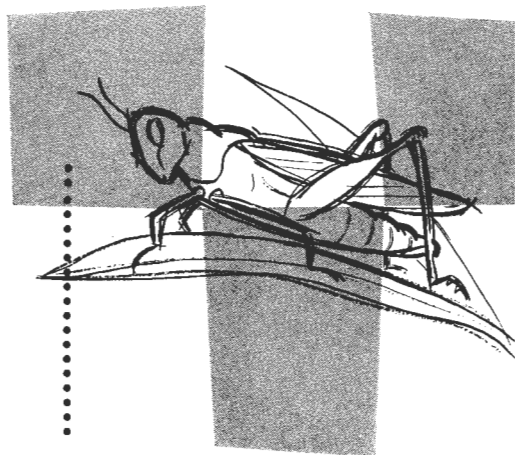


Insect and Rodent Prospects for 1960



Weather conditions during the growing season pretty much determine the size of the insect problem in any given year. Keeping this in mind, here are the prospects for 1960—depending on the weather.

by Harold Gunderson and Earle S. Raun

PEST POPULATIONS and the damage caused by them vary widely in Iowa—from year to year and from county to county. Statements of “average” insect and rodent conditions can be just as misleading as a year-end statement that total rainfall was “normal” for an area that had a 3-month drouth but 12 inches of rain in 1 day.

Last year was “normal” in the sense that we had plenty of insects, severe crop losses in some areas and much annoyance to humans and livestock from mosquitoes and flies over most of the state. Keeping in mind that insect abundance is largely determined by weather conditions *during the growing season*, let's look at what happened in 1959 and at the possibilities for pest control in 1960.

Field Crop Insects . . .

The first major pest to hit was the *green bug*. This aphid apparently was blown into Iowa from the southwest, probably Kansas.

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We've had light infestations a few times in the past 15 years but nothing like 1959. Weather conditions were ideal for the aphids, but not for the lady beetles that feed on them. These aphids carried, in their bodies, the virus that causes yellow dwarf of oats, and the loss from this disease was extensive.

Very few Iowa farmers used insecticides to control the green bugs. The aphids can be killed, but you can't control the disease the aphids have already transmitted. So the job is one of preventing the attack rather than curing it. You'd have to spray your oats several times, beginning about May 1, before the aphids showed up. The cost would be \$10-\$12 per acre and would make your low-value oat crop a high-cost crop. And if past experience means anything, the odds are against the aphids' appearance in 1960. So we can't recommend chemical control.

Since we can't predict the appearance of green bugs in 1960, all we can suggest is that you use good seed, follow the agronomic practices best suited to your farm and keep your fingers crossed. If

you raise seed oats, however, you might be justified in spraying to prevent possible damage.

The next crop pest to appear in 1959 was the *black cutworm*. We've had cutworm troubles many times, but in 1959 the worms were half grown before they began to attack corn in the second week in June. They usually hide in the ground during the day and feed on the surface at night. Last year they did their feeding 1½-2 inches deep and probably chewed away night and day. Heaviest infestations were in the southeast quarter of Iowa. Our reports indicate that 2 pounds of aldrin or heptachlor broadcast before planting and disked in immediately prevented serious loss in most cases.

Flights of black cutworm moths in August-September suggest a threat of cutworm trouble this year. *Any* field may have these pests in it. The most likely candidates for damage are corn and soybean fields where foxtail was abundant, grassy alfalfa and clover fields planted to corn in 1960, and corn growing along grassed waterways. It seems wise to use 2 pounds actual aldrin or

heptachlor per acre broadcast and disked in at once ahead of planting on most of the corn ground in Iowa this year. Smaller amounts won't do the job against cutworms. A postplanting treatment of 2 pounds of toxaphene applied in the row and followed by cultivation will also control cutworms most years.

Most of our other soil insects showed up in untreated fields around the state. *Seed corn maggots* and *seed corn beetles* caused stand losses in some fields in every county. *Wireworms* were "normally" abundant. *White grubs* destroyed corn following soybeans in northwest Iowa. We had scattered reports of damage by *sod webworms*.

We had unusually heavy flights of the *southern corn rootworm* beetle last spring. These beetles feed on corn leaves and lay their eggs in planted cornfields. Larval damage to the roots is similar to that caused by our more common *northern corn rootworm*. The *western corn rootworm* was found as far east as Polk County. All of these rootworms are controlled by broadcast or row treatments of aldrin or heptachlor. Preplanting or planting-time treatments were carried out on about 3,200,000 acres of corn ground in 1959—an increase of a million acres over 1958. *Soil insect control will be profitable in 1960*.

The *European corn borer* was a big disappointment in 1959—to insecticide and equipment manufacturers. A number of natural factors combined to reduce the number of moths laying eggs. Poor larval survival also was noted, and only 75,000 acres were treated. Fall populations of borers were very low. *But* borer-favorable weather in June can give us lots of borers from a few moths. Watch your corn and be prepared to treat in June or August if the need arises!

No *chinch bugs* were reported in 1959 or seen in cornfield surveys. The cold winter and wet

spring kept the population low. *Grasshoppers* invaded the border rows of soybeans in a few western and southern counties. Grasshopper eggs are not numerous this fall, and we don't look for trouble from either of these two dreaded old-time pests in 1960.

Pea aphids caused damage in northern and northeast Iowa in alfalfa fields of low fertility. They'll be with us again this year. *Spittlebugs* spread as far west as Floyd, Calhoun and Pottawattamie counties. Only farmers in northeastern Iowa need to be alert and ready to control this pest with chemicals. The usual recommendation is to cut first-crop alfalfa early if insect damage appears.

Yard, Garden Insects . . .

Last year proved again that, if you want insect-free fruit in a home or commercial orchard, you must follow a regular spray schedule! *Apple maggots* destroyed 40-100 percent of the apple crop in the northern third of the state. "Cat-facing" insects (*sucking bugs* and *curculio*) caused malformed and stunted apples, and the *codling moth* appeared in larger numbers than in recent years. *Leaf roller* damage at harvest indicated that apple spray-schedules were relaxed too early. Better make up your mind now to apply the right chemicals regularly in 1960.

Dutch elm disease, spread by two species of *elm bark beetles*, continued its destruction in eastern Iowa. The over-all program urged by Iowa State includes: (1) surveys of shade trees to find out how big a problem you have, (2) citizen education on tree care, (3) removal and burning of dead elms and (4) the use of insecticides in early spring to protect valuable elms from bark beetle attack.

Adults of the 13-year brood of the *periodical cicada* showed up on schedule in southeastern Iowa. The range of this insect includes

southeastern Iowa from Monroe to Mahaska to Lee counties. The adults do injure shade trees with their egg-laying habits, but chemical control is rarely practical.

Attacking Man, Animals . . .

Probably the most encouraging advance in livestock pest control in 1959 was the rapid acceptance of the systemic insecticides for *cattle grub* and *louse* control. About a million head of beef cattle in Iowa were treated with Coral in the fall of 1959. This is a spray material. Applied to animals, it's absorbed through the skin, acting to control cattle grubs in their migrations inside the animal as well as to control sucking and biting lice on the outside.

About 80,000 backrubbers are in use in Iowa for *louse* and *horn-fly* control. We think there should be more. They've proven effective and easy to use. Insecticides for use in backrubbers—for beef cattle *only*—include toxaphene, malathion, Korlan, DDT and methoxychlor.

Sheep scab continues to plague the Iowa sheep industry. Scab will continue to be a problem until sheepmen see that all sheep coming into their farm flocks are dipped in an approved insecticide. It's not only in flocks shipped into Iowa but also on native sheep. Toxaphene or lindane dips do a good job of controlling this mite-caused disease.

More *cattle scab* and *mange* were noted in 1959—perhaps because more people were looking for them. Toxaphene or lindane dips will control these also.

Hog producers are seeing the benefits of preventive *mange* and *louse* treatments. A high percentage of sows now are treated before farrowing, even though no mange or louse symptoms are present. This prevents infestations of mange mites and lice on the pigs. Lindane, applied as a spray 30 days before farrowing, does an excellent job. It can also be added to the sow's wash water

as she's cleaned up before being placed in the farrowing stall.

Problems caused by *poultry lice* and *mites* are being reduced by malathion applications to poultry houses before pullets are housed or if infestations break out in a farm flock.

The biggest insect pest problem for livestock is the *fly* problem. We must continue to stress the sanitation aspects. Many flies can hatch from small breeding areas. Diazinon continues as the best insecticide for residual applications on walls and fences. Pyrethrin mixtures are the only good sprays for application to dairy cattle and must be applied daily. Various highly advertised fly repellants, added to pyrethrin sprays, do a

fair job. But they're not the cure—all many cattlemen expect. No better dairy fly sprays seem in the offing for 1960.

Heavy May-June rains promoted the appearance of swarms of *mosquitoes* all over Iowa. Many towns, large and small, attacked them with a variety of weapons. Most well-planned programs prevented severe mosquito annoyance. But emergency programs, started after the mosquitoes were biting, didn't do the job. Start planning NOW for a successful program this year. Get our pamphlet, Pm-257, from us or your county extension office for suggestions.

A *new pest* for livestock may get into Iowa this year. The *face*

fly has occurred in eastern North America since 1952. Ohio, Indiana and Illinois in 1959 reported large numbers of these flies clustering on the faces of cattle and horses, probably transmitting pink eye of cattle. It could be an important pest.

Rodents . . .

Rat and *mouse* populations were unusually high last year. The huge supply of corn on farms will tend to keep rat populations up this year. We'd suggest that every farm and town carry out a continuous rat-poisoning program with anti-coagulant baits along with a clean-up of rat harbors and the rat-proofing of all buildings housing food or feed.

Livestock Disease Situation — 1960

by John B. Herrick

DISEASES, and the problems of their control, present one of the greatest lags in successful livestock production. It has been estimated that the average Iowa livestock producer loses \$1,500 a year from livestock disease. So you as a livestock producer have a definite part in disease control in Iowa. And, for very real reasons, should be concerned about disease control not only in your own livestock but in your neighbors' stock as well.

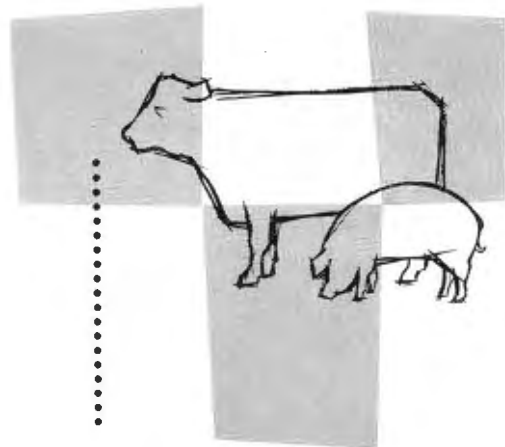
How well are we doing with disease control in Iowa? In some categories, we're doing very well; in others, not so well. Generally speaking, and considering the diversified livestock population in the state, disease control is satisfactory, veterinary service is readily available, and we have a minimum of disease epidemics.

Specifically, however, Iowa is lagging in adequate disease-control laws. Many of our present laws are antiquated, not enforceable or not effective against our present-day problems. Livestock dealers, the majority of whom are reputable, are not licensed or con-

trolled, thus permitting the operation of "scalpers" in the livestock business. Our regulatory force is totally inadequate—there are only seven district veterinarians.

Brucellosis control is lagging to the point where Iowa's cattle and milk may be discriminated against. Lack of solid, workable legislation has prevented Iowa from moving ahead in the eradication of this disease, though our neighboring states have almost completely eradicated brucellosis from their herds.

Less than one-third of the swine in Iowa were vaccinated for cholera during 1959. As a result, chol-



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