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THE CHINCH BUG

(*Blissus leucopterus*)

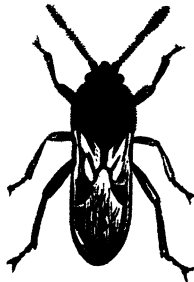
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It is a lamentable fact that the chinchbug has been given almost perfect conditions for development in Oklahoma for a number of years. Instead of studying out a scheme of diversification that would put the chinchbug out of business, the methods followed have been proper field treatments for developing this pest. Thousands of dollars are being lost in Oklahoma agriculture every year on account of this little bug.

CHANGE OF METHODS

DO THIS—

Burn the bleached and weatherbeaten hay stubbles and shatterings. Yes, a farm animal might eat them if sufficiently starved, and the animal



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Adult Chinchbug

can be starved to this extent if the chinchbugs are allowed to rob him of the rich, succulent food he should have. In case a copse of vines and grass is present in such fields, care should be exercised and enough left for the protection of such field birds as the quail. When the winter is over and the cover is not needed by the birds it should also be burned. If the main part of the burning is done before the advent of cold weather it will be very effective.

DO THIS—

Use the stalk cutter in order to reduce the length of the stalks to such a size as to be easily buried by plowing. Plow the fields as early in the winter as possible. Plow deep. Eight inches is not too deep for controlling insects.

DON'T DO THIS—

Don't scatter manure, straw or trash of any kind on the wheat field after sowing, unless it can be done after the first of December. Trash and litter on the surface of the ground in wheat fields will act as an inducement to chinchbugs that are seeking hibernating quarters.

DON'T DO THIS—

Don't sow wheat in fields where such vegetation as volunteer wheat and oats are present. Advanced growth of such grains induces the chinchbugs to collect there. Fields should be free from such volunteer growths as well as trash on top of the ground.

DON'T DO THIS—

Don't allow the grasses and weeds to remain over winter along the roadways. Burn them with other waste along the fence rows.

LIFE HISTORY

Only Two Broods per Year

DO THIS—

Consider the life history of the chinchbug (see Figure 1) and thwart every possibility of its development.

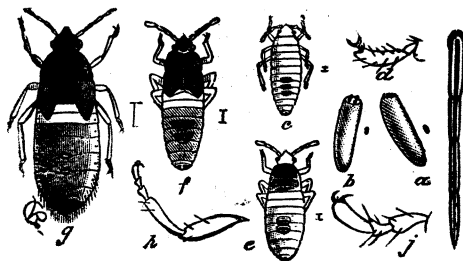


Figure 1.—Stages of development: *a, b*, eggs, enlarged; *c*, eggs just hatched into young chinchbugs; *e, f*, first and second stages of development; *g*, pupal form; at right, the sucking mouthpiece enlarged; *d, h, j, k*, legs. Adult, see first page

It passes the winter in the adult stage. The most favored places for shelter are the crowns of bunchgrass. It needs protection during winter. During March and April it issues from where it has hibernated and flees into the wheat and oat fields. In some instances, especially when numerous, it will injure young corn, but practically all of the eggs which are deposited by the over-winter forms are deposited on the wheat and oat plants.

Each female lays about five hundred eggs.

The young develop in about sixty days after the eggs are laid in the spring on wheat and oats. At harvest time a few of them may have wings, but the majority do not, consequently they seek fresh food material by walking to it. The only available food at such a time would be the larger grains, such as corn, kafir, etc. After becoming full grown in these fields they lay their eggs on these plants, and about sixty days later the second brood develops. This is the one which hibernates.

Methods for controlling the over-winter brood have been given, and if this brood is controlled there will be no other broods. Where these bugs are numerous and they can't be controlled by any of the methods advised, it would be well to practice a crop rotation and plant other crops than wheat and corn for a few years.

The chinchbug will not feed on or breed in cotton, cowpeas, peanuts, potatoes or any other truck crop except corn, alfalfa (or any other clover), or any of the horticultural plants. The main foods used by the chinchbug for feeding, breeding and shelter are wheat, oats, corn, sorghums and the wild hay lands, especially the latter, for protection during the winter.

It is difficult to control the chinchbug in an economical way when it is infesting the green field crops. There are methods used for preventing them from crossing from one field to another during their development in the summer. The main procedure is to practice such a field management as to make barrier methods unnecessary. The proper burning of hay fields and overgrown rabbit resorts with proper crop rotations will eliminate the chinchbug.

