

Insects of Indiana during 1951

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In general, the 1951 season was unusually cool and unfavorable for the development of some of the major pests. Also during the winter of 1950-51 abnormal sub-zero weather occurred throughout the State, resulting in high winter mortality of some species.

Field Crop Insects

European corn borer (*Pyrausta nubilalis* Hbn.) did not have favorable weather for the development of the second generation in 1950 and therefore went into winter quarters with fewer numbers than usual. The winter mortality was probably higher than in normal winters because of the frequent sub-zero temperatures. Furthermore, the cool, wet spring of 1951 was unfavorable for development of the first brood. Even though conditions were somewhat more favorable for the second generation, the low population of the first generation did not permit the development of a high population. As a result little damage resulted in 1951 and the borers are going into hibernation this fall in comparatively few numbers.

Spittle bugs (Cercopidae) were unusually abundant and destructive, especially to legumes and strawberries. During the fall months of 1951 the adults have been conspicuous at lights and on various plants, but apparently the adults have done little or no damage to crops.

Wireworms (Elateridae) have become increasingly important throughout Indiana in recent years. Reports received during May, June, and July of the past year indicate the heaviest infestations and greatest losses for many years. These reports include damage to corn in the bottom lands of the Kankakee River area of northern Indiana, in the Wabash River valley area, and especially in the muck areas of northern Indiana, where they damaged not only corn, but onions, potatoes, and other crops.

The clover seed weevil (*Miccotrogus picirostris* F.) (Warner det.) was first found in Indiana by Poos and App, on red clover near Decatur, Indiana, in August 1951. This is the first authentic record of its occurrence in Indiana. The species has now been found in Oregon, California, Idaho, Minnesota, Wisconsin, Ohio, and Indiana. The first record of this insect in Ohio was obtained in June 1951.

Thrips (*Frankliniella tritici* Fitch) heavily infested small corn in southwest Indiana and threatened heavy damage to corn for hybrid seed. Favorable weather for corn and unfavorable conditions for thrips apparently was responsible for no appreciable damage.

Fall army worm (*Laphygma frugiperda* S. and A.) was quite damaging during September as far north as Greencastle.

The chinch bug (*Blissus leucopterus* Say) threatened the wheat and corn crops in northeastern and northwestern areas of Indiana. However, unfavorable weather prevented a general outbreak and damage was reported only from Lake County in northwestern Indiana, with a few threatening outbreaks in northeastern Indiana.

The Hessian fly (*Phytophaga destructor* Say) is definitely on the increase in the southern half of the State although it caused no serious damage in 1951. However, unless farmers adhere to the fly-free sowing date, serious trouble may be anticipated.

The wheat jointworm (*Harmolita tritici* Fitch) is definitely on the increase and caused severe losses in the southern two thirds of the State. Along with jointworm increase there was an increase in the abundance and severity of the straw itch mite (*Pediculoides ventricosus* Newp.) as far north as Wabash and North Manchester.

Grasshoppers threatened as a pest this past summer but the outbreak did not materialize, probably because of weather which maintained succulent wild vegetation and prevented migration to cultivated crops.

The corn earworm (*Heliothus obsoleta* Fab.) was abundant and caused losses to maturing ears of corn in all parts of the State as observed during the corn borer survey during September and October.

The annual white grub (*Cyclocephala* sp.) was responsible for serious damage to turf in a number of regions in the northern half of the State.

The Japanese beetle (*Popillia japonica* Newm.) appeared in outbreak numbers in an area of some eight or ten square miles in southeastern South Bend. The State Entomologists Office in cooperation with the Federal Bureau of Entomology and Plant Quarantine are treating the area with soil insecticides in an effort to stamp out the outbreak.

The meadow plant bug (*Miris dolabratus* L.) was reported from several localities in central Indiana during June as attaching the developing heads of wheat.

Vegetable Garden Insects

Potato beetle larvae (*Leptinotarsa decemlineata* Say) were very abundant and destructive to field grown tomatoes in a number of areas during June. Observations in past years indicate injury to tomatoes, almost exclusively to field grown tomatoes.

The striped cucumber beetle (*Diabrotica vittata* Fab.) was a serious pest of melons and cucumbers in many areas but especially in the trucking region near Indianapolis. The adult beetles were also destructive to flowering plants during June in central Indiana.

Flea beetles (*Epitrix cucumeris* Harr.) were severe on newly set tomatoes in many parts of the State during May.

The bean leaf beetle (*Cerotoma trifurcata* Forst.) was reported abundant and destructive to early beans during May, in many parts

of Indiana. It was also feeding and causing damage to soybeans in Southern Indiana in September.

The Mexican bean beetle (*Epilachna varivestis* Muls.) was abundant in all parts of the State, probably because of the cool wet summer. In the Indianapolis area, damage was especially abundant to lima and pole beans.

The cabbage and radish maggot (*Hylemyia brassicae* Bouche) caused more damage than usual to cabbage and radish, especially early cabbage in the trucking reas of Indianapolis and northwestern Indiana. Turnips were also severely damaged in the fall.

Gordius round worms, parasites of grasshoppers and caterpillars, were frequently reported during the spring months in gardens following heavy rains.

Fruit Insects

The apple maggot (*Rhagoletis pomonella* Walsh) was abundant and destructive in the northern two tiers of counties.

The cherry fruit fly (*Rhagoletis cingulata* Loew) was abundant in several localities in northern Indiana. These are the first reports of serious damage for a number of years.

Red-banded leaf roller (*Argyrotaenia velutinana* Walk.) was abundant and destructive to apples in the fruit growing areas of southern Indiana this past fall.

The pear and cherry slug (*Eriocampoides limacina* Retz.) was frequently reported from most areas of the State.

The rose chafer (*Macroductylus subspinosus* Fab.) was reported damaging many crops including apple fruits, rose and other flowering plants in the northern half of the State.

The strawberry sawfly (*Empria maculata* Nort.) defoliated strawberry plantings in several isolated localities during June.

Shade Tree Insects

Bagworms (*Thyridopteryx ephemeraeformis* Haw.) were very noticeably less abundant than in 1950, very likely due to the severity of the previous winter.

The cottony maple scale (*Pulvinaria vitis* L.) is on the increase in northern Indiana.

The European elm scale (*Gossyparia spuria* Mod.) and the elm scurfy scale (*Chionaspis americana* Johns.) are on the increase according to reports received from many parts of Indiana.

Pine leaf scale (*Chionaspis pinifoliae* Fitch) was frequently reported and is one of the commonest scales in the State.

The eight-spotted forester (*Alypia octomaculata* F.) has been unusually abundant the past year, defoliating Boston ivy in many places in the State.

Gall insects. During the past year many different plant galls have been sent in with reports of abundance. These include galls from oak,

hickory, willow, maple, elm, rose and linden. By far the most common one sent in was a mite gall on maple, known as the maple bladder gall (*Phyllocoptes quadripedes* Shim.). Although these gall formations may be abundant and disfigure foliage, they probably have little effect on the health and vigor of the hosts.

The hickory nut weevil (*Balaninus caryae* Horn) was observed to infest almost 100 per cent of shell bark hickory nuts although nuts of the shag bark hickory showed only a slight infestation.

The oak leaf skeletonizer (*Bucculatrix ainshiella* Murf.) became noticeable in 1950 but in 1951 it was abundant and conspicuous throughout most of the southwestern quarter of the State browning the foliage of shingle or plane oaks.

Household and Structural Pests

The clover mite (*Bryobia praetiosa* Koch) was a common pest throughout the State during May, entering houses and causing annoyance.

Hackberry psyllids or jumping plant lice, emerging from galls on leaves and twigs of hackberry, have been unusually abundant this past fall, entering homes through screens and becoming annoying and getting into food.

Booklice (*Psocidae*) have been the subject of many inquiries throughout the State. This may be due to the fact that much building material now available is not kiln dried, which provides the damp conditions favorable for these annoying insects.

Termites (*Reticulitermes flavipes* Koll.) have been the subject of more than 150 specific inquiries during the past year. This is perhaps only a fraction of the requests for information because many inquiries were for publications only and not included in the above number of inquiries.

Powder post beetles (*Lyctidae*) have been reported as destructive from all parts of the State.

Ants are the source of many inquiries. In many cases the reports refer to annoying ants in the home, many refer to those disfiguring the lawn or occurring in the garden, but perhaps by far the majority of inquiries refer to swarming ants in the fall near foundations where they are mistaken for termites.

Stored Grain Insects

The problem of stored grain insects has been materially lessened, probably due to the sub-zero weather of the past winter. Similarly, the Angoumois grain moth (*Sitotroga cerealella* Oliv.) which has been such a serious problem for popcorn and hominy corn processors during the previous two years, was definitely checked and this also can be attributed to the sub-zero weather throughout the State during the past winter.