THE INSECT PEST SURVEY BULLETIN

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR JUNE, 1926

As the wheat season draws to a close the situation as a whole is favorable, but little serious commercial damage by the Hessian fly is reported from any part of the wheat belt.

In general, over the chinch bug belt, this pest is not serious. Scattered outbreaks are reported from Mississippi and rather intense infestations in southeastern and southern Nebraska; rather serious damage is also reported from Kansas and central Missouri.

The cool late season in the Lake Region and New England resulted in many reports of damage by the seed corn maggot. In several cases the outbreaks were confined to fields heavily treated with organic fertilizers.

Armyworm outbreaks are reported from southern Indiana and Illinois, and southwestern Missouri.

Cutworms continued to be destructive through early June, particularly in the Ohio and upper Mississippi River Valleys.

In the Gulf Region an unusually heavy infestation of corn by the sugarcane beetle is reported, in many cases necessitating replanting of the crop.

Very serious infestations of corn by the larvae of the grape colaspis have been reported from Indiana and Illinois.

The corn ear worm has been exceptionally troublesome in North Carolina, South Carolina, Georgia, and Alabama. Most of the damage was in the vicinity of vetch fields, from which the worms migrated to corn and cotton when the vetch was cut.

Fruit aphids in general continued to be extremely rare throughout June over the Central, Eastern, and New England States.

The codling moth is reported as decidedly more abundant than usual in the east-central States, reports having been received from Indiana, Illinois, and Missouri.

In the New England States the plum curculio was delayed by the retarded season as was also the case in New York State. In the East-Central States the pest seems to be more abundant than usual, particularly in Indiana and Missouri, whereas in Georgia the infestation is extremely light.

The weevil Listroderes apicalis was found for the first time near the Coast in the State of Mississippi on June 15.

The potato flea beetle was generally prevalent over New England and New York, extending southward to the District of Columbia.

The cabbage maggot was reported as generally destructive from Massachusetts westward to Wisconsin.

A rather unusual attack on onion by the fall armyworm is reported from Mississippi.

The root-knot nematode is reported for the first time from the State of Wisconsin where it is doing serious damage to cannery peas.

The boll weevil situation has not materially changed since our last report, except for a heavy infestation which has developed in many localities in Louisiana.

The cotton flea is generally more serious over the southern part of the cotton belt than normal.

The rose chafer is generally below normal over the New England and Middle Atlantic States. The only report of the occurrence of this pest in serious numbers is from Nebraska.

Brood XVII of the Periodical Cicada has been reported as appearing in Doniphan County, Kansas, about 100 miles north of the nearest recorded locality for this brood in Cass County, Missouri.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA, FOR JUNE, 1926

Infestations of the forest tent caterpillar are heavy and extensive in parts of southern and central Saskatchewan. Reports of its depredations have also been received from the Peace River section of Alberta, and from the district south and east of Edmonton.

The eastern tent caterpillar showed a marked increase this year in sections of the Ottawa River Valley and in parts of southern Quebec. In the St. John River Valley, New Brunswick, in the Fredericton district, both species of tent caterpillars are reported as very scarce.

The European pine shoot moth infestation in southern Ontario is more or less general, but light and scattered. All infested material found is being destroyed.

Control investigations have been started on the beech coccus, which is present in outbreak form throughout the greater part of Nova Scotia; on the spruce budworm outbreak in Cape Breton Island, and on the western cedar borer outbreak on Vancouver Island and the coast of British Columbia.

The maple leaf-cutter, Paraclemensia acerifoliella Fitch , is on the increase in Huntingdon County, southern Quebec.

An outbreak of the fall cankerworm is occurring in certain sections of southern Alberta, about 80 per cent of boxelders and willows in shelter belts being affected.

Wireworms, principally Ludius aereipennis (Kby.), have caused an average of 10 per cent injury to wheat over practically the whole of southern Alberta, south of latitude 52°.

Cutworms are causing serious damage to field and garden crops over a great part of Manitoba.

The pear leaf blister mite is markedly on the increase in apple orchards of the Okanagan Valley, British Columbia.

Stem-mothers of the green apple aphis, the rosy aphis, and the black cherry aphis were comparatively scarce in the Niagara district, Ontario, this spring.

The eye-spotted budmoth is on the increase in apple orchards in the Hemmingford and Quebec districts, Quebec.

Mosquitoes of the genus Aedes are reported as very abundant and troublesome in many sections of Ontario, Quebec, and New Brunswick. This is probably largely due to the high river levels in early spring, which caused floods at freshet time.

An unusual abundance of Anopheles maculipennis Meig. was noted in the Edmonton - Wabamum district, Alberta, during April.

GENERAL FEEDERS

WHITE GRUBS (*Phyllophaga* spp.)

Massachusetts — A. I. Bourne (June 22): In my last report I noted the first appearance of May beetles. Since that time we have noted very few of these. They seem to be unusually scarce this season.

Michigan — Philip Luginbill (June 23): May beetles are quite prevalent. The most common species taken in gas-light trap is *Phyllophaga futilis* Lec.

Wisconsin — S. B. Fracker (June 16): Adults occurred in the usual heavy flight for this brood in Dane, Grant, Iowa, La Fayette, Marinette, Polk, and Sauk Counties. Some grub injury was reported also in Grant and Marinette Counties.

Minnesota — A. G. Ruggles (June 17): Adults of different species of Phyllophaga have been out in great abundance. In spite of this in the southwestern part of the State white grubs are doing very serious injury.

Missouri — L. Haseman (June 25): During the months of May and June unusually heavy swarms of June beetles appeared throughout most of the State and since the 15th of June several corn growers have submitted samples of very small grub worms which, in many cases, are destroying the stand of corn and in one case, a crop of soybeans. There threatens to be an exceptionally heavy brood of this pest starting off throughout this State this summer.

Kansas — J. W. McColloch: Adults of *Phyllophaga lanceolata* Say are reported abundant on tomatoes and other garden plants at Garden City.

CUTWORMS (Noctuidae)

Massachusetts — A. I. Bourne (June 22): Mr. Lacroix notes cutworms to be fully as abundant, if not more so, than last year in the Cape region. Garden stuffs of all kinds appear to be subject to a rather severe attack. Cutworms have been the object of very many complaints from many sections of the State.

Connecticut — W. E. Britton (June 24): Throughout the State this insect is attacking various vegetable plants. It is more abundant than in an average year.

New York — C. R. Crosby and assistants (June 5): Grapes, currants, raspberries, tomatoes, and asparagus are being attacked

quite generally and considerable damage is being done in Chautauqua Count

Ohio — Melvin E. Wyant (June 12): Several species of cutworms in northeastern Ohio are destroying thousands of young nursery trees and seedlings and perennial plants. One kind is cutting off young plants and other kinds eating off the leaves.

Michigan — Eugenia McDaniel (June 9): Cutworms are about as troublesome as usual. They have been reported especially bad near St. Johns which is about 20 miles north of Lansing, and are working very badly in a 15-acre mint field in that district. We are trying out bait made with arsenate of soda in place of white arsenic and thus far the reports have been good.

R. H. Pettit (June 25): Various kinds of cutworms at East Lansing appear to be much worse than usual this year.

Indiana — J. J. Davis (June 26): Cutworms were unusually abundant this season. Since my last report was sent in especially conspicuous injury has been reported to garden crops at Mishawaka and Gary; to onions at South Bend, Angola, Warsaw, and Albion, to tomato at Michigan City, South Bend, and Brockston; to cabbage at Gary and Brockston; to peppermint at South Bend, and to corn or as general pests in several northern Indiana localities. The last report came to us June 16.

Wisconsin — S. B. Fracker (June 16): Reported from Ashland on gladioli and tomatoes; Door ("bad on strawberries"), Lincoln ("some on asparagus and tomatoes"); Pepin ("20 per cent").

C. L. Fluke (June 9): Cutworms are working havoc in most sections throug the western side of Wisconsin.

Minnesota — A. G. Ruggles (June 17): Cutworms were more abundant than I have ever known them. The species has not yet been determined. One broke out in army form in the western part of the State, destroying flax fields. This was Feltia ducens Walker, the dingy cutworm.

North Dakota — Stewart Lockwood (June 21): Noctuids, as yet not identified, are exceptionally numerous at Mandan.

Montana — R. A. Cooley (June 7): Serious and extensive outbreaks of Chorizagrotis auxiliaris Grote, Porosagrotis orthogonia Morr., and Euxoa pallipennis Sm. are reported.

Washington — R. L. Webster (May 31): Reports of severe damage to alfalfa and to potatoes are coming in from Spokane and Stevens Counties.

GRASSHOPPERS (Acrididae)

Ohio — T. H. Parks (June 26): Young grasshoppers are now very abundant in meadows and pastures in south-central counties. Arrangements for poisoning are underway.

Nebraska — M. H. Swenk (June 26): During the second week in June some

rather important injuries by grasshoppers (Melanoplus spp.), especially in alfalfa fields, developed in Nuckolls County and also in western Buffalo County, in the vicinity of Elm Creek.

Montana — R. A. Cooley (June 7): A considerable area extending into Hill, Liberty, and Chouteau Counties was heavily infested with eggs of Melanoplus atlanis Riley this spring. The eggs hatched late in April and early in May but weather conditions killed off the young nymphs and prevented a severe outbreak.

Stewart Lockwood (June 21): Grasshoppers are not so numerous near Havre as was expected from the number of eggs last autumn, but were numerous enough to warrant control measures.

Washington

WIREWORMS (Elateridae)

Indiana — J. J. Davis (June 26): Wireworms are unusually abundant in all sections of the State. Continue to receive some reports of damage to onions in the northeastern part of the State. Corn badly damaged at Madison, Decatur, Indianapolis, and elsewhere.

Ohio — T. H. Parks (May 31): Specimens were sent in with the statement that they were destroying tomatoes in commercial gardens near Marietta. This land had been plowed in the fall.

Wisconsin — S. B. Fracker (June 16): One report was received of heavy damage to corn at Sauk City in Dane County.

Kansas — J. W. McColloch (June 15): In the last week in May injury to germinating corn was reported from Lone Elm, Ozawkie, Harveyville, Eureka, and Burlington.

Nebraska — M. H. Swenk (June 25): Wireworm injury was not as important as usual in Nebraska this spring. One infested field that came to our attention was a cornfield in Sherman County, near Loup City, where larvae of Melanotus fissilis Say had by the middle of June done some serious damage on fall-plowed land. A few days previously the destruction of a rather large planting of young onions in Saline County by small wireworms of the genus Monocrepedius was brought to our attention.

Montana — R. A. Cooley (June 7): On wheat, potatoes, and peas, general in the State. Severe damage in some places.

MORMON CRICKET (Anabrus simplex Hald.)

Montana — R. A. Cooley (June 7): The Mormon cricket is very abundant and doing severe damage in Lake, Missoula, and Sanders Countires in western Montana.

Wyoming — Stewart Lockwood (June 21): The western or Mormon cricket, Anabrus simplex Hald., is very abundant in western Montana and is causing some damage to crops in the Big Horn Valley in Wyoming. Just how much damage is occurring at these two places I do not as yet know but from all reports the conditions seems to be alarming.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Ohio — T. H. Parks (May 31): No damage is anticipated from the Hessian fly to wheat in any part of Ohio this year. The wheat-insect survey will start June 21 and will be conducted in 24 counties.

Indiana — J. J. Davis (June 26): The Hessian fly is abundant, the spring brood being especially destructive to the late-sown wheat in the central half of the State.

Missouri — L. Haseman (June 25): There is no particular change in the fly situation to be reported, little or no damage being reported by the wheat growers.

Nebraska — M. H. Swenk (June 25): The Hessian fly, in consequence of the general late wheat sowing that has been very widely practiced over the entire area that was so heavily infested three years ago, has steadily decreased. The present crop is but slightly infested, on the whole, and the commercial damage this spring will be small.

Kansas — J. W. McColloch (June 19): A recent survey was made of the Hessian fly situation in the northern half of the State. A general light infestation of the fly occurs throughout this territory but there has been very little commercial loss. Some fields around Chapman and Hays show an infestation of 5 per cent of the stalks. In most of the fields, however, the infestation is only 1 to 3 per cent. The cold weather of April followed by extremely dry weather is largely responsible for the reduced infestation. Much of the wheat in the northwestern quarter of Kansas is a failure.

ARMY CUTWORM (Chorizagrotis auxiliaris Grote)

Nebraska — M. H. Swenk (June 25): During the entire period covered by this report large numbers of inquiries have been received concerning the heavy flights of the moths of Euxoa auxiliaris Grote that have occurred over the whole State. Probably most of the moths in the eastern counties have migrated in from the counties farther west, since an injurious abundance of the army cutworm itself during April and May was not reported from anywhere east of the 100th meridian.

THE KANSAS ANOMALA (Anomala kansana Hays & McC.)

Kansas — J. W. McColloch (June 14): The adults of this species were swarming in the wheat fields in Riley County on sandy soil. They accumulate on the heads of bearded wheat but so far as one could determine they were not feeding.

WHEAT SAWFLY LARVAE (Species undetermined)

Indiana — J. J. Davis (June 26): Wheat sawfly larvae were very noticeably abundant on June 14 in a wheat field at Wabash.

CORN

CHINCH BUG (Blissus leucopterus Say)

South Carolina — J. O. Pepper: Found injuring young corn in the middle part of the State.

Ohio — T. H. Parks (May 31): Adults were still in hibernation in woodland on May 5. Could find none in hibernation in other places. Noticed no spring flight though there may have been enough to cause damage locally in two or three north-central counties.

Mississippi — R. W. Harned (June 21): Several complaints have been received in regard to the chinch bug.

Illinois — W. P. Flint (June 19): The chinch bug situation has improved during the last two weeks, as very heavy rains have occurred in many of the counties where scattered areas showed the heaviest infestations.

Missouri — L. Haseman (June 25): The chinch bug is late in its development, being largely still in the young red nymph stage on June 21. Through central Missouri and along the western border of the State a very considerable epidemic is appearing which is attracting the farmers' attention at this time. The earlier dry weather favored the pest but with recent rains the situation is more favorable for the crops.

Nebraska — M. H. Swenk (June 25): The chinch bug, as was expected, appeared in injurious numbers in the wheat fields of southeastern and southern Nebraska during May. The counties now most seriously affected are Richardson (locally over the whole county), Nemaha (entire county, but especially eastwardly), Otoe (entire county, but mostly in the southern and western portions), Cass (scatteringly over the entire county), Pawnee (same), Johnson (same), Lancaster (all parts of the county but most heavily southwardly), Gage (especially northern part), Jefferson (whole county), and Thayer (same).

Serious chinch bug infestations also exist in Saline, Nuckolls,

Webster, Franklin, Harlan, Furnas, Phelps, Gosper, and Frontier Counties. Between May 26 and June 15, not only were many heavily infested fields of winter wheat reported, but in a considerable number of cases young corn was attacked and destroyed as it came up. In Frontier County, in the vicinity of Stockville, many acres of corn were thus completely destroyed by chinch bugs dufing early June, one field having 75 acres taken in this way. The bugs began moving from the wheat and other small grains into the corn in southeastern Nebraska from June 18 to 20, and at the time of sending in this report (June 25) the migration is developing very strongly all over the infested district.

Kansas — J. W. McColloch (June 19): Chinch bugs have done a large amount of damage to wheat in Kansas this spring. In many sections they caused premature ripening of the fields. Migration to corn and sorghums began the first week in June owing to drying up of small grains. In some fields the bugs reduced the wheat yield 50 per cent. The number of bugs in northeastern Kansas is greater than at any time since 1911 and 1912.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Ohio — T. H. Parks (May 31): This insect was sent in by the county agent of Hancock County with the information that it was destroying the corn planting on one farm in the northwestern part of the State. The weather has been cool, accompanied by slow growth since the corn was planted.

Indiana — J. J. Davis (June 26): The seed corn maggot was very destructive in a few fields at South Bend (May 28) and Decatur (May 29). About 50 per cent of a field of garden beans was destroyed by this maggot at La Fayette.

Wisconsin — C. L. Fluke (June 1): This insect is very destructive this year in the southern part of this State (Jefferson). Material was collected by the county agent, who reported one field nearly 100 per cent infested as far as examined.

S. B. Fracker (June 16): Considerable damage in Dane, Jefferson, and other scutheastern counties.

STALK BORER (Papaipema nitela Guen.)

Nebraska — M. H. Swenk (June 25): During the period from June 5 to the date of this report numerous reports have been received of injury by the stalk borer in fields of field and sweet corn in southeastern Nebraska, from Richardson County to Nemaha, Cass, Douglas, Sarpy, Dodge, and Lancaster Counties. In some of these fields the damage was fairly extensive and serious.

Kansas — J. W. McColloch (June 19): Injury to corn was reported from

Udall on May 25. (June 9): Corn infested by this species was received from Independence. (June 16): Injury to garden crops was reported from Onaga and Merriam.

ARMYWORM (Cirphis unipuncta Haw.)

Indiana — J. J. Davis (June 26): During the last of April and early May the armyworm moths were abundant and warnings were sent out. The anticipated outbreak materialized and the first reports came to us May 31 from Poseyville in the southwestern corner of the State. Reports have continued to reach us for the following localities: Brownstown, Elmore, Washington, Bloomfield, Carlisle, Rushville, Williamsport, Monticello, Petersburg, Indianapolis, Darlington, Greenfield, Franklin Otterbein, Crawfordsville, Shelbyville, Delphi, Lebanon, and Thornton. The last report was on June 21. Damage was reported to timothy meadows oats, wheat, and corn. In a number of cases, beginning June 19, reports came to us of an abundance of parasite cocoons in fields which had been infested.

Bennet A. Porter (June 26): Armyworm outbreaks are reported at several points near Vincennes.

Illinois — C. C. Compton (June 10): Armyworm outbreaks are just beginning to become evident in La Salle County, timothy being attacked.

W. P. Flint (June 19): As was anticipated earlier in the year, a general outbreak of armyworms occurred during the past month. Although the outbreak was very general, and some damage has been reported in practically all of the southern and central counties, the local outbreaks were not so severe as has been the case in some years, especially in 1914. Reports of damage are just coming in from the northern part of the State. Parasites of the larvae were only moderately abundant. Very heavy flights of moths are occurring in central and southern Illinois at the present time, but it is thought that the egg parasite (Telenomus) will probably prevent any recurrence of damage this season.

Missouri — L. Haseman (May 25): Received from the county agent of Pemiscot, in the southwestern part of Missouri, a sample of a half-grown armyworm with the statement that these worms are migrating from newly cut alfalfa fields and other crops, devouring the crops as they go. I have just received a notice of the Texas report and am wondering if we are not in for a real siege with the pest here in Missouri. As I read the signs of the time and refer back to our last big epidemic I am lead to suspect that we may have some trouble with the pest, at least in some parts of Missouri.

Arkansas — J. W. Ingram (May 22): Armyworms were found causing heavy losses in oat fields by cutting off the spikelets and in some cases the entire panicle. In parts of some fields practically no grain remains on the oat plants.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Alabama — J. M. Robinson (June 18): The fall armyworm was reported from Baldwin

County as having destroyed the grass and corn in one field and had migrated to a soybean field.

Louisiana — W. E. Hinds (Telegram dated June 27): Probable third generation of grass worm now due butrnot yet reported.

GREASY CUTWORM (Agrotis ypsilon Rott.)

Nebraska — M. H. Swenk (June 25): On the 16th the destruction of 15 acres of corn on rich bottomland near Auburn, Nemaha County, by the greasy cutworm was reported by the owner of the field.

CUTWORMS (Noctuidae)

Ohio — T. H. Parks (May 31): Cutworms have caused some farmers in Pickaway County to plant their corn over. The corn was planted on spring-plowed sodland. The cutworms destroyed the corn immediately after it came up, at which time they were still quite small. Complaints have also reached this office from Wyandot County in north-central Ohio. (June 26): Cutworms, Feltia subgothica Haw., have been more injurious to young corn than for many years. Injury is general over the State and caused many farmers to plant over. Damage commenced May 15 and has continued through June. In most fields the cutworms are mixed with sod webworms. Damage has been largely confined to corn planted on late-plowed sodland.

Michigan — Philip Luginbill (June 24): Corn in experimental plots at the corn borer station at this place (Monroe) is not seriously damaged. It is alfalfa land and the worms seem to prefer to feed on the old alfalfa roots and stray plants.

Wisconsin — S. B. Fracker (June 16): Reported from Ashland; Barron (considerable damage); Bayfield (few); Chippewa (some damage); Columbia (not many); Eau Claire (5 per cent of corn destroyed); Fond du Lac (very little); Grant (some); La Crosse (bad); Marinette (worse than last year); Marquette (more than ever); Monroe (10 per cent damage); Pepin (20 per cent); Polk (numerous); Portage; Sauk (slight damage); Sawyer (considerable damage); Vernon (plenty); Washburn (worse than ever); Waushara; Wood.

Illinois — W. P. Flint (June 19): Cutworms have injured corn in the north and north-central counties, the most abundant and destructive species being the greasy cutworm, Agrotis ypsilon Rott.

SUGARCANE BEETLE (Euetheola rugiceps Lec.)

Alabama — J. M. Robinson (June 9): Considerable damage is being done by the sugarcane beetle, which is attacking corn rather generally over the State of Alabama. We had a letter this morning from Shelby County, stating that if they kept up the work they were doing now the man would lose 50 or 60 acres of corn. Corn had been replanted. In

only one instance has the insect been reported doing damage to sugarcane (in Monroe County); the damage is particularly on corn. (June 18): This insect has been attacking corn and it is generally distributed over the State, particularly in fields that have been planted following the turning of sod. They have destroyed anywhere from 50 to 95 per cent of fields of 2 to 50 acres.

Mississippi R. W. Harned (June 21): From all sections of Mississippi complaints and specimens have been received from correspondents in regard to the injury caused to corn and sugarcane by Ligyrus rugiceps.

Louisiana C. E. Smith (June 19): At Lindsay the infestation was present on corn averaging about 6 inches high that was planted on sodland. The field consisted of 50 acres of corn. The majority of the injured plants had just recently been attacked and no trouble was experienced in finding beetles in the soil at the base of freshly attacked plants. A similar complaint was received from this same community on about May 25. The grower visited stated that this beetle had been active and killing corn for about a month.

BLUEGRASS BILLBUG (Sphenophorus parvulus Gyll.)

Nebraska M. H. Swenk (June 25): Early in June a report was received of the destruction of about 20 acres of corn in Nemaha County near Peru by the timothy billbug.

MAIZE BILLBUG (Sphenophorus maidis Chittn.)

Kansas J. W. McColloch (June 15): Two fields of corn at Niotaze were reported heavily infested May 25. (June 3): A field of corn at Piedmont is infested. (June 9): The county agent of Montgomery County reports this species in some cornfields.

CORN EAR WORM (Heliothis obsoleta Fab.)

North Carolina R. W. Leiby (June 11): Reports of an outbreak of what is apparently this species in armyworm proportions were received from Moore and Hoke Counties on June 2, 3, and 10. The larvae migrated to cotton and corn from vetch fields when the vetch was cut for hay. They were successfully controlled by ploughed furrows, poisoned-bran mash, and calcium arsenate dust. Parasitism appeared to be only moderate. To my knowledge at least 10 acres of corn and 20 acres of cotton were destroyed by the worms on three farms before they were controlled.

Georgia Oliver I. Snapp (June 19): The corn ear worm continued in abundance in Georgia during early June. By that time it had appeared in vetch fields and peach orchards in the middle and northern parts of the State. It was reported in large numbers from the southern part of the State last month. It has been much more numerous and injurious in the State this year than normally, doing serious

damage to peach orchards and vetch fields. It was found feeding on the buds of zinnias at Fort Valley on June 16.

Alabama — J. M. Robinson (June 18): The corn ear worm and cotton boll worm developed the first generation on fields of vetch that was not turned under before seeding. These larvae migrated from vetch over to cotton and corn and destroyed several acres in various portions of the State.

SPOTTED CUCUMBER BEETLE (Diabrotica 12-punctata Fab.)

Alabama — J. M. Robinson (June 18): The southern corn root worm has been very active on the young sprouting corn, particularly following the turning of vetch which has become one of the outstanding soil legumes for our State. This insect has caused damage varying from 50 to 90 per cent in the cases reported.

GARDEN WEBWORM (Loxostege similalis Guen.)

Kansas — J. W. McColloch (June 14): Two reports of severe damage to corn have been received. At Eldorado the worms are bad in corn growing on low areas. At Alma a 60-acre cornfield has been ruined. This field was in alfalfa last year.

SOD WEBWORMS (Crambus sp.)

Ohio — T. H. Parks (June 26): Damage to corn from sod webworms has been very severe in all parts of Ohio. Feeding of larvae extended from May 15 to June 20 and caused many farmers to plant their corn over.

E. W. Mendenhall (June 2): This pest is reported very bad in some fields of corn in Pickaway County and farmers had to replant their corn.

Illinois — W. P. Flint (June 19): Species(not positively identified) have been very abundant in all parts of the State.

CORN ROOT WEBWORM (Crambus caliginosellus Clem.)

West Virginia — W. E. Rumsey (June 14): Reports from Morgantown, Clarksburg, and Moorefield of the corn root webworm were received. It is quite general and rather destructive in these localities.

Indiana — J. J. Davis (June 26): The corn root webworm has been more abundant and destructive this year than for many years. The first report of injury to corn came to us May 31 from Salem. Subsequently, up to June 19, many reports were received, including the following localities: Brookston, Columbus, Lynn, Marion, Windfall, and New Richmond.

Michigan — Philip Luginbill (June 10): Corn in experimental plots at the European corn borer station shows a slight infestation by webworms.

CORN ROOT APHID (Aphis maidi-radicis Forbes)

Nebraska — M. H. Swenk (June 25): The corn root aphid was reported as badly injuring cornfields in York and Frontier Counties during late May and early June.

GRAPE COLASPIS (Colaspis brunnea Fab.)

Indiana — J. J. Davis (June 26): The clover white grub destroyed considerable corn in Rush and Wayne Counties, both reports coming in June 21. There were also reports of damage in Warren and Morgan Counties on this date.

Illinois — W. P. Flint (June 19): The grape colaspis has been very destructive to corn on clover sod in the west-central Illinois counties. Larvae are just becoming full grown, but in many cases feeding has continued to a time when it was too late to replant the injured cornfields. Although nearly all of the damage has occurred where corn followed clover, several cases of injury have been found where corn had followed corn.

J. H. Bigger (June 21): At least 200 acres in Morgan County were wiped out. Infestation was known to occur in Christian and Scott Counties also. It was necessary to replant the corn.

BANDED FLEA BEETLE (Systena taeniata Say)

Indiana — J. J. Davis (June 26): The banded flea beetle was destructive at La Fayette, Cambridge City, Rushville, and Williamsport to various crops, but especially to corn and cabbage. These reports have come to us between June 18 and 25. Damage to corn at Ambia, was very severe on June 28, and to soybeans at Plymouth on June 26.

ALFALFA

CORN EAR WORM (Heliothis obsoleta Fab.)

Kansas — J. W. McColloch (June 15): Adults were observed for the first time at Manhattan June 4, and on the 7th of June small larvae were common in alfalfa at Hays.

GARDEN WEBWORM (Loxostege similalis Guen.)

Kansas — Roger C. Smith (June 15): I made a survey trip as far west as Waukeeny, north to Hill City, and returning on midland trail with Mr. McColloch June 7 and 8, we found the first-generation moths unusually plentiful. No larvae were seen. In some fields there were more beet webworm moths (Loxostege sticticalis L.) than similalis. We predicted at least local outbreaks on the basis of the number of moths. The outbreak appears to be

materializing. The moths were numerous last year but no injury was done. They were probably twice as numerous this year as last. The first generation was rather light so far as our collecting shows.

VARIEGATED CUTWORM (Lycophotia margaritosa saucia Hbn.)

Kansas — Roger C. Smith (June 15): On the survey trip mentioned under the garden webworm we found this insect abundant under hay piles and in standing alfalfa near Salina and on the experimental farm at Hays. They were plentiful on the college farm also. Local outbreaks were predicted. The one on the college farm failed to materialize, because of heavy parasitism and unusual activity of grackles following the first cutting. An external feeding hymenopterous parasite new to all the members of this department was found unusually abundant. As many as 30 per cent were thus parasitized in some fields. They are now being determined by Gahan. The cutworms are scarce now and no injury here is likely.

CLOVER

CLOVER SEED MIDGE (Dasyneura leguminicola Lintn.)

Idaho — Claude Wakeland (June 21): Clover fields at Emmett, have recently been found to be abundantly infested with larvae of the clover seed midge, Dasyneura leguminicola. To my knowledge this is the first report of this insect in Idaho, although it has been known to occur in western Oregon and Washington for a number of years.

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

Ohio — T. H. Parks (May 31): The clover leaf weevil has been quite common this spring and has rendered red clover foliage "ragged" over much of the State. Adults of the overwintering beetles were sent in from Putnam County with the statement that they were seriously damaging alfalfa. Adults were found in the fallen leaves of woodland on May 5. I have seen more of the overwintering adults this year than in former years.

Alabama — J. M. Robinson (June 18): The clover leaf weevil was reported from Wadley, Ala., as migrating in large numbers from bur clover to and devouring bean leaves.

LESSER CLOVER LEAF WEEVIL (Phytonomus nigrirostis Fab.)

Ohio — T. H. Parks (May 31): The clover bud weevil has increased rapidly during the last 10 days of May and now gives promise of doing considerable damage at Columbus. Almost every bud has from one to three young larvae in it. They were first noticed on May 15, at which time they were feeding between tender unfolding leaves. Larvae of all sizes were present May 29.

VARIEGATED CUTWORM (Lycophotia margaritosa saucia Hbn.)

Mississippi — R. W. Harned (June 21): The variegated cutworm was reported as feeding on clover at Greenville on June 1.

SORGHUM

KAFIR ANT (Solenopsis molesta Say)

Kansas — J. W. McColloch (June 12): Injury to germinating sorghum seed has been reported from Howard, Augusta, and Yates Center. At Yates Center some fields have been replanted twice.

CORN LEAF APHID (Aphis maidis Fitch)

Kansas — J. W. McColloch (May 27): Winged forms of this aphid were found for the first time this season on early-planted sorghums at Manhattan.

WHEAT WIREWORM (Agriotes mancus Say)

New York — C. R. Crosby and assistants (June 11): Serious infestation was noticed in one field in Ontario County where an entire stand of oats was destroyed.

GRASSES

LITTLE WOOD SATYR (Cissia eurytus Fab.)

Ohio — E. W. Mendenhall (June 10): I found it at shady-forest edges feeding on grasses. I found quite a good many at Eugene, Knox County, but the damage apparently is slight.

THE ANOMALA (Anomala orientalis Waterh.)

Connecticut — W. E. Britton (June 24): Treatment is now being given infested lawns at New Haven and several tons of carbon-disulphide emulsion have been applied with good results. Some of the grubs have pupated and one beetle has emerged. This year it is more abundant as compared with an average year.

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

APPLE

APHIIDAE

Massachusetts — A. I. Bourne (June 22): One or two complaints have been received relative to any abundance of these insects, and such reports as have come in have stated that the injury is almost entirely confined to young, newly-set trees.

Ohio — T. H. Parks (May 31): Aphids are conspicuous for their absence this year in all parts of the State. They are not even to be found on spiraea at this season of the year. They are difficult to find on fruit trees, peas, and clovers.

Indiana — Bennet A. Porter (June 26): The apple grain aphid and the rosy apple aphid have been almost totally absent from this section (Vincennes) this season. The green apple aphid was very scarce early in the season, but is now present in moderate numbers in some orchards.

Michigan — Eugenia McDaniel (June 9): Generally speaking this is not a plant louse year so far in Michigan; however, the rosy apple aphid is commencing to roll leaves here at Lansing, the mature females being present and the young about to appear. Aphis pomi DeG. is present in some orchards near St. Johns and apple aphids are scattered here and there over the lower part of the State. As the weather conditions are cool and wet, we shall not be surprised if aphids appear later in numbers.

Wisconsin — S. B. Fracker (June 16): All species are very scarce in Wisconsin this spring. A few Myzus cerasi were noted in Dane and Door Counties. Apple aphids are rare.

Minnesota — A. G. Ruggles (June 17): Aphids of all kinds are so far very scarce.

Missouri — L. Haseman (June 25): Plant lice continue to be unusually scarce on the tree fruits, there having been practically no complaints from fruit growers on this pest thus far this summer. Shrubs and garden crops have also suffered less than usual this month.

ROSY APPLE APHID (Anuraphis roseus Baker)

Connecticut — M. P. Zappe (June 22): This insect was very scarce earlier in the season but is very much more plentiful now.

New York — C. R. Crosby and assistants (summary of situation April 25-June 12): Reports from all parts of the State indicate that this pest was extremely scarce on the opening buds. As the season advanced it became apparent that the infestation in the Hudson River Valley was greater than in western New York. Growers rather generally applied control measures for this pest in the Hudson River Valley. Scattered colonies are to be found but only in very few instances are they causing commercial losses. In the western New York fruit belt growers very generally omitted control measures. It is estimated that these growers saved many thousands of dollars by omitting nicotine sulphate from the spray ordinarily applied for the control of this pest. Reports from our assistants in Chautauqua, Erie, Orleans, Genesee, Wyoming, Monroe, and Ontario Counties indicate little or no infestation of this insect in the orchards examined. In Wayne County a few orchards in the southern part show slight infestations.

Virginia — W. J. Schoene (May 28): The rosy apple aphid is present in considerable numbers in orchards in the central and southern parts of the State. Some injury is being caused. Although the migration period has started, the aphids are also spread over the trees. The aphids were very difficult to find on the buds at the time the dormant spray was applied. Since then the weather has been cool and dry.

CODLING MOTH (Carpocapsa pomonella L.)

Massachusetts — A. I. Bourne (June 22): The continued cold unfavorable weather conditions have very much retarded the seasonal development of this species. Our own observations and those of Mr. Whitcomb in Middlesex County show that the emergence of the moths is much retarded by this cold weather, which is also retarding to a great extent, oviposition.

North Carolina — R. W. Leiby (May 18): The first adult emerged from an over-wintering larva today in the mountains of this State, according to J. C. Crawford.

Indiana — Bennet A. Porter (June 26): Unusually abundant. Infestations will run from 10 to 20 per cent in unsprayed or poorly sprayed orchards. Worms were leaving the fruit at Henderson, Ky., on June 10 and about June 19 at Vincennes.

J. J. Davis (June 26): The codling moth is very abundant in many sections at La Fayette, although late in making its initial appearance, it has caught up and the second-brood spray will come about the normal time.

Illinois — W. P. Flint (June 19): The codling moth is much more abundant than usual in the well sprayed orchards, but in central and southern Illinois some examinations have shown as high as 10 per cent infestation by the first brood. The first-brood worms are just leaving the apple in the southern and southwestern parts of the State.

Missouri — L. Haseman (June 25): This pest is again irregular as regards its normal life cycle. A large percentage of the moths developing from overwintering worms did not emerge until about the 1st of June in central Missouri though scattering numbers emerged much earlier. At this date (June 25) a great many of the first-brood larvae are leaving the fruit while many, on the other hand, have scarcely entered the fruit. This will mean an irregular emergence of the second-brood moths during July and consequently greater difficulty in keeping cover sprays on the fruit to protect it.

Mississippi — R. W. Harned (June 21): Specimens of the codling moth were received on June 10 from Louisville, Winston County, where they were damaging apples.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Massachusetts — A. I. Bourne (June 22): About the 8th to 10th of June the apple

tent caterpillars were observed to be leaving their colonies and crawling about fences, roads, etc., in preparation for spinning up. The bulk of their feeding for the present season is over except for a few stragglers that are now beginning to disappear.

Connecticut — W. E. Britton (June 19): Most caterpillars have now pupated throughout the State.

Illinois — C. C. Compton (June 8): A rather heavy infestation occurs in parts of Stephenson County. A few trees have been partially defoliated. The caterpillars are from one-half to full grown.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

New York — C. R. Crosby and assistants (summary of situation April 25-June 12): Very common, and more serious than last year in Ulster County. Larvae first found active and destroying the buds on April 29. Very abundant, and more common than last year in Greene County. Unusually abundant in Chautauqua County. General and rather serious in Wayne County, more common than last year in Monroe County, and in Orleans County, it is apparently more prevalent and injurious this season than last, while in Clinton County there is a moderate infestation.

FALL CANKER WORM (Alsophila pometaria Harr.)

Connecticut — Philip Garman (June 23): Some trees were completely defoliated at Hamden and the fruit eaten.

CASE BEARERS (Coleophora malivorella Riley and (C. fletcherella Fern.)

New York — C. R. Crosby and assistants (April 25 to June 12): The first-named species in general is much more common than C. fletcherella. In Greene County only a few were found. Quite plentiful in uncared-for orchards and even in some commercial plantings. Unusually common this year in Erie County. Doing considerable damage in unsprayed orchards in Onondaga County, and commonly found in all orchards. In Wayne County it is rather commonly found. More abundant than last year in Monroe County. Commonly found in many orchards in Genesee County.

FRUIT TREE LEAF ROLLER (Archips argyrospila Walk.)

New York — C. R. Crosby and assistants (April 25-June 12): This pest is generally distributed throughout the State, where it does a small amount of damage each year. A few orchards in western New York, however, are very seriously infested. Reports about this pest follow . Ulster County: Found quite generally infesting apple and pear. Greene County: Many larvae observed in the apple orchards; more common than last year. Onondaga County: Serious in spots, more serious

than last year. Wayne County: Outside of a few orchards which have been severely infested for several years this pest is found in moderate numbers in the average orchard. Orleans County: While this pest is generally distributed throughout the county it is serious in relatively few orchards. This season it is apparent that a number of growers will have to take special control measures another season if this pest is to be kept in check. Monroe County: Scattered infestation generally. In a few orchards extremely abundant. Columbia County: Moderate infestation.

Montana — R. A. Cooley (June 7): This severe pest of the apple, which has been in Ravalli and Missoula Counties, continues to do damage where no spraying is done. Oil sprays are effective but some who fail to spray are keeping up the infestation.

FALSE APPLE RED BUG (Lygidea mendax Reut.)

Connecticut — M. P. Zappe (June 22): Red bugs are very scarce. Those that have been seen are nearly mature.

Massachusetts — A. I. Bourne (June 22): The apple red bug, from our own observations and reports we have received from other points in the State, appears to be present in smaller numbers than usual. No instance of any abundance of these insects has been brought to our attention thus far.

NewYork — C. R. Crosby and assistants (summary of situation April 25-June 12): Reports from various parts of the State indicate that the infestation is rather general but spotted. Specific reports follow: Dutchess County: Infestation slight in most orchards. Ulster County: Very little injury seen or reported from this pest. Greene County: On May 19 found a few. Relatively few orchards have appreciable infestation of this pest. Practically all of L. mendax. In Onondaga County Heterocordylus malinus first appeared while apple buds were pink. This insect started appearing about a week later. Infestation rather general. Ontario County: Infestation very light generally. Causing commercial losses in only a few orchards in Wayne County. Both species found in numbers in a few plantings in Monroe County. Columbia County: Fairly abundant in some orchards. In Genesee County, apparently infestation is light this season. Wyoming County: Apparently numerous in many orchards. Clinton County: Examination failed to reveal the presence of this pest.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Indiana — J. J. Davis (June 26): The San Jose scale is continuing to cause trouble, reports of unusual abundance coming from central Indiana.

Bennet A. Porter (June 26): First crawlers were noted at Vincennes June 11, ten days later than normal and twenty days later than in 1925. Little spotting of fruit has been observed thus far.

Michigan — Eugenia McDaniel (June 8): The San Jose scale is far from abundant

in Michigan just at present. We have never known it to be so scarce since its original establishment in the State.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Massachusetts — A. I. Bourne (June 22): The young of the oyster-shell scale began to appear on apple on or about June 2.

SCURFY SCALE (Chionaspis furfura Fitch)

Indiana — J. J. Davis (June 26): The scurfy scale has been on the increase in apple orchards according to the numerous reports received. These reports came from Coatesville, Elwood, Farmland, Greensburg, La Fayette, Rushville, and Scottsburg.

APPLE LEAFHOPPER (Empoa rosae L.)

Massachusetts — A. I. Bourne (June 22): Apple leafhoppers continue to be present in very small numbers. In fact, from the standpoint of orchard pests, they can safely be ignored thus far.

Virginia — W. J. Schoene (May 28): The leafhopper Empoa rosae is reported to be causing serious injury to apples in Patrick County. The variety of Stayman seems to be the most seriously injured

A LEAFHOPPER (Empoasca fabae Harris)

Wisconsin — S. B. Fracker (June 16): Very common on apple throughout southern Wisconsin, migrating to potato early in June.

PLUM LEAF BEETLE (Nodonota tristis Oliv.)

West Virginia — W. E. Rumsey (June 23): We have received several reports of injury to apple foliage in Berkeley County by the plum leaf beetle, Nodonota tristis.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

North Carolina — R. W. Leiby (May 22): Adults of the first generation are now emerging. Severe injury to 100 healthy 2-year-old apple trees was caused by adults boring into the bases of new-growth shoots. Beetles had emerged by thousands from dead peach trees and limbs piled in a ravine close by.

BLACK APPLE LEAFHOPPER (Idiocerus provancheri Van D.)

New York — C. R. Crosby and assistants (June 12): In orchards examined in the Hudson River Valley this insect was found quite commonly. The infestation is probably greater than last season.

APPLE FLEA WEEVIL (Orchestes pallicornis Say)

New York — D. D. Ward (May 4): It was on this date that the first injury was noted in the several orchards infested. As in past years, considerable damage has been done.

Indiana — Bennet A. Porter (June 26): More abundant than usual at Vincennes.

APPLE CURCULIO (Tachypterellus quadrigibbus Say)

Mississippi — R. W. Harned (June 21): Complaints in regard to injury from the apple curculio, accompanied by specimens, have been received from Cannonsburg, Jefferson County, and Nicholson, Hancock County, Both of these complaints were dated June 17.

Kansas — J. W. McColloch (June 4): This insect is reported abundant in some of the commercial orchards in Doniphan County.

A LEAF BEETLE (Gastroidea aenea Mels.)

Virginia — W. S. Hough (June 5): The beetles are congregating on the young apples and eating holes into the fruit, sometimes going as far as the core. In several orchards at Winchester the loss will probably amount to 1 per cent of the fruit on the trees attacked. This is the second spring this beetle became abundant enough to cause noticeable damage in commercial orchards; the first outbreak occurred in June, 1924.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Connecticut — M. P. Zappe (June 22): Insects plentiful on unsprayed trees. Orchards that had delayed dormant spray of oil and regular spray schedule afterwards had no trouble with mites. More plentiful as compared with last month.

New York — C. R. Crosby and assistants (summary of situation April 25-June12): Last season this pest was found in considerable numbers in practically all orchards in the State. In the Hudson River Valley in particular considerable bronzing of the foliage was noticed. This season it is interesting to note that practically all of the mites had hatched before blossoming. Where a spray application of lime sulphur was applied just before blossoming many growers report a great reduction in population as the season advances. Reports from specific localities are as follows: Orange County: First hatched specimens found May 12. Dutchess County: Hatching rapidly week ending May 15. Apple buds in pink stage. Ulster County: Practically all the eggs had hatched before apples came into blossoming. Greene County: Most of the mites had hatched before blossoming. Onondaga County: Over half of the eggs hatched before blossoming. Infestation severe in some orchards. Chautauqua County: One prune orchard badly infested. Albany County: Just hatching May 15. Wyoming County: about 5 per cent of eggs hatched by May 15.

Michigan — Eugenia McDaniel (June 9): The European red mite is very plentiful in an orchard near St. Johns. The characteristic red spots on the leaves were noticeable on June 1.

PEAR

PEAR SLUG (Eriocampoides limacina Retz.)

ebraska — M. H. Swenk (June 25): The usual amount of injury to cherry and pear leaves by the pear slug was reported during early June.

A GREEN FRUITWORM (Xylina sp.)

ew York — C. R. Crosby and assistants (summary up to June 12): Doing considerable damage on pear, in Ulster County. Infestation rather general and in some instances causing considerable loss.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

ew York — C. R. Crosby and assistants (June 12): Slight infestation generally in Greene County. Very numerous in many orchards in Wayne County. In orchards badly infested the young pears also show injury. A great deal of the work of this pest is showing up in most pear orchards in Orleans County. Sometimes the young fruit is being injured. In Genesee County there is more than the average infestation. Commonly found this season and doing some commercial damage in a few instances.

PEAR PSYLLA (Psylla pyricola Foerst.)

w York — C. R. Crosby and assistants (summary of situation April 25-June 12): Reports from specific localities follow: In Orange County egg deposition was heavier than last season. First nymphs May 4. Moderate infestation in Dutchess County. Infestation moderately severe in Ulster County. Most of the eggs were laid before blossoming. Because of the use of various sprays development of the insectis much varied. Heavy oviposition in Greene County. First nymphs May 5. Indications of only a moderate infestation this year in Ontario County. Apparently the infestation is not so heavy this year as is common at this time of the year in Orleans County. Infestation appears to be rather severe in Columbia County. Are present but not in such numbers as would indicate a serious infestation this season in Genesee County. In Wayne County indications are that the infestation will be moderate this season, also in Monroe County indications are that infestation will be moderate this season.

PEAR THRIPS (Taeniothrips inconsequens Uzel.)

York — C. R. Crosby and assistants (summary of situation April 25-June 12): Apparently only slight damage done this year in Dutchess County, because pear buds developed quite rapidly after the insect had made entrance. By May 21 some injury to the leaves was noticed in aa few small orchards. In Ulster County they were found abundantly in the buds of apple, pear, sweet cherries, peaches, and raspberries. In general damage has been slight this season. Causing considerable

damage in a few plantings of Seckel and Kieffer in Greene County. Observed in some apple plantings in Wayne County but apparently not causing appreciable damage. Have caused relatively minor injury this year in Columbia County. In Orange County there has been severe injury in one or two orchards. In general not serious.

PEAR MIDGE (Contarinia pyrivora Riley)

New York — C. R. Crosby and assistants (summary of situation April 25-June 12): In Dutchess County, Bosc, and Clapp Favorite have been badly infested. Considerable infestation has been found in Ulster County but growers are of the opinion that it is less severe than last year. A little injury has been observed generally in Greene County. Some trees have their entire crop destroyed. Larvae were found on May 17 in Columbia County, while the blossoms of pears had just opened. Considerable damage was done but probably not quite so severe as last season. Some injury apparent on certain varieties in Orange County.

QUINCE CURCULIO (Conotrachelus prataegi Walsh)

New York — C. R. Crosby and assistants (May 8): Emerged in trap on this date in Ulster County. On May 12 a light infestation was observed in several pear plantings.

PLUM

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Massachusetts — A. I. Bourne (June 22): Work of the plum curculio first began to be noted about the first of June. Mr. Whitcomb, who is conducting a project on the plum curculio in the eastern part of the State, has reported that his jarring experiments showed the maximum collection of beetles in the orchards to be on or about the 11th of June, although large numbers have been collected since that time. From indications in that section the abundance of the pest is about normal. As far as our observations in the western section of the State are concerned, we have not as yet noted any indications of any great abundance of the pest. Evidently, from the data at hand, it does not threaten to cause quite so much injury as normally is the case.

Connecticut — Philip Garman (June 23): Attacking apples at Hamden. Apparently less abundant and late appearing as compared with the average year, and more abundant as compared with last month.

New York — C. R. Crosby and assistants (summary of situation April 25-June 12): Appearing on cherries on May 28. Apple being attacked June 4 in Orange County. Apples injured in rocky locations but growers not generally concerned in Dutchess County. In Ulster County, first injury was noted on apple May 24. Generally distributed in most apple orchards in Greene County, but not doing serious damage except in a few orchards.

North Carolina — R. W. Leiby (June 28): First-generation beetles began emergence from soil on June 18, according to J. A. Harris, or about 11 days later than last year. The dry season has apparently prolonged the usual 30-day period spent as a larva and pupa in the soil by two to three days.

Indiana — J. J. Davis (June 26): The plum curculio seems to be unusually abundant throughout the State according to reports and personal observations.

Missouri — L. Haseman (June 25): With an exceptionally good set of stone fruits the plum curculio has appeared in unusual numbers and where fruits have not been properly protected with sprays the curculio has done serious damage. The larvae are leaving the fruits at this time.

Wisconsin — S. B. Fracker (June 16): At least as much damage as usual in Dane, Door, and Vernon Counties, and in the southwestern part of the State.

EUROPEAN FRUIT SCALE (Lecanium corni Bouche')

New York — C. R. Crosby and assistants (May 10): Practically all plantings in Wayne County have been infested and half a dozen quite severely so. In Niagara County this pest increased greatly last season, making it necessary to apply control measures.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

Idaho — Claude Wakeland (June 21): Larvae that were destroying foliage and eating into the fruit of prunes at Buhl this spring have been reared in the laboratory, and adults sent to Dr. Heinrich were determined as this species. This insect has been reported by Dr. Aldrich from northern Idaho but I believe has not been recovered south of the mountains before.

PEACH

PEACH BORER (Aegeria exitiosa Say)

Georgia — Oliver I. Snapp (June 19): The peach borer is quite numerous in orchards where the grower skipped the paradichlorobenzene treatment for a year.

Indiana — J. J. Davis (June 26): Many reports of abundance of the peach tree borer have been received from all sections of the State during the past month.

PEACH TWIG BORER (Anarsia lineatella Zell.)

Georgia — Oliver I. Snapp (June 22-23): Light infestations of the peach twig borer were found in orchards at McDonough and Canton.

Ohio — T. H. Parks (May 31): The peach twig borer has been damaging new shoots of peach in Guernsey County, Ohio, during May. Damage is local but serious on one farm from which samples were submitted.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

Indiana — J. J. Davis (June 26): The rose chafer was first reported as destructive to fruit at Petersburg, May 29. Subsequently it was appreciably destructive at Hazleton, June 3, Princeton June 5, and Terre Haute June 7. At Terre Haute it was especially destructive to peach.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck.)

Connecticut — Philip Garman (June 23): Moths were captured in pails at Wallingford in abundance beginning June 8. Nearly the same in abundance as compared with an average year.

Georgia — Oliver I. Snapp (June 19): A rather heavy infestation was found in a small home orchard in the city of Valdosta, Ga. on June 2. The first infestation reported in the southeast was in this home orchard in 1923. At Thomasville the infestation is very light. A rather heavy infestation was reported at that point a year ago. There are only two commercial peach orchards infested by the Oriental peach moth at Fort Valley this year. The infestation at this point is now much lighter than at any time since the insect established itself here. It is believed that the absence of a host after mid-summer is having a tendency to materially reduce the pest in Georgia. The infestation is also light at Macon. No infested commercial orchards have been found there. Several infested trees have been found in back yards at Macon. At Fort Valley, adults of the second generation are now emerging.

FRUIT TREE PULVINARIA (Pulvinaria amygdali Ckll.)

New York — C. R. Crosby and assistants (June 12): Appearing in quite serious numbers in some orchards in Wayne County in which it was apparently of little consequence last season.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia — Oliver I. Snapp (June 3): An incrusted infestation was observed in a small commercial orchard here (Thomasville) to day which apparently had not received the usual dormant spray. There were many crawlers.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia — Oliver I. Snapp (June 19): The infestation is extremely light in the Georgia Peach Belt this year. Some growers report less than any season since they have grown peaches. A wormy peach is rather uncommon here (Fort Valley) this year. This is a case where five

years of a vigorous suppression campaign has brought an insect under excellent control after it rendered unmerchantable a large part of the peach crop in this State in 1920. A peach crop of the finest quality estimated at around 13,000 carloads is now moving to the markets in excellent condition.

CHERRY

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Indiana — J. J. Davis (June 26): The shot-hole borer was killing peach and cherry at Bloomington June 12 and cherry at Indianapolis on June 21.

Nebraska — M. H. Swenk (June 25): A correspondent in Hitchcock County reported that his cherry orchard was seriously infested with the fruit tree bark beetle.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

New York — C. R. Crosby and assistants (summary of situation April 25-June 12): Very abundant on roadsides in Orange County, commonly found in Greene County. Extremely scarce in Columbia County, infestation moderate on roadsides and neglected orchards in Wyoming County.

STRAWBERRY

STRAWBERRY LEAF ROLLER (Ancylis comptana Froehl.)

Indiana — J. J. Davis (June 26): The strawberry leaf roller was reported June 21 from Culver where it was quite destructive.

braska — M. H. Swenk (June 25): The strawberry leaf roller was reported during the last week in May as injuring strawberry fields near Grand Island, Hall County.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

ntana — R. A. Cooley (June 7): There is a general infestation of long standing in western Montana. The species is present as far east as Gallatin County, at least, but no damage is being done excepting in Ravalli and Missoula Counties. Damage begins the second year after planting and gets more severe until the field is plowed. The use of super-dried apples ground to about the size of wheat and mixed with 5 per cent of arsenicals, as recommended by the Washington Experiment Station, has been tried this year with satisfactory results.

A GELECHIID MOTH (Anacampsis fragariella Busck)

tana — R. A. Cooley (June 7): Doing serious damage in Ravalli County, in some cases completely defoliating the plants.

STRAWBERRY SAWFLY (Empria maculata Norton)

Wisconsin — S. B. Fracker (June 12): Sawfly larvae on strawberry plants in Monroe and Vernon Counties in the western part of the State, probably belong to this species.

STRAWBERRY ROOT WORM (Paria canella Fab.)

Wisconsin — E. L. Chambers (June 16): Common at Baraboo on strawberry and raspberry plants the adults riddling leaves on June 15.

WHITE GRUBS (Phyllophaga spp.)

Michigan — Eugenia McDaniel (June 9): June beetles are flying in numbers at Kalamazoo. The larvae of June-beetles are reported very plentiful in strawberry beds at Owosso.

STRAWBERRY WEEVIL (Anthonomus signatus Say)

New York — C. R. Crosby and assistants (May 29): Severe damage caused in one planting of strawberries in Greene County. One planting badly infested in Dutchess County on May 21.

GRAPE

GRAPE FLEA BEETLE (Haltica chalybea Ill.)

New York — C. R. Crosby and assistants (June 1): About the usual amount of damage has been caused this season in Yates County, whereas in Chautauqua County this insect is not common this season.

CLIMBING CUTWORMS (Lampra spp.)

New York — C. R. Crosby and assistants (June 1): An unusually large amount of injury was caused this season to a number of grape plantings especially those where clean cultivation was not practised in Yates County.

EIGHT-SPOTTED FORESTER (Alypia octomaculata Fab.)

Kansas — J. W. McColloch (May 27): Larvae were received from Topeka with the information that they were bad on grapes.

GRAPE ROOT WORM (Fidia viticida Walsh)

Kansas — J. W. McColloch (June 4): The adults of the grape root worm are reported very abundant in Doniphan County.

THRIPS (Drepanothrips reuteri Uzel.)

California — T. D. Urbahns (June 21): This European species severely injured young shoots of grapes during March and is now again attacking plants and fruit. Good control was obtained by spraying with nicotine sulphate 1 pound, highly refined white lubricating-oil emulsion 1 1/2 gallons, and water 200 gallons.

THREE-BANDED LEAFHOPPER (Erythroneura tricincta Fitch)

Ohio — T. H. Parks (June 26): Grape leafhoppers were found to be very injurious in one vineyard near Cleveland (northern Ohio) June 22. The overwintering adults had already turned many of the lower leaves "rusty." First nymphs were just hatching. The species involved was mostly E. tricincta. Damage is very local in character.

RASPBERRY

RASPBERRY SAWFLY (Monophadnoides rubi Harris)

Wisconsin — E. L. Chambers (June 16): Common at Sparta, Monroe County.

RASPBERRY FRUITWORM (Byturus unicolor Say)

New York — C. R. Crosby and assistants (June 5): Adults were observed in large numbers on raspberry in Chautauqua County in one planting

BLACK-HORNED TREE CRICKET (Oecenthus nigricornis Walk.)

New York — C. R. Crosby and assistants (May 7): Several raspberry and grape plants had a number of canes punctured in Erie County.

CURRANT AND GOOSEBERRY

CURRANT APHID (Myzus ribis L.)

New York — C. R. Crosby and assistants (June 4): A moderate infestation was noticed quite generally in Orange County on currant.

Indiana — J. J. Davis (June 26): The currant aphid was destructive at Culver according to reports received June 21.

IMPORTED CURRANT WORM (Pteronidea ribesi Scop.)

Wisconsin — E. L. Chambers (June 16): Bad at Baraboo and Sparta attacking currants.

HOUGHTON GOOSEBERRY APHID (Aphis houghtonensis Troop)

Indiana — J. J. Davis (June 26): The gooseberry aphid was destructive at Culver according to reports received June 21.

Utah — George F. Knowlton (June 21): The Houghton gooseberry aphid is doing considerable damage to some bushes in Logan, nearly all tops of the stems having badly curled leaves.

BLACK-HEADED FIREWORM (Rhopobota naevana Hbn.)

Massachusetts — A. I. Bourne (June 22): Mr. Lacroix from the Cranberry Substation in Wareham reports the black-headed fireworm just starting to

hatch under date of May 24. He notes that it is just two weeks later than the corresponding stage of development last year. It is yet rather early to estimate its probable abundance this season.

PECAN

PECAN LEAF CASE BEARER (Acrobasis nebulella Riley)

North Carolina — R. W. Leiby (May 29): Several complaints made indicate rather severe injury by this species this season at Raleigh. The larvae should pupate in ten days. Insect parasites are prevalent. (June 18) Adults are now beginning to emerge. The larvae have been somewhat of a pest in several orchards. In the largest orchard in this State two applications of poison spray (with nicotine sulphate for the pecan spittle bug) have fairly well controlled what threatened to amount to defoliation of serious proportions.

FALL WEBWORM (Hyphantria cunea Drury)

Mississippi — R. W. Harned (June 21): The first report received during 1926 in regard to the fall webworm came from Picayune on June 14. P.K. Harrison 3rd Entomologist, reported that these insects had almost completely defoliated a pecan tree at Picayune. They were also reported as damaging pecans at Moss Point on June 16, by R. P. Colmer, Inspector for the State Plant Board.

Georgia — Oliver I. Snapp (June 3): The first webs of the season were noted on pecan trees at this point (Quitman) today.

CATERPILLARS (Datana spp.)

Mississippi — R. W. Harned (June 21): Specimens belonging to the genus Datana, probably Datana integerrima, have been reported as infesting pecan trees at Moss Point, Jackson County, and Picayune, Pearl River County. Specimens identified as Datana spp. were also reported as feeding on azalea plants at Moss Point.

A PHYLLOXERA (Phylloxera notabilis Pergande)

Mississippi — R. W. Harned (June 21): Pecan leaves and twigs infested with Phylloxera notabilis have been received from the following localities: Ocean Springs in Jackson County, Cuevas in Harrison County, and Meridian in Lauderdale County.

A SPITTLE BUG (Clastoptera obtusa Say)

North Carolina — R. W. Leiby (May 29): This species is still a pest in some commercial orchards. It has been successfully controlled by spraying twice with nicotine sulphate in the largest orchard in the State. The insect is now in the fourth instar of the first generation.

(June 18): This insect is now in the first-generation adult stage. The nymphs of the first generation were a pest in at least two pecan orchards of the State. Two applications of nicotine sulphate were effective in one orchard against the nymphal stages. A second generation should develop during July.

C I T R U S A N D S U B T R O P I C A L F R U I T S

Alabama — H. P. Loding (June 22): The following insects were reported attacking winter-killed branches and trees of Satsumas:

Anoplium inerme Newm.	Ecyrus dasycerus Say
Ataxia crypta Say	Eupogonius vestitus Say
Hypermallus paralellus Newm.	Liopus fascicularis Harris
Bostrichus bicornis Web.	Liopus alpha Say
Xylobiops basilare Say	Lepturges symmetricus Hald.
Amphicerus bicaudatus Say	Lepturges querci Fitch
Lypsimena fuscata Lec.	Leptostylus biustus Lec.

MEDITERRANEAN FRUIT FLY (Ceratitis capitata Wied.)

California — State Department of Agriculture News Letter, Vol. 8, No. 11 (May 29): When the oil tanker Pleiodon from New Zealand via Honolulu arrived in port at Los Angeles inspectors for the California Department of Agriculture intercepted quantities of contraband fruits and vegetables in the lockers and an examination showed tomatoes heavily infested with larvae of this fly. These vegetables were immediately confiscated and destroyed by burning.

T R U C K - C R O P I N S E C T S

MISCELLANEOUS FEEDERS

CARROT BEETLE (Ligyrus gibbosus DeG.)

ansas — J. W. McColloch (June 7): Adults have been received from Garden City, Moscow, and Densmore, with the information that they are causing severe loss to tomato, carrot, squash, pumpkin, and ornamentals by feeding on the roots.

PAINTED LADY (Vanessa cardui L.)

diana — J. J. Davis (June 26): The thistle caterpillar has been reported from several localities in central Indiana as abundant on Canada thistle.

linois — C. C. Compton (June 12): Butterflies of Vanessa cardui have been very numerous in northern Illinois during the past three weeks.

TORTOISE BEETLES (Cassidinae)

ssissippi — R. W. Harned (June 21): Complaints in regard to tortoise beetles accompanied by specimens have been received from many localities

throughout the State. Among the species that have been received are the following: Metriona bicolor Fab., Chirida guttata Oliv., Metriona bivittata Say, and Chelymorpha cassidea Fab.

Almost all of these complaints have been in regard to the injury that these insects were causing to sweet potatoes.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Massachusetts — A. I. Bourne (June 22): The Colorado potato beetle is present in normal abundance and doing the usual amount of injury.

Michigan — Philip Luginbill (June 24): Oviposition of this species seems to be at its maximum on potatoes in a plot at the corn borer station at Monroe.

Montana — R. A. Cooley (June 7): This species varies in severity in different years and is prevalent and very abundant this season. Adults are destroying the tops of young potatoes. This insect, which many years ago spread eastward from the Rocky Mountains and has gone all over the world, has only very recently spread into parts of western Montana and some localities are still free of it.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

Massachusetts — A. I. Bourne (June 22): Potato flea beetles in every section of the State are reported to be present in large numbers. From our observations to date, however, they are no more than normally abundant, the usual amount of injury being observed.

New York — C. R. Crosby and assistants (May 19 to June 11): Observed doing first work on May 19. Injury is probably not so severe as last year in Nassau County, for the potatoes have developed notwithstanding the considerable injury noted.

Indiana — J. J. Davis (June 26): The black potato flea beetle has been very abundamt on potatoes at Veedersburg, La Fayette, and New Albany, June 1; Indianapolis, June 9; Greentown, June 12, Coatesville, June 18; and Lynn, June 24. Damage to tomatoes was observed at La Fayette.

TURNIP WEEVIL (Listroderes obliquus Gyll.)

Alabama — J. M. Robinson (June 18): The Australian tomato weevil, was sent in from Mobile County and was reported attacking tomatoes and white potatoes.

A WEEVIL (Listroderes apicalis Waterh.)

Mississippi — M. M. High (June 15): We have just found two specimens of L.

apicalis , here (Gulfport) at Long Beach. This is the first time we have found this species near the Coast here.

BOLL WORM (Heliothis obsoleta Fab.)

Florida — F. S. Chamberlin (June 12): The tomato fruit worm is doing much damage in this locality (Gadsden) at the present time. Applications of arsenicals apparently are of little benefit.

GREEN PEACH APHID (Myzus persicae Sulz.)

Nebraska — M. H. Swenk (June 25): Tomato plants were turning yellow and dying because of infestation with the aphis Myzus persicae during middle June.

TOBACCO HORNWORM (Protoparce sexta Joh.)

Alabama — J. M. Robinson (June 18): The sphinx larvae are active on tomato vines at Auburn.

STALK BORER (Papaipema nitela Guen.)

Indiana — J. J. Davis (June 26): The common stalk borer was again very abundant, more so and more generally than a year ago. The first report was received from Valparaiso, June 3, where they were destroying tomatoes. Following this initial report, considerable damage was reported from Hartford City, Cloverdale, Indianapolis, Lawrenceburg, Danville, Martinsville, Frankfort, Rushville, Spencer, Ridgeville, Lebanon, La Fayette, Crawfordsville, Williamsport, Mulberry, and Decatur. Reports are continuing to come in. The localities are listed in the order in which they were received. Corn was most commonly damaged although many tomato fields were also badly injured. The worms are still quite small and we may anticipate considerable damage before they change to pupae.

BLISTER BEETLES (Meloidae)

Mississippi — R. W. Harned (June 20): Blister beetles belonging to the species known as Epicauta lemniscata Fab. were reported as damaging Irish potatoes at Purvis, Lamar County, on June 12. Specimens belonging to the species known as Macrobasis unicolor Kby. were reported as feeding on beans and Irish potatoes at Caledonia, Lowndes County, on June 14.

CABBAGE

CABBAGE MAGGOT (Hylemyia brassicae Bouche')

Massachusetts — A. I. Bourne (June 22): The cabbage maggot is present in normal abundance and doing the usual amount of injury.

Connecticut — R. B. Friend (June 24): At Hamden this insect was attacking cabbage, 60 per cent of the plants having been injured, and it seems much more abundant as compared with an average year. The first-brood larvae have now pupated. Mr. Wilkinson reports injury at Wethersfield where 4 acres of untreated early cabbage was destroyed.

New York — C. R. Crosby and assistants (May 25): It was not until this date that this pest appeared in the seed bed. Indications are that a heavy infestation will occur because the flies were very abundant in all seed beds observed later in Erie County. First observed on May 4 in Nassau County; May 22, oviposition heavy. On June 12 it was noted that early cabbage and cauliflower in the field are being damaged, losses running as high as 60 to 70 per cent. Untreated seed beds are also severely injured.

Indiana — J. J. Davis (June 26): The cabbage and radish maggot has been reported at intervals throughout the month of June from South Bend, Marion, Elwood, Monticello, and Tipton.

Illinois — C. C. Compton (June 5): The cabbage maggot is causing considerable damage to young cabbage and cauliflower seedlings in the fields, in Cook County.

Wisconsin — S. B. Fracker (June 16): Many reports have been received of damage in Dane, Jefferson, Racine, and Monroe Counties to cabbage.

STRIPED FLEA-BEETLE (Phyllotreta vittata Fab.)

New York — C. R. Crosby and assistants (May 8): Some injury was noted to cabbage in one seed bed in Nassau County, whereas in Ontario County seed beds are receiving a considerable amount of injury from this pest.

WIREWORMS (Elateridae)

New York — C. R. Crosby and assistants (June 12): Considerable damage has been done in Orange County to the cabbage set out in muck in the large muck area in this county.

CABBAGE LOOPER (Autographa brassicae Riley)

Nebraska — M. H. Swenk (June 25): About the middle of June a large field of cabbage near Fremont, in Dodge County, was heavily attacked by the cabbage looper and was saved only by prompt and thorough spraying.

CARROT

CARROT RUST FLY (Psila rosae Fab.)

NewYork — C. R. Crosby and assistants (June 12): Flies began to emerge on May 24 and oviposition continued to date in Williamson and Wayne County.

PARSLEY STALK WEEVIL (Listronotus latiusculis Boh.)

New York — C. R. Crosby and assistants (summary of situation May 22-June 12): On May 22 the adult beetles were found ovipositing in stalks of young carrots. About the first of June the larvae started hatching and began their characteristic tunneling in the young carrots. This pest has been serious on carrots in the Valley Stream locality for several years.

A WEEVIL (Listronotus rudipennis Blatchley)

Nebraska — M. H. Swenk (June 25): During the third week in June reports were received of serious injury to carrots in the vicinity of Omaha by a pest that has been identified as Listronotus rudipennis Blatchley. This is the first definite report of this pest for Nebraska that has come to our attention although it apparently has been injurious for the past five seasons in the fields now being reported.

POTATO FLEA BEETLE (Epitrix cucumeris Harris)

Connecticut — W. E. Britton (June 24): Injuring lettuce and carrots May 1 at Hamden; cucumbers throughout the State, June 22; tomatoes and potatoes Glastonbury, June 22.

BEET

SUGAR-BEET LEAFHOPPER (Eutettix tenellus Baker)

Utah — George F. Knowlton (June 21): The sugar-beet leafhopper is found in most beet fields in northern Utah, and around Boxelder City many fields have 10 to 15 per cent of curly-leaf, with less damage in Cache County.

A BLISTER BEETLE (Epicauta lemniscata Fab.)

Louisiana — C. E. Smith (June 9): An official of the State penal farm sent specimens to the Experiment Station and stated that it was very abundant on sugar-beets.

SUGAR-BEET WEBWORM (Loxostege sticticalis L.)

Montana — Stewart Lockwood (June 21): The sugar-beet webworm is overly numerous in the Clarks Fork Valley of Montana. The insect is damaging sugar beets and beans but spraying in the beet fields has reduced the numbers considerably.

New Mexico — J. R. Douglass (May 31): Emerging moths of the beet webworm, Loxostege sticticalis L., have appeared in great numbers within the last four days at Estancia. Russian thistles and other wild host plants favor reproduction.

CELERY

GARDEN SPRINGTAIL (Sminthurus hortensis Fitch)

New York — C. R. Crosby and assistants (June 11): A number of plantings of the celery crop on a muck area in Ontario County were rather seriously injured. In Nassau County it was found doing appreciable damage.

ONION

ONION MAGGOT (Hylemyia antiqua Meig.)

Indiana — H. J. Davis (June 26): Onion maggots have been unusually abundant and destructive in the northern fourth of the State. Reports were received between June 15 and 23 from Albion, Larwill, South Bend, Helmer, and Pleasant Lake.

Michigan — R. H. Pettit (June 25): The onion maggot is much worse than usual this year at East Lansing.

Wisconsin — S. B. Fracker (June 16): Bad in Sauk, Vernon, Monroe, and Adams Counties.

Illinois — C. C. Compton (June 5): The onion maggot injury is beginning to show up in the onion growing districts in Cook County. Considerable injury is expected.

Montana — R. A. Cocley (June 7): This species is doing damage in western Montana this season the first week in June.

CUTWORMS (Noctuidae)

New York — C. R. Crosby and assistants (June 2): About 300 acres of onions in Orange County have been destroyed this year in the muck area near Goshen.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Mississippi — R. W. Harned (June 21): Inspector H. Gladney sent to this office on June 7 some specimens that were identified as the southern grass worm, Laphygma frugiperda, by S. E. Crumb of the U. S. Bureau of Entomology. In regard to these specimens Mr. Gladney wrote as follows: "They are over about 54 acres of Bermuda onions and are doing serious damage. In places the ground has been made bare."

ONION THRIPS (Thrips tabaci L.)

Texas — O. G. Babcock (May 25): Onions grown from sets at Angelo are heavily infested by this pest; the stems are badly blistered and spotted throughout. Rather severe damage.

California — W. B. Sanders (June 8): Attacking garlic in San Benito.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Massachusetts — A. I. Bourne (June 22): Our attention was called to a rather serious local outbreak of the seed corn maggot working in an onion field in Franklin County. By the time our attention was called to the outbreak, the insect had been able to cut the stand of onions approximately in half. However, the maggots had practically reached maturity, and by the 8th or 10th of June were already leaving the plants and forming their puparia in the soil. Adults of these were secured by June 17. The field where the infestation was centered was a block of 3 or 4 acres completely surrounded by other fields of onions with no separation boundary except a narrow roadway on one side. In spite of this fact, however, no injury of any consequence developed in any field but the one mentioned. Further investigations showed that the only difference in culture, fertilizer, etc., of this field from others immediately around it was that in this block a considerable amount of tankage had been used as fertilizer. In view of the fact that at the time of our last outbreak four or five years ago, in practically every case where serious injury resulted, cotton seed had been used as a fertilizer, the above may be of some significance.

CUCUMBERS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Massachusetts — A. I. Bourne (June 22): On June 10 to 12 the striped cucumber beetles were observed for the first time. Swarms of them appeared and immediately covered and began to devour newly-appearing leaves of squashes, cucumbers, melons, etc. By the 12th they had already begun to do very considerable injury and were seriously threatening crops of this nature. Their sudden appearance in such large numbers is particularly serious during this present season because unfavorable weather conditions which have prevailed almost continuously since the breaking up of winter have held up all our field crops by at least 10 days, and in some cases more than two weeks.

Indiana — J. J. Davis (June 26): The striped cucumber beetle has been reported from several localities; for example, Thornton June 9, Terre Haute June 15, and Covington June 18. Our general observations indicate that it is normally abundant.

Minnesota — A. G. Ruggles (June 17): The striped cucumber beetle seems to be more abundant than ever before.

Nebraska — M. H. Swenk (June 25): The usual complaints of injury to cucumbers by the striped cucumber beetle have been received during the period covered by this report.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

Wisconsin — S. B. Fracker (June 16): Common in many localities; reported injuring cucumber and radish in Ashland and Dane Counties and tomato in Milwaukee.

MELON APHID (Aphis gossypii Glov.)

Nebraska — M. H. Swenk (June 25): The usual complaints of injury to cucumbers by the melon aphid have been received during the period covered by this report.

GARDEN SPRINGTAIL (Sminthurus hortensis Fitch)

Massachusetts — A. I. Bourne (June 22): There have been numerous complaints of injury by the garden springtails this year. In the immediate vicinity of the college they are present in unusually large numbers this season, swarming on newly-appearing leaves of squashes, cucumbers, melons, etc., as well as upon many ornamentals such as newly set asters.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Mississippi — R. W. Harned (June 21): Several complaints in regard to the common squash bug have been received. Among these received recently is one that reports injury to squash at Laurel on June 10, and another that reports injury to squash and cucumbers at Pheba on the same date.

Florida — E. S. Chamberlin (June 22): Nymphs of this insect are abundant in squash fields at the present time in Gadsden County.

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L. and
SPOTTED ASPARAGUS BEETLE Crioceris duodecimpunctata L.)

Connecticut — W. E. Britton (June 24): Mr. Wilkinson reports the common asparagus beetle as being everywhere in Hartford County, Southington, Bristol, Plainville, Wethersfield, East Granby, Windsor Locks, Windsor, South Windsor, and East Hartford. Abundance about the same as compared with an average year.

New York — C. R. Crosby and assistants (May 15): In Nassau County this insect was first noted May 15 attacking asparagus and doing some damage.

Wisconsin — S. B. Fracker (June 16): Severe at La Crosse on asparagus.

ASPARAGUS MINER (Agromyza simplex Loew.)

Wisconsin — A. A. Granovsky (June 16): One bed was ruined at Sturgeon Bay.

WATERMELON

MELON APHID (Aphis gossypii Glov.)

aryland — E. N. Cory (May 20): First record on above plant on this date.

ndiana — J. J. Davis (June 26): The melon aphid has been noticed appearing in threatening numbers at Spencer and La Fayette. No reports have yet come to us; such reports seldom reach us until the aphids have become abundant and spread throughout the field.

SQUASH BUG (Anasa tristis DeG.)

eorgia — Oliver I. Snapp (June 10): Squash bugs are damaging watermelons more than usual at Fort Valley this year. A number of growers had to hand-pick and use nicotine sulphate. The infestation is now under fairly good control. The season has been dry.

PEAS

rrection — The note appearing in Volume 6, No. 2, page 42, April 1 number, credited to A. W. Morrill, under Illinoia pisi Kalt., should read Salt-Marsh caterpillar, Estigmene acraea Drury.

PEA APHID (Illinoia pisi Kalt.)

nnecticut — B. H. Walden (June 11): Peas are being attacked at Hamden on this date. It seems to be more abundant as compared with an average year. Also reported By A. E. Wilkinson, vegetable specialist, extension department, from Southington, Plainsville, Glastonbury, East Granby, Windsor, and Wethersfield.

orida — F. S. Chamberlin (June 16): Small patches of garden peas are heavily infested with aphids at the present time in Gadsden County.

sconsin — C. L. Fluke (June 9): This insect has usually appeared in large numbers, by this time. This year very few individuals were found in the fields at Madison. It is not possible at present to predict an abundance or nonabundance. At present it would appear as if we would have very few outbreaks of the pea louse.

ROOT-KNOT NEMATODE (Probably Heterodera radicicola Greeff-Muell.)

sconsin — J. E. Dudley Jr. (June 10): An outbreak of this nematode was discovered this year on a farm growing peas for the Sauk City Canning Company. Three fields of Perfections, Admirals, and Alaskas totaling approximately 8 acres were examined. Perhaps one-half of the Perfections were entirely dead and probabilities are that a loss of from 75 to 80 per cent will be sustained. Other varieties are heavily infested, but a fair crop may be secured. This is the first time this pest has been reported from Wisconsin and it was supposed to be beyond the northern limits of this pest. Opportunities are present for its spread throughout the warm sandy region of which this county is a center.

BEANS

BEAN APHID (Aphis rumicis L.)

Virginia — W. S. Abbott (June 22): This is the first time I have seen this aphid in cultivated beans in the 14 years that I have been here at Vienna although it is always very abundant on nasturtiums.

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

North Carolina — R. W. Leiby (May 27): No adults have been found in the field by J. C. Crawford and the writer to date at Raleigh. (June 19): The first report of extensive injury to beans by the Mexican bean beetle was received on June 5.

Alabama — J. M. Robinson (June 18): The Mexican bean beetle has appeared at Windfield in Marion County.

Indiana — J. J. Davis (June 26): Reports are continually reaching us of the abundance of this insect but no new localities have been reported.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Michigan — R. H. Pettit (June 18): The seed corn maggot is appearing in large numbers pretty well over the State of Michigan. The season has been unusually wet and cool and the maggots which under normal conditions would have pupated a couple of weeks ago are still in the ground although about full grown now. Deeply sown beans in general are suffering worse than those seeded at a half-inch depth. The ordinary practises which usually hold bean maggots in check are failing to do so satisfactorily this year.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California — H. P. Stabler (June 17): Beans and young trees are being attacked by this insect in Sutter County.

CORN EAR WORM (Heliothis obsoleta Fab.)

South Carolina — F. A. Fenton (June 4): In the vicinity of Darlington, S. C., the corn ear worm has been unusually abundant and destructive to snap beans. Three-fourths of a crop in one 200-acre field has been destroyed, the larvae tunneling in and eating out the bean pods. It is thought that one of the principal reasons for the sudden and unusual appearance of this pest is the dry weather retarding the development of this crop. Snap beans are picked two weeks after blooming and this year it has been five weeks.

BEAN LEAF BEETLE (Cerâtoma trifurcata Foerst.)

North Carolina — R. W. Leiby (June 11): Correspondence indicates rather severe injuries to snap beans by this species.

Indiana — J. J. Davis (June 26): The bean leaf beetle was abundant on beans at Petersburg June 16.

GRASSHOPPERS (Acridiidae)

Florida — F. S. Chamberlin (June 24): Fields of snap beans at Gadsden are being slightly damaged by grasshoppers, Melanoplus femur-rubrum DeG. is the most abundant species present.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Connecticut — W. E. Britton (June 24): Reported attacking cucurbits at New Haven, Hamden, Plainsville, East Hartford, and Glastonbury.

STRIPED BLISTER BEETLE (Epicauta vittata Fab.)

Alabama — J. M. Robinson (June 18): Epicauta vittata is reported attacking beans in Marion County.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

New York — C. R. Crosby and assistants (June 18): One field in Hammondsport badly infested making it necessary to replant.

YELLOW STRIPED ARMYWORM (Prodenia ornithogalli Guen.)

OKRA

Mississippi — R. W. Harned (June 22): Specimens of the yellow striped armyworm, or cotton boll cutworm, Prodenia ornithogalli, were received on June 5, from Mr. Andrew Fleming, Sibley, Miss. Mr. Fleming reported them as feeding on okra plants.

LOXOSTEGE SPP.

Mississippi — R. W. Harned (June 21): Specimens identified as Loxostege sp. by Mr. S. E. Crumb of the U. S. Bureau of Entomology were reported as feeding on okra plants at Sibley on June 5.

PEPPERMENT

GRASSHOPPERS (Acridiidae)

Indiana — J. J. Davis (June 26): Grasshoppers were reported in peppermint, June 13, at Mishawaka.

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

COTTON

BOLL WEEVIL (Anthonomus grandis Boh.)

Mississippi — R. W. Harned (June 21): Reports received during the week ending June 19 from 85 farms in 19 counties show boll weevils present in 33 cases, with 60 weevils per acre as the maximum adult population, and 3 1/4 per cent the maximum infestation of squares. Weevils

seem more numerous in the southern and western parts of the State, with northern and eastern sections comparatively free at that time. Adams, Holmes, Attala, and Pearl River Counties show highest percentage of infested farms.

North Carolina R. W. Leiby (June 28): The first weevil of the season was taken in this State on cotton by J. A. Harris near Aberdeen on June 17, 17 days later than the first one found on cotton last season.

Louisiana W. E. Hinds (Telegram dated June 27): Heavy boll weevil infestations in many localities and much dusting already under way. First generation now maturing.

GENERAL STATEMENT Cooperative report on status of boll weevil prior to (June 16): At the 16 cooperating stations 0.82 per cent of the weevils had emerged prior to June 1 while during the same period last year at the stations then cooperating 2.92 per cent of the weevils had emerged which was 94 per cent of the total emergence. At Tallulah, La., during the past 10 years an average of 1.07 per cent of the weevils had emerged prior to June 1, which was 82.2 per cent of the average total emergence. At 8 of the stations this year emergence was less during the last half of May than during the first half; at 5 of the stations no weevils emerged during the month while 3 stations more weevils emerged during the last half of May than during the first half. (June 16): Weevil survival remained very much the same at all points, except at Baton Rouge, La., as in the preceding report. During the past 15 days no weevils emerged at 9 of the 15 stations reporting emergence. Emergence appears to be about complete at practically all points. At the stations cooperating last year 99.5 per cent of the total emergence had taken place prior to June 16 and at Tallulah, La., during the past 10 years an average of 96.4 per cent of the total emergence had taken place to the same date.

COTTON FLEA (Psallus sériatus Reut.)

GENERAL STATEMENT Cooperative report on status of cotton insects prior to June 16: Dr. F. L. Thomas (June 18): In tests a large number of cotton hoppers hatched from overwintered eggs from March 7 to June 1 at College Station, Tex. Injury as a result of activities of this insect has been reported in 17 counties in south-central Texas.

At Tallulah, La., weather conditions this spring throughout the cotton belt were favorable for the growth of certain weed plants on which the cotton hopper feeds and breeds. These weeds are principally horsemint, croton, and evening primrose, upon which hoppers have been found in large numbers. Certain of these weeds have reached maturity and are dying out and as a result hoppers are transferring to cotton, in many localities, in great numbers. On June 16 reports of hopper damage had been received only from southern Texas, a few localities in Georgia, and a small portion of northeastern Louisiana. Since that time damage has been reported from many other localities. The reports from Texas are confined to the south-central portion of the State. In Arkansas reports are largely from the Mississippi Valley. In Louisiana reports have been

received from most sections of the State but particularly from the northeastern section. In Mississippi reports have been received from various sections of the State with the Delta section obviously heavily infested. Reports from Alabama indicate infestations in many sections. In Georgia reports indicate a severe infestation in the Piedmont section. In South Carolina the reports are scattering. In all probability these infestations are linked up by infestations in the intervening territory.

The hopper damage, particularly in the Mississippi Valley, and undoubtedly in many other sections, is associated with several species of sucking insects all of which belong to the same family and are capable of producing a similar damage. Experiments in Texas on control of the cotton hopper have been under way for some time and control measures have been worked out. A circular giving recommendation for control with sulphur has been prepared for distribution and anyone who is interested can secure a copy by writing to the Delta Laboratory at Tallulah, La.

eorgia — Oliver I. Snapp (June 22): The cotton flea is doing considerable damage to cotton at McDonough, Americus, and other Georgia points.

Haliard De La Parelle (June 24): The cotton flea or hopper has appeared in large numbers over the greater part of the State and is doing considerable damage to the crop. The plants show the characteristic injury of this insect; the young squares are attacked and the plants are shooting up with practically no lateral branches. This insect has been very generally reported, but I am reasonably sure that a great deal of the injury credited to the hopper is the work of the thrips.

ouisiana — W. E. Hinds (Telegram dated June 27): Widespread complaints of small bugs attacking very small cotton squares affecting northeastern Louisiana appear to involve both cotton flea hopper and tarnished plant bug.

ississippi — R. W. Harned (June 21): The cotton hopper has been found in large numbers in Oktibbeha County, and has also been reported recently from Adams County. Plants in the infested fields will be observed carefully for evidence of abnormal growth.

exas — County Agent (June 30): Extensive and serious outbreaks of the cotton flea have been reported from Smith and Williamson Counties. Growers are alarmed.

THRIPS (Thysanoptera)

exas — Cooperative report on cotton insects (June 16): Dr. F. L. Thomas, College Station, June 18, reports: A peculiar type of injury is very prevalent in this vicinity, and I believe it is due to thrips, species not yet identified, as this insect seems to be present wherever the injury occurs. It results in a stunting of the plants, curling of the leaves, and deformation of the young growth.

eorgia — Haliard De La Parelle (June 24): Thrips, species awaiting determination, were sent to this office (Survey) with a report of a great

deal of damage to the cotton crop at Georgia. These little insects work in the tender buds of the plants, stunting their growth, and it is feared that they will do severe damage to the crop.

BOLL WORM (Heliothis obsoleta Fab.)

GENERAL STATEMENT — Cooperative report on cotton insects prior to June 16: Mr. W. R. Sudduth, Shreveport, La.: A few signs of the boll worm have been found on this date. J. M. Robinson (Auburn, Ala.): The cotton boll worm is getting active in southern Alabama. R. W. Leiby, Raleigh, N. C.: During the latter part of May the cotton boll worm destroyed 25 acres of cotton on 3 farms in the southern edge of the cotton belt in this State just after it was chopped. The worms developed on vetch and after it was cut migrated to cotton and corn. Further damage was prevented by the use of poisons.

Alabama — J. M. Robinson (June 18): The second generation of boll worms is appearing in southern Alabama and attacking the young cotton squares.

STALK BORER (Papaipema nitela Guen.)

Mississippi — R. W. Harned (June 21): Specimens of the moth stalk borer have been received recently from correspondents in Lee and Itawamba Counties. In all cases the complaints have been in regard to injury caused by these insects to cotton plants.

VARIEGATED CUTWORM (Lycophotia margaritosa saucia Hbn.)

South Carolina — J. O. Pepper (May 24): Seriously injuring young cotton next to an alfalfa field. About 50 per cent were parasitized by Winthemia 4-pustulata and a small hymenopterous parasite. A number of birds were also found feeding on the larvae late in the afternoon.

GRASSHOPPERS (Acrididae)

Alabama — Cooperative report on the cotton insects prior to June 16: J. M. Robinson: Grasshoppers in the nymphal stage have been devouring the younger cotton here but not to a serious extent so far.
It is too early to give a general summary of the status of cotton insects in the field; however, reports indicate that a rather heavy weevil infestation has been found in the Mississippi Valley and that a light infestation is now present in the southeastern section of the cotton belt. Reports indicate that a light infestation generally has been found west of the Mississippi Valley with probably high infestations in some local areas.

Alabama — J. M. Robinson (June 18): Grasshoppers have been attacking the foliage of cotton plants for the past two weeks at Auburn.

WHITE GRUBS (Phyllophaga spp.)

Texas — Cooperative report on cotton insects prior to (June 16): F.L. Thomas, College Station, June 18: Wingless May beetles were found injuring cotton, eating the plants, stalk and all, in Wheeler County

COTTON LEAF WORM (Alabama argillacea Hbn.)

Texas — F. L. Thomas (May 24): First generation of cotton leaf worm in pupal stage found in Wharton County. (May 25): Emergence from pupae and flight of adults. (June 16): Have had no additional reports of the leaf worm but showery weather in the vicinity of Wharton County is probably producing favorable conditions for the development of the second generation.

SALT MARSH CATERPILLAR (Estigmene acraea Drury)

Texas — F. L. Thomas (June 1): The salt marsh caterpillar was found in southern Texas some time ago but I have had no reports of its injuring cotton.

MELON APHID (Aphis gossypii Glov.)

South Carolina — F. A. Fenton (June 1): Lice have made their appearance in a number of fields at Florence and have stunted and injured the plants. However, in most of these fields parasites are already at work and have largely controlled them.

Texas — F. L. Thomas (June 1): Lice are present in the fields at College Station, but I do not look for a great deal of injury.

TOBACCO

POTATO TUBER WORM (Phthorimaea operculella Zell.)

Florida — F. S. Chamberlin (June 25): A few splitworm larvae have been observed in tobacco fields this month in Gadsden County. No injury of importance has occurred so far this season.

TOBACCO BUDWORM (Heliothis virescens Fab.)

Georgia — F. S. Chamberlin (June 3): The tobacco budworm infestation is much less than usual this season at Tifton. In this connection it has been observed that the parasite Cardiochiles nigriceps Viereck is extremely abundant.

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

Florida — F. S. Chamberlin (May 26): Flea beetles of the spring brood are now emerging within tobacco shades in Gadsden County. The numbers so far observed have been small and only slight damage is anticipated.

RICE

SPOTTED CUCUMBER BEETLE (Diabrotica 12-punctata Fab.)

Arkansas — J. W. Ingram (May 22): Corn rootworms were found damaging rice in a number of fields by boring in the seed and in the young rice plant at Stuttgart. Damage has been very small.

CHINCH BUG (Blissus leucopterus Say)

Arkansas — J. W. Ingram (May 22): Chinch bugs were found in the majority of the rice fields inspected at Stuttgart. They were present in such small numbers as to cause only slight damage. Where the fields had been flooded the insects were found floating on the surface of the water and only rarely feeding on the part of the rice plant above the water.

SUGARCANE BEETLE (Euetheola rugiceps Lec.)

Louisiana — J. W. Ingram (May 15): Only a small amount of sugarcane beetle injury was found in the rice fields around Kinder. The damage caused by these insects to rice in this section during the season of 1925 was unusually heavy.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana — W. E. Hinds (Telegram dated June 27): Sugarcane borer is now concentrated in large numbers in early maturing corn with second generation beginning serious damage to cane.

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

MISCELLANEOUS FEEDERS

A BAGWORM (Oiketicus abboti Grote)

Mississippi — R. W. Harned (June 21): Specimens of the bagworm, Oiketicus abbotti, were found on blueberry at Nugent, Harrison County, on June 12.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Michigan — R. H. Pettit (June 25): A representative of the Department of Conservation has just come in and reports a widespread, serious outbreak of the armyworm of the forest, Malacosoma disstria, in the upper part of the Lower Peninsula, He states that many hardwoods are being defoliated.

MAPLE LEAF SPOT (Cecidomyia ocellaris O.S.)

New York — E. P. Felt (June 26): Cecidomyia ocellaris galls are somewhat numerous here and there in the woodlands of the upper Hudson Valley.

PINE BARK LOUSE (Chermes pinicorticis Fitch)

New Jersey — R. B. Lott (June 11): Very abundant on various species of Pinus, also reported on larch, at Trenton.

New York — E. P. Felt (June 26): The pine park aphid, Chermes pinicorticis,

is generally present in the southern Hudson Valley and somewhat injurious to individual trees.

A RED SPIDER (Tetranychus bicolor Banks)

Wisconsin — S. D. Fracker (June 16): Complaints received from Adams, Dane, and Jefferson Counties indicate an early start. Attacking evergreens, ornamentals such as arborvitae, and spruce.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Michigan — Eugenia McDaniel (June 8): One of the races of the oyster-shell bark-louse is worse than ever before and is still becoming more and more plentiful on lilac, ash, and some other trees.

TEN-LINED INCH WORM (Erannis tiliaria Harr.)

New York — E. P. Felt (June 26): The ten-lined inch worm, Erannis tiliaria, is abundant on the higher oak-covered elevations east of Albany and is also reported as numerous in the Adirondacks. In the infested area east of Albany Calosoma frigidum Kby. is abundant, feeding upon the caterpillars and undoubtedly destroying many of the insects. There are also in this area an unusual number of tachinid flies, probably parasites of this leaf feeder.

FALL CANKER WORM (Alsophila pometaria Harr.)

New Jersey — R. B. Lott (June 17): General feeding in some sections in the northern part of the State, but no defoliation noted as in previous years in Sussex. Oak, linden, elm, and maple are being attacked.

AN APHID (Dilachnus tujafilina Del Guercio)

aryland — E. N. Cory (May 24): First record in College Park.

SPRING CANKER WORM (Paleacrita vernata Peck.)

ontana — R. A. Cooley (June 4): The spring canker worm is defoliating shelter belts in parts of northern Montana, eating the foliage of elm, ash, willow, and boxelder.

SCOTCH PINE

EUROPEAN PINE SHOOT MOTH (Evetria buoliana Schiff.)

nnecticut — W. E. Britton (June 17): Many terminal buds destroyed in Southport.

PALES WEEVIL (Hylobius pales Hbst.)

w York — E. P. Felt (June 26): The pales weevil, Hylobius pales, identification provisional, infests 100 per cent of a rather sparse planting

of Scotch pine acres in extent in eastern NewYork near Ballston. Twenty-five to 40 per cent of the trees are in a dying or dead condition. The infestation very probably originated in bordering old hard pines.

BUR OAK

BUR OAK KERMES (Kermes pubescens Bogue)

Kansas — J. W. McColloch (June 19): Twigs of bur oak heavily infested with this kermes were received from Glen Elder and Erie on June 2 and from Eldorado on June 15.

BIRCH

BIRCH LEAF MINER (Fenusa pumila Klug)

Connecticut — W. E. Britton (June 19): Terminal leaves of sprouts and seedlings have been mined in New Haven and vicinity. First-generation larvae are now leaving the mines. Adults are now scarce but were abundant as compared with an average year, and injury more noticeable as compared with last month.

New York — E. P. Felt (June 26): The birch leaf miner is generally distributed in the vicinity of New York City, in some areas mining a very considerable proportion of the gray birch leaves. It does not seem to be so injurious to other birches. The general indications are that in the older infested area in the eastern part of New York State this insect will be less abundant than in past years.

SPRUCE

SPRUCE BUDWORM (Harmologa fumiferana Clem.)

Connecticut — W. E. Britton (June 14): At West Haven several larvae were found feeding on buds of ornamental tree. Two had pupated.

SPRUCE MITE (Paratetranychus uniunguis Jacobi)

Michigan — Eugenia McDaniel (June 9): The spruce mite is doing quite a considerable amount of damage over the State, in fact we find it almost everywhere.

WITCH HAZEL

WITCH-HAZEL CONE GALL (Hormaphis hamamelidis Fitch)

New York — E. P. Felt (June 26): The witch-hazel cone gall, Hormaphis hamamelidis, is somewhat abundant upon witch hazel, occasional bushes being very badly infested.

MAPLE

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

ebraska — M. H. Swenk (June 25): The flat-headed apple tree borer was found infesting dying maple trees in Lincoln.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

ndiana — J. J. Davis (June 26): The cottony maple scale is more abundant in some sections of the State than usual. It seems to have increased especially in central Indiana and is probably less abundant in the northern end of the State where it was so abundant and destructive a few years ago. Reports began coming in May 28 and are continuing to reach us. The localities reporting severe infestations include Amboy, Anderson, Boggstown, Clinton, Fairmount, Farmland, Greensburg, Hartford City, Indianapolis, Knightstown, La Fayette, Montpelier, Muncie, New Castle, Noblesville, Portland, Shelbyville, Uniondale, and Winchester. The eggs of the cottony maple scale began hatching at La Fayette June 26.

GOUTY VEIN GALL (Dasyneura communis Felt)

ndiana — J. J. Davis (June 26): The gouty vein gall (empty galls) on maple were received from Edinburg on June 6. This gall was once sent in last year from southern Indiana.

SILVER MAPLE LEAF MITE (Phyllocoptes quadripes Shim.)

ndiana — J. J. Davis (June 26): The bladder maple gall was reported June 16 as abundant on maples at Greensburg.

HEMLOCK

HEMLOCK SPANWORM (Ellopia fiscellaria Guen.)

sconsin — S. B. Fracker (Telegram dated June 19): The hemlock spanworm hatched this week in Peninsula Park, Door County. Now feeding in large numbers on hemlock and balsam. Five hundred acres are infested in State Park besides several private stands outside.

ELM

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

diana — J. J. Davis (June 26): The elm cockscomb gall was reported abundant on elms at Rochester June 17.

ELM SAWFLY (Cimbex americana Leach)

nsas — J. W. McColloch (June 13): This sawfly is reported defoliating elms in Montgomery County.

WHITE ELM SCALE (Chionaspis americana Johns.)

Nebraska — M. H. Swenk (June 25): The white elm scale continued to be the subject of complaint of injury by our correspondents.

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

Nebraska — M. H. Swenk (June 25): The pine leaf scale continued to be the subject of complaint of injury by our correspondents.

WOOLLY ELM APHID (Eriosoma americanum Riley)

Nebraska — M. H. Swenk (June 25): During the first week in June numerous complaints of elm leaf curl, caused by the aphid Schizoneura americana, were received from Cass and Douglas Counties, especially in the vicinity of Omaha and Plattsmouth. A little later similar reports were received from Alliance in Box Butte County.

ELM CASE BEARER (Coleophora limosipenella Dup.)

New York — E. P. Felt (June 26): The elm case bearer is somewhat generally present in the New York area although not in large numbers.

ELM LEAF SAWFLY MINER (Kaliofenusa ulmi Sund.)

New York — E. P. Felt (June 28): The elm leaf sawfly miner is rather abundant locally on Scotch elm in the vicinity of New York City, and also in sections near Albany, the leaves being very badly mined.

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

New York — E. P. Felt (June 26): The elm leaf beetle has not appeared in any numbers and conditions suggest that there may be a relatively small brood.

LARCH

WOOLLY LARCH APHID (Chermes strobilobius Kalt.)

New York — E. P. Felt (June 26): The woolly larch aphid is rather abundant on larches in the vicinity of New York City, and also in Albany, many of the trees presenting the appearanceof being lightly dusted with woolly matter.

LARCH CASE BEARER (Coleophora laricella Hbn.)

New York — E. P. Felt (June 26): The larch case bearer is also somewhat prevalent on larches, though the injury appears to be distinctly less than that caused by the aphid.

PERIODICAL CICADA (Tibicina septendecim L.)

Kansas — J. W. McColloch (June 10): Specimens of the 17-year cicada

were received from Wathena, without any information as to their abundance.

CICADA (Species undetermined)

daho — R. W. Haegele (June 10): Cicadas of an undetermined species were collected from sage brush 20 miles west of Rogerson. It was a cool cloudy day and the cicadas were not at all active so that I could pick them from the sage brush at will. There were literally thousands of them and I picked as many as 50 from an ordinary sage less than 4 feet high and 3 feet across. The ground was punctured full of holes where they had come out and the sage brush was full of empty pupal cases. They were noticed from this point to 25 miles north and very likely could have been found over a much larger area. This is a rolling plateau region covered with a heavy stand of pure sage and the altitude is from 5,500 to 6,000 feet.

WHITE GRUBS (Phyllophaga spp.)

ndiana — J. J. Davis (June 26): May beetles were unusually abundant in the northern half of Indiana, especially in the northwestern quarter. In some localities, as at Rochester and Winamac, trees were defoliated.

SPRUCE SAWFLY (Neodiprion abietis Harr.)

ew York — E. P. Felt (June 28): Fir sawfly larvae, Neodiprion abietis Harr., are unusually abundant and may prove somewhat destructive to hard pines west of Albany.

BLISTER BEETLES (Meloidae)

nnesota — C. E. Mickel (June 17): Blister beetles are very numerous in the western and southern parts of the State and many complaints are being received of injury to hedges by them.

I N S E C T S A T T A C K 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

ROSE

UNICORN CATERPILLAR (Schizura unicornis S. & A.)

ssissippi — R. W. Harned (June 21): Two complaints have been received in regard to Schizura unicornis on rosebushes. One complaint came from Moss Point, on June 10, and the other from Winona, on June 12.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

ssachusetts — A. I. Bourne (June 22): The rose chafer has not as yet made its appearance. This is later than any date of its appearance since 1920.

Virginia — W. S. Abbott (June 15): Not so abundant as usual at Vienna. Almost none on roses, but generally found on the elderberry blossoms.

New York — E. P. Felt (June 28): Rose beetles are beginning to appear in some numbers in southern Rensselaer and northern Columbia Counties.

Nebraska — M. H. Swenk (June 25): The rose chafer, judging from the numerous reports, was more than usually troublesome in the sandhill region of Nebraska during the middle portion of June (June 8 to 22), on all kinds of trees, shrubs, and garden plants. The most heavily infested area extended from Grant and Hooker Counties south to Keith County and east to Antelope County.

ROSE CURCULIO (Rhynchites bicolor Fab.)

Utah — George F. Knowlton (June 21): The rose curculio is damaging roses in the gardens around Logan and Smithfield.

ROSE SAWFLY (Caliroa aethiops Fab.)

Nebraska — M. H. Swenk (June 25): The usual amount of injury to rose leaves by the rose slug was reported during early June.

SNOWBALLS

SNOWBALL APHID (Anuraphis viburnicola Gill.)

Utah — George F. Knowlton (June 21): This insect has been damaging snowballs in Logan and Salt Lake this spring.

CHRYSANTHEMUM

GREENHOUSE LEAF TYER (Phlyctaenia ferrugalis Hbn.)

Mississippi — R. W. Harned (June 21): Specimens of the greenhouse leaf tyer were received from a correspondent at Complete, Lauderdale County, on June 4. They were reported damaging chrysanthemums.

ASTER

ASTER APHID (Aphis middletonii Thos.)

Nebraska — M. H. Swenk (June 25): A heavy infestation of the roots of aster plants with the aster aphid was reported from Holt County, near Stuart, about the middle of June.

LILAC AND ASH

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Indiana — J. J. Davis (June 26): The oyster-shell scale is normally abundant

on lilac and ash. Many shrubs and trees are dead from this insect. It has been reported as abundant on apple in a few instances.

PANSIES

VIOLET SAWFLY (Emphytus canadensis Kirby)

Indiana — J. J. Davis (June 26): The violet sawfly was reported damaging pansies at Ft. Wayne, June 23.

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Virginia — W. S. Abbott (April): One plant was reported killed and others badly injured at Fairfax.

RED SPIDER (Tetranychus telarius L.)

Texas — F. C. Bishopp (June 24): Red spiders have been reported as causing some damage to shrubs and ornamental plants in Dallas during the last week.

INSECTS ATTACKING MAN AND DOMESTIC ANIMALS

MAN

FLEAS (Siphonaptera)

Missouri — L. Haseman (June 25): Fleas have failed to attract their usual attention during the month of June and are seemingly conspicuous by their absence.

CHIGGERS (Trombicula irritans Riley)

Texas — F. C. Bishopp (June 24): Chiggers have been very troublesome in this vicinity (Dallas) from the latter part of May to date. The luxurious growth of vegetation and abundant rainfall are probably partially responsible for their abundance.

CATTLE

HORN FLY (Haematobia irritans L.)

Missouri — L. Haseman (June 25): The horn fly has been more abundant during the month than usual in spite of the unusually cool weather.

Texas — F. C. Bishopp (June 24): Horn flies have not constituted as important a problem for the dairymen in this section (Dallas) this spring as is usually the case.

CANYON HORSE FLY (Tabanus rubescens Bellardi)

Texas — F. C. Bishopp (June 24): Reports indicate that the canyon horse fly has been quite annoying to horses and cattle along water courses in many parts of southwestern Texas. These flies probably have been a factor in the spread of anthrax, which has appeared in Uvalde and Menard Counties in localities where the flies are especially numerous.

BLOWFLIES

New York — E. P. Felt: Blowflies sheltering in numbers under a shingle roof in the Adirondacks resulted in serious injury by woodpeckers, the latter drilling through the shingles to get at the insects beneath.

STABLE FLY (Stomoxys calcitrans L.)

Missouri — L. Haseman (June 25): The stable fly has been more abundant during the month than usual in spite of the unusually cool weather.

Texas — O. G. Babcock (May 25): Apparently owing to the cool late spring and moist weather, the stable fly is more numerous than is usual for this time of the year in this section (Sonora and vicinity).

HOUSE FLY (Musca domestica L.)

Missouri — L. Haseman (June 25): The house fly has also bred in great abundance throughout central Missouri. The recent rains and damp weather have undoubtedly favored breeding.

SCREW WORM (Chrysomyia macellaria Fab.)

Texas — O. G. Babcock (May 23): Appearance as follows:

	Per cent		Per cent
March 11	0	April 26	25
March 29	1	May 5	54
April 10	Trace	May 11	78
April 19	1	May 19	72

May 28 ... 67

POULTRY

STICKTIGHT FLEA (Echidnophaga gallinaceus Westw.)

Kansas — J. W. McColloch (May 31): This flea is reported to be killing chickens in a poultry yard at Lake City.

A BUFFALO GNAT (Simulium johannseni Hart)

braska

M. H. Swenk (June 25): The county agricultural agent at Battle Creek, Madison County, reported on May 25 that small blood-sucking flies were causing a loss of small chickens on a farm near the Elkhorn River. Specimens of this fly were secured and proved to be Simulium johannseni.

CHICKEN MITE (Dermanyssus gallinae Redi)

xas

O. G. Babcock (May 24): Poultry houses at San Angelo show rather heavy infestations of the common roost mite which mite is doing considerable damage.

A BILLBUG (Sphenophorus aequalis Gyll.)

nsas

J. W. McColloch (May 26): At Wayne adults of this species are reported giving considerable trouble to chickens by attaching themselves to the beaks.

DOG

AMERICAN DOG TICK (Dermacentor variabilis Say)

raska

M. H. Swenk (June 25): Late in May a correspondent in Brown County near Ainsworth reported that he had several valuable dogs that were so badly infested with wood ticks, Dermacentor variabilis, as to require immediate relief.

INSECTS INFESTING HOUSES AND PREMISES

TERMITES

o

T. H. Parks (May 31): These insects were sent in May 5 by the county agent of Miami County with the statement that they were destroying the posts and sills of the barn and the floor of the house on one farm in western Ohio. (June 26): White ants were brought in from West Jefferson with the statement that they were eating the rug on the floor. The home was visited June 24 by F. L. Guyton, who found this true. The ants had emerged through holes in the floor and had eaten the base of the rug over a small area.

iana

J. J. Davis (June 26): Termites were abundant as usual this spring. One infestation in a dwelling was reported June 18 from Kendallville, which is in the northeastern corner of the State.

raska

M. H. Swenk (June 25): A Harlan County correspondent reported that he had lost quite a number of his fruit trees because of the termite Reticulitermes tibialis Banks attacking the roots of the trees and killing them.

Kansas — J. W. McColloch (June 15): Damage to woodwork in the basement of a dwelling by white ants was reported from Long Island. (May 25): Severe damage to the woodwork in a house at Salina.

FLEAS(Siphonaptera)

Indiana — J. J. Davis (June 26): Fleas have been reported abundant the past month in dwellings and hog houses in several sections of the State.

COCKROACHES

Indiana — J. J. Davis (June 26): Cockroaches have been reported from all sections of the State in dwellings, stores, cream station and packing shed.

POWDER POST BEETLES (Lyctus spp.)

Indiana — J. J. Davis (June 26): The powder post beetle (Lyctus sp.) was reported the past month seriously infesting joists in a dwelling at Noblesville, to a chair at Shoals, and to rough hickory furniture at Martinsville.

Nebraska — M. H. Swenk (June 25): Powder post beetles were reported as having damaged a barn built of cottonwood lumber in Pierce County, and also a built-in oak bookcase in a residence at Scribner, Dodge County.

ANTS (Formicidae)

Wisconsin — S. B. Fracker (June 16): As troublesome as usual in Bayfield, Dane, Kenosha, Milwaukee, Sauk, and Winnebago Counties.

Nebraska — M. H. Swenk (June 25): During late May and early June there were many complaints of ants of various species injuring peonies and other flowers and invading the kitchens and pantries of houses. Prominent among these were Camponotus herculeanus L. and Monomorium pharaonis L.

DOG FLEA (Ctenocephalus canis Bouche')
CAT FLEA (C. felis Bouche')

Texas — F. C. Bishopp (June 24): A great many infestations of premises, including households, by dog and cat fleas have been reported from various parts of northern and eastern Texas, and especially in Dallas, during May and June. Fleas have apparently been more numerous and troublesome this spring than for many years.

ARMY CUTWORM (Chorizagrotis auxiliaris Grote)

Kansas — J. W. McColloch (June 18): Cutworm moths, principally those of the army cutworm, have proved a general nuisance in houses throughout

much off the State. The moths began appearing late in May and are now decreasing in numbers.

S T O R E D- G R A I N I N S E C T S

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)

Maryland — Perez Simmons and G. W. Ellington (May 25): First adults of the season were observed this date in jars of wheat heads exposed during the winter in an outdoor insectary at Sligo Laboratory. This appearance coincides with the heading of wheat in the field.

LARDER BEETLE (Dermestes lardarius L.)

Nebraska — M. H. Swenk (June 25): Several reports of injury to home-cured meats by the larder beetle were received during June.