THE INSECT PEST SURVEY BULLETIN

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

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR MAY, 1927

A Hessian fly survey has been completed in 28 counties in Kansas. In general, the Hessian fly infestation is heavier than two years ago, when a very serious outbreak occurred. The crop in many fields will be a total loss. Despite unfavorable conditions, central Illinois shows about 7 per cent Hessian fly infestation.

During the first week in May, cold, wet weather placed the corn in central Illinois out of danger from the chinch bug. Later in the month reports of threatening numbers of this insect were received from Missouri and parts of South Carolina.

The lesser corn stalk borer has appeared in very injurious numbers in Jackson and nearby counties in the southern part of Mississippi. Serious outbreaks of this insect occurred in 1921 and 1924.

The clover leaf weevil has been much more abundant than normally throughout parts of Kansas and Missouri, and serious damage to the alfalfa crop was only prevented by the heavy rains.

The army cutworm practically ruined alfalfa and small grain crops in certain areas of South Dakota, and less serious damage by this pest was reported from parts of Oregon.

Over the western third of Kansas the pea aphid infestation was assuming the status of an outbreak in early April. Heavy rains, however, toward the last week in the month reduced the numbers of this insect to negligible proportions. Reports of serious damage by this insect have been received from Utah and southern California.

Aphids on deciduous fruit trees are reported as generally less abundant than usual over the New York State fruit belt, but from Pennsylvania southward through Virginia these insects were moderately abundant. Aphids in subnormal numbers are reported from the East Central States and the Pacific Northwest.

Codling moths began pupating during the second week in April in Pennsylvania. About 50 per cent were still larvae on May 20. This late transformation of the codling moth was observed westward across central Missouri. In the Pacific Northwest reports from Oregon indicate that 50 per cent of the larvae had pupated by May 3.

Through New England and eastern New York State southward to Pennsylvania the eastern tent caterpillar is prevalent enough to be attracting considerable attention this year.

Numerous reports were received from the prune and pear growing sections of Oregon of severe damage caused by the pear thrips. In the fruit belt of New York State little commercial damage has been occasioned by this pest.

The peak of the second generation of oriental peach moth larvae was reached the first week in May in the Fort Valley section of Georgia. This pest was reported for the first time from Holly Springs, Miss.

The plum curculio is much more numerous than it has been for a number of years in Georgia and South Carolina. It is also actively attacking the fruit crops in parts of Missouri.

Following the excessive rainfall in Missouri, damage by the seed corn maggot is being reported. This insect also did considerable damage in parts of Arizona.

Reports of severe cutworm damage do not seem to be so prevalent this season as during the last two years. Cabbage plants in seed beds have been severely damaged in parts of New York State, and the peppermint fields in Kalamazoo and Clinton Counties, Michigan, have already been severely attacked by these insects.

The corn ear worm is reported as much more abundant in the Fuerte Valley of Mexico than it has been during the past four seasons; injury to tomatoes ranging from 1 to 25 per cent. This insect also appears to be very numerous in Alabama where adults were observed on April 17, and the first eggs of the season on April 21. These two reports from the southern extremities of the contiment may indicate a year of unusual abundance of this pest.

The cotton flea hopper was hatching in rather large numbers from South Carolina to Texas.

Very severe damage by wireworms to tobacco is reported from the Chadbourn section of North Carolina where damage runs in some cases from 50 to 90 per cent.

An unusual outbreak of the Santo Domingo cane butterfly was reported from Haiti, and the most severe outbreak of the sugar-cane beetle ever recorded is now under way in Mississippi.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR MAY, 1927

Grasshoppers greatly decreased in numbers in southern British Columbia during the late summer of 1926, and only the Peace River block and the Cariboo district are expected to experience severe outbreaks during the present season.

Wireworms caused an estimated crop loss of $3,500,000 in the province of Saskatchewan during 1926, and present indications are that, with average spring weather conditions, they will cause higher than average damage in 1927. Wireworms continue to be the most widespread insect pest in Alberta.

The western wheat-stem sawfly, which was the most serious pest of the year in Saskatchewan during 1926, caused an estimated financial loss of

$12,000,000 in that province. The number of hibernating larvae present in stubble last fall was far greater than ever before, and very severe damage may be expected during 1927 unless prevented by unfavorable weather conditions. The westward spread of this insect has involved more than one-third of the wheat-growing areas of Alberta, and the remainder is seriously threatened.

Probable outbreaks of the western army cutworm are indicated in southwestern Saskatchewan and certain sections of southern Alberta during 1927. The red-backed cutworm is decidedly on the decrease in Saskatchewan, and important damage, outside of gardens, and the possible exception of the extreme southeast of the province, is not expected during 1927.

The Colorado potato beetle infestation in British Columbia, which is limited to the southeastern corner of the province, occurs in two areas: One in the Creston district, and the other extending from Cranbrook to Fernie and the Crow's Nest down to the international border.

The San Jose scale is very scarce in the Niagara district, Ontario, owing to parasites and unfavorable weather conditions during the past two years.

A survey of the currant bud mite, Eriophyes ribis Nal., in the Victoria, Duncan, and Cowichan districts of British Columbia, has revealed that this pest has spread very little during the past few years, only eight infested localities having been found.

The pear leaf blister mite has become fairly abundant in the Georgian Bay district of Ontario.

A new apple pest, the gray-banded leaf-roller, Eulia mariana Fern., has appeared in the Annapolis valley, Nova Scotia, during recent years. At the present time the pest is centered around Berwick and Lakeville, but it is also scattered over many other sections of the valley. It is on the increase, but is not likely to become a serious pest in clean cultivated orchards.

The eye-spotted bud moth, Spilonota ocellana D. & S., was again the most serious orchard pest in Nova Scotia during 1926 and threatens to be just as serious, if not worse, in 1927.

The willow leaf beetle, which infested willow throughout the greater portion of south and central Manitoba during 1926 will in all probability reappear during 1927 and extend its activities considerably to the westward.

The bronze birch borer is causing considerable injury to ornamental white birch in practically all the towns and cities of New Brunswick.

The sa in moth has increased its range in British Columbia, severe outbreaks being noted all over the Fraser River Valley from Vancouver to Chilliwack, a distance of 70 miles.

Caterpillars of Pinipestis zimmermani Grt. were received in pine twigs from Lake Annis, Yarmouth County, Nova Scotia, in October, 1926, constituting the first record of this insect in the province.

GENERAL FEEDERS

WHITE GRUBS (Phyllophaga spp.)

New York — E. P. Felt (May 24): The first swarm of June beetles was observed at Orient, Suffolk County, May 9 (Roy Latham). Several beetles were in flight at Bainbridge, Chenango County, May 4 (L. J. W. Jones). A few specimens were seen at Albany April 21 and May 7, though there was no extended flight. A serious injury by the grubs to Norway spruce in a nursery was reported from the vicinity of Plattsburg.

Iowa — C. N. Ainslie (May 20): White grubs are very much in evidence this spring everywhere in this region. The cold damp weather has thus far kept them in check and has also hindered the emergence of the adults.

Missouri — L. Haseman (April 23): The first arrival of June beetles in appreciable numbers occurred on the evening of February 26 in central Missouri.

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)

Illinois — J. H. Bigger (May 15): Despite very unfavorable weather conditions, both fall and spring wheat in central Illinois now show about 7 per cent infestation.

Kansas — J. W. McColloch (May 20): The Hessian fly has taken a big jump in the State during the past month. Our surveys are not complete but we have definite information for the counties, Rush, Pawnee, Edwards, Kiowa, Comanche, Barton, Stafford, Pratt, Barber, Ellsworth, Rice, Reno, Kingman, Harper, McPherson, Harvey, Sedgwick, Sumner, and Marion, and parts of Clark, Ford, Hodgeman, Ness, Ellis, Russell, Lincoln, Saline, and Dickinson, in which the fly is known to be present in damaging numbers. Many fields in Dickinson, Ellsworth, Saline, Rice, and Barton counties will be a total failure. In fact the infestation is heavier than two years ago, when this area suffered such a heavy loss.

CHINCH BUG (Blissus leucopterus Say)

South Carolina — J. O. Pepper (May 10): The first report of the chinch bug on corn comes from Fairfield County. This insect was present in large numbers in this section the latter part of last year.

Illinois — C. H. Chandler and J. H. Bigger (May 8): The weather of the present spring has been rainy, with temperatures below normal

most of the time. While observations by Chandler and Bigger in central and southern Illinois have shown chinch bugs present in a few fields in sufficient numbers to cause damage, the continued rains will make conditions such that these insects would not cause damage during the present season. Some chinch bugs could still be found in hibernating quarters in central Illinois May 8.

Missouri — L. Haseman (April 28): The spring migration of chinch bugs to wheat has attracted no attention, and in central Missouri there has been a very light movement of the pest up to the end of the month. (May 24): In spite of the heavy rains some farmers are complaining of threatening numbers of chinch bugs.

PLAINS FALSE WIREWORM (Eleodes opaca Say)

Kansas — J. W. McColloch (May 1): Larvae of this insect were received from Goodland on April 21 and from Wakeeney on April 26, with the information that they were injuring wheat.

WHEAT JOINT WORM (Harmolita tritici Fitch)

North Carolina — Z. P. Metcalf (May 24): Reported by the county agent as seriously damaging wheat in Stanley County.

CORN

CORN LEAF APHID (Aphis maidis Fitch)

Louisiana — T. E. Holloway and W. E. Haley (May 10): On a plantation near Thibodaux, populous colonies of Aphis maidis on corn were found, attended by an ant, probably Solenopsis.

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana — T. E. Holloway and W. E. Haley (May 10): A serious infestation of the sugarcane moth, Diatraea saccharalis crambidoides, was found in corn on a plantation near Thibodaux. The plants were from 2 to 4 feet high. On an average, about 18 per cent were infested, the infestation running to at least 50 per cent in spots. As many as six borers, mostly large, could be found in a single stalk, and some were below the surface of the ground. Some pupae were found. Many plants were stunted and dying owing to the attack. A so-called trap row of corn next to a sugarcane field was found to be only slightly attacked. Trap rows of sorghum seemed to be completely free from attack. On being shown the extent of the infestation the planter stated that he would immediately pull up all the corn, put it through a silage cutter, and feed it. The writer pointed out that, in case of delay in cutting with a silage cutter, the stalks should be immersed in water for three days, such immersion having been found to destroy all borers. Not all the infested stalks showed the leaf scars characteristic of the early feeding of Diatraea,

some cases such feeding scars were masked by the larger holes of Laphygma frugiperda.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Mississippi — K. L. Cockerham (May 11): Several fields of corn near Picayune are being practically killed, so that the farmers are plowing up the fields for replanting. The insect showed up very suddenly.

R. W. Harned (May 24): The lesser corn stalk borer, Elasmopalpus lignosellus, has appeared in injurious numbers in Jackson, Pearl River, Jefferson Davis, and Pike Counties in the southern part of the State. Serious outbreaks of the insect occurred in 1921 and again in 1924. No complaints were received during 1925 and 1926. The crops injured so far are corn and peas. In previous years sugarcane, sorghum, and beans have also been seriously injured.

A FLEA BEETLE (Halticinae)

South Carolina — J. O. Pepper (May 5): Reports have been received with specimens of a ~~flea~~ beetle, stating that considerable damage is being done to young corn plants in the field in various parts of the Piedmont section.

CORN AND COTTON WIREWORM (Horistonotus uhleri Horn)

North Carolina — J. N. Tenhet (May 2): An infestation of the corn and cotton wireworm, Horistonotus uhleri Horn, was found today in a 3-acre field of corn. Approximately one-third of the field was totally destroyed. As many as 11 larvae were found in a single hill of corn. This outbreak, though small, is interesting as this species has not previously been recorded from this locality.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

South Carolina — J. O. Pepper (May 12): The larvae of this insect are doing considerable damage in many cornfields in Anderson County.

ALFALFA

CUTWORMS (Noctuidae)

Utah — Geo. F. Knowlton (May 6): Cutworms are causing damage to many fields of alfalfa in and around Richfield.

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

Kansas — J. W. McColloch (May 20): During the past month we have had reports on injury to alfalfa from Eureka and Mankata, and to clover from Pleasanton.

Kansas

R. C. Smith (April 28): The clover leaf weevil has been unusually abundant this year in alfalfa. Have found it in every alfalfa field examined lately. It is less confined to spots than usual, the occurrence being rather general over all the field. The larvae are about half grown now (April 28). There would have been damage had not the recent heavy rains so stimulated growth. A field on the College farm was beginning to show injury when the rains solved the problem. Some diseased larvae have been found, but relatively few are thus attacked.

ARMY CUTWORM (Chorizagrotis auxiliaris Grote)

South Dakota

H. C. Severin (May 15): Over some areas of Jerauld, Douglas, Aurora, and Charles Mix Counties the destruction of small grain and alfalfa crops was practically total. Alfalfa is being kept down by the feeding activities of the worm in some areas. Some worms are pupating at this date, but the greater number are not.

Oregon

Don C. Mote (May 3): Western army cutworm Euxoa agrestis (Chorizagrotis auxiliaris Grote) reported by county agent H. G. Avery, April 28, Union County, doing damage to alfalfa, and by county agent F. C. Donaldson, April 9, Wallowa County, doing damage to wheat. These two outbreaks were verified by Mr. Rockwood, who reports under date of May 3, that the worms were very thick in places in Wallowa County but that winter wheat had made such good growth that the worms would probably not injure it seriously. In La Grande the worms had badly trimmed one young alfalfa field before the ranchers put out poisoned bran bait.

PEA APHID (Illinoia pisi Kalt.)

Kansas

R. C. Smith (April 2 to 28): The pea aphid was assuming outbreak proportions in early April in the eastern third of the State. The first report was from Sharon and Anthony April 2. We have had reports from Great Bend, Salina, and Topeka since. It occurs at Manhattan in every field but there is no perceptible injury. The small spots started in many fields in southern Kansas. I observed on a survey trip completed April 19 that the heavy rains occurring over about three weeks of April so stimulated the growth of alfalfa and destroyed so many aphids that all danger of an outbreak disappeared. I observed a field at Wichita where the aphids were abundant and injuring half of a 10-acre field on April 17, but after a hard rain on the 18th we could find only a few aphids; on April 19 there were not enough to conduct a control experiment. At this writing (April 29) the alfalfa is growing rapidly. The aphids are fairly plentiful, but no injury is apparent. A severe freeze about the middle of the month would have given us conditions of 1921 when over 100,000 acres were lost because of this insect.

J. W. McColloch (May 20): The pea aphid was responsible for considerable injury to alfalfa between April 20 and May 10. The

aphids are still abundant, but with good growing weather the alfalfa has been keeping ahead of the aphids.

Utah — Geo. F. Knowlton (May 6); The pea aphid is doing considerable damage to alfalfa, affecting some fields in central Utah so severely as to cause it to become yellowed and stunted.

California — R. E. Campbell (April 27): Continued cool weather throughout April held back alfalfa growth, but permitted multiplication of aphids. An area of approximately 1,000 acres infested, most of it badly enough to severely check the growth. The first crop will be both late and considerably reduced.

Oregon — Don C. Mote (April 1927): On april 27, Prof. H. A. Scullen and his class in ecology made a survey of vetch aphis (Illinoia pisi) infestation. The field surveyed contained 10 acres of common vetch on low ground. The vetch was about 10 inches high. Four square yards were counted. Number of plants examined, 943. Percentage of plants infested, 21 per cent. Winged and wingless forms, mostly the latter, were present.

AN APHID (Macrosiphum sp.)

California — T. D. Urbahns (May 10): E. H. Taylor reported serious infestations of aphids, Macrosiphum sp., attacking alfalfa throughout the Honey Lake Valley, Lassen County. Several thousand acres were involved. The report on May 20 by Mr. Wilson, Bureau of Entomology, indicates that losses were very severe to alfalfa growers, but parasites and other natural enemies were present in abundance and practically destroying the aphids.

CLEAR WINGED GRASSHOPPER (Cammula pellucida Scudd.)

California — T. D. Urbahns (May 13): W. C. Barber reported grasshoppers, Cammula pellucida, as severely attacking grain and alfalfa near the foothills in Kern County, where nymphs and adults were migrating from the canyons.

CLOVER

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

Missouri — L. Haseman (April 26): An unusually heavy epidemic of the clover leaf weevil has developed because of the prolonged cold rains and has done much damage. On April 22 a heavy infestation of the larvae with a fungus disease was noted at Carrollton.

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

GENERAL

APHIDAE

New York — C. R. Crosby and assistants (May 2): Reports from Suffolk, Ulster, Chautauqua, Wayne, Orleans, and Columbia Counties indicate that aphids are generally less abundant than usual in the New York State fruit belt. Yates County, however, reports that they are very abundant in some orchards.

California — T. D. Urbahns (April 16): W. C. Barber reported aphids in large numbers in Kern County flying and attacking such crops as peach, melon, apple, and cotton. Later investigations showed that Aphis gossypii and Aphis medicaginis were probably the two species mostly involved and that they were migrating from the immense acreage of grassland where the grass and weeds were drying off along the foothills. (April 19): F. R. Brann reported aphids of several species in unusual abundance in fields, orchards and truck crops and stated that lady bird beetles, lace wing larvae and hymenopterous parasites were present in large numbers, in Tulare County.

APPLE

APPLE GRAIN APHID (Rhopalosiphum prunifoliae Fitch)

Pennsylvania — H. N. Worthley (May 11): Visited two orchards in which were found infestations of 1 to 10 per bud, mostly oat aphids, Rhopalosiphum prunifoliae. Colonies moderately abundant in new growth of apple in New Wilmington, Lawrence County. All stages, including winged migrants, present. Stem mothers beginning to hatch and appear on opening buds in different counties as follows:

Fayette.....	Mar. 24	15 per bud average	5 orchards
Washington ..	Mar. 25	moderate	1 orchard
Allegheny ...	Mar. 25	moderate	1 "
Bedford	Mar. 26	15-70 per bud	2 orchards
Blair	Mar. 26	abundant	1 orchard
Lawrence	Apr. 6	1-7 per bud	1 "

Virginia — W. S. Hough (May 15): A survey was made of an average of 10 trees in each of 10 orchards in Frederick and Clarke Counties; an average of 10 aphids per bud in most orchards was found. The stage of development of plants was delayed dormant to prepink.

Missouri — A. C. Burrill (May 20): The oat aphid seems to have migrated from its host on which it was sparingly present last month so that there is no considerable epidemic here.

APPLE APHID (Aphis pomi DeG.)

New York — C. R. Crosby and assistants (April 8 and 9): Present in normal numbers on opening buds of apple in Orange and Dutchess Counties.

New Jersey — New Jersey News Letter (April 25): Green aphids appear quite plentiful in orchards where effective control measures are not taken.

Illinois — W. P. Flint (May 23): Light infestations of this species have been reported in a few central and west-central orchards.

Oregon — Don C. Mote (April 1927): Eighty-five per cent of the green apple aphid, Aphis pomi DeG., in one orchard in the Willamette Valley were hatched on April 12, according to B.G.Thompson. By May 2 all eggs were hatched, and there were fair-sized colonies. The infestation was light as compared with last year.

ROSY APPLE APHID (Anuraphis roseus Baker)

New York — C. R. Crosby and assistants (April 22): Present in small numbers in most apple orchards throughout the State, including Long Island. This insect is not found in Clinton County orchards.

A. S. Mills (May 2): Only a few rosy aphids are found in Greene County, and these have curled the leaves and are reproducing.

A. B. Burrell (May 21,: Confirming observations made last year, this insect has not been found in orchards in Clinton County.

Virginia — W. S. Hough (May 15): A survey of about 50 trees in each of 15 apple orchards in Frederick and Clarke Counties was made during the bloom and petal-fall stages of development. Occasional branches were slightly infested.

Pennsylvania — H. E. Hodgkiss (May 7): At hatching these insects increased normally in the central part of the State. During the period of April 10 to May 7 there has been an unusual reduction in numbers so that the infestation is negligible.

Illinois — W. P. Flint (May 23): No injury by the rosy apple aphid has been observed or reported in any section of the State at this season.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Mississippi — R. W. Harned (May 24): Reported on apple from Lambert April 14 and from Moss Point May 10. Identified by A. L. Hamner.

CODLING MOTH (Carpocapsa pomonella L.)

New York — C. R. Crosby and assistants (May 2): About 50 per cent of the codling moths collected in Orange and Ulster Counties are in the pupal stage.

Pennsylvania — H. N. Worthley (May 12): The following is the development of the overwintering brood:

County	Date	Per cent pupated
Blair	April 28	16
Lawrence	April 27	10
"	April 11	25
Erie	May 3	20
"	May 12	25

South Carolina — J. O. Pepper (May 16): Many apples in Oconee County are being stung at the present time and a few contain worms.

Illinois — W. P. Flint (May 23): The cool wet weather of the spring has greatly delayed the emergence of the spring-brood adults of the codling moth. Examinations made in orchards in central and southern Illinois between May 17 and 20 showed that 25 per cent or less of the overwintering moths had emerged. Nearly 50 per cent were in the pupal stage and will undoubtedly produce adults within a short time should the weather turn warm. Over 20 per cent were still in the larval stage. This condition brings about a peculiar situation in the orchards, as where orchards were sprayed according to regular schedule fruit would not receive adequate protection at the time when the main first-brood larvae were hatching. In southern Illinois emergence started on April 28 and will probably continue well up to the middle of June.

Missouri — L. Haseman (April 28): A heavy brood of apple worms went into hibernation, but the birds and diseases have reduced their numbers immensely and at this time even in the orchards badly infested last year the worms and pupae are difficult to find. Pupation at Cape Girardeau began on March 30, and the first emergence of moths occurred on April 18, and on April 25 approximately 20 per cent of the larvae in the breeding cages had pupated. In Buchanan County approximately 30 per cent of the larvae had pupated on April 25.

L. Haseman (May 24): The codling moth is emerging with much irregularity this summer. Breeding cage records from the southern part of the State showed first moth emergence at about the normal date as compared with the development of apple blossoms and young fruit. In central Missouri the first emergence was from two to four weeks late, being a week later at Columbia than at either Kansas City or St. Joseph. The first moth emerged at Columbia on May 21. This irregularity and late emergence will increase the difficulty of keeping the fruit protected against the worms. In the southern part of the State the moths have been emerging quite regularly over a period of a month and have thus far showed no signs of reaching a peak of emergence. Approximately 26 per cent of the moths had emerged at the end of the first month of emergence. Excessive rainfall is also interfering with the ef-

fective spraying of orchards through the central and northern part of the State.

Oregon — Don C. Mote (April): On April 25 about 20 per cent and by May 3 50 per cent of the codling moth larvae had pupated, according to B. G. Thompson.

APPLE BUD MOTH (Laspeyresia pyricolana Kurtf.)

Pennsylvania — H. E. Hodgkiss (May 7): Abundant in Northumberland County, chiefly in unsprayed orchards or where delayed-dormant spray was not applied on account of seasonal conditions.

CIGAR CASE BEARER (Coleophora fletcherella Forn.)

New York — C. R. Crosby and assistants (April 22): Found in small numbers in most apple orchards, but more commonly in western New York, especially where arsenicals have been omitted in past years in the early sprays.

PISTOL CASE BEARER (Coleophora malivorella Riley)

New York — C. R. Crosby and assistants (April 22): Found in small numbers in most apple orchards, but more commonly in western New York, especially where arsenicals have been omitted in past years in the early sprays.

BUD MOTH (Tmetocera ocellana Schiff.)

New York — C. R. Crosby and assistants (May 7): While commonly found over all the State, reports from western New York indicate that this pest is uncommonly abundant especially in orchards which did not receive an early poison spray.

M. N. Taylor (May 2): Bud worms are quite active in unsprayed orchards in Erie County this year.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

New Hampshire — W. C. O'Kane (May 18): Infestation by tent caterpillars is spotty as usual. In some localities webs are so much in evidence as to make the roadsides unsightly. In others they are relatively scarce. As usual, wild cherry is the principal host plant. Apple foliage, however, especially on neglected trees, is attacked.

Connecticut — W. E. Britton (May 27): About as abundant in some localities of Fairfield and New Haven Counties as last year, less abundant in others.

New York — E. P. Felt (May 24): The apple tent caterpillar, Malacosoma americana, is more numerous than usual in the Rochester parks and reported as quite common in the surrounding country (R. E. Horsey).

Abundant as compared with average years at Rockland, and at Bainbridge in Chenango County (L. J. W. Jones). More abundant than usual about Genesco, Livingston County (R. A. Green). More abundant than in a number of years at Orient, Suffolk County (Roy Latham). The pest is somewhat abundant locally in the upper Hudson Valley, the caterpillar being more than half grown. (May 25): The apple tent caterpillar, Malacosoma americana, occurs in less numbers than during the past few years in the territory extending from Poughkeepsie, south of New York City and east of Long Island to East Hampton, its numbers being approximately one-fourth those of two years ago and in some sections probably over one-tenth (N. M. Armstrong).

W. E. Blauvelt (May 2): Tent caterpillars are abundant on apples and peaches in Orange County.

C. R. Crosby and assistants (April 22): In the Hudson Valley the newly formed nests are commonly found on roadside trees and not uncommonly in commercial plantings, attacking apples and other fruits. In western New York this pest is rarely found in commercial plantings, but is fairly common on roadside trees.

Pennsylvania — H. E. Hodgkiss (May 27): Abundant in many apple orchards in some central counties, where neglected or where spraying oils were applied in delayed dormant, none where lead arsenate was used in delayed dormant.

APRICOT LEAF-WEEVIL (Paraptochus sellatus Boh.)

Oregon — Don C. Mote (April 1927): The oak weevil, Paraptochus sellatus, was observed April 12 by B. G. Thompson feeding on apple grafts.

SPRING CANKER WORM (Paleacrita vernata Peck)

New York — A. M. Boyce (May 2): A few spring canker worm larvae have been found in Ulster County feeding on the foliage.

E. P. Felt (May 25): Cankerworms, probably the spring canker worm, appeared within the last few days in southeastern Westchester County, that is, along the north shore of Long Island, though not in large numbers. It is quite abundant in White Plains and it has appeared farther north toward Mt. Kisco, where it had caused very little damage heretofore. It is suggested that spraying and increase in the number of insect enemies has greatly reduced this pest adjacent to Long Island Sound whereas in the uncontrolled areas northward there has been a very definite increase.

TARNISHED PLANT BUG (Lygus pratensis L.)

Pennsylvania — H. E. Hodgkiss (May 27): Found in abundance in central Pennsylvania puncturing stems of apple clusters as they are in the pink condition.

APPLE REDBUG (Lygidea mendax Reut.)

New York — C. R. Crosby and assistants (May 21): Reports from workers in Nassau, Orange, Suffolk, Greene, Onondaga, Columbia, Wayne, Niagara, and Monroe Counties indicate that this pest is present in moderate numbers in a few orchards but the percentage of orchards infested is small. In the counties bordering Lake Ontario infested orchards are confined principally to the southern part of these counties. In Greene County the first nymph of Heterocordylus malinus was found on May 12. Lygidea mendax, however, is now present in large numbers while the other species is not common. This condition is reversed in Onondaga County.

Pennsylvania — H. E. Hodgkiss (May 3): These were all in the first instar in neglected orchards in Dauphin County. Rather general. First report in 1927.

H. N. Worthley (May 11): Abundant at New Wilmington, Lawrence County last year. Just hatching. Grower could find none two days ago. Today found 25 per cent of terminal leaves stripped by feeding, with 1-4 first instar bugs at each terminal. Trees just past full bloom.

APPLE TREE BORER (Rhizopertha collaris Erich.)

New York — W. E. Blauvelt (May 2): Considerable injury from the round-headed apple tree borer was noticed in several young orchards in Orange County. One borer dug out was in the pupal stage.

LACE BUG (Corythuca sp.)

Oregon — Don C. Mote (April 1927): The first lace bugs, Corythuca sp., were observed on apple trees by B. G. Thompson April 12. A few were mating. May 1 no young were observed.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

New York — W. E. Blauvelt (April 8): This scale is rather scarce in most orchards in Orange County. No serious recurrence has been reported from orchards where no sprays have been directed against the pest.

Virginia — W. S. Hough (May 15): A survey was made of 25 trees per orchard in 12 orchards near Winchester. From 10 to 25 twigs per tree in the bud swollen stage were infested.

APPLE FLEA WEEVIL (Orchestes pallicornis Say)

Illinois — W. P. Flint (May 23): This insect has been quite destructive in sod orchards in western and south-central Illinois. In some orchards it is present in very large numbers.

APPLE CURCULIO (Tachypterellus Quadrigibbus Say)

Missouri — L. Haseman (May 24): The apple curculio began attracting attention in the orchards along the Missouri River about May 15 and it is actively feeding and ovipositing at this time, May 25.

EUROPEAN RED MITE (Paratetranychus pilosus Can. & Fanz.)

New York — A. M. Boyce (April 8): Light infestations of eggs in all orchards in Ulster County on apple, peach, and cherry. Many growers of apples are using oil sprays with the object of destroying the eggs. E. E. Frane (April 8): Infestations of eggs in Dutchess County are lighter than last year at this time.
C. R. Crosby and assistants (April 22): By this date eggs were starting to hatch in Orange, Ulster, and Dutchess Counties, while it will be a week before blooming. (May 7): Reports from the Hudson Valley indicate that hatching is later than last year. Relatively few appeared on the leaves at the time the preblossom spray was applied while last season a large percentage of the eggs were hatched at this time. In western New York hatching has started, and the buds are in an almost ideal condition for making a preblossom application.
A. S. Hills (May 2): Very few red mites have hatched in Orange County.

New Jersey — New Jersey News Letter (April 7): Red mite eggs were found hatching in New Brunswick April 20, and hatching should be well advanced in South Jersey.

PEAR

PEAR PSYLLA (Psyllia pyri L.)

New York — C. R. Crosby and assistants (April 22): Deposition of eggs has been heavy over all the State. Eggs were hatching in the Hudson River Valley a week before blossoming. It is not likely that many eggs will be laid during blossoming as the adults are dying off rapidly. (May 7): In the Hudson River Valley where pears are now in bloom it is evident that considerable oviposition occurred after the cluster-bud egg spray was applied. In western New York, while many late eggs were laid the egg spray applied before blossoming destroyed a larger percentage of the total number of eggs than in the Hudson River Valley. Hatching started early and a considerable percentage of hatched nymphs appeared well before blossoming.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

New York — M. E. Buckman (May 21): Pear leaves everywhere show infestations. In one orchard near Lake Ontario, an orchard of the Seckel Variety is severely infested. The foliage of the trees has a reddish cast that is noticeable for some distance.

PEAR MIDGE (Contarinia pyrivora Riley)

New York — C. R. Crosby and assistants (May 21): Reports from Orange, Ulster, Dutchess, and Columbia Counties indicate that infestations are rather common but light. In Dutchess the varieties injured are Clapp, Seckle, and Bosc, while in Ulster all varieties have been found infested.

PEAR THRIPS (Taeniothrips inconsequens Uzel)

New York — W. E. Blauvelt (April 8): Present in small numbers, apparently causing no damage in commerical orchards. (April 22): A few pear orchards in Orange County were badly blasted, but in general injury was light. The following reports dated April 8 have been received: A. B. Buchholz, Columbia County: "Rather abundant. Some damage to pears already noted, and if weather continues cool considerable damage will occur."
A. S. Hills, Greene County: "Small numbers have appeared on Seckel and Kieffer varieties of pear. Damage probably slight."
A. M. Boyce, Ulster County: "Due to gradual emergence and advanced stage of pear buds, little or no damage was thought to be caused by this pest this season.

E. E. Franc (May 2): Thrips are doing some damage in Dutchess County, even where the clusters are well separated.
A. B. Buchholz (May 2): Thrips are doing some damage in Columbia County, but it is relatively light.

Oregon — Don C. Mote (April 1927): The pear and prune thrips, Taeniothrips inconsequens, was first observed by J. Wilcox on March 17. This thrips is unusually abundant this spring. Numerous reports of serious damage to the blossom spurs of prunes and pears are being reported.

CLOVER MITE (Bryobia praetiosa Koch)

New York — E. E. Franc (May 2): Clover mites are abundant in one neglected orchard in Dutchess County.

SCURFY SCALE (Chionaspis furfura Fitch)

New York — P. J. Chapman (April 22): Heavy infestations have been found in two or three pear orchards while a number of others in Oswego County had light infestations.

E. E. Franc (May 14): Eggs started to hatch on parts of the trees most exposed to sunlight.

PEACH

GREEN PEACH APHID (Myzus persicae Sulz.)

New York — C. R. Crosby and assistants (May 21): Heavy infestations of peaches have been found in Ulster and Columbia Counties.

A. M. Boyce (April 8): Young nymphs found in moderate numbers on opening buds.

APHIDAE

California — T. D. Urbahns (May 15): J. W. Dixon reported aphids attacking peach trees more severely than usual in Inyo County.

PEACH BORER (Aegeria exitiosa Say)

Georgia — O. I. Snapp (May 20): The peach tree borer is apparently more abundant in the Griffin section than usual. In most cases where infestation is heavy the paradichlorobenzene treatment was omitted last year.

ORIENTAL PEACH MOTH (Laspeyresia molesta Busck)

Georgia — Snapp & Swingle (May 5): The peak of the larval period of the second generation was reached in the field today. Second-generation larvae are in both twigs and green peaches. There was a rather heavy first-generation infestation in an orchard in Crawford County in which October peaches are grown.

Mississippi — R. W. Harned (May 24): Larvae and pupae that have been tentatively determined by J. N. Langston as Laspeyresia molesta were collected on peach at Holly Springs, April 25.

FLOWER THRIPS (Frankliniella tritici Fitch)

California — T. D. Urbahns (May 11): H. A. Crane reported the wheat thrips attacking peaches, the infestation being quite general throughout Yuba County although not especially severe.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

South Carolina — J. O. Pepper (May 2): The plum curculio has occurred in the Piedmont section in large numbers and some peach orchards have a severe infestation. The weather conditions have been such that a spray schedule could not be followed.

Georgia — O. I. Snapp (May 20): Larvae to the number of 5416 were reared from 5 bushels of peach drops collected on April 11 from Fort Valley. The infestation is much heavier than it has been for several years. The drought has been detrimental to the development of pupae in the soil during the last month.

Missouri — L. Haseman (May 24): This pest has been at work feeding and laying eggs since April 30, and is still actively feeding and ovipositing on this date. Early hatching grubs were from one-half to two-thirds grown on May 13, and are now seemingly full-fed.

CHERRY

FRUIT TREE LEAF BEETLE (Syneta albida Lec.)

Oregon — DonC. Mote (April 1927): The Syneta leaf beetle, Syneta albida Lec., was first observed in a cherry orchard by J. Wilcox on March 30. On April 12 B. G. Thompson reports observing it in damaging numbers attacking apple grafts. May 4, this beetle is apparently not so numerous as it was last year.

BLEEDING TREE MAGGOT (Mycetobia divergens Walker)

New York — E. P. Felt (May 24): Larvae of Mycetobia divergens were received from Huntington, L. I., and somewhat definitely associated with exudations of sap from a sweet cherry tree that was in a decidedly unhealthy condition.

FALL CANKER WORM (Alsophila pometaria Harr.)

California — T. D. Urbahns (April 16): O. E. Bremner reported the fall canker worm on cherries and prunes as the most extensive and severe attack experienced in 20 years in Sonoma County. While they have been present in other years, blackbirds usually clean up the infestation, but this year blackbirds are unusually scarce.

BLACK CHERRY APHID (Myzus cerasi Fab.)

New York — E. E. Frane (May 2): The cherry aphids are reproducing.

PLUM

SPRING CANKER WORM (Paleacrita vernata Peck)

California — T. D. Urbahns (April 25): T. A. Willis reported the spring canker worm attacking the prunes in Colusa County. Heavy infestations were quite common along the Sacramento River.

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Missouri — A. C. Burrill (May 17): Very numerous on home orchard and backyard garden plums. Also on escaped wild brookside whips of plum and peach. (May 20): The rusty plum louse is now becoming general on wild and cultivated plums, and perhaps some peach sprouts.

Mississippi — R. W. Harned (May 24): Reported on plum from Moss Point on April 20, from Ruleville on April 27 and from Lake Cormorant on May 21.

MEALY PLUM APHID (Hyalopterus arundinis Fab.)

Missouri — L. Haseman (May 24): There seems to be an unusual abundance of this brownish louse on wild plums and on certain cultivated var-

ieties of plums in central Missouri. While very abundant on some trees it does not seem to be seriously damaging the growth of the fruit.

California — T. D. Urbahns (April 16): H. A. Crane reported Hyalopterus arundinis Fab. appearing in the prune orchards, and states that on one ranch 300,000 ladybird beetles, Hippodamia convergens Guer., have been liberated for the purpose of aphis control. (May 11): H. A. Crane reported Hyalopterus arundinis attacking prune trees very severely in some orchards throughout Yuba County.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

California — T. D. Urbahns (April 16): O. E. Bremner reported the forest tent caterpillar present in the most severe infestations ever experienced in Sonoma County. Larvae hatched on prune and plum trees after the trees were ready to bloom and destroyed buds, blooms, and young leaves.

GREAT BASIN TENT CATERPILLAR (Malacosoma fragilis Stretch)

California — T. D. Urbahns (April 25): T. A. Willis reported the Great Basin tent caterpillar, Malacosoma fragilis, as attacking prune trees in considerable numbers in Colusa County, the attack on prune trees being rather unusual for the district.

RASPBERRY

APHIDAE

New York — A. M. Boyce (May 2): The big green species of aphid was found on raspberries in several plantings.

GRAPE

CUTWORMS (Noctuidae)

New York — C. R. Crosby (May 3): Grape buds in several vineyards were seriously injured by climbing cutworms while light injury was found in other vineyards. The general loss is probably not so heavy as last year.

GRAPE LEAFHOPPER (Erythroneura comes Say)

California — T. D. Urbahns (April 19): F. R. Bran reported overwintering adults of the grape leafhopper in considerable evidence throughout the vineyards over the entire Tulare County. Indications were that heavy infestation might be expected, and growers were advised to prepare for special control measures.

A WEEVIL (Glyptoscelis squamulata Cr.)

California — T. D. Urbahns (April 19): A. E. Bottel reported Glyptoscelis

squamulata as attacking grape foliage and buds, causing considerable alarm among grape growers of the Coachella Valley in Riverside County.

CURRANT

CURRANT FRUIT FLY (Epochra canadensis Loew)

Oregon — Don C. Mote (April 1927): The currant fruit fly, Epochra canadensis, was observed in the field for the first time this season by J. Wilcox on April 11. Last year the first flies were observed April 18.

CURRANT APHID (Myzus ribis L.)

New York — W. E. Blauvelt (May 2): A few currant aphids have started to work on the leaves in Orange County.
A. M. Boyce (May 2): The currant aphid is fairly prevalent in some patches and the first signs of injury are showing up in Orange County.

IMPORTED CURRANT WORM (Pteronidea ribesi Scop.)

New York — A. M. Boyce (May 2): No currant worm eggs have been found.
W. E. Blauvelt (May 21): Currant infestations are rather general, but not serious.

BLACK GOOSEBERRY BORER (Xylocrius agassizi Lec.)

Oregon — Don C. Mote (April 14): Adults of the black gooseberry borer, Xylocrius agassizi, were found in the field by J. Wilcox April 14. On this same date larvae were found in the burrows in the root and crown of the plants.

PECAN

HICKORY APHID (Longistigma caryae Harr.)

Mississippi — R. W. Harned (May 24): Reported on pecan at Greenwood May 3, and at Webb May 4; on bay at Cleveland May 11. Identified by A. L. Hamner.

PECAN BUD MOTH (Proteopteryx bolliana Sling.)

Mississippi — R. W. Harned (May 24): Specimens of the pecan bud moth, Proteopteryx bolliana, were collected on pecan at Pascagoula May 5, and at Picayune May 16, at Cleveland May 21, and at Ripley May 18.

PECAN LEAF CASE BEARER (Acrobasis nebulella Riley)

Georgia — O. I. Snapp (May 20): This insect is very abundant at Fitzgerald, and has done considerable damage in several groves of pecan.

Mississippi — R. W. Harned (May 24): Specimens of the pecan leaf case bearer, Acrobasis nebulella, were collected on pecan trees at Howisan, April 25 and at Natchez April 27.

HICKORY-SHOOT CURCULIO (Conotrachelus aratus Germ.)

Mississippi — R. W. Harned (May 24): Specimens that have been identified by J. M. Langston as probably Conotrachelus aratus have been received from Brookhaven, Prentiss, Columbia, Wesson, Picayune, Moselle, and Newhebron, where they were reported as causing serious damage to pecan trees.

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Mississippi — R. W. Harned (May 24): The first colony of walnut caterpillars was observed at Ocean Spring, April 25, feeding on pecan.

FALL WEBWORM (Hyphantria cunea Drury)

Mississippi — R. W. Harned (May 24): The fall webworm, Hyphantria cunea, has made its appearance at Picayune, Pearl River County. Specimens taken from pecan trees were sent to this office on May 18, 1927. Specimens taken from pecan trees have also been received from Moss Point.

A PHYLLOXERA (Phylloxera notabilis Perg.)

Mississippi — R. W. Harned (May 24): Galls on pecan have recently been received from Yazoo City, Jackson, Columbus, and Meridian. They have been identified by A. L. Hamner as those caused by Phylloxera notabilis.

CITRUS

CITRICOLA SCALE (Pseudococcus citricola Quayle)

California — T. D. Urbahns (April 19): F. R. Brann reported the citricola scale Pseudococcus citricola, as showing low natural mortality and corresponding high increase in Tulare County, and encouraged timely control.

TRUCK-CROP INSECTS

MISCELLANEOUS FEEDERS

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Alabama — L. W. Brannon (May 16): Adults of this species have been found feeding on beans, mustard, turnips, cabbage, beets, and swiss chard in this locality (Birmingham).

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Missouri — L. Haseman (May 24): Owing to the excessive rainfall and the backward spring a number of farmers are complaining of damage by this insect. The damage is being done largely in the case of early planted corn.

Arizona — Arizona News Letter Volume 3, No. 5, March 31: The seed-corn maggot (Hylemyia cilicrura) was generally present over the Valley during February and March. The insect caused injury to young plants of cucumbers, watermelons, cantalcupe, and beans. The adult of this white footless maggot that worked in the sprouting seeds and young stems is a blackish two-winged fly which somewhat resembles a small house-fly; and comes to lights at night in great numbers.

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

Alabama — L. W. Brannon (May 2): This species is doing serious damage to young turnips, mustard, and radishes and is making them unmarketable. Very few of the truckers in this district (Birmingham) are using any control measures.

CUTWORMS (Noctuidae)

New York — C. R. Crosby and assistants (May 21): In Suffolk County cutworms are rather prevalent, causing serious loss to early cabbage. In Nassau County serious injury has occurred in many cabbage beds and cold frames. Ulster County reports serious infestations in asparagus plantings.

Michigan — R. H. Pettit (May 20): Cutworms are very active in peppermint in fields in Kalamazoo and Clinton Counties, many of them having already been severely attacked. The larvae are still small and therefore will be with us for some weeks. No other crops are seriously attacked as yet because at this season of the year only a few other crops are above ground.

GREEN JUNE BEETLE (Cotinis nitida L.)

Kansas — J. W. McCulloch (May 7): Grubs of this insect were received with the information that they were abundant in some gardens at Erie, K.

CARROT RUST FLY (Psila rosae Fab.)

New Hampshire — W. C. O'Kane (May 16): Two lots of carrots received show the presence of the larvae of this species. In each case damage began last summer, according to the statement of the growers, and has continued through the winter in storage.

EGGPLANT FLEA BEETLE (Epitrix fuscula Cr.)

Alabama — L. W. Brannon (May 13): This species of flea beetle has been doing considerable damage to young eggplants in this vicinity (Birmingham).

A PLANT BUG (Pycnoderes incurvatus Dist.)

Mexico — A. W. Morrill (May 20): This bug was present in usual abundance during the fall and spring vegetable season, attacking beans, squash, and cucumbers. It was observed only in gardens. In one instance a few rows of cucumbers were completely ruined (Fuerte and Yaqui Valleys).

SPINACH LEAF MINER (Pegomyia hyoscyami Panz.)

New York — H. H. Taylor (May 2): First flies of the spinach leaf miner were observed on March 7 and in traps on April 19 in Erie County.

GARDEN SLUG (Agriolimax agrestis L.)

Ohio — E. W. Mendenhall (May 23): In many cases in and about Columbus, peas, lettuce, radishes, and other garden vegetables are being attacked by slugs on account of so much wet, cloudy weather.

Wisconsin — C. L. Fluke (May 3): These pests were very severe last year in Wisconsin gardens on cabbage, lettuce, celery, and like crops. Several reports are already in this year from Watertown as to the presence of large numbers of specimens, although garden crops are not yet above ground.

POTATO AND TOMATO

BOLL WORM (Heliothis obsoleta Fab.)

Alabama — L. W. Brannon (May 23): Tomato fruit worm moths were seen flying about in the field on April 17 and the first tomato fruit worm egg of the season was found on tomatoes on April 21. This egg hatched on April 29 and the larva is now about half grown. Eggs of this insect are very numerous on tomatoes now.

Mexico — A. W. Morrill (May 21): Much more abundant in Fuerte Valley during the six months vegetable marketing season ending May 1, 1927, than in any of four or five preceding seasons. Injury to tomatoes ranged from 1 to 25 per cent. In November and December, 1926, it was very evident that this pest was comparatively abundant while its associate in tomato depredations, Phthorimaea glochinella, was comparatively scarce.

CUTWORMS (Noctuidae)

New Jersey — New Jersey News Letter (April 25): Cutworms were found injuring tomatoes in cold frames.

EGGPLANT LEAF MINER (Phthorimaea glochinella Zell.)

Mexico — A. W. Morrill (May 21): Very few of these worms were present in Fuerte Valley in the fall of 1926 as compared with previous years. There was a rapid increase in the numbers in March and April resulting in an infestation of the tomatoes ranging from 25 to 80 per cent. Less than 5 per cent to March 1 increasing to 50 per cent by May 1.

GARDEN FLEA HOPPER (Halticus citri Ashm.)

Mexico — A. W. Morrill (May 21): About 25,000 acres of tomatoes were grown in Fuerte Valley during 1926-1927 vegetable season. Damage negligible on whole area, considerable attention given to control of hoppers in seed beds to prevent carrying infested plants to the fields; decrease over previous two seasons due to unexplained cause. Even where hoppers were considered present in tomato fields in threatening numbers in October and November, 1926, they failed to increase as in previous years. No natural enemies in evidence.

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York — E. P. Felt (May 24): Has been seen in small numbers though the early potatoes have secured a good start at Orient, Suffolk County (Roy Latham).

Alabama — L. W. Brannon (May 23): This insect is doing considerable damage to potatoes, eggplant, and tomatoes in this district (Birmingham). Some of the truckers are using control measures with good results while others are losing their crops by not trying to control the insects. This insect is feeding on tomatoes to such an extent that control measures are being conducted.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

New York — E. P. Felt (May 24): The black flea beetle, Epitrix cucumeris, had become quite common by May 5, damaging potatoes only slightly in sheltered spots, at Orient, Suffolk County (Roy Latham).

SNAILS (Mollusca)

New York — K. E. Paine (May 21): Slug injury is common in cold frames.

California — T. D. Urbahns (April 15): A. E. Bottel reports slugs causing considerable damage to tomatoes in Coachella Valley, Riverside County.

CABBAGE

CABBAGE MAGGOT (Pylemyia brassicae Bouche)

New York — J. W. Sinden (May 2): Cabbage maggot flies are abundant in Suffolk County both in the beds and in the fields set with cabbage,

and eggs are rapidly being laid. In Nassau County the cabbage maggot flies were seen for the first time on April 27, yet they have not appeared in very great numbers. A notice was sent out on the 25th for seed-bed treatment with corrosive sublimate.

C. R. Crosby and assistants (May 7): The flies have been reported plentiful from Long Island on cabbage and cauliflower. The flies had not appeared in Erie County, but are commonly found in Chautauqua County at this time. (May 21): On Long Island practically all of the eggs of the first generation have been laid. As in past years the injury is serious. In Onondaga County and in western New York egg laying has started and many growers will use control measures, some for the first time this year.

CABBAGE APHID (Brevicoryne brassicae L.)

Georgia — O. I. Snapp (May 3): The cabbage aphid is very abundant this year at Fort Valley, and has seriously damaged young plants in commercial cabbage fields.

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Mississippi — R. W. Harned (May 24): Reported on cabbage from Myrtle on May 9, and on cabbage from Tupelo on May 19. Determination made by A. L. Hamner.

CABBAGE LOOPER (Autographa brassicae Riley)

Kansas — J. W. McColloch (April 27): Moths of the cabbage looper have been very abundant at Dwight and Manhattan.

DIAMOND-BACK MOTH (Plutella maculipennis Curtis)

Kansas — J. W. McColloch (May 1): A rather severe infestation of this moth was found on cabbage in Riley County at Manhattan.

HARLEQUIN BUG (Murgantia histrionica Hahn)

South Carolina — J. O. Pepper (May 6): This insect is doing considerable damage in the Piedmont section on cabbage. It is also present on collards, turnips, and kale. It is unusually abundant.

Georgia — C. I. Snapp (May 9): A heavy infestation at Fort Valley of harlequin cabbage bugs had destroyed a field of rape by this date that had been planted on a poultry farm.

Alabama — L. W. Brannon (May 16): Adults of this insect appear to be fairly abundant in this locality (Birmingham). Egg masses are numerous and also young nymphs. Attacking cabbage, turnips, and mustard.

Mississippi — R. W. Harned (May 24): Specimens of Murgantia histrionica were collected on turnips at Louis, April 28, and on turnip and rape at Brookhaven April 26.

STRAWBERRY

STRAWBERRY ROOT WORM (Paria canella Fab.)

Pennsylvania — H. N. Worthley (May 11): Brought in from one farm at Claysburg, Blair County, where adults were found riddling strawberry leaves, appearing seriously abundant. Collected on May 7.

TARNISHED PLANT BUG (Lygus pratensis L.)

Missouri — L. Haseman (May 24): This pest appeared May 9 to 16 in the strawberry fields in the vicinity of Monett, resulting in praccally 100 per cent destruction of the crop of green berries in a week to ten day's time. The heavy epidemic, it seems, is not general though some damage is being done also in the strawberry fields at Columbia.

STRAWBERRY FLEA BEETLE (Haltica ignita Ill.)

Mississippi — R. W. Harned (May 24): Flea beetles collected on strawberry plants at Cuevas, March 25, 1926, have recently been determined by H. S. Barbar as Haltica litigata. Specimens that have been tentatively identified as this species by J. M. Langston were received from Greenwood, May 20, where they were reported as causing serious damage to fuchsias. Other specimens that were also tentatively determined by Mr. Langston as Haltica litigata were received from Yazoo City, May 19, where they were reported as injuring tomato and pepper plants.

STRAWBERRY WEEVIL (Anthonomus signatus Say)

New York — E. E. Frane (May 21): One strawberry planting badly injured.

GREEN STRAWBERRY SLUG (Empria ignota Norton)

Michigan — R. H. Pettit (May 20): The green strawberry slug, Empria ignota, has appeared in Cassopolis in Cass County, specimens having been sent in by H. H. Barnum, county agent. He reports a destruction of 2 acres of strawberries in less than 40 hours.

WHITE GRUBS (Phyllophaga spp.)

Kansas — J. W. McColloch (May 10): White grubs are reported destroying strawberry beds at Derby.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

Oregon — Don C. Mote (April): Overwintering strawberry root weevils, Brachyrhinus ovatus L., scarce in the Willamette Valley. Have

found them in only one strawberry patch and in this patch the weevil population per plant is less than one while in the Hood River Valley the weevils were found in one spot about 30 feet square in one patch at the rate of about 30 to the plant. This particular plot was a check plot (untreated) in last years experiments. Nearly mature larvae were present in the same fields.

STRAWBERRY ROOT APHID (Aphis forbesi Weed)

Mississippi — R. W. Harned (May 24): Reported on strawberry from Corinth April 14, and from Durant May 10.

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

Oregon — Don C. Mote (April 28): Adult beeltes and eggs of the asparagus beetle, Crioceris asparagi L., were received from Gervais on April 28.

BEANS

STRIPED BLISTER BEETLE (Epicauta vittata Fab.)

Alabama — L. W. Brannon (May 23): The first striped blister beetle of the 1927 season was collected on lima beans in this vicinity (Birmingham).

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

South Carolina — C. O. Eddy (May 19): Field activities began on May 10. Found eggs about that time in the Piedmont section. Active about 20 days earlier than last year.

Alabama — L. W. Brannon (May 16): At this time 15 per cent of the Mexican bean beetles that were placed in the hibernation cage last fall have emerged. One overwintered female has deposited 10 egg masses in the insectary. All instars of larvae are seen in the field and egg masses are fairly numerous at Birmingham. Damage due to bean beetle larvae is showing up in spots. The first pupa of the 1927 season was found in the field on this date. First-generation adults will be out in about 10 days. Cool weather is lengthening all stages of development.

SPOTTED LADYBIRD (Megilla maculata DeG.)

Alabama — L. W. Brannon (May 23): This beneficial insect is appearing in large numbers in this locality (Birmingham) feeding on plant lice and eggs and larvae of the Mexican bean beetle.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

South Carolina — J. O. Pepper (May 12): The adults of this insect are doing considerable damage to young beans in the Piedmont section. They are present in larger numbers than usual.

PEAS

PEA APHID (Illinoia pisi Kalt.)

California — R. E. Campbell (April 27): About 2,000 acres of seed peas in the Salinas Valley has become infested. One-fourth of the acreage is badly infested, and will be severely damaged, but the rest of the acreage will at least produce a partial crop.

T. D. Urbahns (May 13): V. G. Stevens reported aphids severely attacking beans and peas in the vicinity of Concord, Contra Costa County. The loss is estimated as 25 per cent.

Arizona — Arizona News Letter Volume 5, No. 3 March 31: The outstanding insect pest during the month of March was the pea aphid. Injury ran from a small per cent of damage to practically a total loss; in some fields large areas of the vines were killed.

ONION THRIPS (Thrips tabaci L.)

Mexico — A. W. Morrill (May 21): When the onions matured the thrips moved over to an adjoining field of green peas and scarred the pods on a few acres so that the crop was ruined for marketing green. There was some salvage by selling the dried peas (Yaqui Valley).

MELONS, SQUASH, AND CUCUMBER

SQUASH BUG (Anasa tristis DeG.)

Georgia — O. I. Snapp (May 20): Squash bugs are very abundant this year at Marshallville, doing considerable damage to watermelons, They have ruined some fields of melons. Growers are hand-picking and using nicotine sulphate.

Alabama — L. W. Brannon (May 23): Squash bugs are appearing in this locality (Birmingham) and are depositing eggs on squash. The first hatching egg mass was seen today.

SQUASH BORER (Melittia satyriniformis Hbn.)

Mississippi — K. L. Cockerham (May 7): On the above date I examined a crop of squash at Biloxi and found practically every stalk badly infested with borers. It is doubtful if the owner gets a single fruit from his crop. The stalks were already dying.

MELON APHID (Aphis gossypii Glov.)

California — T. D. Urbahns (April 16): Geo Marchbank reported aphids on cantaloupes and watermelons in unusual abundance in Madera County, the plants being practically destroyed in some fields.

Mexico — A. W. Morrill (May 20): Aphid attack in cantaloupe fields in the spring of 1927 was of short duration. While growers assumed that they had controlled the pest in Yaqui Valley by insecticides, I am of the opinion that control was due to activities of a hymenopterous parasite (Aphidius sp.) which was doing effective work against the aphids on cotton sprouts in April. I did not personally visit the melon fields said to have been infested.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Mississippi — R. W. Harned (May 24): Specimens of the 12-spotted cucumber beetle collected on Irish potatoes at Picayune on May 5, and at Myrtle on May 9. Damage by these insects to cucumbers was reported from Bogue Chitto, May 17. Specimens were collected on corn at Natchez May 16.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Alabama — L. W. Brannon (May 3): This insect has been doing considerable damage to young cucumbers and squash in this locality (Birmingham).

Mississippi — R. W. Harned (May 24): Serious damage to cucumbers by the striped cucumber beetle was reported from Bogue Chitto, May 17. This complaint was accompanied by specimens of the insects.

TURNIPS

WAVY-STRIPED FLEA BEETLE (Phyllotreta sinuata Steph.)

North Carolina — W. A. Thomas (April 27): During the first week of April the larvae of Phyllotreta sinuata were observed mining the leaves of turnips and mustard in a small home garden at Chadbourn. The attack was so severe that many of the plants were killed. Mature plants in the same garden were less seriously affected, only the lower leaves next to the ground being heavily infested. The adults of this generation began emerging the third week in April and by the last week of the month many of the turnips and adjacent peppergrass were almost covered with the adults of this species. On some of the turnip leaves the insects were so thick that the leaf could scarcely be seen. Much of the foliage was completely skeletonized in a couple of days. A severe dust storm on April 30 dislodged most of the insects from the plants, which were nearly free from the infestation on May 1. By May 3 the insects had returned to the plants in greater number than before the storm.

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Alabama — L. W. Brannon (May 10): This species is doing serious injury to turnips in this locality (Birmingham). Truckers in this district are plowing fields of turnips under because this insect has damaged them to the extent that they are unmarketable.

CABBAGE CURCULIO (Ceutorhynchus rapae Gyll.)

Alabama — L. W. Brannon (May 23): This species was found feeding on mustard and turnips in this locality (Birmingham) on May 3. This insect has not been noticed in this vicinity for the past several years. The insects were not very numerous.

ONION

ONION MAGGOT (Hylemyia antiqua Meig.)

New York — R. G. Palmer (May 2): Onion maggot puparia brought indoors are emerging nicely and show less than 50 per cent parasitism. Outdoors the flies will provably start to emerge this week.

B. G. Cook (May 2): From Genesee, Wyoming County, it was reported that the warm weather of the last two days had brought out the first of the onion maggot flies. Three were found in one of the cages on the 30th.

C. R. Crosby and assistants (May 21): Flies are emerging in large numbers. The first eggs were found on May 17. Growers were advised to make their first application of 2 per cent Bordeaux oil on May 23. Last year considerable damage occurred to onions on muck land near Cherry Creek. This year growers are applying control measures. Many eggs have been laid, and most of the larvae of the first generation have hatched.

Oregon — Don C. Mote (April): Onion maggot adults were first observed in the field on April 13.

IMBRICATED SNOUT BEETLE (Epicaerus imbricatus Say)

Mississippi — R. W. Harned (May 24): Specimens of the imbricated snout beetle, Epicaerus imbricatus, were collected on onions and young bunch beans at Lucedale, April 15.

SWEET POTATO

ARGUS TORTOISE BEETLE (Chelymorpha cassidea Fab.)

Mississippi — R. W. Harned (May 24): Specimens of tortoise beetles belonging to the species Chelymorpha cassidea were collected on sweet potato plants at Learned, Hinds County, recently. The correspondent wrote: "They are working in droves and are eating the potato plants entirely up as they go."

BEETS

CUTWORMS (Noctuidae)

Utah — Geo. F. Knowlton (May 17): Cutworms have been doing considerable damage to sugar beets in the Ogden district, but were successfully controlled with poisoned bait.

CLICK BEETLES (Elateridae)

Utah — Geo. F. Knowlton (May 17): The adult click-beetles were reported as damaging beets in the Ogden district.

FLEA BEETLES (Halticinae)

Utah — Geo. F. Knowlton (May 6): The black flea beetle is damaging young sugar beets south of Salt Lake City and down to Draper. (May 17): Flea beetles are quite numerous this spring at Logan, present in all beet fields examined, but only in exceptional cases are they doing sufficient damage to merit the application of sprays.

RHUBARB

GREEN DOCK BEETLE (Gastroidea cyanea Melsh.)

Oregon — Don C. Mote (April): Observed on May 10 feeding on rhubarb at Gervais. Evidently about ready to lay eggs. Newly laid eggs observed on dock at Lake Labish on May 12.

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.)

Florida — E. F. Grossman (May 22): Continued hot dry weather has slowed down the emergence rate of the boll weevil from hibernation cages, with 11.01 per cent of 3,123 weevils emerging from 28,437 put up last fall. Though weevils were found in the open fields on cotton seedlings as early as April 27 and quite a wave emerged during the second week in May, field infestation is, at present, at a standstill.

B. R. Coad (Cooperative Report April 16): At several points near College Station, Tex., in 1906, 1907, and 1908 an average of 4.6 per cent of the weevils emerged prior to April 16. In 1925 at College Station, Tex., 3.54 per cent had emerged prior to April 16; in 1926, 2.45 per cent, and this year 3.71 per cent had emerged.

At Florance, S. C., in 1924 prior to April 16, 0.11 per cent of the weevils had emerged; in 1925, 2.49 per cent; in 1926, 0.25 per cent; and this year 2.38 per cent.

In past years at Tallulah, La., the percentage of survival prior to April 16 was as follows: 1.18 per cent in 1916, 0.10 per cent in 1917, 0.02 per cent in 1918, 0.02 per cent in 1919, 0.09 per cent in 1920, 0.80 per cent in 1921, 1.07 per cent in 1922, 0.30 per cent in 1923, 0.04 per cent in 1924, 0.01 per cent in 1925, and 0.03 per cent in 1926. The survival this year to the same date was 0.22 per cent.

It will be noted that a greater survival was recorded prior to April 16 at all the cooperating stations this year than in 1926, where records for comparison are available, except Poplarville, Miss., Experiment Ga., and Baton Rouge, La. Attention is called to the lack of weevil emergence in the two cages at Baton Rouge, La.; this can probably be explained by the fact that they were installed on October 8 and 24 - about six and four weeks, respectively, before a killing frost occurred. Dr. Hinds states that his earliest records have indicated a very light survival among weevils starting hibernation four weeks or more before killing frosts occur and as a rule no survival where hibernation started six weeks before a killing frost. Consequently, he considers that his limited records this spring have no significance as regards field emergence.

A greater survival was recorded this year prior to April 16 than in 1925 at one point in Texas, one in North Carolina, one in Louisiana, one in Alabama, and one in Mississippi, whereas a greater survival was recorded in 1925 at one point in South Carolina, one in North Carolina, one in Louisiana, and one in Georgia.

Records in past years at Tallulah, La., show that an average of 26.49 per cent of the total survival for the season is completed prior to April 16.

FLEA BEETLES (Halticinae)

South Carolina — C. O. Eddy (May 19): Local attacks of about three species of flea beetles caused damage during the first half of May at least. The upper and lower surface of leaves, especially cotyledon, were eaten.

COTTON FLEA (Psallus seriatus Reut.)

South Carolina — C. O. Eddy (May 19): Cotton flea hoppers are developing in moderately large numbers on great quantity of evening primrose throughout the Piedmont section. A few of the pests are now active on certain localities on cotton.

Mississippi — R. W. Harned (May 24): Specimens of Psallus seriatus have been collected recently at A. & M. College, on horsemint and croton plants. Specimens of this insect were also collected at Natchez by sweeping with a net in a pasture.

Texas — Press Bulletin Texas Agricultural Experiment Station, College Station (April 15): The numbers of cotton flea hoppers which have emerged or hatched from 6 lots of 100 plants each from first emergence up to above date, inclusive, are given below.

Goatweed	22,018
Cotton	136
Ragweed	336
Horsenettle	222
Bitterweed	633
Careless weed	248

SALT MARSH CATERPILLAR (Estigmene acraea Drury)

Mexico — A. W. Morrill (May 20): This insect, which has been quite destructive on cotton for two years past, seems to have disappeared in the Yaqui Valley.

APHIIDAE

South Carolina — C. O. Eddy (May 19): Numerous in certain fields before dry weather of May arrived in the Piedmont section.

TOBACCO

WIREWORMS (Elateridae)

North Carolina — J. N. Tenhet (May 6): Numerous complaints of wireworm damage at Chadbourn to tobacco are received daily. In some fields the damage varies from 50 per cent to 90 per cent. In one or two fields under observation, resetting has been necessary four times. Wireworms attacking tobacco seem almost entirely to be Monocrepidius sp.

CUTWORMS (Noctuidae)

South Carolina — J. O. Pepper (May 9): It has been reported that a 5-acre field of tobacco plants at Hodges has been destroyed by cutworms in Greenwood County.

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

North Carolina — Z. P. Metcalf (May 24): The tobacco flea beetle is not especially destructive to tobacco beds this year, but owing to the dry season it has been especially bad on the tobacco transplanted in the field.

Florida — F. S. Chamberlin (May 16): Adults of the spring brood were first noticed on May 11. Infestations appear to be light and little damage has resulted thus far.

SUGAR

SANTO DOMINGO CANE BUTTERFLY (Calisto pulchella Lathy)

Haiti — G. N. Wolcott (May 10): An outbreak of caterpillars of the Santo Domingo cane butterfly, Calisto pulchella Lathy, occurred in the northern part of Haiti between Cap Haitien and Guaniminthe. I did not observe this in person, but Mr. Fessenden, of the office of the Haitian-American Sugar Company, described the caterpillars and the nature of their injury so well that I have no doubt as to the identity of the insect concerned. Calisto is reasonably common everywhere that cane is grown in Hispaniola, but I have seen or heard of no serious outbreaks since being here, except for the one new reported.

SUGARCANE BEETLE (Euetheola rugiceps Lec.)

Mississippi — R. W. Harned (May 24): The rough-headed cornstalk beetle or sugarcane beetle, Euetheola rugiceps, has been reported from nearly every section of the State during the past month. Apparently this insect is more abundant and is causing more damage this year than during any previous year of which we have record. Packages of these insects with complaints in regard to their injury have been received from correspondents almost every day during the past month.

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

DEODAR WEEVIL (Pissodes deodarae Hopk.)

Mississippi — R. W. Harned (May 24): Specimens of weevils collected on Cedrus deodara plants at Wiggins, Jackson, and Meridian, in April were identified by W. S. Fisher of the Bureau of Entomology as Pissodes deodarae. Another generation of these weevils has appeared at Meridian, on Cedrus deodara plants as indicated by specimens received on May 21, from that place. These specimens were tentatively identified by J. G. Hester of our State Plant Board.

PERIODICAL CICADA (Tibicina septendecim L.)

Virginia — W. J. Schoene (May 25): The XVII-year locusts have appeared near Bonsacks just east of Roanoke, Also appearing in large numbers in Augusta County near Stuarts Draft.

A CICADA (Species undetermined)

California — T. D. Urbahns (May 21): Specimens of a cicada were sent to this office for determination with a statement that they were very abundant in the vicinity of Morgan Hill, Santa Clara County,

the larvae emerging from the roots of prune trees and the adults at this time of the year ovipositing in the year-old growth of prune wood. Twigs loaded with fruit break off so that there is considerable loss to the growers in some orchards.

GIANT HICKORY APHID (Longistigma caryae Harr.)

South Carolina — J. O. Pepper (May 6): Specimens of this insect have been received from all parts of the Piedmont section. It has been reported as being present on various kinds of trees in abundant numbers.

TURPENTINE BORER (Buprestis apricans Hbst.)

Florida — Monthly Letter of Bureau of Entomology No. 156 (April): In the latter part of March F. C. Craighead and J. A. Beal spent some time on the Choctowhatchee Division of the Florida National Forest, making a preliminary study of the turpentine borer (Buprestis apricans Hbst.). This insect causes serious losses in Longleaf and slash pines after they have been operated for turpentine. The more conservative types of operating adopted by the Forest Service prevent much of this damage, though faces exposed for a number of years are finally attacked.

OYSTER SHELL SCALE (Lepidosaphes ulmi L.)

Illinois — W. P. Flint (May 23): The double-brooded form infesting shade trees began hatching during the week of May 8. The single-brooded form, which is common on ash, lilac, Carolina poplar, and some shrubs, has not yet started to hatch at Urbana.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Arkansas — W. J. Baerg (May 2): Hatching of caterpillars began on May 2 and is still going on, Unless parasites appear, a condition unfavorable to caterpillar development, many trees will be largely defoliated. (May 4): Caterpillars began hatching on May 2. An estimate of their relative numbers can not as yet be made.

Missouri — L. Haseman (April 28): More inquiries than usual regarding bagworms have been received during the month from various sections of the State. The spring brood of worms has not yet developed, but the complaints refer to the cocoons left from last year.

(Dichomeris marginellus Fab.)

North Carolina — J. A. Beal (May 18): Dichomeris marginellus was badly infesting a number of junipers during the latter part of April this year at Asheville.

(Blepharida rhois Forst.)

Alabama — L. W. Brannon (May 23): This insect is very numerous on sumac in this vicinity (Birmingham). Larvae are appearing and the adults are defoliating the sumac leaves.

BROWN-TAIL MOTH (Nygmia phaeorrhoea Don.)

New Hampshire — W. C. O'Kane (May 18): About 800,000 webs of this prime pest are housed in a specially built insectary at Durham in which the caterpillars are being fed in order to permit emergence of any parasites on hand. An investigation is under way to find a suitable spray for use in the spring of the year. This species is on the up-curve in New Hampshire once more, after a down-curve through a considerable period of years.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S.& A.)

New York — E. P. Felt (May 24): White-marked tussock moths in clusters are quite numerous in the city and are expected to hatch the last of May (R. E. Horsey).

ARBORVITAE

AN APHID (Dilachnus thujafolia Theob.)

Mississippi — R. W. Harned (May 24): Reported on arborvitae at Jackson April 18, at Gulfport April 27, at Tupelo May 3, and at Brookhaven May 15. Identified by A. L. Hamner.

ASH

CARPENTER WORM (Prionoxystus robiniae Peck)

Ohio — E. W. Mendenhall (May 12): I find the carpenter borer quite bad in the ash trees, also in shade trees for street planting in the vicinity of Walnut Hills, Cincinnati. The injection of carbon disulphide in the tunnels to destroy the boring larvae might be useful.

BOXELDER

BOXELDER APHID (Periphyllus negundinis Thos.)

Missouri — A. C. Burrill (May 18): One tree has leaves falling as per sample enclosed. Damage is severe in spots. (May 20): I find it especially bad on one tree as per sample submitted, where the one tree epidemic had somehow been previously overlooked. It is my judgment that we can not claim this aphid in serious epidemic yet, but as showers fall daily and it is too cold for lady beetles and syrphids to operate, it may become so if this weather continues another week or so.

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

Ohio — E. W. Mendenhall (May 20): Found the flat-headed apple tree borer present in some of the boxelder trees on the east side of Columbus.

CYPRESS

CYPRESS MOTH (Cydia sp.)

California — T. D. Urbahns (April 18): A. E. Bottel reports cypress moth (Cydia sp.) larvae attacking cypress trees in Riverside County.

PINE

WHITE PINE WEEVIL (Pissodes strobi Peck)

New Hampshire — W. C. O'Kane (May 18): Weevils began to appear from hibernation about May 1, but have been slow in showing up in numbers because of cold and rainy days. A study of this insect is under way and interesting details in its life history have come to light.

A SAWFLY (Neodiprion excitans Rohwer)

Mississippi — R. W. Harned (May 24): Specimens tentatively identified as Neodiprion excitans were collected on pine at Agricola during the early part of May, 1927.

SOUTHERN PINE SAWYER (Monochamus titillator Fab.)

Mississippi — R. W. Harned (April 21): Specimens of Monochamus titillator were collected on pine at Tupelo on April 21, 1927.

RED TURPENTINE BEETLE (Dendroctonus valens Lec.)

North Carolina — Monthly Letter of the Bureau of Entomology No. 156, April: Early in April R. A. St. George and J. A. Beal began the summer work at Bent Creek, the location of the field laboratory near Asheville, It was found that low temperatures in the past winter had caused a high mortality in overwintering brood of Dendroctomus valens.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Arkansas — W. J. Baerg (May 16): Moths began to appear on May 12. Extent of damage can not be estimated as yet.

GREENHOUSE AND ORNAMENTAL PLANTS

MISCELLANEOUS FEEDERS

A MAY BEETLE (Phyllophaga rugosa Melsh.)

Missouri — A. C. Burrill (May 19): Petals chopped, buds eaten, char into heart so bloom fails to unfold. Honeysuckle leaves for 3 rods or more of vine bank chopped all to pieces (not leaf cutting Megachile this time). Damage 10 to 20 per cent of the blooms at Jefferson City.

LEAF ROLLER (Archips parallela Rob.)

New York — E. E. Frane (May 2): An occasional leaf roller has been seen in Dutchess County.

GREENHOUSE LEAF TYER (Phlyctaenia ferrugalis Hbn.)

Pennsylvania — H. N. Worthley (May 10): Found all stages. Larvae 1 to 5 per leaf on canna, chrysanthemum, snapdragon, and cineraria. Grower says they attack almost everything but coleus and ferns.

LESSER BULB FLY (Eumeris strigatus Fallen)

Oregon — Don C. Mote (April): Lesser bulb flies, Eumeris strigatus Fallen, observed in field on May 26, some mating.

AZALEA LEAF ROLLER (probably Gracilaria azaleella Brants)

New York — E. P. Felt (May 24): The azalea leaf roller, probably Gracilaria azaleella Brants, is very scarce (R. E. Horsey).

SNAILS (Mollusca)

New York — W. F. Crowell (May 23): In a small greenhouse in Ripley snails have been eating the leaves of the lettuce and dahlias, doing considerable damage, and also attacking peppers.

BOXWOOD LEAF MINER (Monarthropalpus buxi Labou.)

New York — E. P. Felt (May 24): The boxwood leaf miner, Monarthropalpus buxi, is somewhat more abundant in Nassau and Suffolk Counties than in previous years. The work is somewhat generally attributed to winter injury (C. H. Zimmer).

CHRYSANTHEMUM

CHRYSANTHEMUM APHID (Macrosiphoniella sanborni Gill.)

Mississippi — R. W. Harned (May 24): Macrosiphoniella sanborni on chrysanthemum at McComb, reported on May 5.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

North Carolina — Z. P. Metcalf (May 24): Young scales are hatching in enormous numbers and attacking Euonymus at Raleigh.

GLADIOLI

STRIPED BLISTER BEETLE (Epicauta vittata Fab.)

Mississippi — K. L. Cockerham (May 17): This insect was found feeding on and injuring the blossoms of gladioli at Fruitland Park. Where the blossoms were allowed to remain in the field after opening, the beetles were causing severe injury by eating out and disfiguring the flowers.

LILY

A NOCTUID (Xanthopastis timais Cram.)

Mississippi — R. W. Harned (May 24): Specimens of what is very probably Xanthopastis timais Cram. were found injuring lilies at Natchez on May 11.

NARCISSUS

BULB MITE (Rhizoglyphus hyacinthi Boisd.)

Ohio — E. W. Mendenhall (May 18): Found them quite numerous on Narcissus bulbs in one of the nurseries in this locality (Dayton).

OLEANDER

OLEANDER APHID (Aphis nerii Fons.)

Mississippi — R. W. Harned (May 24): Reported on oleander from Biloxi on April 11. Determination made by A. L. Hamner.

ROSE

AN APHID (Macrosiphum rosaefolium Theob.)

Mississippi — R. W. Harned (May 24): Macrosiphum rosaefolium Theob. was reported attacking rose at Tupelo on April 23.

ROSE APHID (Macrosiphum rosae L.)

Missouri — A. C. Burrill (May 20): The rose aphid seems to have migrated from its host on which it was sparingly present last month, so that there is no considerable epidemic here (Jefferson City).

ROSE LEAF ROLLER (Archips rosaceana Harr.)

New York — E. P. Felt (May 24): Quite numerous at Rochester since May 10, on hybrid perpetual roses.

DIPLOPODS

Pennsylvania — W. F. Crowell (May 23): An infestation of diplopods at Harbor Creek has been doing considerable damage to bulbs and to rose roots this spring.

ROSE SLUG (Caliroa aethiops Fab.)

North Carolina — Z. P. Metcalf (May 24): The rose slug has been especially destructive to climbing roses in the City of Raleigh this year.

CORN ROOT WORM (Diabrotica longicornis Say)

North Carolina — Z. P. Metcalf (May 24): The adults have been especially destructive to rosebuds this year; the larvae have done about the same amount of damage to young corn.

SUNFLOWER

CARROT BEETLE (Ligyrus gibbosus DeG.)

South Carolina — J. O. Pepper (May 14): Specimens of this insect have been received from Greenwood and Sumter Counties. It is reported that from 8 to 10 adults can be found around the base of each sunflower plant. Many plants have been killed.

VIBURNUM

APHIDAE

Utah — Geo. F. Knowlton (May 11): Aphids are damaging snowball bushes at Salt Lake City.

INSECTS ATTACKING MAN AND DOMESTIC ANIMALS

MAN

A BEDBUG (Haematosiphon inodorus Duges)

New York — E. P. Felt (May 24): Bedbugs provisionally identified as Cimex inodorus were reported by local hospital authorities as a nuisance in galvanized iron cages containing guinea pigs. The bugs were found more commonly near the top of the cage in the crevice between the angle irons and the side of the cage. There was evidently a somewhat serious infestation.

BEDBUGS (Cimex lectularius L.)

Oregon — Don C. Mote (April): Bedbugs were reported on April 25 as being numerous in a rooming house.

FLEAS (Siphonaptera)

Georgia — O. I. Snapp (May 11): Fleas are more abundant this year than usual, and many complaints have come to the laboratory during the recent weeks.

MOSQUITOES (Culicidae)

Missouri — L. Haseman (April 28): Large species not yet identified appeared first in large numbers during the evening of April 27.

MIDGES (Chironomidae)

New York — E. P. Felt (May 24): A chironomid was excessively abundant at Nassau Lake, Renssellaer County, the latter part of May, there being literally millions of the small flies in sheltered portions of piazzas and similar places, the walls and roof being literally dark with flies and quarts of dead ones being easily swept up from the floor. The infestation appeared to be somewhat general and was troublesome only on account of the almost overwhelming numbers of the insects.

HORSES

BLACK FLIES (Simulium hirtipes Fries)

New York — E. P. Felt (May 24): Black flies, Simulium hirtipes, were somewhat abundant the latter part of May and early in April in the higher pastures of Dutchess, Columbia, and Rensselaer Counties, the flies frequently swarming when there was a lull in the wind and occasionally biting, though in this latter respect they did not compare with the black flies of the Adirondacks.

BUFFALO GNAT (Simulium pecuarum Riley)

California — T.D. Urbahns (April 4): W. C.Barber reported that buffalo gnats had appeared in great abundance in Kern County about March 25 and the infestation lasted about ten days. Livestock injury was reported by stock men, but most of the effect was in the form of annoyance to humans.

CATTLE

HORN FLY (Haematobia irritans L.)

Missouri — L. Haseman (April 28): During part of the month the horn fly has been rapidly increasing in numbers though it is not yet abundant enough to be particularly annoying to livestock.

POULTRY

CHICKEN MITE (Dermanyssus gallinae Redi)

Missouri — L. Haseman (April 25): The common chicken mite, which is always present in greater or lesser abundance, has begun to attract attention earlier than usual this spring.

TROPICAL FOWL MITE (Liponyssus bursa Berlese)

Missouri — L. Haseman (April 25): A heavy outbreak of a poultry mite identified as the tropical fowl mite has recently developed on a number of farms near Columbia.

EUROPEAN HEN FLEA (Ceratophyllus gallinae Schr.)

Connecticut — T. E. Britton (May 27): Poultry manure spread upon garden near the house and fleas were very annoying to the people. Finally house and garden were treated with granular Quicklime and fleas disappeared. Identification is by H. A. Stewart, and is first record for Connecticut of the European poultry flea.

I N S E C T S I N F E S T I N G H O U S E S

A N D P R E M I S E S

TERMITES

Kansas — J. W. McColloch (May 20): Termites have continued to be an important problem in the State during the past month. Woodwork in houses has been injured at Neodesha, Kincaid, Kansas City, Abilene, Junction City, Tescott, Peabody, Beloit, and Wichita. A business building has suffered damage at Parsons and a garage at Hiawatha. A maple tree has been killed at Kansas City and the ants are working on an osage orange hedge at Peabody. Newspaper reports state that several hundred houses in Kansas City, Mo., and Kansas City, Kan., show injury.

New Hampshire — W. C. O'Kane (May 18): Termites, Reticulitermes flavipes Kol., seem to show an increasing abundance and destructiveness in New Hampshire, in spite of the fact that this region is pretty far north. One of the older University buildings shows a basement infestation. One of the new dormitories shows an infestation in basement timbers. The University greenhouses are attacked. Worst of all, the Department of Entomology insectary has been attacked. A greenhouse near Nashua shows damage. In the city of Nashua there has been extensive attack in a large factory building.

ANTS (Formicidae)

Missouri — L. Haseman (April 28): Ants are beginning to attract attention in and about homes.

AN ANT (Lasius interjectus Mayr)

Kansas — J. W. McColloch (May 1): This ant has been found swarming in houses at Iola, Kansas City, and Manhattan.

HOUSE CRICKET (Gryllus domesticus L.)

New York and Maryland — Monthly Letter of the Bureau of Entomology No. 156, April: The finding of Gryllus domesticus in great abundance in Baltimore, New York, and various localities in the eastern part of the United States has been reported, but no specimens have been received for the National Collection. We would like to have a long series of specimens of both sexes in adult and nymphal stages. It may be distinguished from the other species of Gryllus by its generally lighter color and by the two black bands across the forehead.

CIGARETTE BEETLE (Lasioderma serricorne Fab.)

Kansas — J. W. McColloch (May 1): Beetles and larvae are abundant in upholstered furniture in a furniture store at Kansas City, Kan.

A PODURID (Podura aquatica L.)

South Carolina — J. O. Pepper (May 11): A bottle of water containing numerous specimens of this insect was sent in from Landrum as being taken from a well in the yard.

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

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)

Kansas — J. W. McColloch (May 2): A sample of seed corn received from Topeka was heavily infested with this insect.

DARK MEAL WORM (Tenebrio obscurus Fab.)

Kansas — J. W. McColloch (May 6): Larvae of the dark meal worm have been received from Leavenworth, Topeka, and Garnett. In all cases they were working in stored grain.

CADELLE (Tenebroides mauritanicus L.)

Kansas — J. W. McColloch (May 7): The cadelle is reported as being very abundant in a granary at Bluff City. The larvae have burrowed into the wood of the bins for pupation. Many of the boards are honeycombed with burrows.