and fruit trees.

Mississippi K. L. Cockerham (August 29): For the past several weeks this insect has been showing up in considerable abundance on pecan and other trees near Biloxi.

Oregon L. P. Rockwood (September 11): Nests of the fall webworm are unusually abundant in this vicinity (Forest Grove); black and English walnuts and pears preferred among cultivated trees attacked.

SATIN MOTH (Stilpnotia salicis L.)

Rhode Island A. E. Stene (September 21): The satin moth is on the increase in the northern and eastern sections of the State.

RED SPIDER (Tetranychus telarius L.)

South Carolina Franklin Sherman (July-August): Despite a larger rainfall than usual, this dry weather species developed to mildly epidemic abundance in several localities in the central and Coastal Plain sections.

Ohio E. W. Mendenhall (September 7): The red spider is quite bad on willow trees in nurseries as well as on evergreens in Montgomery County. The weather is very dry, which makes the damage a great deal worse.

Indiana J. J. Davis (August 30): The common red spider was reported as abundant on Juniper at Elkhart August 4.

MULBERRY WHITEFLY (Tetraleurodes mori Quaint.)

Connecticut W. E. Britton (September 24): This insect is more abundant than usual at New Haven on Linden, Cornus, and Kalmia. For nearly three weeks, beginning September 1, the air was full of adults and they would alight on windows, tops of automobiles, etc.

BOXELDER

BOXELDER BUG (Leptocoris trivittatus Say)

Missouri

L. Haseman (September 26): With the first cool days of late September, inquiries regarding the boxelder bug have been received. The insect is unusually abundant in Columbia.

CAMPHOR TREES

CAMPHOR THRIPS (Cryptothrips floridensis Watson)

Mississippi

K. L. Cockerham (August 10): On the above date reports were received that ornamental camphor trees were dying at Biloxi. Examination showed that the trees were attacked by the camphor thrips and the injury was so severe in one case at least, that the trees were killed outright.

CATALPA

CATALPA SPHINX (Ceratonia catalpae Boisd.)

Indiana

J. J. Davis (August 30): The catalpa sphinx was reported defoliating catalpa at La Fayette August 30.

CATALPA LEAF MINER (Agromyza citreifrons Mass.)

Indiana

J. J. Davis (August 30): The catalpa leaf miner was very abundant on catalpa at Terre Haute, August 8. We also observed it as common at Vincennes a few weeks before.

ELM

LARGER ELM LEAF BEETLE (Monocesta coryli Say)

Arkansas

W. J. Baerg (September 13): At Fayetteville many slippery elms are completely defoliated, some American elms are stripped and some hawthorns show conspicuous injury.

HACKBERRY

HACKBERRY NIPPLE GALL (Pachypsylla celtidis-mamma Riley)

Nebraska

M. H. Swenk (August 1-September 1): Reports of infestations of hackberry trees with the hackberry nipple gall were received up to August 20.

MAPLE

GREEN-STRIPED MAPLE WORM (Anisota rubicunda Fab.)

Missouri L. Haseman (September 26): An epidemic of this insect appeared in the western section of the State, resulting in complete defoliation of many trees.

TULIP

TULIP TREE SCALE (Toumevella liriodendri Gmel.)

Indiana J. J. Davis (August 30): The tulip tree lecanium was very abundant on tulip trees at Nashville August 11.

BLACK WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Missouri L. Haseman (September 26): This caterpillar is just maturing and it has been unusually common during the month.

I N S E C T S A F F E C T I N G G R E E N H O U S E A N D
O R N A M E N T A L P L A N T S A N D L A W N S

A CENTIPEDE (Scutigera immaculata Newp.)

Indiana J. J. Davis (August 30): The greenhouse centipede, Scutigera immaculata, was reported destructive in greenhouses in central Indiana.

DAHLIA

TARNISHED PLANT BUG (Lygus pratensis L.)

Rhode Island A. E. Stene (September 21): We have had a rather unusual outbreak of the tarnished plant bug. Dahlia growers especially have complained of attacks from this insect.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Rhode Island A. E. Stene (September 21): For the first time in several years the euonymus scale has been sent in to the office. It is apparently found in several places in the State this year.

South Carolina M. H. Brunson (August 31): This insect has been reported attacking *Euonymus* at Greenville, Ware Shoals, Spartanburg, and Antreville.

HIBISCUS

A PLANT BUG (Corizus sp.)

South Carolina Franklin Sherman (July-August): On July 13 a lady in Columbia sent specimens of this genus with the assertion that they were damaging *Hibiscus*, and the insects were adhering closely in the crevices of the wilted seed-pod which accompanied them. The bugs were larger and more gaudy in appearance than the native species in our collection and have not yet been identified.

LILAC

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Indiana J. J. Davis (August 30): The oyster-shell scale was reported damaging lilac at Woodburn on July 25.

VERBENA

A BLOTCH MINER (Agromyza platyptera jucunda V. d.W.)

New York G. H. Griswold (September 24): This insect has been found in considerable numbers in the insectary flower garden at Ithaca attacking Verbena hybrida and making small blotch mines in the leaves.

LAWNS

ANTS (Formicidae)

Indiana J. J. Davis (August 30): We continue to receive reports of ants in houses and in lawns, especially the latter. Reports the past month have come from Rossville, Richmond, Goshen, and South Bend.

I N S E C T S A T T A C K I N G M A N A N D
D O M E S T I C A N I M A L S

MAN

FLEAS (Siphonaptera)

- General F. C. Bishopp (July-August): Many complaints have been received of infestations of houses and premises with fleas. These reports come from 18 States, mostly east of the Mississippi River, the largest number coming from the District of Columbia, Maryland, and Pennsylvania. It appears that more trouble is being experienced from fleas this year than usual.
- South Carolina Franklin Sherman (July-August): The complaints of fleas in and about houses seem more numerous than usual.
- Indiana J. J. Davis (August 30): Fleas have been reported very annoying in houses and barns at Martinsville, Bedford, North Manchester, Darlington, and Valparaiso.
- Nebraska M. H. Swenk (August 1-September 1): Infestations of farm premises by Otenocephalus canis Curtis and C. felis Bouche were received from several localities during the period here covered.
- Missouri L. Haseman (September 26): The usual run of complaints regarding fleas around farm buildings has been received.

HUMAN FLEA (Pulex irritans L.)

- Oregon F. C. Bishopp (July-August): Reports of the occurrence of a general infestation of premises by the human flea have been received from Oregon.

A MOSQUITO (Culex sp.)

- Missouri L. Haseman (September 26): Mosquitoes of the genus Culex were particularly annoying during the first two weeks of September in central Missouri.

A SNIPE FLY (Leptidae)

- Montana W. B. Mabee (August 23): A biting leptid fly (species undetermined) has been unusually abundant this season, causing considerable annoyance, especially to fishermen and campers.

STINGING CATERPILLARS (Tucleidae)

- South Carolina Franklin Sherman (July-August): Several species of these insects have been sent in, sometimes with complaint of stinging persons. Our own field observations lead to the belief that the larvae are more abundant than usual.

M. H. Brunson (August 31): Five different species of larvae belonging to the family Eucleidae have been found recently at Clemson College. They are unusually abundant.

MASKED HUNTER (Reduvius personatus L.)

Nebraska

M. H. Swenk (August 1-September 1): A complaint was received during the middle of August from a person in Butler County having been bitten by this insect.

CATTLE

HORN FLY (Haematobia irritans L.)

Missouri

L. Haseman (September 26): The horn fly has continued to be troublesome throughout the month.

STABLE FLY (Stomoxys calcitrans L.)

Missouri

L. Haseman (September 26): The stable fly has continued to be troublesome throughout the month.

HORSES

HORSE FLIES (Tabanidae)

Missouri

L. Haseman (September 26): These flies were unusually abundant on live stock during the latter part of August and early September in central Missouri.

HOUSEHOLD AND STORED -

PRODUCT INSECTS

TERMITES (Reticulitermes spp.)

South Carolina

Franklin Sherman (July-August): Upon two occasions these insects have been sent in with complaints of their attack upon chrysanthemum plants at or just below the surface of the ground.

Indiana

J. J. Davis (August 30): White ants were reported damaging a building at Brazil on August 8.

Missouri

L. Haseman (September 26): The usual flood of complaints about termites in houses and other buildings has continued during September.

Nebraska

M. H. Swenk (August 1-September 1): Additional reports of injury by our common termite, Reticulitermes tibialis Banks, came

from York County, where the pest was attacking the roots of cherry trees, and from Howard County, where it was threatening a dwelling house, during the period here covered.

Kansas J. W. McColloch (September 20): On September 6, termites were causing considerable damage in a lumber yard at Ottawa, and on September 7 they were badly damaging the oak floors in a new house at Hoisington.

BOOKLOUSE (Troctes divinatoria Mull.)

Indiana J. J. Davis (August 30): Book lice have been abundant in dwellings at Indianapolis and La Fayette the past month.

Nebraska M. H. Swenk (August 1-September 1): A complaint was received from Otoe County during the second week in August of a severe infestation of a house with this psocid.

SILVER FISH (Lepisma saccharina L.)

Kansas J. W. McColloch (September 15): Fish moths have been abundant and troublesome in houses and apartment buildings at Wichita and Wellington. At Hutchinson they are giving trouble in a wholesale paper house. A library at Manhattan reports damage to books.

CASE-BEARING CLOTHES MOTH (Tinea pellionella L.)

Indiana J. J. Davis (August 30): The common clothes moth was reported damaging rayon silk at La Porte August 16.

CIGARETTE BEETLE (Lasioderma serricorne Fab.)

Kansas J. W. McColloch (September 10): There has been an epidemic of the cigarette beetle in upholstered furniture at Coffeyville. Many houses have reported infestations.

LARDER BEETLE (Dermestes lardarius L.)

Indiana J. J. Davis (August 30): The larder beetle was reported as infesting home-cured meat at Auburn August 18.

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)

Indiana J. J. Davis (August 30): The angoumois grain moth was reported damaging wheat at Dyer August 6.

Kansas J. W. McColloch (September 21): At the present time, stored grain insects are receiving considerable attention, owing to the fact that the farmers had considerable difficulty in harvesting and getting their grain into the bin. Much of the

grain was held in the field for a considerable period, with the result that the angoumois grain moth and weevils infested it. Also much of the wheat that has gone into the bin is damp and subject to heating, with again provides ideal conditions for the development of stored-grain pests.

WEEVILS (Calendra spp.)

Kansas

J. W. McColloch (September 20): Stored-grain insects, especially weevils, are causing considerable trouble throughout the State. Conditions have been very favorable for their development. Much of the grain went into the bins in a damp condition and has heated. In some areas wheat threshing was delayed and grain in stacks and shocks became infested. Weevils are more abundant than last year, reports having been received from Ford, Mitchell, Republic, Saline, Clay, Riley, Chautauqua, Jefferson Counties.

GRANARY WEEVIL (Calendra granaria L.)

Missouri

L. Haseman (September 26): This weevil and the other stored-grain pests have been complained of by a number of farmers who are holding their wheat.

SAW-TOOTH GRAIN BEETLE (Oryzaephilus surinamensis L.)

Rhode Island

A. E. Stene (September 21): Housekeepers have sent in the saw-tooth grain beetle from three places in the northeastern part of the State with complaints that it was present in large numbers.

DRUG-STORE WEEVIL (Sitodrepa panicea L.)

Nebraska

M. H. Swenk (August 1-September 1): Reports of stored-grain pests were received in about the normal numbers during August. These included one report of the drug-store weevil, which was found in an elevator in Otoe County, and some tenebrionid beetles which were identified as a species of Platydemia, which were found working on the ears of cribbed corn in Nemaha County early in August.