

THE INSECT PEST RECORD FOR OKLAHOMA, 1941

F. A. FENTON, Oklahoma A. and M. College, Stillwater

THE MORE IMPORTANT INSECT PESTS¹

Insects caused more losses in 1941 than for several years.

Grasshoppers. The following is taken from the annual report (typewritten) of J. M. Maxwell, state leader in grasshopper control. The heaviest infestation occurred in Texas County where 309.8 tons of bait were used as compared to 94 tons in Cimarron County, 53 tons in Beaver County and 27.5 tons in Harper County. These figures are as of October 15, 1941. Reports received since then show a further marked increase in total number of tons of bait used in the state, some 931.6 tons as compared to 546.5 reported in October. In May *Aeoloplus turnbullii* Thos. and *Melanoplus mexicanus* (Sauss.) were the dominant species. In June a fungus disease reduced the *A. turnbullii* population about 30 percent and *M. mexicanus* became the dominant species, comprising about 60 percent of the population in areas where grain was the chief crop. In July *M. mexicanus* comprised about 70 percent of the population followed in order by *M. differentialis* (Thos.) and *M. bivittatus* (Say). A second generation of *M. mexicanus* was developed in the panhandle counties, necessitating late baiting.

Chinch Bugs. According to reports (typewritten) by C. F. Stiles, state leader in chinch bug control, chinch bugs in 1941 caused more damage than in 1940, although part of this was due to the unfavorability of the season for constructing barriers. The same rains which interfered with barrier construction also checked the bugs either by drowning them or by favoring a luxuriant growth of crab grass in many fields, thereby checking or delaying migration. The total estimated number of acres of crops destroyed by overwintered adults and by migrating first generation bugs was 125,520 as compared with 86,113 in 1940.

The plum curculio, *Conotrachelus nenuphar* (Herbst), was unusually destructive in the state to peaches and plums. Because of unfavorable climatic conditions, probably drought, this insect was rare in the vicinity of Stillwater for a number of years. However, in 1941 severe damage occurred in that area.

An unusually large aphid, *Longistigma caryae* Harris, caused considerable alarm in the eastern part of the state. Large colonies developed on pecan branches.

Spring canker worms, *Paleacrita vernata* (Peck), were responsible for severe defoliation of orchard and shade trees throughout the central portion of the state.

The pea aphid, *Macrosiphum pisi* Kalt., caused damage to alfalfa in widely scattered parts of the state, reports of damage being received from Cimarron to Muskogee Counties. Damage was quite severe in the central

¹Most of the records are from identification of material sent in to the Experiment Station. Where starred, the record is from the files of C. F. Stiles and J. M. Maxwell, of the Agricultural Extension Division.

part of the state. In one field under observation the aphids were checked by a disease caused by *Empusa aphidis*.

The arborvitae aphid, *Cinaria tujafilina* (DelG.), was unusually abundant in March and early April.

The pale western cutworm, *Agrotis orthogonia* Morrison, was prevalent in the Oklahoma panhandle. In one field of 160 acres of wheat 60 percent of the wheat plants were killed.

The cotton boll weevil, *Anthonomus grandis* Boh., was more injurious in the eastern part of the state than in several years.

The sorghum webworm, *Celama sorghiella* (Riley), seriously damaged the heads of grain sorghums. The infestation extended as far west as Lawton, and as far north as Bartlesville.

The army cutworm, *Chorizagrotis auxiliaris* Grote, damaged wheat, oats, barley and rye in Cotton, Grady, Greer, Harmon, Jackson, Kiowa and Tillman Counties in May.

The army worm, *Cirphis unipuncta* (Haw.), caused considerable damage to wheat throughout the southwestern part of the state. However, damage was reported to extend as far north as the Kansas border. Most serious damage was done in Blaine, Grady, Harmon, Jackson, Kiowa, Major, Tillman and Washita Counties.

More reports of damage to corn by the southwestern corn borer, *Diatraea grandiosella* Dyar, were received than ever before, indicating either a further spread of this species or more favorable conditions for its development.

A localized outbreak of the rice stink bug, *Solubea pugnax* F., occurred in the vicinity of Lawton, where severe damage was done by this species to sorghum heads.

A threatened outbreak of the green bug, *Toxoptera graminum* Rond., failed to develop. However, many fields of wheat and barley were damaged; some were total losses, in the following counties: Canadian, Jefferson, Kay, Logan, Pottawatomie, Washington, Caddo, Comanche and Cotton.

More insect damage to stored wheat was reported than in many years. Part of this was due to the poor condition of the grain in many areas at harvest and part to increased farmer interest in control. The flat grain beetle, *Laemophloeus minutus* Oliv., was by far the most numerous. This is classed as a minor pest but apparently may cause heating and was certainly a factor in condemning wheat for loans.

FRUIT AND NUT INSECTS

Anarsia lineatella Zeller, peach twig borer—Wagoner, Apr. 21*.

Aspidiotus ancylus (Putnam), Putnam's scale—Bennington (peach), Feb. 15.

Aspidiotus perniciosus (Comstock), San Jose scale—Grove (apple), Apr. 19; Soper, Mar. 7.

Bostrichus bicornis Web, bostrichid—Okmulgee (apple), Apr. 19.

Carpocapsa pomonella (L.), codling moth—Muskogee, Feb. 18; Tahlequah, Mar. 20.

- Chrysobothris femorata* Olivier, flat-headed apple-tree borer—Wetumka (persimmon), Mar. 31.
- Coleophora caryae-foliella* (Clem.), pecan cigar case bearer—Porum (pecan), June 17.
- Conopia exitiosa* (Say), peach tree borer—Ames, Jan. 29; Checotah, May 21; Duncan, Apr. 8; Erick, June 4; Oklahoma City, Apr. 19; Thomas, Dec. 20; Turley, Jan. 25; Waurika, Oct. 24.
- Conotrachelus nenuphar* (Herbst), plum curculio—Elmore City, Mar. 13; Hugo, May 2.
- Cotinus nitida* (L.), green June beetle—Oklahoma City (peach), July 17.
- Datana integerrima* G. and R., walnut datana—Comanche County, June 22*; Oklahoma City (pecan), July 22.
- Desmia funeralis* (Hubn.), grape leaf folder—Wyandotte (grape), July 11; Pryor, July.
- Erythroneura comes* (Say), grape leafhopper—Bethany, July 17; Britton, June 28; Kingfisher, Sept. 25.
- Hysterononeura setariae* (Thos.), brown plum aphid—Avant, May 8.
- Longistigma caryae* Harris—Ada, May 2*; Atoka, May 9*; Enid, May 8*; Holdenville, May 14*; Hugo, May 15*; Idabel, May 8; McLoud, May 16; Okemah, May 8; Pauls Valley (pecan), May 3; Sallisaw, May 10*; Shawnee, May 12*; Stillwater (pecan), Apr. 29; Tulsa (pecan), May 20.
- Malacosoma americana* (Fab.), tent caterpillar—Millerton (peach), Mar. 19; Monroe (plum), Apr. 8; Wright City, Apr. 26. Unusually abundant on plum, especially wild plum, April 25.
- Paleacrita vernata* (Peck), spring canker worm—Canute, Apr. 30; Okemah, Apr. 25*. Defoliated orchard trees throughout central portion of the state; especially numerous in Love, Jefferson, Oklahoma and Seminole Counties, Apr. 21-23*.
- Polychrosis viteana* (Clem.), grape berry moth—Drumright, Apr. 1.
- Scolytus rugulosus* Ratz., shot-hole borer—Oklahoma City (pecan), June 12; Tonkawa (apricot), June 10; Tulsa (peach), Jan. 17, July 31.

HOUSEHOLD INSECTS

- Blatella germanica* (L.), German cockroach—Apache, Sept. 3.
- Cimex lectularius* L., bed bug—Foss, Mar. 31; Vici, Apr. 19.
- Gryllus assimilis* (Fab.), black field cricket—Norman, Aug. 14*. Infested downtown section flying to lights.
- Lepisma saccharina* L., silver fish moth—Bartlesville, Sept. 13; Pawnee, July 21; Ripley, July 7.
- Lyctus planicollis* Lec., powder post beetle—Oklahoma City, Apr. 24; Tulsa, Mar. 15.
- Pogonomyrmex barbatus* var. *molefacians* Buckley, red harvester ant—Tuttle, Apr. 3.
- Supella supellectilium* (Serv.), banded cockroach—Stillwater, Apr. 18.
- Termites—Ada, Jan. 22; Camargo, Feb. 19; Cherokee, Mar. 31, Aug. 7*; Chickasha, May 1*; Dover, May 14; Enid, Mar. 29; Erick, Nov. 8; Fairfax, Apr. 21; Fay, May 29; Holdenville, Feb. 4*; Hopeton,

Nov. 24; Marshall, July 17; Mountain Park, Sept. 24; McAlester, May 15*; Norman, Aug. 9*; Oklahoma City, Feb. 10, May 16, Aug. 15, Sept. 3, Nov. 19; Pawnee, July 8*; Pearson, Apr. 4; Shattuck, Aug. 22; Tonkawa, Apr. 14; Tulsa, Mar. 14, May 12; Tuttle, Nov. 5; Waynoka, May 16; Weatherford, Mar. 17*; Wetumka, Sept. 9*.

VEGETABLE INSECTS

- Anasa tristis* (DeGeer), squash bug—Binger, Feb. 12; Elmore City, May 16; Kendrix, Apr. 22*; McAlester, Sept. 10*; Nowata, July 15*; Oklahoma City, Aug. 1; Stillwater, Aug. 20*; Talihina, Apr. 19*; Tulsa, Apr. 22*; Wellston, June 3*.
- Ceratoma trifurcata* (Forst.), bean leaf beetle—Extremely numerous throughout eastern half of state during late April and May*.
- Diabrotica duodecimpunctata* (Fab.) twelve-spotted cucumber beetle—Muskogee, June*; Stillwater, October*.
- Diabrotica vittata* (Fab.), striped cucumber beetle—Kingfisher, May 20; Sapulpa, Feb. 21.
- Heliothis armigera* (Hbn.), corn earworm—Bixby, June 7*; heaviest infestation in years in the sweet corn producing area around Bixby.
- Macrosiphum pisi* Kalt., pea aphid—Sand Creek, May 29.
- Murgantia histrionica* Hahn, harlequin bug—Lawton, Mar 13*; Okmulgee, May 15*; Webbers Falls, July 23.
- Thrips tabaci* Lind., onion thrips—Eufaula, July 25, July 19.

INSECTS INFESTING SHADE TREES AND ORNAMENTALS

- Aphis pawneepae* Parker, red bud aphid—Stillwater, Apr. 26.
- Atteva aurea* Fitch, alanthus worm—Garber July 30; Mountain View, July 9; Stillwater, July 23.
- Chionaspis americana* Johns, elm scurfy scale—Hennessey, Mar. 10.
- Chrysobothris femorata* Olivier, flat-headed apple-tree borer—Wetumka (persimmon), Mar. 31.
- Cinaria tujafilina* (Del G.), arborvitae aphid—Afton, Apr. 8; Blanchard, Mar. 12; Lawton, Mar. 24; Oklahoma City, Mar. 5, Apr. 1; Sand Springs, Mar. 14; Sapulpa, Mar. 14.
- Desmia funeralis* (Hubn.), grape leaf folder—Guthrie (Virginia creeper), July 10.
- Diarthronomyia chrysanthemi* Ahlberg, chrysanthemum midge—Oklahoma City, Apr. 19.
- Epicauta vittata* F.,—damaging foliage of locust trees in Wagoner County, July 26*.
- Eriosoma americana* (Riley), elm leaf curl aphid—Stillwater, July 23.
- Eriosoma rileyi* (Thos.), woolly elm aphid—Bristow, July 14.
- Gelechia cercerisella* Chamb., red bud leaf roller—common on red bud throughout the state, especially in Payne and Woods Counties during July, August and September.
- Hemichionaspis aspidistrae* (Sign.), aspidistra scale—Pawnee (fern), Sept. 22.

- Hyphantria cunea* (Drury), fall webworm—Crowder, July 31.
- Malacosoma americana* (Fab.), tent caterpillar—common on wild plums.
- Pachypsylla celtidis-mamma* Riley, hackberry nipple gall—Ardmore, June 13; El Reno, June 17.
- Pachypsylla venusta* O. S.—El Reno (hackberry), June 17.
- Phloeosinus dentatus* (Say), cedar bark beetle—Alva (cedar), Aug. 2.
- Termites—Blackwell (flower bed), May 2; Checotah, Mar. 26; Corn, June 28; Elk City (trees), May 7; Erick, June 18; Garber, July 2; Lawton, Apr. 7; Tonkawa, Apr. 30; Wakita, Sept. 25.
- Tetranychus telarius* (L.), red spider—Coalgate (evergreens), Oct. 13; Oklahoma City (snapdragons), Feb. 2.
- Thyridopteryx ephemeraeformis* Haw., bag worm—Bristow, Aug. 13; Chandler, June 23*; Coalgate, June 16*; Drumright (cedars), Oct. 13; Comanche and Caddo Counties (general), June 22; Rush Springs, Aug. 6; Seminole (cedars), Oct. 8; Oklahoma City, July 5.

FIELD CROP INSECTS

- Agrotis orthogonia* Morrison, pale western cutworm—Hooker (wheat), Apr. 16; Panhandle counties, Mar. 31, Apr. 21.
- Alabama argillacea* (Hbn.), cotton leafworm—Quite generally distributed over the southern two-thirds of the state. Reported as far north as Poteau and Muskogee on the eastern side and in the vicinity of Chickasha on the western side, Aug. 18*; defoliated from 80 to 95 percent of the cotton fields in the eastern half of the state*; approximately 50 percent defoliation in the extreme southwestern portion from Hobart north to the extreme northern limits of the cotton belt, Oct. 1*.
- Anthonomus grandis* Boh., boll weevil—worst infestation in many years in the south central, southeastern and eastern parts of the state; 40 to 80 percent square infestation, July 23*.
- Blissus leucopterus* (Say), chinch bug—Choctaw, July 26; Hydro, July 2; Lamont, May 6; Miami, July 22; Pauls Valley, Aug. 1; Pershing, Sept. 22.
- Callosobruchus maculatus* (Fab.), cowpea weevil—Enid (mung beans), July 3, 14.
- Celama sorghiella* (Riley), sorghum webworm—this pest was first reported at Chandler, late in July. The infestation extended as far west as Lawton in the south, Guthrie in the center, and Bartlesville in the north*. Chandler, Sept. 4; Chickasha, Oct. 17; Duncan, Oct. 18; Grandfield, Oct. 13; Hugo, Oct. 4*; Heavener, Oct. 13; Roff, Sept. 26; Salina, Sept. 8*; Seminole, Sept.*; Wewoka, Sept.*.
- Chorizagrotis auxiliaris* Grote, army cutworm—serious outbreaks in wheat, oats, barley and rye in Cotton, Grady, Greer, Harmon, Jackson, Kiowa and Tillman Counties, May 11 to 17.
- Cirphis unipuncta* (Haw.), army worm—considerable damage to wheat and oats throughout southwestern portion of state. Damage extended from the Red River to the Kansas border. The most heavily infested counties were Blaine, Grady, Harmon, Jackson, Kiowa, Major, Tillman and Washita.

- Diatraea grandiosella* Dyar, southwestern corn borer—Alva, June 30, July 31; Caddo County, Aug. 22; Hollis, Nov. 15*; Lamont, Sept. 30; Lookeba, July 31; Medford, Oct. 15; Woodward, Sept. 26.
- Heliothis armigera* (Hbn.), bollworm—light infestation in Coal County, July 26*; worst infestation ever seen in Bryan and McCurtain Counties where as much as 50 per cent of the squares and young bolls of cotton were damaged, Aug. 18*.
- Loxostege similalis* (Guen.), garden webworm—Enid, Sept. 16*; Minco (alfalfa), Aug. 22.
- Lygus pratensis* (L.), tarnished plant bug—Gotebo (alfalfa), Aug. 27.
- Macrosiphum pisi* Kalt, pea aphid—damage to alfalfa reported from Cimarron, Garfield, Muskogee and Payne Counties, Apr. 25; Comanche County, Apr. 23; damaging alfalfa fields throughout state, quite severely in central part*.
- Phytophaga destructor* (Say), hessian fly—increased quite rapidly in the extreme northeastern part of the state; heaviest infestation in Ottawa County, May 31*; Jay, May 15*; Miami, May 20*; Vinita, May 22*.
- Pogonomyzex barbatus* var. *molefacians* Buckley, red harvester ant—Prague, Apr. 30.
- Psallus seriatus* (Reut.), cotton fleahopper—some fields throughout the state were damaged, but not so seriously as in 1940*; alfalfa, Aug. 9*; Cartersville, July 13*; Grant, Aug. 21*; Poteau, July 13*.
- Solubea pugnax* F., rice stink bug—very abundant on sorghum heads in Comanche County. In some fields 100 per cent of the heads were infested and there were often 40 or more bugs per head, Aug. 22.
- Strymon melinus* (Hbn.), cotton square borer—very light infestation, 0.5 to 1.0 per cent in a few fields, July 26*.
- Tetranychina tritici* Ewing, brown wheat mite—Comanche and Tillman Counties, Apr. 23.
- Toxoptera graminum* Rond., green bug—Canadian, Jefferson, Kay, Logan, Pottawatomie and Washington Counties, Mar 31*; Caddo, Comanche, Cotton and Jefferson Counties, Apr. 23.

STORED PRODUCTS INSECTS

- Oryzaephilus surinamensis* (L.), saw-toothed grain beetle—Oklahoma City, May 1.
- Ptinus brunneus* Dufts, brown spider beetle—Bartlesville, June 2.
- Rhizopertha dominica* Fab., lesser grain borer—Comanche County, Sept. 26.
- Tenebroides mauritanicus* (L.), cadelle—Ponca City, June 17.

ANIMAL PARASITES

- Amblyomma americanum* (L.), lone star tick—very numerous in the southeastern part of the state, Apr. 23*.
- Echidnophaga gallinacea* (West.), sticktight flea—Purcell (chicken), Apr. 7.
- Haematopinus eurysternus* (Nitz.), short-nosed ox louse—present on cattle throughout most of the state; especially heavily infested animals

were found during November in Beaver, Choctaw, Jefferson. McCurtain, McIntosh and Sequoyah Counties*.

Hypoderma lineata (DeVilliers), heel fly—Tecumseh, Feb. 25.

Linognathus vituli (L.), long-nosed ox louse or blue louse—observed throughout most of the state on cattle, especially on young calves*.

Melophagus ovinus (L.), sheep tick—light to abundant in certain localities, Mar. 29*.

Stomoxys calcitrans (L.) stable fly larvae—Fairview, Jan. 8.

Trichodectes ovis (L.), sheep biting louse—caused considerable damage to sheep throughout the state, Mar. 29*.

Trichodectes bovis (L.), red louse or biting cattle louse—abundant throughout the state, Mar. 29*.