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THE CHINCHBUG

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LIFE HISTORY OF THE CHINCHBUG

They assemble during early spring on young grasses and small grain plants. During May they lay eggs on these plants. Each female lays about two hundred eggs. The eggs hatch within ten to eighteen days into small reddish colored chinchbugs. This is the first brood. The young become full grown within about four or five weeks.

After becoming full grown they lay eggs and a second brood is developed in about the same length of time as given above for the first brood.

The first brood develops in small grain, corn and sorghum fields. The second brood develops almost wholly in corn and sorghum fields. The second brood is the generation which passes through the winter and lays eggs that hatch into the first brood.

The second brood generally leaves the corn and sorghum fields in the late fall and collects in the crowns of bunch grass where it passes through the winter.



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Figure 1—Adult Chinchbug

MOST PRACTICAL METHOD OF CONTROL

Control can not be brought about in a very practical manner except during the early fall. There is no cheaper and better method than the burning of the bunch grass before December 15th of each year. In some localities where the bunch grass has been properly burned the chinchbug has not been serious for several years afterwards.

HOW TO FIND THE CHINCHBUG

During the late fall the chinchbugs leave the wheat and corn fields in which they have developed during early fall and locate in wild hay fields for winter protection. They emerge from the bunch grass the following spring and infest wheat, oats, and other cereal crops. The most practical time to control the chinchbug is while it is in the wild grass fields.

Locate patches of bunch grass and carefully part the stems close to the crown. If very abundant, the bugs will be visible. In case they are not found at once search farther. Examine the soil at the base of the stems and at the same time observe carefully. If the weather has been cold for several days, or if the fall season is far advanced, it may be necessary to dig into the soil and in some cases to select additional bunches of grass in order to find them. Don't give up the search until a thorough examination has been made.



Fig. 2.—Bunchgrass stubbles showing where chinchbugs go to bed for the winter.

In case bugs are not present in bunch grasses during the late fall there is no reason for believing that they will be serious the following year, because the majority winter only in crowns of bunch grass.

BURN THEIR HOMES

In early fall while the grass and weeds are dry, is the best time for destroying bugs. So destroy the chinchbugs' winter home early and expose them to the cold weather. Do the work thoroughly and burn the grass as close to the ground as possible. Burn on a calm day. Burning when there is a high wind is not advisable, because the fire runs over the grass too rapidly on a windy day and does not concentrate sufficient heat to burn it sufficiently close to the ground. Then, also, there is more danger of the fire getting away and doing damage during windy weather. Don't forget the haystacks, trees, fences, buildings or other valuable properties that might be burned.

When there is a chance of accidentally setting fire to them always burn with back fire instead of a head fire or plow fire guards, or better still, use any method of fire control best adapted to the situation. It is advisable to have a team, plow, barrel of water, gunny sacks, shovel and wagon ready for immediate service when fields are to be burned.

The question is often asked, "Why not wait until spring to burn off the grass, since cattle need it for winter pasture?" Without directly answering, I might say, "Which is worth the most, an acre of wheat at harvest time or an acre of dry bunch grass during the winter time, that is furnishing a home for millions of chinchbugs that will destroy several acres of wheat, corn, or other crops?" Each pair of bugs means an increase of about two hundred additional bugs six to eight weeks after egg-laying has commenced.

This figured out for both broods indicate that for each overwintering pair there may be 20,200 produced for the following winter.

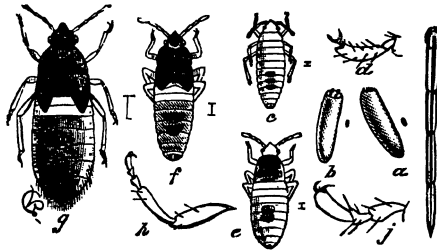


Fig. 3.—Stages of development. a, b, eggs, enlarged; c, eggs just hatched into young chinchbugs; e, f, first and second stages of development; g, pupal form; i, the sucking mouthpiece enlarged.

It has been found from observations made in Kansas and Oklahoma, that very few bugs are able to get through the winter if their homes are destroyed in the fall. If left undisturbed, however, until late winter or early spring, a very large percent are able to live through and come out with a voracious appetite.

FALL PLOWING

All fields from the standpoint of insect control should be plowed as soon as the crops are off. With the advent of the silo it has been made possible to get most of the corn and sorghums out of the fields early in order that fall plowing may be done. All grass and weeds should be turned as deeply as possible. This not only destroys many different kinds of bugs, but adds humus to the soil.

CONCLUSION

Burn the grass along the fencerows, ditch banks, turn-rows and roadways before December 15th. Plow all fields that can be plowed to an advantage as early in the fall as possible. The injury from chinchbugs, as well as many other insects, will be greatly lessened, in fact, almost entirely prevented.

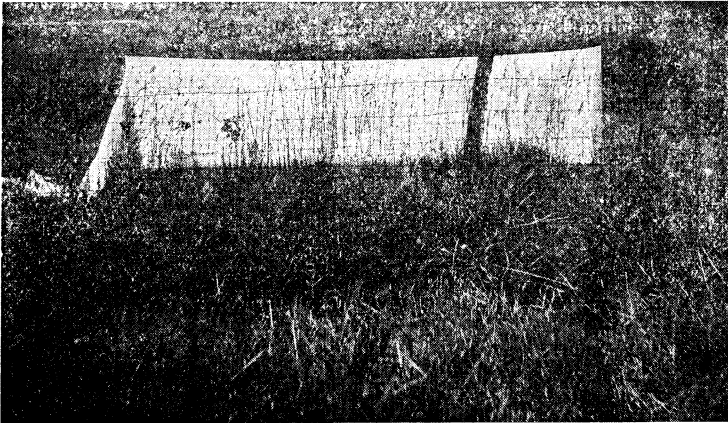


Figure 4—Overgrown fencerow. An ordinary safe retreat for the chinchbug