

Insects of Indiana in 1955

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During 1955, major insect problems have been fewer and less important than for several years.

Field Crop Insects

The common army worm (*Pseudaletia unipuncta*), which was so abundant and destructive in 1953 and 1954, was of little importance in 1955, doubtless due to the activity and effectiveness of natural enemies. A few reports of abundance were received but none warranted serious consideration.

Cutworms (*Peridroma margaritosa* and *Agrotis ypsilon*) were encountered in a few areas but not as conspicuous and destructive as in the past few years.

The European corn borer (*Pyrausta nubilalis*) wintered over in somewhat larger numbers than the previous year, but the first generation provided only moderate to light infestations this year (1955). However, favorable conditions for the second generation and especially on late planted corn, resulted in considerable loss, estimated at about \$10,000,000.00. Breakage of corn, due to the corn borer is slight when compared with the severe lodging caused by disease rot. The population of overwintering borers is light in southwestern and southwest central Indiana. The average for the State is 172 borers per 100 plants, higher than for several years.

Grasshoppers, which were major pests in southern Indiana in 1953 and in northern Indiana in 1954, were unimportant in 1955, although there were a few isolated outbreaks in the northern part of the State. Several reports of damage to canning tomatoes were received from northwestern Indiana. It is interesting to note that blister beetles were exceptionally abundant in southern Indiana in 1954 and to a lesser extent in 1955. This situation is reflected in the abundance of grasshoppers in previous years, the blister beetle larvae being predaceous on grasshopper eggs.

The chinch bug (*Blissus leucopteros*) which threatened in 1955 did not materialize. Even so, there are many bugs in hibernation in some regions and with favorable conditions in the spring of 1956, they could be major pests.

Spittle bugs (*Philaenus leucophthalmus*) began hatching in central Indiana April 15. Infestations were general but not as severe as in recent years, excepting in southwestern Indiana, where the infestations were heavier than usual. It has become a regular practice to spray for spittle bugs which may explain less trouble from this pest.

Hessian fly (*Phytophaga destructor*) became very abundant the past spring, especially in southwestern Indiana and caused complete losses of the wheat crop in some cases. There were also considerable losses in some other parts of the State. Although most wheat was sowed on the

recommended dates, another factor entered in the picture. There was an unusually large amount of volunteer wheat in the fall of 1954 and many flies were able to pass the winter and attack wheat in the spring of 1955. Another possible reason for the fly abundance in some areas was the dry conditions which prevented fly emergence in the fall and a carry-over until spring.

From 1911 till 1920, federal entomologists located at Lafayette and state workers, carried on date of sowing plantings from Michigan to Tennessee and from Ohio to Missouri. These studies resulted in definite recommendations for sowing dates. By 1930 farmers almost universally had adopted the fly-free dates. Previous to 1920, we were experiencing heavy losses on an average every 2 or 3 years. Since 1930 there have been comparatively little loss from the fly, good evidence of the value of the fly-free date recommendations.

Fall army worm (*Laphygma frugiperda*) was rather abundant in August on late planted corn, including corn for ensilage.

Corn earworm (*Heliothis armigera*) which was so abundant in 1954, was of minor importance this year.

One of the larger leafhoppers (*Draeculacephala mollipes*) was very abundant on corn in August with reasonable belief they were responsible for damage to foliage.

Clover leaf weevil (*Hypera punctata*) was very abundant about the middle of April, but soon became heavily diseased and chemical control measures were unnecessary.

Clover root curculio (*Sitona hispidula*) caused serious losses to second year alfalfa in areas in central Indiana.

Aphids (*Macrosiphum pisi*) were more abundant than usual in southwestern Indiana on alfalfa.

The green clover worm (*Plathypena scabra*) has been abundant in a number of locations in Indiana, all reports on soybeans.

The potato leafhopper (*Empoasca fabae*) was responsible for considerable damage to alfalfa in most parts of the State.

Vegetable Garden Insects

Red spider (*Tetranychus telarius*) was general and abundant during late June and July, damaging melons in southwestern Indiana.

The cucumber beetle (*Diabrotica vittata*) was a serious pest of melons and cucumbers in many parts of the State.

Tomato hornworms (*Protoparce* spp.) was a major pest in tomato fields; also in tobacco fields in southern Indiana.

The squash bug (*Anasa tristis*) was again a serious pest of canning pumpkins in southern Indiana.

Tomato aphids (*Myzus persicae*) were abundant in a number of areas in northern Indiana during June and early July.

Flea beetles (*Epitrix cucumeris*) were unusually abundant on potatoes and egg plant.

Bean leaf beetle (*Cerotoma trifurcata*) was rather general and common on garden beans and soybeans.

Cabbage worms (*Pieris rapae*) were generally abundant in August.

The Colorado potato beetle (*Leptinotarsa decimlineata*) was reported by commercial growers as more abundant and destructive than for many years, especially on potatoes and tomatoes in the northern half of the State.

Tree Insects

The cherry slug (*Eriocampoides limacina*) were reported many times as a pest of cherry and pear. It has been many years since we have received so many reports.

The green June beetle (*Allorhina nitida*) was reported the last of August damaging peaches at New Castle in central Indiana, farther north than usual.

Bagworms (*Thyridopteryx ephemeraeformis*) was more abundant throughout the State than for a number of years.

Elm leaf beetle (*Galerucella xanthomelaena*) continues as an abundant and destructive pest, especially to Chinese elm.

Bronze birch borer (*Agrilus anxius*) has been responsible for the death of many specimen birches throughout the State.

Walnut caterpillars (*Datona integerrima*) defoliated walnuts throughout Indiana.

Household and Miscellaneous Pests

Box-elder bug (*Leptocoris trivittatus*) continues as the number one annoying household pest.

The cicada killer (*Sphecius speciosus*) was abundant throughout the State. It was reported as disfiguring lawns, and was feared by many as a menace to children.

The housebock (*Hylotrupes bajulus*) heavily infested a home in Kokomo during August.

Subterranean termites (*Reticulitermes flavipes*) continue as a major pest of homes throughout Indiana.

The American dog tick (*Dermacentor variabilis*) was reported frequently; however, its seemingly unusual abundance is not reflected in an unusual occurrence of spotted fever. The State Board of Health report only four known cases (one death) for 1955, in comparison to five in 1953 and five in 1954 (one death).

Damp wood or rotten wood termites (*Zootermopsis angusticollis*) were again found in consignments of fir lumber shipped to South Bend from Oregon.

Mosquitoes (Culicidae). A telephone call from A. L. Klatter of the State Board of Health September 19, advised us of a serious epidemic of viral encephalitis, commonly known as human or St. Louis encephalitis, in Gibson County. Later Dr. A. L. Marshall, Director of the Division of Communicable Disease Control of the State Board of Health, advised us that at that time there were 11 cases with three deaths, all, without exception, being in individuals past the age of 60 years. Later three more deaths occurred, making a total of six deaths out of 11 cases in this one region. Quoting Doctor Marshall's letter of October 26, "As the investigation proceeded, additional cases were added from adjoining

counties in Indiana, cases were reported from Evansville hospitals, and patients whose residents were Illinois and Kentucky. At the present time, we are completing the study on some 60 cases referred to us as possible cases of encephalitis". Doctor Marshall further advises of 15 or 20 cases of viral encephalitis reported October 28 from Greene County.

Previous studies indicate *Culex tarsalis* is the principal carrier of this disease, although perhaps other species may be responsible, and it is reported that no water is too foul as a source for this species.

Mr. Klatte who conducted the mosquito survey in Gibson County, reports a heavy infestation of mosquitoes which were predominately *Culex pipiens* according to determinations by J. A. Clark. A drainage ditch and a waste lagoon near Fort Branch, where many cases originated, was heavily infested with mosquito larvae.

Doctor Marshall has indicated that a complete report would be prepared and published as soon as the investigations are completed.