

**THE INSECT PEST SURVEY  
BULLETIN**

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A periodical review of entomological conditions throughout the United States  
issued on the first of each month from March to December, inclusive.

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Volume 11

September 1, 1931.

Number 7

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**BUREAU OF ENTOMOLOGY  
UNITED STATES  
DEPARTMENT OF AGRICULTURE  
AND  
THE STATE ENTOMOLOGICAL  
AGENCIES COOPERATING**

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I N S E C T P E S T S U R V E Y B U L L E T I N

Vol. 11

September 1, 1931

No. 7

OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR AUGUST, 1931.

The serious outbreak of grasshoppers in the Great Plains region which developed during July continued through the greater part of August, with lesser outbreaks over practically the entire country.

Red spiders of several species attacking a great variety of plants, including forest and shade trees, truck crops, flowers, fruits, and shrubs, were reported from scattered localities across the northern part of the United States, from Maine through South Dakota and Idaho to Utah and Oregon.

A few specimens of the European corn borer were discovered for the first time in the State of Wisconsin, having been found in a field in Mosel township, Sheboygan County, on Lake Michigan.

The Japanese beetle has been collected at Cleveland and Columbus, Ohio, these being the first records for this State.

The corn ear worm continued to be reported as unusually abundant from practically the entire corn-growing area of the United States.

A very unusual outbreak of chinch bugs occurred at Windsor, Berkshire County, Mass. The outbreak was not extensive but the insects occurred in enormous numbers over a small area of corn and millet. The chinch bug situation as a whole in the Middle West has not changed materially since last month, although the insect has been reported this month from the lower tier of counties in Michigan and the southeastern corner of Minnesota.

The garden webworm was reported as seriously damaging alfalfa in scattered localities from Indiana to North Dakota and Iowa.

Sod webworms were unusually destructive to lawns, golf greens, and pastures from Ohio westward to North Dakota and southward to Missouri and Tennessee.

The codling moth situation has not changed materially since July. This insect continues to be seriously prevalent from New York southward to Georgia and in scattered localities from the East Central States, westward to the Pacific Northwest.

The oriental fruit moth has been found at Springdale, Ark., this year. This is the first record from northwestern Arkansas.

The grape leafhopper was very seriously abundant throughout the northern part of the San Joaquin Valley in California where it is said that they will materially reduce the marketable tonnage of grapes.

The Pacific red spider was extremely numerous late in July on grapes, deciduous fruits, and ornamentals in central California. Early in August this insect was practically eliminated by the predacious thrips Scolothrips sexmaculatus Perg.

An unusual damage to citrus is reported from Los Angeles, Calif. The false chinch bug is seriously damaging young trees in groves adjoining wheat and weed fields.

The second finding of Cardin's whitefly (Aleurodicus (Metaleurodicus) cardini Back) in the United States is reported in this number of the Insect Pest Survey Bulletin. Specimens were collected on guava in moderate abundance at West Palm Beach, Fla. The first finding was in February, 1921, when specimens were collected by W. B. Wood, of the Plant Quarantine and Control Administration, in the Plant Introduction Gardens at Miami.

Blister beetles were quite prevalent throughout the entire Mississippi Valley from Indiana, Minnesota, and North Dakota southward to Louisiana and Mississippi.

The plant bug Engytatus geniculatus Reut. was recorded for the first time as a pest of tomatoes in Orange County, Calif. This insect is said to be injurious to tomatoes in the Hawaiian Islands.

Late in July the Mexican bean beetle was found at Brattleboro, this being the first record for the State of Vermont. This insect is extremely prevalent and destructive throughout the northern part of its range, particularly north of the drought area of 1930.

Two coreid bugs, Alydus eurinus Say and A. pilosulus H. S., were found seriously injuring beans in Georgia.

During the last week of August the sugar-beet webworm developed in rather large numbers in parts of North Dakota, South Dakota, and Utah.

Many fields of peppers in southern California have been damaged from 25 to 40 per cent by the pepper weevil.

The weevil Trichalophus didymus Lec. has been found infesting strawberry crowns on the mainland at Tacoma, Wash. Heretofore, this insect has only been known from Whibley Island, Washington.

For the first time in many years the potato tuber moth was injurious to tobacco in Dane, Rock, and Jefferson Counties, Wisconsin.

The bagworm was quite generally reported from Pennsylvania westward to Indiana and Kansas, and southward to Mississippi.

The saddled prominent, which has been in outbreak numbers in New England during the past few years, seems to have reached its peak during 1930 and this year is appearing in considerably reduced numbers.

The fall webworm is very abundant throughout New England and the Middle Atlantic States.

The elm leaf beetle was found early this spring in the Yosemite National Park in California. This is the first record of this insect in the Park.

The gladiolus thrips (Taeniothrips gladioli H. & S.) is very seriously injuring gladiolus in the New England, Middle Atlantic, and East Central States.

#### OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR AUGUST, 1931

Outbreaks or incipient outbreaks of grasshoppers, notably the lesser migratory, clear-winged, and two-striped grasshoppers, are occurring in many districts over a wide territory in the Prairie Provinces, and conditions are threatening for 1932. In eastern Ontario and southern Quebec, the red-legged grasshopper is more abundant than for many years past, and is increasing. Various degrees of damage to field crops are being reported from sections of all the above-mentioned provinces.

An unusual outbreak of the green clover worm has developed throughout most of the bean-growing areas of southwestern Ontario, resulting in crop defoliation and a reduction in the yield. Although generally present, this species rarely reaches injurious proportions in Ontario.

A marked increase in the abundance and destructiveness of the Colorado potato beetle has now been reported over a considerable part of the range of this insect in Canada, including the Maritime Provinces, Quebec, Ontario, and the Prairie Provinces.

Sod webworms which occurred in outbreak form throughout southwestern Ontario, damaging or destroying lawns, golf greens, etc., have been determined as Crambus mutabilis Clem. and C. trisectus Walk. A third species, C. dorsipunctellus Kft., was recorded as injurious to lawns at Winnipeg, Man.

In Manitoba, Saskatchewan, and Alberta, blister beetles, Lytta nuttalli Say, are attacking caragana hedges and garden legumes, such as beans and peas. The increase in abundance of these insects appears to be associated with the widespread grasshopper outbreak developing in the Prairie Provinces.

In certain areas of southern Alberta the diamond-back moth is even more abundant than last year, when it caused serious damage to cruciferous crops.

The wheat stem sawfly appears to be more generally abundant than usual throughout its range in Saskatchewan.

Chinch bugs are reported to be causing material damage to lawns in the city of Halifax, Nova Scotia. This appears to be the first record of its occurrence in injurious abundance in Nova Scotia.

A particularly severe outbreak of the pea aphid occurred this season in pea-growing sections of southwestern Ontario. Local outbreaks were also reported in Fredericton, New Brunswick, and in the Chilliwack region of the Lower Fraser Valley, British Columbia.

There has been a reduction in the infestation of the common red spider in Saskatchewan and Alberta as compared with 1930, but material damage has been done to a variety of plants including roses, raspberries, low shrubs, and herbaceous plants.

The gladiolus thrips, Taeniothrips gladioli Moulton, has caused serious damage to gladioli in many parts of Ontario and southern Quebec.

The painted lady butterfly and its larvae are conspicuously common in the Maritime Provinces and Quebec, and are extremely abundant in the Prairie Provinces. As the attacks of the larvae are largely confined to thistle this species may be classed as beneficial.

The beet webworm is again very abundant in Manitoba and Saskatchewan, attacking weeds principally but also causing damage to flax.

The lesser clover leaf weevil is widely prevalent in the Maritime Provinces, and in many localities an average of 15 per cent of the clover heads are infested.

The squash bug has developed in unusually destructive numbers in sections of southern Ontario.

An unusually large second brood of codling moth larvae is anticipated in the Niagara district, Ontario. The infestation of the oriental fruit moth is reported as very light, so far. The apple and thorn skeletonizer is conspicuous in neglected apple orchards.

Insect injury to all varieties of fruit in the Okanagan Valley, British Columbia, is reported as remarkably scarce.

The fall webworm continues to increase in abundance in many parts of eastern Canada, and is a noticeable pest on various fruit and shade trees and shrubs.

The infestation of spruce and balsam by the black-headed tip moth in Cape Breton Island, Nova Scotia, has been markedly reduced, and this year's feeding by the insect is unimportant.

The European pine shoot moth is prevalent on certain species of pines in Welland County, Ontario, particularly around summer homes along the north shore of Lake Erie.

The aspen poplar leaf beetle is widespread and appears to be increasing in southern sections of Manitoba.

The walnut caterpillar is again in outbreak form in southwestern Ontario, defoliating many trees.

Reports indicate that mosquitoes, black flies, and certain other biting flies have been unusually scarce in many parts of eastern Canada, and probably also in the Prairie Provinces.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- South Carolina A. Lutken (August 25): Grasshoppers in general are more abundant than usual.
- Ohio T. H. Parks (August 24): More than the usual numbers of grasshoppers are present in most western Ohio counties. Damage has not been very serious owing to plenty of rains to favor growth. Poisoning work has been carried out in several counties.
- Indiana J. J. Davis (August 22): Grasshoppers destroyed alfalfa on a  $3\frac{1}{2}$ -acre field at Indianapolis August 1. They also damaged onions. During July grasshoppers were conspicuously abundant and destructive in Clinton County.
- W. B. Noble (July): The Carolina locust, Dissosteira carolina L., was unusually abundant in central Indiana. It was observed flying about lights at night.
- Illinois J. H. Bigger (August 18): Grasshoppers are damaging soybeans, alfalfa, and corn. I have investigated severe outbreaks in about 90 acres of soybeans and 20 acres of alfalfa in Morgan and Greene Counties. Damage to corn was seen in Morgan, Greene, and Christian Counties. Only a small part of the damage in these areas was seen.
- Michigan R. Hutson (August 24): Grasshoppers are very abundant in grains in the upper peninsula. There are no blister beetles and few hairsnakes.
- Wisconsin E. L. Chambers (August 24): Local outbreaks of grasshoppers have been damaging crops in many sections of the State, doing serious injury to tobacco, corn, and small grains.
- Minnesota A. G. Ruggles and assistants (August): Grasshoppers were reported during August as still doing serious damage at many points throughout Minnesota. The species involved, in the order of their importance, were Melanoplus bivittatus, Say, Cammula pellucida Scudd., M. atlantis Riley, M. femur-rubrum DeG., and Dissosteira carolina L. (Abstract, J.A.H.)
- Kentucky Mary Didlake (August 24): Grasshoppers are very abundant on tobacco and tomatoes in Fayette and other counties.
- North Dakota J. A. Munro (August 22): Grasshoppers have been the pest of greatest abundance in North Dakota this season. Indications are that there will be another serious outbreak next year.
- South Dakota H. C. Severin (August 20): Grasshoppers are very abundant. The outbreak has become more extensive and much of the State is affected.



Nebraska

M. H. Swenk (July 15 to August 1): The grasshopper outbreak continued to develop in extent, and somewhat in severity, during the last half of July. The 31 infested counties reported on July 15 have now increased to 65, though in many of these the damage is neither widespread nor serious. The infestation has been heavy and general, and the crop loss serious, in Arthur, Boyd, Buffalo, Dawson, Keith, Keya Paha, Knox, and Perkins Counties. Cedar, Dixon, and Holt Counties have been largely heavily infested. Parts of Brown, Chase, Cherry, Custer, Greeley, Lincoln, Rock, and Sheridan Counties have been heavily infested.

Iowa

C. J. Drake (August 3): Grasshoppers are extremely numerous over a large section of Iowa, particularly in the western half of the State. Many fields of new alfalfa have been totally destroyed by the hoppers, and considerable damage is being done in old alfalfa fields. To illustrate, in Monona County an 80-acre field of alfalfa was totally destroyed by the hoppers after the first crop was harvested. I visited this field about ten days ago and it was impossible to find any new growth in the field. The differential locust, M. differentialis Uhler, is the predominating species. The two-striped locust, Melanoplus bivittatus Say, is almost as abundant as the foregoing species. The red-legged locust, M. femur-rubrum DeG., is also very abundant. The lesser migratory locust, M. mexicanus Sauss., is almost as abundant as the red-legged locust. In some fields in the western portion of the State the hoppers run around 20 to 40 per hill of corn. These fields are not very numerous. Most damage is being done in alfalfa fields and around the margins of cornfields. The State of Iowa has just purchased four carloads of commercially prepared poisoned bran mash to take care of heavily infested waste areas along the Missouri River and other sections of western Iowa.

Missouri

L. Haseman (August 25): During August the three common species of grasshoppers have been very destructive.

Kansas

H. R. Bryson (August 22): The grasshopper problem is a serious one over the entire State. Although there are a large number of all species present the greater part of the damage is being done by Melanoplus differentialis and M. bivittatus. M. atlantis and M. femur-rubrum are also numerous and will no doubt cause considerable injury this fall. Migrations from neighboring States have not been observed. Fall sowing of alfalfa and the seeding of winter wheat to avoid serious grasshopper injury promises to be a problem. Considerable injury was evident along the edges of fields of corn, kafir, and alfalfa. More reports of grasshopper injury have come from the western and northeastern parts of the State than from other sections.

Tennessee

C. Benton (July): The Carolina locust is abundant in pastures and fields in the southern part of the State. There has been much complaint of damage to tobacco as well as to clover and other legumes. Some injury to corn also was observed.

- Oklahoma C. F. Stiles (August 1): Grasshoppers are very abundant in the southwestern and central parts of the State.
- Montana R. W. Gjullin (July): A recent survey indicates that Melanoplus femur-rubrum DeG. and M. bivittatus Say are fairly abundant in an extensive area in southeastern Montana. In the eastern tier of counties M. mexicanus atlanis Riley, M. packardi Scudd., and Dissosteira carolina L. are the dominant species. While grasshoppers do not occur in alarming numbers at present, continued dry weather and favorable conditions for egg laying make it almost certain that grasshoppers in outbreak numbers are to be expected in these and other scattered areas over the State next year. In the western portion of the State Camnula pellucida Scudd. reached destructive numbers. There was also a severe outbreak of M. bivittatus Say in western Montana in Beaverhead County.
- Wyoming A. G. Stephens (August 21): Grasshoppers are moderately to very abundant in the northeastern and central parts of the State.
- Nevada G. G. Schweis (August 21): Many species of grasshoppers are present doing damage in the western part of the State.
- Utah G. F. Knowlton (August 3): Grasshoppers continue to be very abundant and destructive in many parts of Utah.
- Arizona C. D. Lebert (July 27): Melanoplus differentialis Uhler and others of the grasshoppers are very abundant in the Salt River Valley.
- California S. Lockwood (July 27): According to the Monthly News Letter of Mr. L. A. Burtch, County Agricultural Commissioner of Kern County, grasshoppers and army worms have not been responsible for commercial damage in his county. His News Letter says, "Approximately one ton of poison bran mash was put out for grasshoppers at Lebec and very good kill was obtained."

CUTWORMS (Noctuidae)

- Illinois W. P. Flint (August 10): The yellow-striped army worm, Prodenia ornithogalli Guen., is more abundant in the State than normally at the present time.
- Minnesota A. G. Ruggles (August 20): Noctua fennica Tausch. is very bad northeast of the Red River Valley.
- Wisconsin E. L. Chambers (August 25): The grasshoppers and variegated cutworm have continued to do unusually severe injury throughout the State to potatoes, tobacco, small grain, and other field crops, and these, coupled with the unusual/severe drought we are having in most of the State, have played havoc with our crops in Wisconsin this year. Owing to the very unusual season and severe drought, our corn is already going into the silo, and in the south central section over one-half of it has already been cut.

Montana R. W. Gjullin (July): Pale western cutworm (Porosagrotis orthogonia Morr.) and army cutworm (Chorizagrotis auxiliaris Grote) moths are very abundant.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Mississippi State Plant Board, Press Release (August 3): No leaf worms have yet been found in Mississippi, but they are expected at any time.

WIREWORMS (Elatèridae)\*

New York C. R. Crosby (July 30): Wireworms are causing considerable injury to oats at Clymer.

South Carolina W. J. Reid, jr. (August 17): Wireworms have been quite destructive during the past ten days to young cabbage plants. The crop was seeded directly in the field in hills, the usual method of planting cabbage during the fall months in this section. The wireworms attack the plants as soon as germination begins, often destroying all plants in the infested hill. From one to three wireworms have been found feeding on one group of plants. Fifty per cent of the plant stand has been destroyed on a ten-acre planting in the Charleston area.

WHITE-LINED SPHINX (Celerio lineata Fab.)

Michigan R. H. Pettit (August 7): We have an abundance of a hawk moth, Deilephila lineata Fab., this year all over Michigan. Each mail brings a number of specimens. As is well known the larvae of this moth feeds on purslane, a rather troublesome weed.

PAINTED LADY (Vanessa cardui L.)

Vermont H. L. Bailey (August 24): Larvae of the painted lady butterfly were reported on hollyhocks at Brattleboro.

Minnesota P. E. Derby (August 10): The Canada thistle webworms are moderately abundant at Barnum, Carlton County.

L. W. Orr (July 16): The thistle butterfly is abundant at Itasca Park, and there has been a considerable reduction of the growth of Canada thistle. It is also very abundant at Clarissa, in Todd County.

A. G. Ruggles and assistants (August): The thistle fly has been very destructive in Aitkin County. As far as the thistle fly is concerned it has done more good than harm.

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\*Correction: I.P.S. Bulletin, Vol.11, No.5, Page 256.  
Note on Heteroderes laurentii Guer. refers to George County, Miss., only.

RED SPIDER (Tetranychus telarius L.)

- Maine H. B. Peirson (August 24): Red spiders are on spruce, Crataegus, elm, yellow birch, oak, and amelanchier in many parts of the State.
- South Dakota H. C. Severin (August 20): The red spider is exceedingly abundant and injurious.
- Idaho C. Wakeland (August 20): The common red spider is extremely abundant, since the year is excessively dry. It is affecting practically all cultivated plants including shade trees and ornamentals. It has done very severe injury to potatoes and beans as well as to the crops ordinarily affected by it.
- Utah G. F. Knowlton (August 18): The common red spider has been damaging raspberries, corn, beans, chrysanthemum, dahlias, peas, roses, and tomatoes in various northern Utah localities.
- Oregon D. C. Mote (August 15): Orchard mites are unusually abundant this year and doing serious damage to pear foliage in the Willamette Valley. Reports from other sections of the State indicate this to be a favorable season for mites, damage being reported on apples, pears, raspberries, muskmelons, prunes, and strawberries.

PACIFIC RED SPIDER (Tetranychus pacificus McG.)

- California E. A. McGregor (August): It is of interest to record that during the period from April to July, inclusive, the Pacific red spider (Tetranychus pacificus McG.) occurred in unusual severity in central California, causing much damage to vineyards and deciduous fruit and ornamental trees. In early August, the predacious thrips Scolothrips sexmaculatus Perg. ended the outbreak. This annual phenomenon in central California is very interesting, since toward the climax the thrips population builds up so rapidly that the biological control appears almost to amount to instant annihilation.

JAPANESE BEETLE (Popillia japonica Newm.)

- Delaware L. A. Stearns (August 24): Many reports of injury, especially on grape, in the vicinity of Wilmington.
- Ohio E. W. Mendenhall (August 21): It is reported that the Japanese beetle was found in Cleveland and Columbus in small numbers, on flowering plants. These were trapped by Japanese beetle scouts.

ASIATIC GARDEN BEETLE (Aserica castanea Arrow)

- Connecticut E. P. Felt (August 21): A specimen of the Japanese garden beetle, Aserica castanea Arrow, was taken at Stamford.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

- Ohio J. S. Houser (August 22): The Hessian fly is moderately abundant. The average infestation in 1930 was 6.8 per cent; in 1931, 12.2 per cent. There has been more damage than for several years.
- Indiana J. J. Davis (August 22): The Hessian fly is moderately abundant in isolated localities.
- Nebraska M. H. Swenk (August 20): The Hessian fly is moderately abundant in southeastern Nebraska.
- Kansas H. R. Bryson (August 22): Dr. R. H. Painter reports finding eggs on wheat at the agronomy farm at Manhattan but that they were not especially abundant.

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

- New York R. D. Glasgow (August 26): The European corn borer has been moderately abundant in sweet corn this year in Albany County.
- Wisconsin E. L. Chambers (August 18): Two spots in a 12-acre field of corn near the edge of Lake Michigan about 200 feet apart showed infestation with the corn borer. Three specimens were taken from one stalk, all above the ear. This is the first record of the corn borer in Wisconsin, (Mosel, Sheboygan County.)

CORN EAR WORM (Heliothis obsoleta Fab.)

- West Virginia L. M. Peairs (July 31): The corn ear worm is very abundant in Morgantown and generally over the State. Early injury to foliage and tassels was unusual.
- Virginia H. G. Walker (August 24): The corn ear worm was very injurious to sweet corn in the Norfolk district. Nearly all of the ears were destroyed by this insect.
- North Carolina Z. P. Metcalf (August): The corn ear worm is very abundant.
- Georgia C. H. Alden (August 22): The corn ear worm is moderately abundant. Many full-grown larvae have been found in roasting ears.
- Ohio E. W. Mendenhall (August 1): The corn ear worm is quite bad on sweet corn in the vicinity of Columbus and throughout southwestern Ohio.

- Illinois            C. C. Compton (August): The corn ear worm infestations are showing up for the first time this year in mid-season sweet corn. The infestation runs from 3 to 12 per cent of the ears. Reported in Cook County as scarce to moderately abundant.
- Minnesota        A. G. Ruggles (August 20): Reports are coming in of a very heavy infestation of the corn ear worm.
- South Dakota     H. C. Severin (August 20): The corn ear worm is more serious than usual on sweet and field corn.
- Iowa              C. J. Drake (August 3): The corn ear worm is extremely prevalent throughout the State.
- Missouri         L. Haseman (August 24): Right now worms are far less abundant than would have been expected from the abundance of the first generation.
- Kansas           H. R. Bryson (August 22): The corn ear worm is very abundant -- almost 150 larvae per 100 ears at Manhattan. This insect has been a pest all season.
- Nebraska         M. H. Swenk (August 20): The corn ear worm is moderately to very abundant in eastern Nebraska.
- Tennessee       C. Benton (July): A very general infestation was observed attacking the developing tassel and upper leaves of field corn in Lincoln and adjacent counties. Many fields were 10 to 20 per cent infested. Most roasting ears were infested in late July.
- Oklahoma         C. F. Stiles (August 24): The corn ear worm is moderately abundant in eastern and central Oklahoma. Some fields of rank cotton will be damaged.
- Mississippi      C. Lyle and assistants (August): The corn ear worm is damaging corn considerably at the present time, especially in Grenada, Jones, and Tallahatchie Counties.
- State Plant Board, Press Release (August 3): The corn ear worm is generally distributed over the State, attacking corn and tomatoes. It was reported very abundant in Chickasaw, Lauderdale, and Lee Counties, and scarce in Adams County.
- Utah              G. F. Knowlton (August 18): The corn ear worms are seriously abundant in all sweet corn fields and market corn examined this summer in northern Utah.

CHINCH BUG (Blissus leucopterus Say)

Massachusetts    A. I. Bourne (August 21): Quite recently our attention was called to a rather serious outbreak of the chinch bug in the town of Windsor in Berkshire County. This infestation is quite well

localized in a comparatively small area, but within that space the pest is very abundant. The surface of the ground was literally swarming with bugs of all stages of development. A small planting of corn in this area and a field of millet had already been seriously injured at the time our attention was called to the infestation.

- Ohio T. H. Parks (August 22): The chinch bug is moderately abundant. It has increased since last year.
- Illinois. W. P. Flint (August 10): The weather of the summer thus far has been, on the whole, favorable to chinch bugs and they are increasing in abundance in the southern part of the State, with prospects of a considerable increase in damage next year. This also applies to the central Illinois area.
- Michigan R. Hutson (August 24): Chinch bugs are moderately abundant in the lower tier of counties, of the lower peninsula.
- Minnesota A. G. Ruggles and assistants (August): Chinch bugs were reported as doing damage to barley in Goodhue County in the southeastern part of the State. (Abstract, J.A.H.)
- South Dakota H. C. Severin (August 20): The chinch bug is moderately abundant. Serious damage was escaped only because of the extreme drought and grasshoppers.
- Missouri L. Haseman (August 25): The second generation in corn is quite abundant but not attracting the farmers' attention at present. Rains helped.
- Kansas H. R. Bryson (August 22): The chinch bug is very abundant in the southeastern part of the State.
- Nebraska M. H. Swenk (August 20): The chinch bug is moderately abundant in some southern counties. There has been no commercial damage.
- Tennessee C. Benton (July): A considerable acreage of millet was seriously injured and some totally destroyed by the chinch bug during early July in Lincoln and Marshall Counties. The bugs were mostly in the last nymphal instar by July 15. They deserted millet fields by late July and scattered into corn. A small pop-corn patch near Fayetteville was destroyed and adjacent sorghum attacked by bugs migrating from a ruined millet field.
- Mississippi State Plant Board, Press Release (August 3): Chinch bugs were moderately abundant in one locality. They usually cause little injury in this State during seasons of abundant rainfall.

CORN LEAF APHID (Aphis maidis Fitch)

Kansas H. R. Bryson (August 22): The corn leaf aphid is present in large numbers in some fields of kafir and corn in the State.

CLOVER

GREEN CLOVER WORM (Plathypena scabra Fab.)

North Carolina Z. P. Metcalf (August): The green clover worm in the eastern part of the State is worse than I have ever seen it before.

CLOVER APHID (Anuraphis bakeri Cowan)

Oregon L. P. Rockwood (August 4): A. bakeri is coming up, especially on late cut clover in Washington County. A. helichrysi Kalt. is probably not as abundant as usual in Malheur County.

CLOVER SEED MIDGE (Dasyneura leguminicola Lint.)

Oregon L. P. Rockwood (August 4): Infested heads were moderately abundant in fields cut late for hay and wet by June rains. They were very scarce or absent in fields harvested for hay before the June rains.

CLOVER ROOT BORER (Hylastinus obscurus Marsham)

Oregon Oregon Agricultural College, Insect Pest Report (July): The clover root borer is scarce in Coos County, moderately abundant and causing some injury in several clover fields in Washington County, and reported as moderately abundant in Yamhill County.

ALFALFA

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Wyoming A. G. Stephens (August 21): The alfalfa weevil is moderately abundant in the central part of the State.

Oregon Oregon Agricultural College, Insect Pest Report (July): The alfalfa weevil is scarce in Baker Valley and doing damage. It is reported as moderately abundant in Jackson County.

GARDEN WEBWORM (Loxostege similalis Guen.)

Indiana J. J. Davis (August 21): The garden webworm was reported, August 8-30, damaging alfalfa at Evansville, Princeton, and Rockport. At the last place it is reported that they destroyed a



7-acre field and then proceeded to an adjoining soybean field and were damaging this crop at the time of the report. They were also feeding on bull nettle and lamb's-quarters.

Illinois W. P. Flint (August 10): Alfalfa webworms are very abundant and destructive throughout south central and north central Illinois.

J. H. Bigger (August 18): At least 160 acres of alfalfa were severely damaged by this species in Pike, Scott, and Greene Counties, August 10-- 15. Reports came in by telephone and from personal consultation from many other fields. From 1,500 to 2,000 acres are estimated to have been damaged in Morgan, Scott, Greene, and Pike Counties.

North Dakota J. A. Munro (August 22): Reports from Stutsman, Steele, Cass, and Barnes Counties indicated this pest as of serious importance during July. Mustard, sweet clover, onions, beets, cabbage, and peas were badly damaged and in some cases completely destroyed.

Iowa C. J. Drake (August 3): The garden webworm, L. similalis, is extremely abundant in Iowa, and doing serious damage to alfalfa and to many truck crops. The outbreak is quite general and very widespread in the State.

Mississippi C. Lyle (August 25): A light infestation of L. similalis on cotton was reported from Cleveland on August 9.

#### ALFALFA CATERPILLAR (Eurytus eurytheme Boisd.)

Kentucky M. L. Didlake (August 24): E. eurytheme butterflies are very abundant over alfalfa fields in Jefferson County.

North Dakota J. A. Munro (August 22): The alfalfa butterfly has been very noticeable this season, and many inquiries have been received from Traill, Barnes, and Pembina Counties since the last Insect Pest Survey report.

South Dakota H. C. Severin (August 20): The alfalfa caterpillar is apparently doing little damage, but butterflies are exceedingly abundant.

Utah G. F. Knowlton (August 18): The alfalfa caterpillar is doing moderate damage to alfalfa in northern Utah areas. Adult butterflies are very abundant at the present time.

#### CLOVER SEED CHALCID (Bruchophagus funebris How.)

Oregon L. F. Rockwood (August 4): Adults are not very abundant in the fields, July 29 - 31. Emergence from early-set seed pods is probably just beginning.

LEAFHOPPERS (Cicadellidae)

Indiana J. J. Davis (August 21): Considerable yellowing of alfalfa foliage was reported from South Bend, July 31. There is every evidence that this trouble is caused by leafhoppers.

SOYBEAN

GREEN CLOVER WORM (Plathypena scabra Fab.)

Virginia H. G. Walker (August 24): The green clover worm has been causing severe damage to soybeans at various places in this part of the State.

Mississippi C. Lyle (August 25): Several larvae, tentatively identified by J. M. Langston as Plathypena scabra, were collected on soybeans at Boyle, Bolivar County, on August 9. The infestation was light.

ALFALFA LOOPER (Autographa gamma californica Spey.)

Illinois J. H. Bigger (August 19): The alfalfa looper is very abundant in a field of soybeans in connection with grasshoppers in Greene County. About 60 per cent of the leaf surface in the field has been destroyed by the two pests. The damage is serious because the crop is not ready to cut.

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

Florida R. N. Lobbell (July 22): The conspicuous feature has been the very marked increase of parasites over last year. These are being bred out from thousands of caterpillars and are not yet determined. This season has been quite dry so far while last year was exceptionally rainy. Precipitation at the Station in 1930: May, 4.43 inches; June, 19.61 inches; July 1 to 20, 3.99 inches. Precipitation in 1931: May, 3.16 inches; June, 0.59 inch; July 1 to 20, 1.32 inches; a total difference of 23.96 inches.

Louisiana W. E. Hinds (August 21): Soybean worms, A. gemmatilis, as far north as Rapides Parish are doing considerable damage.

BEAN LEAF ROLLER (Goniurus proteus L.)

Florida R. N. Lobbell (July): The interesting feature has been that while in May and early June the bean leaf roller was abundant on snap beans and soy beans on both muck and custard apple lands, by this month they have almost completely disappeared from the muck lands but remain in fair numbers on the sandy custard apple ridges along the lake where they are feeding on soybeans.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Louisiana

W. E. Hinds (August 21): C. trifurcata is very abundant on soybeans at Baton Rouge.

VEGETABLE

A BRUCHID (Mylabris brachialis Fahraeus)\*

SORGHUM

CORN LEAF APHID (Aphis maidis Fitch)

Mississippi

State Plant Board, Press Release (August 3): The corn leaf aphids were very abundant on sorghum in the Delta.

GRASS

SOD WEBWORMS (Crambus spp.)

Virginia

W. S. Hough (August 27): Sod webworms, Crambus spp., have been doing considerable damage on golf greens in northern Virginia.

C. R. Wiley (August 28): Specimens of grass worms, Crambus spp., were received from Monterey, Highland County, August 14. Reported as doing considerable damage to lawns.

Ohio

E. W. Mendenhall (August 10): Sod webworms are doing considerable damage to lawns and golf courses at Columbus and throughout central Ohio. We have not yet identified them as far as the species.

J. S. Houser (August 22): Sod webworms have caused excessive damage to lawns, fairways, putting greens, and, in fact, turf of all kinds in Ohio. At Wooster, August 15 - 22, there was a very heavy flight of moths. Some parasites have been observed. It is the worst outbreak on record.

T. H. Parks (August 24): Injury from Crambus larvae to lawns and golf courses continued through the first half of August but has now subsided. Moths of C. trisectus Walk. and C. teterrollus Zinck. were caught at a trap light in large numbers during the entire month. Some lawns were destroyed by the larvae during July and early August.

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\*Acknowledgment: The note on this insect in the Insect Pest Survey Bulletin, Volume 11, No. 6, page 347, should be credited to L. J. Bottimer.

- Indiana J. J. Davis (August 21): Webworms, Crambidae, continued as outstanding pests in lawns and golf greens, our last report having been received August 13. Localities reporting trouble since July 31 are as follows: Brookville, South Bend, Winchester, Fountain City, Martinsville, Indianapolis, Muncie, Aurora, Decatur, Salem, Amo, Milroy, Franklin, and Waveland. The adults were out in enormous numbers at Lafayette the night of August 4.
- Illinois J. H. Biggor (August 19): Adults of C. teterrollus Zinck. were abundant August 9 - 17.
- Kentucky M. L. Didlake (August 25): There are numerous complaints that the sod webworm is injuring lawns, pastures, golf links, and orchard grass in Fayette, Kenton, Lewis, Woodford, Fleming, and Greenup Counties. Around Lexington the second brood of moths was flying all through August; they were so numerous that they covered radiators and windshields of automobiles and made almost solid masses on lighted windows in the country. Many were collected on August 4 and 15.
- Iowa H. E. Jaques (August 27): Sod webworms have been very destructive to lawns and to some pastures particularly in southern Iowa. Chickens and blackbirds have been active in destroying the worms.
- Missouri L. Haseman (August 25): Crambids continue to be unusually abundant at Columbia. Moths coming to lights.
- Tennessee C. M. Packard and W. B. Noble (July): Widespread injury was done to lawns and golf greens by sod webworms this month. Several species were involved as shown by our rearings, probably C. mutabilis Clem., C. trisectus Walk., and C. caliginoscellus Clem., although authentic determinations have not yet been received from Washington. Wild birds and chickens have been observed digging up and eating the larvae. A dipterous parasite was common but not present in controlling numbers.
- C. Benton (July): Injury to corn continued into early July, when a few larvae were still attacking corn roots in infested fields near Fayetteville.

TIGER MOTH (Apantesis phyllira Drury)

- Tennessee and Kentucky C. Benton (July): Local outbreaks of the second-brood larvae of the tiger moth, A. phyllira, occurred throughout the same general area in southern Tennessee as previously reported for the first brood. Major injury was done in late June and early July. By July 15 most of the larvae had pupated. First moths from this brood were taken in the field on July 7. Moths were present almost nightly at lights in Fayetteville to July 27. Most injury

was to grass lots and pastures with some caused by migration to corn, melons, cotton, cowpeas, tobacco, strawberries, and gardens. The worst damage was in Marshall County where there were only a few isolated outbreaks of the first brood. Similar heavy damage caused by the second brood to several hundred acres of corn and other crops, reported by J. U. Gilmore and J. Milam, in Montgomery and Robinson Counties, Tenn., and Christian and Todd Counties, Ky. They reported only a single known first-brood outbreak in a pasture near the west edge of Robinson County.

#### GEOMETRID LARVA (Geometridae)

Rhode Island

A. E. Stone (July 29): There is an interesting outbreak of geometrid larvae, possibly a species of the genus *Cosymbia*, in the town of East Greenwich. It is stripping indigo, sweet corn, bayberry, and huckleberries over a considerable area of pasture land. So far no moths have been secured.

#### LEAFHOPPERS (Cicadellidae)

Nebraska

M. H. Swenk (July 15 to August 1): On the night of July 19 there was an enormous flight of leafhoppers in Omaha. The insects were so numerous that they interfered with automobile and street car traffic, and in some cases made necessary the darkening of buildings. The species chiefly concerned seemed to be the inimical leafhopper (*Deltoccephalus inimicus* Say) and the bog leafhopper (*Helochara communis* Fitch);.

#### CHUFA

#### BILLBUGS (*Calendra* spp.)

Mississippi

H. Dietrich (August 19): Billbugs (*Calendra*, probably 2 species) have practically destroyed a 2-acre field of chufa on rather low ground in the southern part of Perry County on August 14.

F R U I T I N S E C T S

APPLE

WOOLLY APHID (Eriosoma lanigerum Hausm.)

Washington E. J. Newcomer (August 21): The woolly aphid is probably more numerous than during any season in the last ten or twelve years in spite of the great abundance of chrysopids and syrphids.

CODLING MOTH (Carpocapsa pomonella L.)

New York N.Y.State Coll. Agr., Weekly News Letter (August): Rather heavy dropping as result of the codling moth is reported quite generally from the upper Hudson River Valley and western New York. In Oswego County codling moth injury was more serious this year than during the past three years. (Abstract, J.A.H.)

Delaware L. A. Stearns (August 4): First second brood larvae spun up in the insectary today. (Aug. 24): First and second brood moths emerged at Bridgeville August 21. Infestation is extremely variable this year.

Virginia C. R. Willey (August 28): This insect is fairly abundant all over the eastern and southern sections of the State.

Georgia C. H. Alden (August 22): The codling moth is very abundant in Cornelia, the injury being severe in some orchards. Third-generation moths are now laying eggs. Broods overlap.

Ohio T. H. Parks (August 24): The codling moth will not very seriously injure sprayed apples except in Lawrence County, southern Ohio. In that county two extra cover sprays are bringing the fruit through with fewer worms than last year but with many "stings" on the fruit.

Indiana J. J. Davis (August 21): Codling moth reports were very bad at Hobart, August 3. (August 22): The codling moth is moderately abundant throughout the State.

Illinois W. P. Flint (August 10): Southern Illinois- There has been a big increase in infestation in the Johnson County area in the past two weeks, some sprayed orchards now showing 40 to 50 per cent infestation. There has been a moderate increase during the past week both in moth emergence and in bait-jar catches. Central Illinois- Collections under bands have fluctuated slightly during the past week but on the whole have shown about the same level as for the last two weeks. More than 3,000 larvae were taken under 120 bands in the Urbana area this week. There has been an increase in the numbers of pupae found under bands and very heavy emergence of adults is

taking place at the present time (Aug. 8). (Week ending August 15): Southern Illinois- Mr. Chandler reports a heavy emergence of moths beginning about August 4 and a heavy catch of moths in his bait jars. Central Illinois- There has been an increase in emergence in central Illinois during the last several days but a decided drop in the numbers of larvae taken under bands. The number taken under 120 bands this week was more than 1,000 less than the number taken under the same number of bands last week. It seems likely that the cool weather just passed will stop pupation, as usually happens when a cool period of this sort occurs at this time of the year.

- Michigan R. Hutson (August 24): The codling moth is very abundant.
- Wisconsin E. L. Chambers (August 24): The codling moth is moderately abundant. This insect is very abundant where spraying is not done.
- Missouri L. Haseman (July and August): A peak of second-brood moths occurred between July 10 and 15 and on July 25 evidence of the second peak was showing up. The pest is very serious again this summer. Moths of the third generation were emerging in central Missouri and some of their worms beginning to enter fruit on August 25.
- Nebraska M. H. Swenk (July 15 - Aug. 1): The codling moth of the first brood started emerging July 4, reached the crest of emergence on July 15, and they are now largely out. Egg laying began on July 13, and the first-brood larvae hatched on July 16, which is 4 days earlier than in 1930, 6 days earlier than in 1929, and 11 days earlier than in 1928.
- Nevada G. G. Schweis (August 21): The unsprayed apples are all wormy in the western part of the State.
- Washington Ortho News, Vol. 3, No. 8 (August 20): The first-brood moth flight this year showed two fairly distinct peak periods, the first coming about the middle of May and the second during the last week of that month. The second-brood flight has shown a series of "peaks," the two heaviest and most sustained coming during the last week in July and about the middle of August, respectively. There have been in addition several intermittent high catches, together with moderately good catches throughout the entire second-brood period, from about the 1st of July up to the present time.
- In general the second brood has far exceeded expectation, being the heaviest flight in many years, making even the season of 1929 look ordinary by comparison. It remains to be seen just what the third brood will produce.

Oregon D. C. Mote (August 15): B. G. Thompson reports the peak of egg laying by the second brood. Recent cool nights have prevented much egg laying.

APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)

New York N.Y. State Coll. Agr., Weekly News Letter (August): The apple and thorn skeletonizer seriously affected many orchards in Niagara County. (Abstract, J.A.H.)

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

Ohio E. W. Mendenhall (August 14): The yellow-necked caterpillar is doing some damage to apple stock in nurseries in Morgan County.

T. H. Parks (August 24): The yellow-necked caterpillars were sent in August 21 with the statement that they were attacking apple foliage in a Jefferson County orchard.

APPLE LEAFHOPPERS (Cicadellidae)

Massachusetts Massachusetts Fruit Growers' Association, the Pest Situation (August 1): Leafhoppers have been very abundant generally, with especially heavy infestation in southeastern Massachusetts. The hatching period of the first brood was long drawn out so that it was often impossible to control the insects by the use of one spraying. Many growers secured good control by adding nicotine to the calyx and first cover sprays.

Connecticut P. Garman (August 21): The rose leafhopper (Empoa rosae L.) appeared in abundance in June, became fairly abundant in July, and decreased rapidly toward the middle of the month. Second-brood nymphs were present only in a few orchards and there in very small numbers.

Delaware L. A. Stearns (August 24): Apple leafhoppers are still rather abundant throughout the State.

North Carolina Z. P. Metcalf (August): Apple leafhoppers are very abundant in eastern North Carolina.

Ohio T. H. Parks (August 24): Apple leafhoppers are more abundant than usual on apple foliage.

APPLE LACE BUG (Corythucha coelata Uhl.)

Oregon Oregon Agr. Coll., Insect Pest Report (July): Apple lace bugs are very abundant throughout Yamhill County on apples.



SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

- Georgia C. H. Alden (August 22): The San Jose scale is scarce in Cornelia.
- Ohio E. W. Mendenhall (August 14): The infestation is greater in southeastern Ohio than it has been and it will mean a little harder fight to keep it in check.
- Indiana J. J. Davis (August 22): The San Jose scale is moderately abundant throughout the State, especially in the southern part of the State.
- Illinois W. P. Flint (August 15): Infestation has been higher in both central and southern Illinois during the last few weeks. There will probably be a considerable number of heavily infested orchards by the end of the season.
- Wisconsin E. L. Chambers (August 24): The San Jose scale is moderately abundant. Several additional infested areas have been discovered.
- Missouri L. Haseman (August 25): The San Jose scale has shown serious increase during the month. Earlier it was scarce.
- Mississippi State Plant Board (August 3): The San Jose scale is doing considerable damage to peach and plum trees throughout the State.
- Oregon Oregon Agr. Coll., Insect Pest Report (July): This scale is moderately abundant throughout the State and was reported as very abundant in Morrow County.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

- Massachusetts Massachusetts Fruit Growers' Association, The Pest Situation (August 1): Apple maggot flies were first observed the last few days of June and by July 8 to 10 were beginning to appear in numbers.
- New York N. Y. State Coll. Agr., Weekly News Letter (August): During the first week in August apple maggots were ovipositing in the Hudson River Valley. (Abstract, J.A.H.)

APPLE CURCULIO (Tachypterellus quadrigibbus Say)

- Massachusetts Massachusetts Fruit Growers' Association, The Pest Situation (August 1): The apple curculio is reported to be very abundant in some western orchards.
- New York N. Y. State Coll. Agr., Weekly News Letter (August 17): The injury caused by the feeding of the new generation of the apple curculio adults is severe in several Essex County orchards. The beetles are somewhat susceptible to poisons at this stage. The varieties most severely attacked are Tolman Sweet, Wealthy, and Spy.

WESTERN ROSE-CHAPER (Macroductylus uniformis Horn)

Arizona C. D. Lebert (July 28): Considerable injury on apple trees at Ft. Huachuca, July 14.

RED SPIDER (Tetranychus telarius L.)

Pacific Northwest Ortho News, Vol. 3, No. 7. (August 7): It is not a difficult matter at the present time to pick out orchards severely infested with the two-spotted mite, because of the browning, rust, or dust covered foliage.

Oregon Oreg. Agr. Coll., Insect Pest Report: The red spider is very abundant, mostly on mountain ash in Baker County and on pears and apples throughout Jackson County. Moderately abundant in Douglas County and on pears and strawberries in Josephine County.

PEACH

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Connecticut P. Garman (August 21): The third brood of the oriental peach moth has not yet appeared in force. What few early peaches have been picked seem to be fairly clean.

Rhode Island A. E. Stebbins (July 28): The oriental fruit moth is moderately abundant.

New York N. Y. State Coll. Agr., Weekly News Letter (August): Oriental peach moth infestation in fruit of early peach varieties seemed to be heavier than last year in Dutchess County, while in Niagara County there was considerable wormy peach fruit and quinces were riddled as usual. (Abstract, J.A.H.)

Delaware L. A. Stearns (August 24): Parasitism of the first brood of the oriental fruit moth was light, 15 per cent; of the second brood heavy, 80 per cent, by Macrocentrus sp. Infestation of early peaches was light.

Pennsylvania J. R. Stear (August 24): The oriental fruit moth is scarce. There has been practically no terminal injury on 500 2-year-old trees.

West Virginia L. M. Peairs (July 31): The oriental fruit moth is scarce in various sections, much less abundant than in 1929.

Virginia W. S. Hough and L. R. Cagle (August 24): The oriental fruit moth is moderately abundant at Vienna but scarce at Roanoke.

Georgia

O. I. Snapp (August 20): Less than one-half of 1 per cent of the latest maturing commercial variety of peaches was infested by this insect at Fort Valley this year.

C. H. Alden (August 22): The oriental fruit moth is scarce at Cornelia. Only 3.3 per cent is wormy in unsprayed plats as compared with 11.5 per cent in 1930.

Ohio

T. H. Parks (August 22): The oriental fruit moth is moderately abundant. It is most common in lake-shore areas.

Indiana

J. J. Davis (August 22): The oriental fruit moth is moderately abundant throughout the State.

Illinois

W. P. Flint (August): August 10, southern Illinois- There has been a slight increase in the visible infestation of peaches in Pulaski County. All growers of Slappy peaches in this section report fruit (now all picked) much less infested than in 1929 but still with some little injury showing. In Union, Jackson, Johnson, and Marion Counties increase, if any, was too slight to be noticed. No recent twig injury in any county. To date can see no possibility of commercial damage to Elberta unless it be in Pulaski County. Central Illinois- So far this year no oriental fruit moth infestation has been found in the Urbana section. There has been an increase in infestation in some of the areas north of Pulaski County, there being a slight increase in the Centralia area and a considerable increase in one area in the orchard section in Cumberland County. Week ending August 15, southern Illinois--oriental fruit moth infestation in fruit was shown by actual checks of 8,000 peaches in one of the heaviest infested orchards in the State to be 6 to 10 per cent, the latter being in the unsprayed check blocks. Counts made by Mr. Chandler of visible infestation showed from 0.6 to 4.3 per cent. In Jackson and Union Counties one to four days before picking Elberta, no orchards were found showing more than one-half of 1 per cent visible infestation. Fresh twig entrances were found August 14. Bait-jar catches have shown an increase since August 1.

S. C. Chandler (August 14): Counts made in peach orchards in Pulaski County of the oriental fruit moth just before picking show 0.6 to 4.3 per cent visible infestation in the fruit. In Jackson and Union County no orchard was found with over one-half of 1 per cent infestation.

Arkansas

D. Isely (August 24): Heavy infestation of the oriental fruit moth has been found on peaches in Benton County, and a light infestation in Washington County.

Mississippi

C. Lyle and assistants (August): Mr. R. B. Deene reports that this insect is very abundant in Lee County, some orchards showing serious twig injury. (Abstract, J.A.H.)

PEACH TWIG BORER (Anarsia lineatella Zell.)

California S. Lockwood (July 27): The peach twig borer has been more common than ordinarily experienced in the Sacramento Valley counties where canning and fresh peaches are raised extensively. Abandoned or neglected orchards have been largely responsible for this increased population.

PEACH BORER (Sanninoidca exitiosa Say)

New York N. Y. State Coll. Agr., Weekly News Letter (August): During the week preceding August 22 the peach-tree borer was entering peach and prune trees in Niagara County. (Abstract, J.A.H.)

North Carolina Z. P. Metcalf (August): The peach borer is very abundant. The lesser peach borer, Laspeyresia pictipes G. & G. occurs on flowering peach.

Georgia O. I. Snapp (August 20): The first adult of the season emerged on August 6. This is later than usual. Oviposition began on August 12 which was 12 days later than the first oviposition last year. (August 20): Oviposition is now fairly heavy. One female deposited 475 eggs in 24 hours. Eggs have not yet begun to hatch.

C. H. Alden (August 22): The peach borer is scarce in Cornelia. A few moths are now emerging.

Mississippi C. Lyle and assistants (August): The peach borer was reported as very abundant in Union, Meridian, Tate, and Panola Counties. (Abstract, J.A.H.)

State Plant Board, Press Release (August 3): According to reports the peach-tree borer and the San Jose scale are doing considerable damage to peach and plum trees throughout the State.

Utah G. F. Knowlton (August 18): The peach-tree borer is damaging untreated peach trees in Boxelder and Davis County orchards.

PLUM CURCULIO (Conotrachelus nouuohar Hbst.)

Massachusetts Mass. Fruit Growers' Association, The Pest Situation (August 1): The curculio stands out in front among insect pests. In many orchards it has survived the spray program used, with considerable success. This was in large measure due to interference by weather conditions at the time of special applications for its control.

Delaware L. A. Stearns (August 3): In the insectary the first mature second-brood grubs commenced to leave peaches. Source of both Bridgeville and Camden material, Bridgeville. (August 24): Second-brood grubs of the plum curculio are emerging from peaches in the southern two-brooded section of the State.

New York

N. Y. State Coll. Agr., Weekly News Letter (August): The new generation of plum curculio beetles made its appearance during the first week in August in the lower Hudson River Valley. During the second week in August they were observed in the upper Hudson River Valley. (Abstract, J.A.H.)

W. S. Hough and L. R. Cagle (August 24): The plum curculio is scarce, although it has been found to be moderately abundant in a few instances.

Georgia

O. I. Snapp (August 20): First-brood adults are depositing very few eggs this year. Second-brood larvae did not begin to appear in fruit in the field until the last picking of Elberta. The second brood was very small this year, and the entire crop of Georgia peaches was harvested with practically no damage from the curculio. We did not receive a single complaint of wormy peaches from a treated orchard. Of 38,196 peaches cut open and examined in one orchard only 265, or 0.7 per cent, were infested by the curculio. Of 5,347 peaches cut open and examined in another orchard, 52, or 1.0 per cent, were infested by the curculio, and of 3,278 peaches cut open and examined in a third orchard, 44, or 1.3 per cent, were infested; 46,821 peaches were cut open and examined from trees in the three orchards and of these only 361, or an average of 0.8 per cent, were infested by the curculio.

Ohio

T. H. Parks (August 22): The plum curculio is scarce. It has been scarce all the year. (August 24): The plum curculio still continues to be very scarce in all parts of the State.

Indiana

J. J. Davis (August 22): The plum curculio is moderately abundant, scattered in isolated regions.

Illinois

W. P. Flint (August): August 10, southern Illinois - Orchard counts and observations continue to indicate light infestation. An orchard in Pulaski County showed greater infestation in Belle of Georgia than in Elberta and Hale, all being sprayed and dusted at the same time. Mr. Chandler reports a marked increase in numbers of adult curculios jarred from trees in the southern Illinois section the last of this week. (August 8): Counts and observations indicate that curculio infestation this season is the lightest for several years.

Week ending August 15, southern Illinois - Peach orchards in the extreme southern part of the State show a very low percentage of infestation. Actual examination of several thousand peaches in experimental blocks shows from 4 to 9 per cent infestation by the curculio, the latter percentage of infestation being in unsprayed checks.

- Michigan R. Hutson (August 24): The plum curculio is moderately abundant.
- Wisconsin E. L. Chambers and assistants (July): The plum curculio was reported as very abundant in Crawford, Eau Claire, La Crosse, Manitowoc, Sault, Sheboygan, and Vernon Counties. (Abstract, J.A.H.)
- Missouri L. Haseman (August 25): The first generation of adults of the plum curculio have continued to feed and oviposit later than usual in stone fruits at Columbia. Some worms are not more than two-thirds grown now (August 24) in plums.
- Georgia C. H. Alden (August 22): The plum curculio is scarce in Cornelia. It has been almost absent, only 0.05 per cent of the fruit having been wormy in 1921; 34.2 per cent were wormy in unsprayed plots in 1930.
- Kansas H. R. Bryson (August 23): The plum curculio is moderately abundant. It is very injurious to plums and peaches at Manhattan.
- Mississippi State Plant Board, Press Release (August 3): The plum curculio has done some damage to peaches and plums, especially on unsprayed trees, although this insect has been less numerous than usual.
- WHITE PEACH SCALE (Aulacaspis pentagona Targ.)
- Virginia C. R. Willey (August 28): There is considerable infestation of the West Indian peach scale in Richmond. A number of complaints have followed where peach, plum, and cherry were badly infested. Specimens have been taken on lilac and, recently, on catalpa.
- SNOWY TREE CRICKET (Oecanthus niveus DeG.)
- Louisiana W. E. Hinds (August 21): Snowy tree crickets in Ouichita and Jackson Parishes are laying eggs in peach, pecan, and crepe myrtle. Do not know the abundance.

PEAR

PEAR PSYLLA (Psyllia pyricola Foerst.)

New York N. Y. State Coll. Agr., Weekly News Letter (August): By the middle of the month the pear psylla began hatching rapidly in western New York. (Abstract, J.A.H.)

PEAR SLUG (Eriocampoides limacina Retz.)

Massachusetts J. V. Schaffner, Jr. (August 21): At Brookline I noted one row of nine large pear trees with the foliage almost completely browned by this insect.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

Vermont H. L. Bailey (August 24): The pear leaf blister mite has been reported as plentiful in the vicinity of Montpelier.

Utah G. F. Knowlton (August 18): The pear leaf blister mite has caused damage in occasional orchards in many parts of Utah.

Oregon Oreg. Agr. Coll., Insect Pest Report (July): Don C. Mote reports orchard mites to be unusually abundant this year and doing serious damage to pear foliage in the Willamette Valley. Reports from other sections of the State indicate this to be a favorable season for mites, damage being reported on apples, pears, raspberries, muskmelons, prunes, and strawberries.

QUINCE

QUINCE CURCULIO (Conotrachelus crataegi Walsh)

New York N. Y. State Coll. Agr., Weekly News Letter (August): Considerable injury due to the quince curculio was observed on pears that were picked by the middle of the month. (Abstract, J. A. H.)

CHERRY FRUIT FLY (Rhagoletis cingulata Loew)

Oregon D. C. Mote (August 15): S. C. Jones reports the fly still on the wing August 6. Maggots have nearly all pupated, the remaining maggots being nearly full grown.

PEAR SLUG (Eriocampoides limacina Retz.)

Oregon Oreg. Agr. Coll. Insect Pest Report (July): Pear slugs are moderately abundant on cherries in Grant County. This insect is very abundant over Morrow County.

PLUM

RED SPIDER (Tetranychus telarius L.)

Washington

E. J. Newcomer (August 21): The two-spotted mite is doing more damage than at any time in the last twelve years. Many prune and cherry trees are already defoliated, and there is also occasional damage to apple and pear trees.

RASPBERRY

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

New York

C. R. Crosby (July): Infested shoots of raspberries were received from Bernhard's Bay.

W. E. Blauvelt (June 30 to July 29): Oberea bimaculata was found at Hornell, Clayton, Oneonta, North Hornell, Franklin, Rushford and Upper Jay, N. Y. Specimens were received from these localities.

RASPBERRY FRUIT WORM (Byturus unicolor Say)

Washington

J. Wilcox (August 19): Berries are past the commercial picking season. At the first of the picking season Wm. W. Baker found 50 per cent of the berries infested. Most of the larvae have entered the soil; in a small count 50 per cent were larvae and 50 per cent pupae. No adults were found. Abundance is about the same as for the last three years. Reported on Loganberries at Christopher.

A CURCULIONID (Geoderces melanothrix Kby.)

Washington

Wm. W. Baker (April): Practically all the buds were eaten off and most of the canes in portions of the field. It has been far more numerous, at least in some fields, as compared with the average year. It was reported in Fuyallup.

LOGANBERRY CROWN BORER (Bembecia marginata Harr.)

Oregon

Oreg. Agr. Coll., Insect Pest Report (July): The loganberry crown borer is scarce on raspberries in Polk County. It is very abundant in Yamhill County.

RED-HUMPED CATERPILLAR (Schizura concinna S. & A.)

Indiana

J. J. Davis (August 21): The red humped apple caterpillar (Schizura concinna) was abundant and defoliating blackberry at Rensselaer August 19.



GRAPES

SPOTTED PELIDNOTA (Pelidnota punctata L.)

Connecticut W. E. Britton (August 24): More abundant than usual on grapes at Bridgeport and Hartford.

GRAPE LEAF FOLDER (Deania funeralis Wbn.)

Virginia H. G. Walker (August 24): The grape leaf folder has done considerable damage to grapes in this area. Some of the vines in small home gardens have been nearly defoliated by this pest.

Mississippi J. Milton (August 22): On July 27 the grape leaf folder was doing serious damage to grapes at Belmont. Practically every leaf was infested with this pest.

ROSE LEAFHOPPER (Eupoa rosae L.)

Ohio E. W. Mendenhall (August 5): I find that the rose leafhopper (Eupoa rosae L.) is quite bad on grape leaves and doing some damage in Newark and in central Ohio.

GRAPE LEAF SKELETONIZER (Harrisina americana Guer.)

Arizona C. D. Lebert (July 28): Quite numerous in spots throughout the valley with severe grape foliage injury at several places.

EIGHT-SPOTTED FORESTER (Alipia octomaculata Fab.)

Maine H. B. Peirson (August 24): The eight-spotted forester was reported feeding on maple in Portland.

GRAPE LEAFHOPPER (Erythroneura comes Say)

Virginia H. G. Walker (August 24): The grape leafhopper is quite abundant on grapes in the Norfolk area.

Mississippi H. Dietrich (August 19): The grape leafhopper has become very abundant on grape at Lucedale.

Utah G. F. Knowlton (August 3): The grape leafhopper is seriously damaging grapes and Virginia creeper at Rivordale.

California S. Lockwood (July 27): The grape leafhopper has not been responsible for as much damage in Kern County as in other counties in the San Joaquin Valley. Fresno, Madera, and parts of other northern counties of this valley have suffered extremely. The tonnage of marketable grapes will be reduced by a rather large percentage because of this insect and the hot, dry weather experienced this summer.

E. O. Essig (August 20): The grape leafhoppers are abundant in Sacramento and San Joaquin Valleys in May, June, July, and August.

PACIFIC RED SPIDER (Tetranychus pacificus McG.)

California

E. O. Essig (August 20): Red spiders (Tetranychus pacificus McG.) are abundant on grapes in San Joaquin and Stanislaus Counties.

PECAN

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Mississippi

H. Dietrich (August 19): The absence of injury to pecans at Lucedale by the hickory shuck worm is noticeable.

R. F. Colmer (August 19): The hickory shuck worm is moderately abundant on pecan in eastern Jackson County.

E. Gladney (August 20): The pecan shuck worm is moderately abundant on pecans at Ocean Springs.

State Plant Board, Press Release (August 3): The pecan shuck worm was reported to be scarce except in one locality, where it caused considerable dropping of the small nuts.

A CASE-BEARER (Acrobasis palliolella Rag.)

Mississippi

R. P. Colmer (August 19): Leaf case bearers are moderately abundant on pecans.

H. Dietrich (August 19): The pecan leaf case-bearer (Acrobasis palliolella) newly-hatched larvae have done considerable injury to foliage in orchard of pecans at Lucedale.

PECAN NUT CASE BEARER (Acrobasis caryae Grote)

Mississippi

R. P. Colmer (August 19): There has been no damage this year from the pecan nut case bearer in this section of the State (eastern Jackson County).

PECAN CIGAR CASE-BEARER (Coleophora caryaefoliella Clem.)

Mississippi

H. Gladney (August 20): The pecan cigar case bearer is moderately abundant on pecans at Ocean Springs.

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Mississippi

C. Lyle and assistants (August): The walnut caterpillar is remarkably scarce through the pecan-growing sections of the State. The first colony was observed in Lincoln County on August 10

FALL WEBWORM (Hlyphantria cunea Drury)

Mississippi C. Lyle and assistants (August): Fall webworms are unusually scarce in Mississippi.

PECAN WEEVIL (Curculio caryae Horn)

Georgia T. L. Bissell (August 27): Adult weevils began puncturing nuts about July 25 at Milner, Ga. Injury is light in Schley and Stuart pecans at Strouds Crossroads in Monroe Co., Ga.

A PECAN APHID (Monellia costalis Fab.)

Georgia T. L. Bissell (August 27): Aphids are exceedingly scarce on pecans.

Mississippi H. Dietrich (August 19): The black-margined aphid (Monellia costalis) has become very abundant on pecans at Leakesville, Leaf, and Lucedale, the leaves being covered with the black fungus growing in the honeydew. At Leakesville a woman had a lot of ornamental shrubbery planted under pecans, the leaves of which were all covered with the black fungus growing in the honeydew dripping from the pecans.

BLACK PECAN APHID (Myzocallis fumipennellus Fitch)

Georgia T. L. Bissell (August 27): Aphids are exceedingly scarce. Has been negligible injury in the Experiment area this year on pecans.

Mississippi C. Lyle and assistants (August): This aphid has been so scarce that no control practice has been necessary in many localities; however, it was appearing about the third week in the month in George and Stone Counties. (Abstract, J.A.H.)

FLAT-HEADED APPLE TREE BORER (Chrysobothris fenorata Oliv.)

Mississippi H. Dietrich (August 19): The flat-headed apple tree borer adults have been flying all the month in increasing numbers and can be beaten from neglected pecan trees.

CODLING MOTH (Carpocapsa pomonella L.)

California Monthly News Letter, Los Angeles County Agricultural Commissioner (July 15): Walnut growers in Los Angeles County this year sprayed over 4,500 acres of walnuts for control of the codling moth according to H. H. Wilcomb, Deputy Agricultural Commissioner. Considerable crop loss is caused by this pest each season and it has been definitely proved that its control is an economic practice.

CITRUS

FLORIDA RED SCALE (Chrysomphalus ficus Ashm.)

Florida E. W. Berger (August 24): The Florida red scale is very abundant. Specimens have been received from a correspondent.

PURPLE SCALE (Lepidosaphes beckii Newm.)

Florida E. W. Berger (August 24): The purple scale is very abundant. Specimens were received from a nursery inspector.

CHAFF SCALE (Parlatoria pergandii Comst.)

Florida E. W. Berger (August 24): The chaff scale is very abundant at Babson Park. Specimens were received from a nursery.

GLOVER'S SCALE (Lepidosaphes gloverii Pack.)

Florida E. W. Berger (August 24): The long scale is very abundant at Babson Park. Specimens were received from an inspector.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Florida E. W. Berger (August 24): The cottony cushion scale is moderately abundant in various local outbreaks over the State, mostly in the southeastern part. Specimens were received from correspondents. Veralia is moderately abundant.

CITROPHILUS MEALYBUG (Pseudococcus gahani Green)

California Monthly News Letter, Los Angeles County Agricultural Commissioner (July 15): Some three years ago internal parasites of the citrophilus mealybug were brought in from Australia and established here by Prof. Harry S. Smith of the University of California Citrus Experiment Station at Riverside. These insects maintain themselves throughout the winter without artificial aid, and have cut the mealybug population almost to the vanishing point in some areas and have maintained a wonderfully effective control in all sections.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Mississippi State Plant Board, Press Release (August 3): The citrus whitefly was reported as injuring citrus and ornamental plants.

FIRE ANT (Solenopsis geminata Fab.)

Arizona

C. D. Lebert (July 31): The bud unions of young citrus trees in the valley have been covered in many cases. Gummosis has resulted at the bud union. The ants have apparently been attracted to the gum exudation which they have removed together with the bark, thus seriously and in many cases completely girdling the trees.

FALSE CHINCH BUG (Nysius ericae Schill.)

California

Monthly News Letter, Los Angeles County Agricultural Commissioner (July 15): The false chinch bug, Nysius ericae, a close relative to the well-known chinch bug which is a serious insect enemy of the wheat crop of North America, has recently turned its attention to young citrus trees according to H. M. Armitage, Deputy Agricultural Commissioner of Los Angeles County. Normally the species breeds and feeds in the native grasslands where it multiplies in countless numbers. With the drying up of all native weed growth, due to the prevailing summer temperatures, they have apparently been forced to seek other food. In several instances this insect has been reported as seriously damaging year-old citrus trees, both lemon and orange, usually replants in old orchards but in one case in a newly planted tract. The false chinch bug's attacks, however, seem to be concentrated on a few scattered individual trees, which have been killed by their feeding. Fortunately the period of their occurrence in damaging numbers seems limited to three or four weeks and they are already on the decline. This is not the first occurrence of this pest on citrus, as about six years ago a similar occurrence in their appearance was noted with some damage at this time.

GUAVA

CARDIN'S WHITEFLY (Aleurodicus (Metalaleurodicus) cardini Back)

Florida

E. W. Berger (August 24): Cardin's whitefly is moderately abundant at West Palm Beach. Specimens have been received from a correspondent.

Note: J. A. H. This species was described from Cuba on guava and was later (February 5, 1921) found on this fruit in the U. S. D. A. Plant Introduction Gardens at Miami, Fla. by W.B. Wood.

TRUCK - CROP INSECTS

BLISTER BEETLES (Meloidae)

- Indiana J. J. Davis (July 30): Blister beetles continue to be reported frequently. Undoubtedly these insects are more abundant this year than for a number of years.
- Minnesota A. G. Ruggles (August 20): Lytta nuttalli Say is very numerous in the northwestern part of the State damaging beans.
- North Dakota J. A. Munro (August 22): Considerable attention has been directed toward the blister beetles. Pembina, Walsh, Ramsey, Cavalier, Stutsman, Nelson, Grand Forks, and Griggs were among the counties troubled, the first four named being apparently the chief victims. The injury was confined mainly to garden stuff and caragana hedges.
- Nebraska M. H. Swenk (July 15 to August 1): Blister beetles continued to be reported as damaging alfalfa, potatoes, and garden truck, in all sections of the State. As previously, Epicauta lemniscata Fab. is the prevailing species in southeastern Nebraska, while species of Macrobasis dominate in western Nebraska. However, E. cinerea Forst. was found damaging kohlrabi and cabbage in a truck patch near Omaha in Douglas County.
- Kansas H. R. Bryson (August 22): Blister beetles were reported injurious at Belvidere, Lenora, Miltonvale, Quinter, Topeka, and Richmond.
- Mississippi F. A. Smith (August 20): The striped blister beetles are very abundant on tomatoes and eggplant in the six northwestern counties of the State.
- Louisiana W. E. Hinds (August 21): Blister beetles are feeding on alfalfa and soybeans at Baton Rouge.

NORTHERN MOLE CRICKET (Gryllotalpa hexadactyla Perty)

- Florida E. W. Berger (August 24): The mole cricket is very abundant at Winter Haven. Injury is severe in a newly set lawn.

FALSE CHINCH BUG (Nysius ericae Schill.)

- South Dakota H. C. Severin (August 20): The false chinch bugs are abundant over much of South Dakota and doing damage especially to garden crops.

bug

Kansas H. R. Bryson (August 22): The false chinch/ is present at Manhattan, attacking the tassels of sweet corn. It is reported as attacking bolls of flax in southeastern Kansas. It is present on sorghum heads at Manhattan and similar reports have been sent in from Johnson and Gorham.

POTATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

- Vermont H. L. Bailey (August 24): The Colorado potato beetle is very abundant throughout the State.
- New York N. Y. State Coll. Agr., Weekly News Letter (August): Although well controlled where insecticides were applied these insects were very much more numerous than usual over the greater part of the State this year. (Abstract, J.A.H.)
- Pennsylvania C. A. Thomas (August 22): The Colorado potato beetle is still abundant and destructive to unsprayed potato and eggplant in the southeastern part of the State.
- Ohio J. S. Houser (August 22): The Colorado potato beetle is very abundant.
- Wisconsin E. L. Chambers and assistants (July): The Colorado potato beetle was reported as very abundant throughout the State, unusual numbers being reported from 14 counties. (Abstract, J.A.H.)
- Minnesota A. G. Ruggles and assistants (August): The Colorado potato beetle was probably more prevalent than usual, having been reported as very abundant from 15 counties. (Abstract, J.A.H.)
- North Dakota J.A. Munro (August 22): For the most part the Colorado potato beetle is fairly abundant, as reported in McLean, Burleigh, and La Moure Counties; however, as it is a general pest, it does not claim so much attention as some of the newer pests.
- South Dakota H. C. Severin (August 20): The Colorado potato beetle is becoming more abundant after several years of almost total absence.
- Missouri L. Haseman (August 23): The Colorado potato beetles are common in central Missouri, doing some damage on tomatoes.
- Wyoming A. G. Stephens (August 21): The Colorado potato beetle is scarce in the southeastern part of the State.
- Oregon Oreg. Agr. College, Insect Pest Report (July): The Colorado potato beetle is scarce on potato throughout Baker County. It is moderately abundant in the upper valley of Grant County.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

- Vermont H. L. Bailey (August 24): The potato flea beetles have been unusually abundant in all parts of the State. The peak of emergence of the new brood of adults appeared to be about the first week in August.
- New York N. Y. State Coll. Agr., Weekly News Letter (August): During late July and the early part of August potato flea beetles did very severe damage in northern, central, and western New York. (Abstract, J.A.H.)
- Minnesota J. P. Jensen (August 7): Garden flea beetles have been numerous on potatoes and later on tomatoes in Meeker County.
- North Dakota J.A. Munro (August 22): The potato flea beetle is fairly common in Cass County, but is not a serious problem.
- Nebraska M. H. Swenk (July 15 to August 1): In Butler County a potato field was found to be severely damaged by the potato flea beetle during the third week in July.
- Mississippi F. P. Anslar (August 19): The potato flea beetle is causing considerable damage to potato around Long Beach.
- Oregon Oreg. Agr. Coll., Insect Pest Report, (July): Flea beetles are serious on potatoes and turnips in Clatsop County. They are moderately abundant on potatoes, tomatoes, beans, etc., in Coos County.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

- Vermont H. L. Bailey (August 24): The potato leafhopper is scarce in general. Very little hopperburn is in evidence.
- New York N. Y. State Coll. Agr., Weekly News Letter (August): Hopperburn became conspicuous during the second week in August in the Elba Muck section of western New York. (Abstract, J.A.H.)
- Ohio T. H. Parks (August 24): The potato leafhopper has been more abundant than last year, but not as numerous as in some past years. It has seriously injured poorly sprayed or unsprayed potato fields.
- Indiana J. J. Davis (August 22): The potato leafhopper is moderately abundant generally.
- Michigan R. Hutson (August 24): The potato leafhopper is moderately abundant.



- Wisconsin E. L. Chambers and assistants (July): The potato leafhopper is very abundant throughout the State, reports having been received from 20 counties. (Abstract, J.A.H.)
- Minnesota A. G. Ruggles and assistants (August): The potato leafhopper is but normally abundant throughout the greater part of the State. It was, however, reported as very abundant from Freeborn, Martin, Rock, and Winona Counties. (Abstract, J.A.H.)
- Iowa H. E. Jaques (August 27): Potato leafhoppers are a rather serious pest in the northern half of the State, also in southwestern Iowa.
- Missouri L. Haseman (August 25): The potato leafhopper has attracted less attention in Missouri this year than usual.

A LEAF BUG (Engytatus geniculatus Reuter )

- California R. E. Campbell (July 22): Calls were received from several growers and shippers that a plant bug was damaging tomatoes in Orange County. An inspection of several fields showed that nymphs and adults were numerous, and growers pointed out feeding spots on the stems. The extent of injury is not known as yet. It has previously been reported as injurious to tomatoes in the Hawaiian Islands.

TOMATO WORM (Protoparce sexta Johan.)

- Maine H. B. Peirson (August 24): There are tomato hornworm reports from many sections of the State.

EGGPLANT

EGGPLANT LACEBUG (Gargaphia solani Heid.)

- Ohio T. H. Parks (August 24): This insect was found by Mr. C. H. Huff to be seriously injuring eggplant in Lawrence County.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

- Vermont H. L. Bailey (July 31): The Mexican bean beetle is moderately abundant at Brattleboro, the first record in Vermont. (August 24): The Mexican bean beetle is very abundant. Not yet reported outside of Brattleboro and Vernon.
- Connecticut W. E. Britton (August 24): The Mexican bean beetle is moderately abundant throughout the State, and is very abundant in New Haven and Fairfield Counties.

- Rhode Island      A. E. Stone (July 29): The Mexican bean beetle is moderately abundant.
- New York          N. Y. State Coll. Agr., Weekly News Letter (August): The Mexican bean beetle was reported as doing considerable damage in Orange, Dutchess, and Chautauqua Counties. (Abstract, J.A.H.)
- Pennsylvania      C. A. Thomas (August 22): The Mexican bean beetle has been common, and in some places very destructive, in the southeastern part of the State since June.
- J. R. Stear (August 24): The Mexican bean beetle is very abundant at Ligonier.
- Delaware          L. A. Stearns (August 24): The Mexican bean beetle is throughout the State. Injury by the second brood has been generally severe.
- West Virginia     L. M. Peairs (July 31): The Mexican bean beetle is generally from scarce to moderately abundant. It is very abundant in southern counties.
- Virginia          H. G. Walker (August 24): The Mexican bean beetle is moderately abundant in the Norfolk area.
- North Carolina    Z. P. Metcalf (August): The Mexican bean beetle is moderately abundant in Raleigh.
- South Carolina    A. Lutken (August 25): The Mexican bean beetle is very abundant in Berkeley County. In other areas in the State it is comparatively scarce.
- Georgia          C. H. Alden (August 22): The Mexican bean beetle is scarce in Cornelia.
- Ohio              J. H. Bigger (August 14): The Mexican bean beetle did considerable damage to garden beans in southeastern Ohio and I find them especially bad on lima beans.
- T. H. Parks (August 24): More inquiries than in former years have come from northern Ohio counties. The Mexican bean beetle has been more abundant there than in any previous year. Plenty of rains and cool weather during the last half of August no doubt have been favorable to a heavy second brood. Heavy damage is expected in September.
- Indiana          J. J. Davis (August 22): The Mexican bean beetle is very abundant in the southern part of the State.
- Kentucky         M. L. Didlake (August 24): The Mexican bean beetle is moderately abundant on late beans at Lexington.

Mississippi C. Lyle and assistants (August): Only reported as very abundant from Monroe County this month. (Abstract, J.A.H.)

Wyoming A. G. Stephens (August 21): The Mexican bean beetle is moderately abundant in the southeastern part of the State.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

Oregon Oreg. Agr. Coll., Insect Pest Report (July): B. G. Thompson reports the western spotted cucumber beetle to have been unusually severe to canning beans in the central part of the Willamette Valley. The parasite Celatoria diabroticae Shimer is quite scarce as compared to recent years. Last year the parasite killed 11 per cent of the beetles as compared to less than 1 per cent this year.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Connecticut N. Turner (August 21): This leafhopper has caused serious damage to Golden Cluster and Burger's Green Pod pole beans. Many nymphs are present on other varieties as well.

A COREID BUG (Alydus eurinus Say)

Georgia W. H. Clarke (July 21): This insect was found to be causing serious injury to beans. Injury resulted by the insertion of the beak through the pod and the withdrawing of the juices from the developing seed, rendering them unfit for sale.

A COREID BUG (Alydus pilosulus H. S.)

Georgia W. H. Clarke (July 21): This insect was observed feeding on beans in the same manner as reported for A. eurinus, but was not as numerous as A. eurinus. A smaller undetermined species of plant bug was also numerous.

CABBAGE

CABBAGE LOOPER (Autographa brassicae Riley)

Pennsylvania J. R. Stear (August 24): The cabbage looper is very abundant at Ligonier.

Illinois C. C. Compton (August 10): The cabbage looper is much more abundant than usual in Cook County. At this writing the percentage of parasitism is very low.

IMPORTED CABBAGE WORM (Pieris rapae L.)

- Pennsylvania J. R. Stear (August 24): The cabbage worm is very abundant at Ligonier.
- Ohio T. H. Parks (August 24): Injury from the imported cabbage worm has been serious generally.
- Indiana J. J. Davis (August 22): The imported cabbage worm is moderately abundant generally.
- Illinois C. C. Compton (August): The imported cabbage worm is very abundant in Cook County. The insect is more abundant and destructive than it has been for ten years. Where growers have not been prompt in applying control measures the fields are a total loss.
- Wisconsin E. L. Chambers and assistants (July): The cabbage worm is reported as very abundant from 25 out of 52 counties reporting. (Abstract, J. A. H.)
- Minnesota A. G. Ruggles and assistants (August): The imported cabbage worm was reported as very abundant in sixteen counties. (Abstract, J.A.H.)
- Iowa H. E. Jaques (August 27): The imported cabbage worm has been particularly destructive this season.
- Nebraska M. E. Swenk (July 15 to August 1): The cabbage worm continued to be unusually abundant and destructive during the second half of July. (August 20): The imported cabbage worm is very abundant.
- Missouri L. Haseman (July 25): This insect is very destructive this month; the native species is also abundant.
- Kansas H. R. Bryson (August 22): The imported cabbage worm is very abundant in the State as indicated by numerous reports.
- Utah G. F. Knowlton (August 18): Cabbage worms are unusually abundant in northern Utah.

CABBAGE APHID (Brevicoryne brassicae L.)

- North Dakota J. A. Munro (August 22): We have had most reports on this pest from the eastern part of the State, including Nelson, Ramsey, Rolette, Cavalier, Barnes, Cass, and Richland Counties.
- Utah G. F. Knowlton (August 18): Cabbage aphids are moderately abundant this summer, wherever cabbage has been examined in the northern part of the State.

HARLEQUIN BUG (*Murgantia histrionica* Haln)

- Virginia C. R. Willey (August 28): We have received a number of specimens of harlequin cabbage bugs which have appeared lately on greens, cabbage, and nasturtium.
- North Carolina Z. P. Metcalf (August): The harlequin bug is very abundant in the eastern part of the State.
- Kentucky M. L. Didlake (August 24): The harlequin cabbage bug is very abundant at Brandenburg, Meade County.
- Nebraska D. B. Whelan (August 22): On August 21 several adults were found feeding on the leaves of kale and rutabaga at the Agricultural College. Mating individuals, eggs, and first-instar nymphs were found on this date.
- Mississippi State Plant Board, Press Release (August 3): The harlequin bug was more or less abundant on cabbage, collards, and mustard over most of the State.
- Louisiana W. E. Hinds (August 22): The harlequin bug is scarce at Baton Rouge, attacking turnips.

CUCUMBERS

PICKLE WORM (*Diaphania nitidalis* Stoll )

- Mississippi State Plant Board, Press Release (August 3): The pickle worm has attacked cucumbers, cantaloupes, and squash generally.
- Louisiana W. E. Hinds (August 21): The pickle worm near Baton Rouge is destroying all the late cucumbers - I do not know to what extent in other sections.

STRIPED CUCUMBER BEETLE (*Diabrotica vittata* Fab.)

- Ohio T. H. Parks (August 24): The striped cucumber beetle has been very abundant in northern Ohio this year. It has not been well controlled by the usual insecticides, and bacterial wilt disease has affected the cucumber and melon plants. Injury is not so serious in central and southern counties.
- Wisconsin E. L. Chambers and assistants (July): The striped cucumber beetle is very numerous and destructive over the southeastern half of the State. (Abstract, J.A.H.)
- Minnesota A. G. Ruggles and assistants (August): The striped cucumber beetle was not unusually abundant throughout the State as a whole but five counties reporting it as abundant. (Abstract, J.A.H.)

- Nebraska M. H. Swenk (July 15 to August 1): More than the usual number of reports of damage to cucumber and melon plants by the striped cucumber beetle continued to be received during the second half of July.
- Kansas H. R. Bryson (August 22): The striped cucumber beetle is very abundant. It is very injurious where cucumber, squash, and melons are grown.
- Mississippi State Plant Board, Press Release (August 3): The southern corn root worm, or budworm, has injured young corn in two places. The adult of this insect, together with the striped cucumber beetle, has done considerable damage to cucumbers, squash, cantaloupes, and late vegetables.

#### MELONS

##### MELON APHID (Aphis gossypii Glov.)

- South Dakota H. C. Severin (August 20): The cucumber louse is exceedingly abundant in the eastern part of the State at present.
- Nebraska M. H. Swenk (July 15 to August 1): Beginning about July 20, about the normal number of complaints of injury to melon and cucumber vines by the melon aphid were received. Up to this time the complaints of injury by this pest had been somewhat less than the normal number.
- Missouri L. Haseman (August 25): Melons and cucumbers are badly damaged by the melon aphid. This insect is more abundant than in years and very destructive over the entire State. The pavement ant is herding them.
- Kansas H. R. Bryson (August 22): Severe infestations of plant lice or aphids on cucumber and melons have been reported from several counties in the State.
- Louisiana W. E. Hinds (August 22): The spotted cucumber beetle is scarce at Baton Rouge, attacking watermelons.

#### SQUASH

##### SQUASH BUG (Anasa tristis DeG.)

- Delaware L. A. Stearns (August 6): The squash bug is unusually abundant throughout the State and many reports are being received of serious injury.
- Pennsylvania J. R. Stear (August 24): Squash bugs are very abundant at Ligonier.

- New York C. R. Crosby (July 27): Specimens received which were attacking squash and cucumbers.
- Indiana J. J. Davis (July 30): Squash bugs were reported abundant on pumpkin at South Bend, July 25. The specimens received were probably not over one-fourth grown. (August 21): Squash bugs were reported destructive to squash at Hammond on August 4.
- Illinois C. C. Compton (August 10): The squash bug is severely injuring squash and pumpkin in Cook County. Some fields are approaching a total loss.
- Missouri L. Haseman (August 25): Squash bugs are unusually abundant and almost impossible to control.
- Kansas H. R. Bryson (August 22): Squash bugs are very abundant in several localities, including Manhattan, Stockton, and McJouth.
- Nebraska M. H. Swenk (July 15 to August 1): The squash bug was very frequently complained of as doing serious injury to squash from all parts of the State.
- Utah G. F. Knowlton (August 18): Squash bugs continue damaging in many parts of Utah. Squash has been practically eliminated as a crop in many Utah localities, owing to the damage caused by this pest.

SQUASH BORER (Melittia saturiniformis Hbn.)

- Connecticut R. B. Friend (August 22): The squash vine borer is more abundant than usual this year.
- Indiana J. J. Davis (August 21): The squash vine borer was reported from East Chicago, August 3.
- Illinois C. C. Compton (August 10): The squash vine borer is very destructive to Hubbard squash. Losses from this insect will run from 10 to 85 per cent of the plants in the Cook County trucking area.
- Nebraska M. H. Swenk (July 15 to August 1): There were numerous reports of serious injury to squash from all parts of the State.

ONIONS

ONION THRIPS (Thrips tabaci L.)

- Illinois C. C. Compton (August 10): The onion thrips has caused more damage to onions in Cook County than at any time since 1921. Present indications are that the crop field will be cut at least 50 per cent. Where early onions have been harvested the thrips have moved over to other crops causing severe injury to cabbage and beans.

Utah G. F. Knowlton (August 18): The onion thrips is causing its usual injury, wherever onions are grown extensively.

### BEEFS

#### BEEF WEBWORM (Loxostege sticticalis L.)

North Dakota H. W. Riddle (August 25): The sugar-beet webworm has been reported from several localities, the latest report arriving this morning from Adams County. The larvae have been feeding generally on Russian thistle, but they have been found on several cultivated crops. They have attracted considerable attention because of their habit of moving across the road in armies.

South Dakota H. C. Severin (August 20): The beet webworm has reached outbreak numbers in eastern and western South Dakota during the present month.

Montana R. W. Gjullin (July): There has been an unusually heavy flight of L. sticticalis.

Utah G. F. Knowlton (August 18): The sugar-beet webworms are moderately abundant on beets in many localities, but are causing no particular injury at the present time.

#### BEEF LEAFHOPPER (Eutettix tenellus Bak.)

Oregon Oreg. Agr. Coll., Insect Pest Report (July): The beet leafhopper is very abundant in the north end of Morrow County, and moderately abundant in Yamhill and Malheur Counties.

### PEPPER

#### PEPPER WEEVIL (Anthonomus eugenii Cano)

California J. C. Elmore (July 31): An early warm spring in Orange, San Diego, Los Angeles, and Ventura Counties permitted the pepper weevil to start breeding about February 14 in wild host plants, and the late rainfall up to June 1 was favorable to wild host plant development. The pepper weevil was thus able to pass through two generations before fields were large enough to become infested. Adult weevils have not only been able to enter the pepper fields in large numbers, but high summer temperatures have accelerated development. Many fields are from 25 to 40 per cent damaged at this date.



STRAWBERRY

STRAWBERRY CROWN BORER (Tylosderma fragariae Riley)

Indiana J. J. Davis (August 21): The strawberry crown borer is damaging strawberry plants at Aurora, August 11. This same pest was also reported from New Albany, July 3, but not previously reported in our notes.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

Maine H. B. Peirson (August 24): The strawberry crown girdler (Brachyrhinus ovatus) invaded homes and one hotel in various sections of Maine.

Massachusetts A. I. Bourne (August 21): Many inquiries have been received relative to the adult beetles of the strawberry crown girdler invading households. These have come particularly from the section of the Cape, but in addition to the inquiries from that region we have had others from up-State. This is apparently a peculiarity in the habits of this insect in its endeavor to find a suitable place for hibernation.

A CURCULIONID (Trichalopinus sp.)

Washington W. W. Baker (August 4): Damage has occurred for at least the last three years at Whibley Island, all the small roots being eaten off and the crowns burrowed but the plants do not die till the crop has been produced for that season. There is some evidence that two years are required for the life cycle. We believe the species to be T. didymus Lec. (August 18): This species was found for the first time at Tacoma. Heretofore it was only known from Whibley Island.

WHITE GRUBS (Phyllophaga spp.)

Kansas H. R. Bryson (August 22): White grubs are moderately abundant. Reported causing injury to strawberry beds at Ogallah and Arkansas City.

STRAWBERRY CROWN MOTH (Sanninoidea rutilans Hy. Edw.)

Oregon Oreg. Agr. Coll., Insect Pest Report (July): The strawberry crown moth is moderately abundant in Coos and Yamhill Counties.

PEANUT

POTATO LEAFHOPPER (Empoasca fabae Harr.)

- Virginia F. W. Poos (August 19): Extremely abundant at Emporia and Suffolk, considering recent heavy rains. Causing much yellowing, curling, and dwarfing of foliage--diseaselike injury. This insect is attacking peanut. Same conditions found at Enfield, Weldon, Rocky Mount, and Williamston, N. C.
- North Carolina Z. P. Metcalf (August): Empoasca fabae is very abundant in soybeans and peanuts.

COTTON

BEAN THRIPS (Heliothrips fasciatus Perg.)

- California S. Lockwood (July 27): On the 15th of July there was discovered an incipient infestation of the bean thrips on about 20,000 acres of cotton in the Dos Palos -- Los Banos area of the San Joaquin Valley in California. At that time adult thrips averaged over this area about one thrips to the plant and at this time the larvae were found numerous only in rather small areas of this region. No commercial damage had occurred, though there is promise of considerable to come.

TOBACCO

TOBACCO HORNWORMS (Protoparce spp.)

- Vermont H. L. Bailey (August 24): Tobacco hornworms are moderately abundant in the tobacco fields of the southeastern part of the State.
- Wisconsin E. L. Chambers (August 24): Tobacco fields throughout southeastern Wisconsin were seriously injured by tobacco worms during the past month. This is the most serious outbreak of this pest for many years.
- Mississippi J. Milton (August 22): On July 27 the tobacco worm was doing heavy damage to a small patch of tobacco at Belmont.

POTATO TUBER WORM (Phthorimaea operculella Zell.)

- Wisconsin E. L. Chambers (August 24): Many fields of tobacco show injury from the splitworm (Phthorimaea operculella) in Wisconsin for the first time in many years, and some seriously damaged fields have been observed in Dane, Rock, and Jefferson Counties.

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

- North Carolina      Z. P. Metcalf (August): Tobacco flea beetles are very abundant all over the whole State.
- Florida              F. S. Chamberlin (July 31): The tobacco flea beetle has been rather more abundant than usual this season. A considerable number of Epitrix cucumeris have also been observed in tobacco fields.
- Kentucky            M. L. Didlake (August 24): Flea beetles are very abundant on tobacco at Lexington.

SUCKFLY (Dicophus minimus Usher)

- Florida              F. S. Chamberlin (July 29): Several infestations have been observed in late tobacco crops. It appears that the damage will be slight.

SUGARCANE

SUGARCANE BEETLE (Eutheola ruficeps Lec.)

- Louisiana           W. E. Hinds (August 21): Eutheola ruficeps adults are very active feeding on sugarcane, killing many of the young shoots. There has been considerable damage to shoots at Franklin.

SUGARCANE MEALYBUGS (Pseudococcus boninsis Kawana)

- Louisiana           W. E. Hinds (August 21): Sugarcane mealybugs are present at Franklin; a few were noticed in 1907 but not very abundant.

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

PERIODICAL CICADA (Tibicina septendecim L.)

- Virginia            C. R. Willey (August 28): As observed on a trip from Staunton to Clifton Forge on July 14, damage by this brood was heavy from Staunton to about 15 miles west. Through the mountains it seemed to peter out until within about 5 miles of Clifton Forge, where it was very heavy.
- Ohio                E. W. Mendenhall (August 14): The seventeen-year locust did considerable damage to young orchards and nursery stock in southeastern Ohio, including Muskingum, Morgan, and Washington Counties.
- BAGWORM (Thyridopteryx ephemeraeformis Haw.)
- New York            R. D. Glasgow (August 26): The bagworm is unusually abundant this season at several places on Long Island. Near Jamaica numerous black locust trees along the roadside were almost defoliated by these insects.
- Pennsylvania        J. N. Knull (August 11): The bagworm is exceedingly abundant on black locust in Cumberland County.
- Delaware            L. A. Stearns (August 6): The bagworm has been infesting many of the common host plants throughout the State. It is unusually abundant.
- Virginia            H. G. Walker (August 24): These insects are nearly full grown now and have caused considerable damage to many evergreen trees in the Norfolk area.
- North Carolina      Z. P. Metcalf (August): Bagworms in Raleigh are the worst I have ever seen.
- Florida             W. L. Thompson (August 12): The infestation of the bagworm is local; only one grove has been observed where these worms are doing commercial damage. At the present time about 25 per cent of the twigs have succulent growth and approximately 90 per cent of that growth has been attacked in Lakeland. The majority of the larvae are about mature at the present time; the bags are on the main mature leaves and twigs.
- Ohio                T. H. Parks (August 24): Many complaints have come in concerning bagworm injury to arborvitae and other evergreen plantings, also to some shade trees. The worms are now full grown and feeding is about over. There are many more present than usual.
- Indiana             J. J. Davis (July 30): Bagworms one-third grown were sent in as abundant on evergreens at Richmond, July 25; also reported abundant on evergreens at Shelbyville, July 28.
- Kentucky            M. L. Didlake (August 24): Bagworms are very abundant on tamarix, cedar, and arborvitae in Fayette, Breathitt, Union, and Pike Counties.

Kansas

H. R. Bryson (August 22): Reports of bagworms present at Salina and Iola.

Mississippi

C. Lyle (August 25): We have received many complaints recently regarding the common bagworm, Thyridopteryx ephemeraeformis Haw., on shade trees, cedars, arborvitae, and other ornamental plants. Heavy infestations were reported at Mendenhall, Clarksdale, Coffeeville, Macon, Starkville, Tunica, and Columbus.

SADDLED PROMINENT (Heterocampa guttivitta Walk.)

New England

J. V. Schaffner, Jr. (August 24): The outbreak of this insect reached its peak in 1930. Larvae were received in 1931 from widely scattered localities in New England and New York, though in some of these places they were not abundant enough to cause noticeable feeding. The Berkshire section of Massachusetts had the worst infestation with about 600 acres of beech and maple showing some degree of feeding up to complete stripping. In southern Vermont about 40 acres were reported from 25 up to 75 per cent defoliated. The infestation in the White Mountain section of New Hampshire was very light. One large area of beech in Tamworth showed light feeding with some trees up to 35 per cent defoliated.

Vermont

H. L. Bailey (August 24): The saddled prominent has been less plentiful than last year and little stripping of foliage has been noted.

ORIENTAL MOTH (Cnidocampa flavescens Walk.)

Massachusetts

J. V. Schaffner, Jr. (August 22): Numerous inquiries concerning C. flavescens are being received from many localities in greater Boston. Most of the larvae are now nearly full-grown, and, where they are at all abundant, they attract considerable attention. The heavy infestations are confined, for the most part, to back yards and vacant lots in residential sections. Spraying for this pest has been done by several municipalities.

BROWN-TAIL MOTH (Nygmia phaeorrhoea Don.)

New England

J. V. Schaffner, Jr. (August 20): From the various reports received the indications are that the infestations of the brown-tail moth have decreased somewhat in intensity. Dr. Smulyan states that "the degree of infestation in New Hampshire is much lighter than last year, about 50 per cent perhaps; in Maine it is about 10 to 20 per cent lighter, although in the heavily infested territory it is slightly heavier." Mr. Wooldridge reports that most of the damage he has seen was in southern New Hampshire, although isolated cases were noted as far north as Alton, New Hampshire. The apple trees were most commonly attacked, though many other species of trees were also found

infested. Many reports were received in 1931 of heavy infestations, varying from a few trees up to 11 acres in extent.

FALL WEBWORMS (Hyphantria cunea Drury and H. textor Harr.)

Maine

H. B. Peirson (August 24): The fall webworm, Hyphantria cunea Drury, is very abundant throughout the State on elm, willow, apple, etc.

New Hampshire  
and  
Massachusetts

J. V. Schaffner, Jr. (August 30): The fall webworm is unusually abundant in many localities through eastern Massachusetts and southeastern New Hampshire, attacking many shade and roadside trees and trees along fence rows.

Vermont

H. L. Bailey (July 31): The fall webworm is moderately abundant in most sections. Very abundant in Essex County.

Connecticut

M. P. Zappe (August 22): Seems to be more abundant in Fairfield County than it has been for several years and is more abundant in this county than elsewhere in the State.

New York

R. D. Glasgow (August 26): The fall webworm is unusually abundant in eastern and southeastern New York this season. In the neighborhood of Ballston Spa, in Putnam and Westchester Counties, and in many places on Long Island, it is not unusual to see small trees almost entirely enclosed by the webs of this insect.

New Jersey

E. P. Felt (August 21): The fall webworm, H. textor Harr., is extremely abundant in northern New Jersey and southeastern New England.

Pennsylvania

C. A. Thomas (August 22): The fall webworm has become very abundant in southeastern Pennsylvania during late July and early August, and many trees, as wild cherry and walnut, have been entirely defoliated by them. Other trees attacked are cherry, apple, hickories, pear, sycamore, Norway maple, mulberry, oaks, etc. The oldest larvae are now pupating and some of the defoliated walnut trees are producing new leaves.

J. N. Knull (July 26): Fall webworms, H. textor Harr., are very abundant in the following counties; Dauphin, Northumberland, Perry, and Juniata.

Delaware

L. A. Stearns (August 24): Webworms are unusually abundant, especially in northern Delaware.

Mississippi

State Plant Board, Press Release (August 3): The fall webworm is still scarce but is becoming more noticeable in the southern half of the State.

ASH

ASH LEAF POUCH GALL MITE (Eriophyes sp.)

New York

E. P. Felt (August 21): The ash leaf pouch gall mite, Eriophyes sp., was extremely abundant upon ash at Scarsdale.

ASH BORERS (Parandra brunnea Fab.) and  
(Podosesia syringae Harr.)

Ohio

E. W. Mendenhall (August 12): The ash and many of the maple trees are badly affected with borers on the streets of New Concord, Muskingum County.

Indiana

J. J. Davis (August 21): The ash borer, Podosesia syringae Harr., is attacking ash at Madison, August 10.

CECROPIA MOTH (Samia cecropia L.)

North Dakota

J. A. Munro (August 22): This insect has been reported from Richland, McKenzie, Adams, and Nelson Counties. At Reeder one farmer reported that his ash trees were stripped of their leaves and were much injured. Later on some trees died. He claimed that a tree could be completely stripped in one night. In Richland County the damage was to boxelder.

BEECH

BEECH SCALE (Cryptococcus fagi Bar.)

Massachusetts

J. V. Schaffner, Jr. (August 22): C. fagi seems to be firmly established in several localities in metropolitan Boston. In two public parks the infestation is very heavy on American beech. On August 21 both eggs and crawlers were observed. In two infestations, where control work was attempted last spring, the conditions are very much improved. This species is reported as very serious in the Maritime Provinces of Canada.

BEECH LEAF SKELETONIZER (Psilocorsis faginella Chamb.)

Maine

H. B. Peirson (August 24): A heavy infestation of the beech leaf skeletonizer has been observed through central Maine.

BIRCH

BIRCH LEAF MINER (Fenusa pumila Klug)

New England

M. P. Jones (August): The leaf miner is very common on gray birch all over New England.

Maine

H. B. Peirson (August 24): The birch Fenusa is very abundant throughout York County.

Connecticut

R. B. Friend (August 22): This insect is present throughout the State in usual abundance.

AN UNDERWING MOTH (Catocala briseis Edwards)

Maine

H. B. Peirson (August 24): A light infestation of this insect has been observed at West Bath; adults emerged August 10.

BIRCH SKELETONIZER (Bucculatrix canadensisella Charb.)

Maine

H. B. Peirson (August 24): The birch leaf skeletonizer has caused hundreds of thousands of acres of birch in northern Maine to brown from the extremely heavy feeding.

BIRCH SAWFLY (Arge pectoralis Leach)

Maine

H. B. Peirson (August 24): The birch sawfly is locally abundant in Rangeley.

BIRCH LEAF-MINING SAWFLY (Phyllotoma nemorata Fall.)

Maine

H. B. Peirson (August 24): Heavy infestations were reported through the central part of the State.

SPINY WITCHHAZEL GALL (Hamaelistes spinosus Shimer)

Pennsylvania

J. N. Knull (June 23): This insect is very abundant on gray birch throughout Pike County.

BRONZE BIRCH BORER (Agrilus anxius Gory)

New York

E. P. Felt (August 27): Bronze birch borers have caused very serious injury to a number of weeping birch in a Chatham cemetery, half of the trees being killed and the others very seriously infested.

### CATALPA

CATALPA SPHINX (Ceratonia catalpae Bdv.)

Ohio

E. W. Mendenhall (August 25): There is an outbreak of this insect on Catalpa bungei trees, planted along streets in Washington Court House.

Indiana

J. J. Davis (August 21): The catalpa caterpillar defoliated catalpa at Monticello August 15.

CATALPA MEALYBUG (Pseudococcus comstocki Kuw.)

Connecticut

N. Turner (August): Although street trees received a good spray early in the season, on July 21 there were many egg masses and newly hatched crawlers.



CYPRESS

SPIDER MITE (Paratetranychus ilicis McGregor)

Ohio E. W. Mendenhall (July 31): I find that many of the cypress trees are infested with this spider mite which was identified by Dr. H. E. Ewing, of the Bureau of Entomology, Washington, D. C.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Maine H. B. Peirson (August 24): The elm leaf beetle was very abundant at Gorham, August 11.

New England and New York J. V. Schaffner, Jr. (August 20): We have reports from 25 towns in Massachusetts, 11 towns in New Hampshire, and one in the eastern part of New York State, all of which indicate that this pest has been very abundant, though it appears more<sup>or</sup>less locally, partly owing to municipal and private property spraying. The elms in many localities are completely browned.

Vermont H. L. Bailey (July 31): The elm leaf beetle is moderately abundant in Brattleboro, Windham County.

Massachusetts M. P. Jones (August): The elm leaf beetle is abundant in Wareham, Berkeley, Bridgewater, and Blackstone (around Boston).

Connecticut W. E. Britton (August 24): This insect has been very abundant in the southern counties of the State and also in Hartford and southern Tolland Counties. Many unsprayed trees are brown. In Litchfield, Windham, and the northern portion of Tolland Counties, the elm leaf beetle is less abundant and has caused little injury.

New York R. D. Glasgow (August 26): In the Hudson River Valley from Albany south, and on Long Island, injury to elm trees by the second brood of the elm leaf beetle has been unusually severe this year. In Hempstead, Westbury, and Garden City, L. I., it is not unusual to see elm trees that are apparently without a single square millimeter of green leaf tissue.

Virginia C. R. Willey (August 28): The elm leaf beetle has been bad in Richmond this summer.

Ohio E. W. Mendenhall (August 5): The elm leaf beetle has spread for a radius of about 50 miles from Dayton, where it was originally found about 30 years ago. London and Piqua seem to be most severely infested. It is held pretty well in check in Dayton. (August 22): An outbreak of the elm leaf beetle was found in Springfield. It is the first in Clark County.

Oregon Oregon Agr. Coll., Insect Pest Report (July): The elm leaf beetle is very abundant at Lexington and Cecil, Morrow County.

California E. O. Essig (August 20): The elm leaf beetle has been reported from the Yosemite National Park, June 10, for the first time.

ELM SPANWORM (Ennomos subsignarius Hbn.)

Pennsylvania J. N. Knull (July 3): There was evidence of a moderately heavy 1931 infestation of the elm spanworm in the vicinity of Ricketts. The insect was present in this locality in 1930.

A SAWFLY (Arge calcanea Say)

Massachusetts J. V. Schaffner, Jr. (August 20): This species was received from Monson August 8 with a report that five small elm trees 8 to 10 feet in height were stripped and three large elms 10 to 18 inches in diameter were 75 per cent defoliated.

ELM SCALE (Gossyparia spuria Mod.)

Wyoming C. L. Corkins (August 27): We have found for the first time in this State the elm bark louse, which is very generally distributed on the elms and doing much damage at Casper.

ELM SCURFY SCALE (Chionaspis americana Johns.)

Ohio E. W. Mendenhall (August 4): The street trees are badly infested with the elm scurfy scale in some parts of Columbus.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Maine H. B. Peirson (August 24): Elm trees in Fort Kent are very heavily infested.

JUNIPER

JUNIPER SCALE (Diaspis carueli Targ.)

New York and Pennsylvania E. P. Felt (August 21): The juniper scale has infested junipers seriously in the Philadelphia area and also to a less extent in Pelham, N. Y.

JUNIPER WEBWORM (Dichomeris marginellus Fab.)

New York and Pennsylvania E. P. Felt (August 21): The juniper webworm was reported as infesting junipers in the Philadelphia area, and in Islip, L. I.

LARCH

WOOLLY LARCH APHID (Adelges strobilobius Kalt.)

Maine H. B. Peirson (August 24): There is quite a heavy outbreak of the woolly larch aphid in Medonak.

Pennsylvania

J. N. Knull (July 29): There is a moderately heavy infestation of the woolly larch aphid in plantations 1 mile south of Ansaria, Troga County.

EUROPEAN LARCH SAWFLY (Lygaeonematus erichsoni Htg.)

Pennsylvania

J. N. Knull (July 31): The European larch sawfly is doing considerable damage to European larches in plantations in Mainesburg, Asaph, Ansonia, <sup>and</sup> Alba, ~~Tops~~, ~~in~~ Bradford County.

Minnesota

A. G. Ruggles and assistants (August): The larch sawfly is very abundant. Considerable damage has been done on tamarack. It is reported as scarce in Itasca Park.

LINDEN

LINDEN WART GALL (Cecidomyia verrucicola O.S.)

Pennsylvania

E. P. Felt (August 21): The linden leaf gall was found in great numbers on trees at Valley Forge.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Massachusetts

J. V. Schaffner, Jr. (August 21): On August 11, Mr. C. W. Collins observed about an acre of black locust at Berkeley 25 per cent defoliated by this species.

New York

E. P. Felt (August 21): The locust leaf miner is reported abundant at Farmingdale, L. I.

MAPLE

BARK LICE (Psocidae)

New Hampshire

J. V. Schaffner, Jr. (August 24): During August reports were received from three different localities in New Hampshire of the unusual abundance of bark lice, especially on sugar maple. I observed thousands of these insects on four large sugar maple trees at Moultonboro, August 3.

MAPLE TRUMPET SKELETONIZER (Thiodia signatana Clem.)

Maine

H. B. Peirson (August 24) The maple trumpet skeletonizer is locally abundant at Richmond.

WOOLLY MAPLE LEAF SCALE (Phenacoccus acericola King)

Connecticut

W. E. Britton (August 24): Apparently this insect is more abundant this summer in Connecticut than for several years.

Pennsylvania J. R. Stear (August 24): The maple Phenacoccus is very abundant. Tree trunks of susceptible maple are almost white with this insect in Ligonier.

Ohio E. W. Mendenhall (August 15): The sugar maple trees on some of the private property in Springfield are very abundantly infested with the maple Phenacoccus.

Indiana J. J. Davis (August 21): The maple Phenacoccus was conspicuously common on maple at Angola, Pleasant Lake, and Howe, July 30 to August 6.

MAPLE COTTONY SCALE (Pulvinaria vitis L.)

Ohio E. W. Mendenhall (August 21): The cottony maple scale is very bad on soft maple trees in Springfield.

Wisconsin E. L. Chambers and assistants (July): The cottony maple scale is moderately abundant in Columbia County, and very abundant in Green Lake County.

North Dakota J. A. Munro (August 22): Specimens of the cottony maple scale were brought in from Williston, Williams County, and Fargo, Cass County. In both cases it was found on boxelder only.

MAPLE CASE-BEARER (Paraclemensia acerifoliella Fitch)

Maine H. B. Peirson (August 24): There is a heavy infestation of this insect on Big Duck Island and light infestations on Mt. Desert Island.

SUGAR-MAPLE BORER (Glycobius speciosus Say)

Ohio E. W. Mendenhall (August 7): The sugar maple borer is doing considerable damage to the maple trees in Granville. There are many large maple trees here affording much shade and adding much beauty to this little college city.

OAK

CARPENTER WORM (Prionoxystus robiniae Peck)

Massachusetts E. P. Felt (August 21): The carpenter worm, and a coleopterous borer, probably Goes, has been seriously injurious to a large oak at Brookline.

OAK SPANWORM (Ellopia somnaria Hulst)

Oregon Oregon Agr. Coll., Insect Pest Report (July): W. J. Chamberlin reports that the larvae are again quite numerous. Oaks in the upper Willamette Valley are beginning to turn brown.

OAK UGLY-NEST TORTRICID (Cacoecia fervidana Clem.)

Maine H. B. Peirson (August 24): There was a heavy outbreak on about 30 acres of scrub oak in Fryeburg, August 1.

RED SPIDERS (Acarina)

Massachusetts M. P. Jones (August): Red spiders were very abundant on oak around Boston, Blackstone, Wareham, Onset, and Berkeley.

New England E. P. Felt (August 21): The work of various species of red spiders on oak, in particular, and less generally upon hickory, is showing up in southwestern New England, in spite of the numerous rains.

PINE

WHITE-PINE WEEVIL (Pissodes strobi Peck)

Maine H. B. Peirson (August 24): The white pine weevil has been observed in unusually heavy outbreaks throughout the State.

Pennsylvania J. N. Knull (August 8): A recent survey in various sections of Pennsylvania shows that the white pine weevil is very scarce in localities affected by the 1930 drought. The 1931 weevil is far below normal in these areas. In other sections such as the Allegheny Plateau, where the 1930 drought was not so severe, the 1931 weeviling is normal or slightly above the average.

Minnesota A. G. Ruggles and assistants (August): White pine weevils are moderately abundant in Itasca Park. There is slight damage on white pines.

A WEEVIL (Pissodes approximatus Dietz)

Maine H. B. Peirson (August 24): Quite a heavy outbreak on red pine transplants was observed near Bethel.

PALES WEEVIL (Hylobius pales Boh.)

New York E. P. Felt (August 21): The Pales weevil was found injuring a small planting of Scotch pine at Mount Kisco, the grubs girdling the tree just below the surface of the ground and producing the characteristic pitch exudations.

EUROPEAN PINE SHOOT MOTTH (Rhyacionia buoliana Schiff.)

Connecticut M. P. Zappe (August 22): Young larvae are present in buds of red pine at this time. Red pines in many plantations show <sup>sideviable</sup> ~~con-~~ injury. This pest is becoming a menace to the growing of red and Scotch pines in southwestern Connecticut.

RED-HEADED PINE SAWFLY (Neodiprion lecontei Fitch)

Pennsylvania

J. N. Knull (August): Leconte's sawfly was present at the following places: Pitch pine, Weston, Bradford County; one pitch pine, larvae, July 31. Pitch pine, Delmas Toop, Tioga County; many trees, larvae, July 29. Pitch pine, red pine, Scotch pine, Ansonia, Tioga County, July 27. Doing considerable damage in plantation at Ansonia. (August 6): A heavy infestation of Leconte's sawfly on pitch pines in a plantation at Praity Lich, Potter County. (Information received by Prof. Perry)

A SAWFLY (Neodiprion excitans Rohw.)

Mississippi

C. Lyle (August 25): Specimens of Neodiprion excitans were received from Aberdeen, Miss., on August 8, with the report that these insects were stripping the leaves from pine trees.

PINE BARK APHID (Chermes pinicorticis Fitch)

Ohio

E. W. Mendenhall (August 6): I find quite a severe outbreak of the pine bark aphid on a planting of pine trees on a private property on the north side of Newark, Licking County.

Minnesota

A. G. Ruggles and assistants (August): Pine bark aphids are moderately abundant in Itasca Park. Slight damage on white pine.

PINE NEEDLE APHID (Chermes pinifoliae Fitch)

Maine

E. P. Felt (August 21): The pine needle aphid has been very abundant at Portland, the dead aphids occurring in numbers upon the needles.

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

Maine

H. B. Peirson (August 24): The pine leaf scale is locally abundant in Sidney.

POPLARPOPLAR SAWFLY (Trichiocampus viminalis Fall.)

Massachusetts

J. V. Schaffner, Jr. (August 10): Mr. H. E. Woods, Local Superintendent of Moth Work, sent in this species and reported that it had stripped some large Carolina poplar shade trees in Chester.

SYCAMORE

WESTERN SYCAMORE LACEBUG (Corythucha confraterna Gibson)

California

E. A. McGregor (August): The western sycamore lacebug, C. confraterna, appears to be the worst pest of Platanus racemosa in central California. Annually it increases in severity as the summer progresses until the pest imparts to the beautiful plane trees a conspicuous rustiness that is recognizable almost as far as the trees can be seen. The present season the attack of this insect was at its height about mid-August.

WALNUT

WALNUT CATERPILLAR (Datana intogerrima G. & R.)

Connecticut

E. P. Felt (August 21): Walnut caterpillars are unusually abundant in the Danbury area, defoliating many trees.

Delaware

L. A. Stearns (August 4): The walnut caterpillar was reported doing damage to English and black walnut from a number of plantations.

Ohio

E. W. Mendenhall (August 21): Walnut caterpillars are bad on walnut trees in some places in southwestern Ohio. Not much is done to check them.

Indiana

J. J. Davis (July 30): This insect was reported defoliating walnuts at DeMotte.

Nebraska

M. H. Swenk (July 15 to August 1): The walnut caterpillar has been especially numerous and injurious to the foliage of walnut trees during the period here covered.

WILLOW

EUROPEAN WILLOW BEETLE (Plagiodera versicolora Laich.)

Massachusetts

J. V. Schaffner, Jr. (August 3): Mr. Holbrook reported that 100 roadside willows in Warren, Worcester County, were 50 to 75 per cent defoliated. Also about 50 willows in Sandwich, Barnstable County, 25 to 50 per cent defoliated.

Connecticut

M. P. Zappe (August 22): This insect appears to be less abundant than usual in the western part of the State where it was first introduced. In the eastern part of the State it is present in greater numbers.

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

TARNISHED PLANT BUG (Lygus pratensis L.)

- Maine            M. P. Jones (August): The tarnished plant bug is quite a pest in Maine.
- Vermont         H. L. Bailey (July 31): The tarnished plant bug is unusually abundant on potato plants. An appreciable amount of damage has been caused by these bugs in sucking the juice from leaf petioles and new shoots.
- New Hampshire    M. P. Jones (August): The tarnished plant bug is quite a pest in New Hampshire.
- Massachusetts    A. I. Bourne (August 21): The tarnished plant bug this season seems unusually abundant and has been attacking many different species of ornamentals rather severely. We have noted considerable numbers of this insect on gladiolus, and in some cases serious injury to the opening blossoms has taken place.
- New York         N. Y. State Coll. Agr., Weekly News Letter (August): Severe injury by the tarnished plant bug, particularly to potatoes, is reported from northern and western New York. (Abstract, J.A.H.)

CALIFORNIA TORTOISE SHELL (Aglais californica Bdv.)

- California       E. A. McGregor (July 25): While motoring July 25 through the Siskiyou Mountains of northern California the writer passed through a very dense migration of butterflies. The butterflies were first encountered not far north of Weed, and we passed out of the migration not far south of Dunsmuir, the zone of flight being about 35 miles wide. The butterflies were traveling in a general westerly direction. Possibly 90 per cent of the individuals were not over 3 feet above the ground; very few were as high as the windshield of the car; an occasional individual flew as high as 10 feet. Roughly there appeared to be about one individual to each 100 feet of land surface. Upon inquiry the writer was told that July 25 was the fourth day of the migration.

MEALY FLATA (Ormenis pruinosa Say)

- Massachusetts    A. P. Morse (August 3): This lantern-fly has been in evidence locally at Wellesley recently, showing quite an outbreak, but not apparently destructive, on a park planting of various shrubs including especially Indian currant (Symphoricarpos), privet (Ligustrum), Rosa rugosa, etc. The white, flocculent, unsightly patches of downy young on the younger wood of last year, deface the shrubs directly and by shedding on the leaves beneath. The adults have been noticeable for a week or more, perched head downward on infested branches, especially toward the tips, apparently



still feeding. Some years ago an outbreak occurred here in Salem, chiefly in Aralia pentaphylla, the adults becoming a nuisance by flying to lights in nearby houses at night.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Wyoming

C. L. Corkins (August 27): We have found for the first time in this State the oyster-shell scale at Casper.

ASTER

BLACK BLISTER BEETLE (Meloidae)

Massachusetts

A. I. Bourne (August 21): The black aster beetles began to make their appearance about August 5 and are about normally abundant.

ASTER ROOT APHID (Prociphilus erigeronensis Thos.)

Indiana

J. J. Davis (August 21): The aster root aphid was attacking aster at Elwood, July 30.

STALK BORER (Papaipema nitela Guen.)

Indiana

J. J. Davis (August 21): This insect was reported on aster at Elwood, July 30, and on potato at Knox, August 1.

A LACE BUG (Corythucha marmorata Uh1.)

Illinois

C. C. Compton (July 25): A lace bug was observed to be severely injuring asters in a field at West Chicago.

BOXWOOD

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Mississippi

J. E. McEvilly (August 18): The euonymus scale has been very abundant on boxwood plantings in Pike, Walthall, and Amite Counties. Summer-strength oil emulsion has failed to control this pest.

CANNA

LARGE CANNA LEAF ROLLER (Calpodex ethlius Clem.)

Mississippi

H. Dietrich (August 19): The first larva of this insect was found on canna at Lucedale on August 8.

CREPE MYRTLE

CREPE MYRTLE APHID (Myzocallis kahawaluokalani Kirk.)

Mississippi

H. Dietrich (August 19): This pest has become very abundant on crepe myrtle at Leakesville and Lucedale, the foliage becoming black and sooty from the fungus growing in the honey-dew.

J. P. Kislanko (August 21): The crepe myrtle aphid is quite numerous on crepe myrtle in the vicinities of Wiggins and Hattiesburg.

WHITEFLIES (Aleyrodidae)

Georgia

O. I. Snapp (August 14): Whiteflies were not as abundant as usual during the summer months. Crepe myrtle is a favorite host and this plant frequently fails to bloom when whiteflies are abundant. This summer crepe myrtle is blooming abundantly in all locations, which I believe is due to the absence of damage caused by the feeding of these insects.

DAHLIA

A LEAFBEETLE (Nodonota clypealis Horn)

Mississippi

C. Lyle (August 25): On July 23 a correspondent at Corinth, sent to us specimens of Nodonota clypealis with the report that these insects were causing much injury to dahlia blossoms.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Const.)

Virginia

C. R. Willey (August 28): The euonymus scale seems to be particularly bad over the eastern part of the State this year where euonymus is grown.

FERN

FERN SCALE (Hemichionaspis aspidistrae Sign.)

Mississippi

H. Dietrich (August 19): This scale is becoming very abundant again on ferns at Lucedale.

IVY SCALE (Aspidiotus hederæ Vall.)

Mississippi

H. Dietrich (August 19): The ivy scale is very abundant at Lucedale on asparagus fern used by a local florist for decorative purposes.

GLADIOLI

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

- Massachusetts J. V. Schaffner, Jr. (July 31): In a small garden at Wakefield about 800 to 1,000 gladioli are badly infested by this species. Buds and blooms are ruined. Leaves are badly browned.
- A. I. Bourne (August 21): Gladioli throughout the State have been attacked by a species of thrips which apparently is the onion thrips, although I can not be certain of the species; in fact, we have placed these in the hands of specialists for identification. As soon as we are sure of the species, I shall forward the information to you. The attack on gladiolus by these thrips has been rather serious throughout July and thus far in August. Many commercial plantings have been injured by this combination of thrips and tarnished bug.
- New York C. R. Crosby and assistants (July 31 and August 8): This thrips was reported from Schenectady and Buffalo.
- Pennsylvania J. R. Stear (August 24): Reported as very injurious in a gladiolus planting and in a greenhouse at Pittsburgh.
- Ohio J. S. Houser (August 22): The gladiolus thrips is very destructive in northern Ohio. Several large growers were unable to exhibit at the National Gladiolus Show held in Cleveland, August 14, 15, and 16.

IRIS

IRIS BORER (Macronoctua onusta Grote)

- New York C. R. Crosby and assistants (July 28 and August 7): This borer was reported from Middletown on the earlier date and from Esperance on the latter one.
- Indiana J. J. Davis (August 21): Very serious this year at LaPorte according to a report dated August 8.

LILAC

EUROPEAN HORNET (Vespa crabro L.)

- Connecticut E. P. Felt (August 21): The European hornet has been reported from Red Bank as injuring lilac

CECROPIA MOTH (Samia cecropia L.)

- Indiana J. J. Davis (July 30): Larvae, about three-fourths grown, were reported abundant on lilac at Anderson, July 18.

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

MOSQUITO (Culicinae)

- South Carolina     D. G. Hall (August 1 to 20): Aedes aegypti L. is the most prevalent mosquito in residences in Charleston.
- Georgia             D. G. Hall (August 15): Mosquito (Culex quinquefasciatus Say) was found commonly in one section of Augusta.
- Mississippi         C. Lyle and assistants (August): Mosquitoes were very abundant and extremely annoying throughout the State. The salt-marsh mosquito (Aedes sollicitans Walk.) was the prevalent species along the coast.

EYE GNATS (Hippelates sp.)

- Mississippi         H. Dietrich (August 19): Eye gnats (Hippelates sp.) have become extremely annoying in George, Greene, and Perry Counties so that one can not remain in the shade without a breeze to carry them away.
- South Carolina     D. G. Hall (August 1 to 20): H. pusio Loew is becoming extremely abundant about Charleston and on Folly Island. Cases of conjunctivitis were observed in horses. According to owners of a riding academy it was necessary to move most of the horses from this locality during the eye-gnat season. Cases of conjunctivitis are said to occur in children, but have not been observed by us. (August 15): Eye gnats (H. pusio) were found to be quite annoying at Augusta. According to the city health authorities cases of conjunctivitis commonly occur in children during the fall months.
- Florida             W. E. Dove (August 10): A correspondent reports annoyance of eye gnats (H. pusio Loew) at Marianna. From others we learn that on account of conjunctivitis it was necessary to close a school in this city last autumn.
- California          J. L. Webb (August 26): Hippelates pusio Loew is relatively abundant after the usual summer decrease. Rains and cool weather around the first part of the month hastened the return of the pest. The normal fall increase (not yet fully attained) occurs about the middle of September. (R. W. Burgess.)

FLEAS (Otonoccephalus sp.)

- Massachusetts J. V. Schaffner, Jr. (August 20): A great many residents of eastern Massachusetts have been troubled with infestations of fleas in their households the past few weeks. In each case I found they possessed either a cat or a dog.
- Kentucky M. L. Didlake (August 24): Fleas are very abundant in houses at Lexington.
- Michigan R. H. Pettit (August 7): The cat flea was never so troublesome in Michigan as right now.
- Nebraska M. H. Swenk (July 15 - August 1): Numerous reports of infestations with fleas in houses, barns, chicken houses, and other buildings continued to come from eastern Nebraska during the second half of July.

SAND FLIES (Culicoides sp.)

- South Carolina J. B. Hull (August 1 - 20): Sand flies known to us as Culicoides melleus Coq. are annoying pests of man at a cemetery in the city of Charleston. (August 1 - 20): The tropical sand fly, C. furens Focky, continues to emerge during the summer months. It has not been annoying in residences in the city of Charleston, but is present at Folly Island, a beach resort.
- Georgia D. G. Hall (August 15 and July 21): Sand flies, said to be bloodsuckers of man at night, and known to us provisionally as C. biguttatus Coq., were recovered in traps at Augusta. They were collected in dark culverts of rapidly running streams in the city of Waycross. This species is apparently of economic importance in fresh water areas. Its occurrence is somewhat correlated with that of a so-called "sandfly fever."

CATTLE

SCREW WORM (Cochliomyia macellaria Fab.)

- Texas F. C. Bishop and associates (August): Many cases of screw worms in cattle, sheep, and goats have been reported from various points in western Texas. Apparently the pest is more abundant than usual for midsummer.

SHORT-NOSED OX LOUSE (Hacmatopinus curysternus Nitzsch)

- Nebraska M. H. Swenk (July 15 to August 1): During the third week in July a Lincoln County ranchman reported his cattle to be heavily infested with the short nosed cattle louse (H. curysternus.)

HORSES

HORSE FLIES (Tabanus spp.)

Texas F. C. Bishopp and associates (August): Horse flies, Tabanus rubescens Bellardi, are causing considerable annoyance to live-stock in the plateau region of western Texas and along the escarpment to the south and southeast. Along a number of streams the flies have been extremely troublesome, and in certain instances from 5 to 10 flies were observed per animal several miles away from the streams. A rather widespread outbreak of anthrax is in progress in the region invaded by the horse flies. Transmission of the disease from sick to healthy animals is attributed by most stockmen to the presence of the flies. Masses of horse fly eggs are present on the rocks in many of the streams, and a considerable percentage of parasitism of the eggs by Prophanurus emersoni Girault was noted in several localities.

Missouri L. Haseman (August 25): At Columbia horse flies have been unusually abundant in spite of dry weather.

HORSE BOTFLY (Gastrophilus haemorrhoidalis L.)

North Dakota J. A. Munro and assistants (August): The horse botfly is reported as moderately abundant throughout the State and very abundant in Dickey County. (Abstract, J.A.H.)

POULTRY

SAND FLY (Culicoides sp.)

Texas E. W. Laake (July 28): Sand flies collected in poultry houses near Temple and Little River are reported as serious pests of poultry and young turkeys. The bites resulted in death of young turkeys. The species is identified by Hoffman's description as Culicoides variipennis Hoffm.

H. O. Schroeder (August 13): Specimens of the tropical sand fly, C. furens Foey, were collected in the vicinity of Brownsville.

BEDBUGS (Cimex lectularius L.)

Indiana J. J. Davis (August 21): Bedbugs were reported from Oaklondon, Muncie, and Fortville, August 4-19. At the latter place they were very abundant in chicken houses.

MISCELLANEOUS ANIMALS

BROWN DOG TICK (Rhipicephalus sanguineus Latr.)

Florida W. E. Dove (August 11 - 20): Collections of ticks from dogs in Dade County by Mr. H. L. Reed show that Rhipicephalus sanguineus is common during this season of the year.

HOUSEHOLD AND STORED-PRODUCT  
INSECTS

HOUSE CRICKET (Gryllus domesticus L.)

Maine

H. B. Poirson (August 24): There has been a heavy invasion of homes in our section of Augusta by this insect.

Ohio

T. H. Parks (August 24): We were called to see an unusual outbreak of crickets of this species that was present in and around houses near a city dump at the edge of the city of Columbus. The crickets hatched in the dump and migrated to surrounding premises in late July and early August. They were so abundant as to cause much excitement in the neighborhood and property owners were compelled to scatter pyrethrum powder in their living rooms to kill the crickets. They came in so rapidly that pyrethrum had to be used every second day. The city dump was set afire at night by irate residents who could not stand the nuisance. Poisoned bran wash failed to kill the crickets.

BLACK FIELD CRICKET (Gryllus assimilis Fab.)

North Dakota

J. A. Munro (August 22): The black field cricket has been very abundant and is found in large numbers all over the State. Housewives have a big problem in ridding the house of them.

A PSOCID (Psocus venosus Burm.)

New Hampshire

L. C. Glover (July): Many reports of this psocid were received during the past two weeks. This is, apparently, very abundant over a large area of the State this summer.

EUROPEAN BARRIG (Forficula auricularia L.)

New York

C. R. Crosby (August 4): Gardens and orchards are overrun with these insects, at Buffalo.

Oregon

Oregon Agr. Coll., Insect Pest Report (July): Barrigs are more plentiful this year in Clatsop County. The June hatch was very large. They are also very abundant in Douglas County.

STRAWBERRY

ROOT WEEVIL (Brachyrhinus oratus L.)

New York

W. E. Blauvelt (August 6): A house was overrun with these insects, at West Webster.

PHAROAH'S ANT (Monomorium pharaonis L.)

Illinois

C. C. Compton (August): Ants are much more annoying in the household than usual in Cook County. Pharaoh's ant, M. pharaonis, and the odorous ant, Tanixora sessile Say are the most troublesome species.

North Dakota

J. A. Munro (August 22): Barnes, Traill, Nelson, Ward, Clay, Divide, Grand Forks, Burleigh, and Sargent Counties all seem to be bothered with the ant problem. One notices the ants in large numbers along sidewalks, on trees, shrubs, and flowers, around foundations of buildings, and on lawns. The housewife sees them in particular in the pantry.

ARGENTINE ANT (Iridomyrmex humilis Mayr)

Mississippi

C. Lyle and assistants (August): It has been two years since an Argentine ant control campaign was put on at McComb. The control has been very successful and it is hoped that the city will put on a campaign this fall. There are seven infested towns from the Louisiana line north along the line of the Illinois Central Railroad to the Lincoln County line. These ants are very numerous and annoying to residents in towns and localities where no poisoning campaign was conducted during the past fall.

TERRITES (Reticulitermes Sp.)

Indiana

J. J. Davis (August 21): Termitic infestations were reported from August 3 to 17 from Elkhart, Hagerstown, Milan, and Indianapolis.

Kentucky

M. L. Didlake (August 24): Termites are very abundant in houses at Lexington, Paducah, Frankfort, and Winchester.

Mississippi

C. Lyle and assistants (August): Termites have been found in refuse wood under 90 per cent of the homes inspected here in McComb. Lack of ventilation and excessive moisture content of the soil are partially responsible for the presence of termites. (August 18): Termites are moderately abundant in residences at Natchez. (August 22): Termites continue to injure foundations of homes that are bricked around the foundation wall at New Albany, Union County. Termites continue to damage dwelling houses in northeastern Mississippi, and termites were found in a home at Booneville.

HOUSE CENTIPEDES (Scutigera forcens Raf.)

Illinois

J. J. Davis (July 30): House centipedes were reported from East Chicago, July 29.

New York

C. R. Crosby (August 5): "It is found from cellar to attic and all rooms in between, at Riverdale."



BEAN WEEVIL (Mylabris obtectus Say)

Oregon

Oregon Agr. Coll., Insect Pest Report (July): This insect is moderately abundant in Douglas County.

PEA WEEVIL (Mylabris pisorum L.)

New York

C. R. Crosby (July 6): Infested peas received. Farmers in the vicinity have trouble with this insect.

Georgia

O. I. Sharp (July 25): Weevils have ruined many peas stored for seed at Fort Valley.

Oregon

Oregon Agr. Coll., Insect Pest Report (July): F. G. Hinton reports most of the weevils in the pupal stage and adults beginning to emerge, August 6.

PLANT QUARANTINE AND CONTROL ADMINISTRATION

Notes abstracted from "News Letter," August, 1931

(Not for publication)

GIPSY MOTH (Porthetria dispar L.)

During July each year information is gathered as to the amount of defoliation caused by the gipsy moth. Last year there was considerably less reported than the previous year, and early indications are that there will be less reported this season than last year. There is, however, severe defoliation in the area in Massachusetts south of Brockton, which will be reported on later.

A larva of the gipsy moth was intercepted at Seattle on an Azalea plant in furnishings from Japan. In 1930 both larvae and pupae of this insect were found at Honolulu, Hawaii, on maple, pine, and rose from Japan. The gipsy moth is more commonly intercepted in the egg stage.

BROWN-TAIL MOTH (Nygmia phaeorrhoea Don.)

Evidence based on the number of brown-tail webs which were cut in New England during the winter of 1930-31 showed that this insect was more abundant than usual in some sections. This was particularly true in southwestern Maine where the infestation was especially heavy on small groups of apple trees in villages. This also applies to a considerable extent in central and southeastern New Hampshire. In Massachusetts the webs are cut annually rather consistently by the local moth superintendents, and considerable less webs were cut last winter than during the previous winter. In Maine a total of 320,964 webs and 69 bushels of webs were cut in the 9 towns which reported, the greatest number for any one town being 307,000 webs at Biddeford. In New Hampshire a total of 655,076 webs were cut in 50 towns, the greatest number in any one town being 80,757 at Pembroke. In Massachusetts there were 36,564 webs and 312½ bushels cut in the winter of 1930-31 as compared with 75,684 webs and 307 bushels cut the previous winter. In some cases the number of webs cut are reported by bushels. It is practically impossible to arrive at the average number of webs in a bushel for they vary greatly in size and also in the amount of twig that is left on each web. Figures range from 1,500 to 2,800 webs to the bushel, and if we take as an average 2,000 webs to the bushel, it gives us 763,000 webs. Using this figure, with the 1,012,604 webs which were reported cut, gives a grand total of 1,775,604 webs cut and destroyed during the winter of 1930-31 in New England. Webs were cut in several other towns especially in Maine, but no record as to the number is available.

PINK BOLL WORM (Pectinophora gossypiella Saund.)

The field inspection performed in the Salt River Valley of Arizona prior to July 1 has been more or less at random, in an endeavor to locate infested fields. At this time 6 such fields have been found, 3 south of Laveen and 3 in the Goodyear-to-Queen Creek area. Beginning with July, weekly infestation counts are to be made from some 20 fields in the Salt River Valley and several fields in the vicinity of Coolidge and Casa Grande in the Gila Valley. Some of the fields are in stub cotton and others in planted cotton of both short

and long staple varieties. Each of the fields selected is representative of the conditions for that particular class of field. Bolls, or squares when bolls are not available, will be collected and kept on ice until they can be inspected.

Live larvae of the pink boll worm were intercepted in cotton seed as follows: In baggage at Baltimore from Porto Rico, in mail at Boston from Cyprus, and in baggage at Boston from St. Kitts. The infested seeds from Cyprus were found in three pounds of raw cotton used as packing for antiques.

Larvae of the pink boll worm were also intercepted at Washington, D. C., in seed cotton, in baggage from Antigua and Nevis, British West Indies. These are our first interception records for the pink boll worm from Antigua and Nevis.

#### MEXICAN FRUIT FLY (Anastrepha ludens Loew)

In Matamoros, on the Mexican side of the river, inspections were continued of fruit growing locally and of imported fruit offered for sale in the markets. In the fruit from the interior of Mexico infestations were found in shipments of apricots, guavas, mangoes, oranges, and plums. Infestations were found in white sapotes, Sargentia greggii, and sour oranges growing in Matamoros. The fruit from these trees has been picked off and destroyed by burial. Of special interest in explaining how infestations are started in Matamoros was the finding of a decayed mango which had been thrown out in the yard of a house in the north-west part of the city. Upon inspection 14 larvae of the fruit fly were found in this mango. Some fly traps were placed in various yards during the month in addition to the 84 which were already out. These traps are baited with an orange syrup solution and inspected twice weekly. Twenty-two adults of the fly were caught in these traps during the month.

#### DATE SCALE (Parlatoria blanchardi Targ.)

During the past seven months only three infested palms have been found by the routine crews that inspect the commercial gardens. On two of these palms only a single scale each was found. During the previous year scale was found each month, and 139 infested palms were found in the 11 months preceding.

INSECT CONDITIONS IN PORTO RICO DURING JULY, 1931  
M. D. Leonard  
Insular Experiment Station, Rio Piedras, Porto Rico

Two adults of the coconut rhinoceros beetle, Strataegus quadrioveatus Beauv., were received under date of July 16 from Alberto Correa from Utuado with the statement that they were found eating the shoots of young cane plants; the injury was noted in several places near Utuado. (M.D.L. and F. Sein.)

Adults of Ligyris tumulosus Burn. were abundant at lights during the month at Isabela and many were being eaten by the imported toad, Bufo marinus L. (G.N.W.)

Dyscinetus barbatus Fab. adults were absent at lights during the whole month. (G.N.W.)

The leafhopper Protalebra brasiliensis DeLong, known to attack sugarcane occasionally, continued to be abundant throughout the month on Bidens pilosa on the El Morro Golf Course in San Juan. (M.D.L.)

Mr. Fletcher, Manager of Hill Bros. Co., a large cannery located in Rio Piedras, stated on July 22 that all during the past fiscal year the weevils Diaprepes spengleri L. had done damage by stripping the foliage on a considerable number of young trees in his grove at Manati, necessitating much hand-picking of the weevils by boys. He stated that less trouble was experienced in his Rio Piedras grove. (M.D.L.)

The weevil Lachnopus curvipes Fab. has been locally more abundant around Isabela than the common "vaquita" (Diaprepes abbreviatus L.) which causes the bulk of the injury to the leaves. (G.N.W.)

The orange dog, Papilio androgeus Cramer. On July 12 a butterfly emerged from a caterpillar found on grapefruit foliage at Isabela some time previous. On the same day two other caterpillars were brought in. (G.N.W.)

The papaya fruit-fly, Toxotrypana curvicauda Gerst., was sent in under date of July 8 by T. B. McClelland from the Mayaguez Experiment Station in a rather small and rather green fruit which contained 14 newly formed puparia and one full-grown larva. (M.D.L.)

One fruit was found infested at the substation at Isabela on July 3 and sometime during the month nearly all of the fruit on several plants in a farm near Aguadilla were infested. (G.N.W.)

The introduced ladybird beetle Cryptolaemus montrouzieri Muls. was observed during the month, but not very commonly, at Isabela feeding on a soft scale. (G.N.W.) The scale may possibly be Pulvinaria psidii Mask., since there is a previous record on this host plant and scale for the ladybird in Porto Rico.

The cotton leaf worm, Alabama argillacea Hbn., occurred in destructive numbers in the whole North Coast cotton section during the month, but was most injurious around Isabela and Camuy. (M.D.L.)

The pink boll worm, Pectinophora gossypiella Saund., was generally distributed throughout the whole cotton-growing section of the North Coast, the least injury being at Isabela and the heaviest around Arecibo and Aguadilla. (M.D.L.)

Cotton stainers, Dysdercus andreae L., were more or less general in the North Coast cotton section, but doing little injury. (M.D.L.)

Diabrotica graminea Baly was abundant and injurious to corn at Isabela during the month. (G.N.W.)

The alfalfa leaf-tier, Dichomeris piperatus Wlsm., was destructively abundant during the month at Isabela in one patch, rendering the alfalfa worthless for feeding. (G.N.W.)

The velvety cutworm, Prodenia ornithogalli Guen., was abundant at Isabela attacking a wide variety of hosts including alfalfa, crotalaria, and tomatoes besides numerous weeds. (G.N.W.)

Many specimens of Nezara marginata Beauv. clustered on a single pod of crotalaria at Isabela. (G.N.W.)

Injury to "gramma" grass (St. Augustine grass) by Psara phaeopteralis Guen. was reported in July, the grass on a large lawn being more severely affected in the shade than in the sun. (G.N.W.)

The sugarcane looper, (Mocis) Remigia repanda Fab., defoliated a small area of Para or malojillo grass (Panicum barbinoda), young plant cane, and half-grown elephant grass (Pennisetum glaucum). (G.N.W.)

The velvet-bean caterpillar, Anticarsia gemmatilis Hbn., was abundant on the foliage of alfalfa and sword beans at Isabela during the month. (G.N.W.)

The bean leaf-webber, Nacoleia indicata Fab., moderately infested a good sized patch of pole limas throughout the month at the Station at Rio Piedras. (M.D.L.)

The bean lace-bug, Corythucha gossynii Fab., was also present on the pole limas, but not very injurious although it increased somewhat towards the latter part of the month. (M.D.L.)

The bean leaf-roller, Eudamus proteus L., was present but only moderately injurious in a good-sized patch of pole limas at the station in Rio Piedras. (M.D.L.)

The potato leafhopper, Leptocrossa fabae Harr. was present in moderate numbers in the same patch of pole limas at the Station in Rio Piedras. (M.D.L.)

Diabrotica innuba Fab. was quite abundant on cantaloupes at Isabela. (G.N.W.)

The melon worm, Diaphania hyalinata L., was observed on July 31 to be considerably injuring the leaves and blossom buds of a fair-sized patch of cucumbers at the Station in Rio Piedras. The vines were just beginning to run by the end of the month and no fruit had set as yet. (M.D.L.)

Four moths of Diaphania nitidalis were reared from chayote (Scochium edule.) (F. Sein.)

A mealybug, presumably Pseudococcus citri Risso, was found on July 2 to be moderately infesting several celery plants (one badly infested) at the Station on grounds at Rio Piedras. The bugs were clustered at the base of the stalks just above the ground, and a few were on the roots. We have only one previous record of injury to celery in Porto Rico by this insect, collected by T. H. Jones, July 3, 1912, Rio Piedras, determined by H. Morrison. (M.D.L. and F. Sein.)

Diabrotica graminea Baly was fairly abundant and doing moderate damage in a 1-acre planting of okra in Trujillo Alto on July 10. Most of the plants had finished bearing, however. (A.S. Mills.)

The pink boll worm, Pectinophora gossypiella Saund., was found on July 10 infesting 10 out of 16 pods examined in a 1-acre planting of okra at Trujillo Alto. The okra adjoined a field of about  $1\frac{1}{2}$  acres of cotton which showed about 85 per cent infested bolls. The okra plants examined were situated near the edge of the field next to the cotton. The infested pods were all mature, at least 3 or 4 inches in length, and each contained 1 or 2 larvae, and several pupae were found within the pods. The cotton was an old field which had been infested for some time. (A.S. Mills.)

The canna leaf-roller, Calnodes ethlius Cram., became destructively abundant during the month on a number of plants at Isabela, averaging one or two larvae per plant. (G.N.W.)

The Hawaiian beet webworm, Hymenia fascialis Cram., was abundant on July 12 (when first noticed) and through the rest of the month on several large patches of a weed, Gomphrena dispersa, locally called "orraza contodo." The moths were much in evidence and the larvae were webbing together and skeletonizing the leaves to a considerable extent on the El Morro Golf Course in San Juan. (M.D.L.)

CUBA

Notes on observations during July, 1931

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Cutworms have been observed doing some damage to truck crops in the vicinity of Baragua. Concentrations of these pests were lacking, however, and injury as a whole was slight.

Feeding on the leaves of sugarcane ratoons by the larval stage of Monodes deltoides Mosch. (det. by Schaus) was reported from Central Cuba, Matanzas Province.

Cirphis latiuscula H.-Schf. has been reported on sugarcane ratoons at Central Cuba and Socorro. The damage was not severe and the infestations were local in character.

Alabama argillacea Hbn. was collected on cotton at Baragua during the last week of June and the first two weeks of July. The infestation was light. The cotton was 1 to 2 feet high and small bolls had formed.

The velvet bean caterpillar, Anticarsia gemmatilis Hbn., was present on velvet beans at Baragua during the latter part of June and the first two weeks of July. The infestation was not severe although damaging.

An unidentified species of Miridae has been extremely injurious to Crotalaria at Baragua. Crotalaria retusa was most severely attacked, being completely destroyed. The insect was present on other species of this legume in damaging numbers. It confines its feeding almost entirely to the leaves of the plants.

Utetheisa venusta Dalman is present on Crotalaria. The larval stage injures all species by feeding on the leaves and, in addition, by infesting the pods. It is only moderately abundant, being heavily parasitized in the egg stage by Trichogramma and being the host of larval parasites as well.

Etiella zinckenella Treit. is doing considerable damage to the pods of Crotalaria incana. Of several species of Crotalaria growing in adjacent plots, C. incana was the only one attacked.

The citrus blackfly, Aleurocanthus woglumi Ashby, is abundant on citrus trees examined in Caraguay Province. In Cuba this pest is present throughout all seasons of the year.

Aphis maidis Fitch was observed in damaging quantities on field corn in extensive plantings of this crop in the vicinity of Baragua. The lice appeared in numbers soon after the emergence of the tassels from the central leaf rolls. On small plants they have not been noted.

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