

CHINCH BUG CONTROL

Brown and dead patches in lawn in the eastern United States during summer and early autumn may be caused by chinch bugs. Close examination may disclose heavy populations of chinch bugs at the borders of the affected areas, under crabgrass leaves and around the crown of turf plants. A tin can opened at both ends, forced into the turf an inch or two and filled with warm water, will cause the chinch bugs to float to the top in five to ten minutes.

The most distinctive feature of chinch bugs is the disagreeable, musty odor which they emit when crushed.

Chlordane

Five pounds of a 5 per cent dust to 1,000 square feet will destroy both adult and immature bugs in 24 hours or less, giving protection for two to three months or longer. A treatment made on July 1 would protect the turf for the season.

DDT

Five to six pounds of a 10 per cent dust to 1,000 square feet of lawn area gives best results, but from one to two weeks in midsummer are required for complete kill. Reinfestation begins to appear in from seven to eight weeks after treatment. The effect is much slower than when Chlordane is used.

DDT - Sabadilla

Five pounds of the formulation (12½ per cent DDT and 2½ per cent Sabadilla) to 1,000 square feet of lawn area gives better results than does DDT used alone, but it is much less efficient than is Chlordane. Residual protection lasts for 1½ months and it takes from six to ten days for complete kill.

Methods of Application

Any of the insecticides may be applied as taken from the package or they may be combined with sand or fertilizer as a carrier. The author mentions Milorganite as an ideal material to be used as a carrier, because it does not burn the grass and it flows evenly in any kind of weather. Grass should be dry when applications are made. Mowing the lawn before or immediately after the

treatment is helpful for coverage and settling the dust. Any good fertilizer spreader is ideal equipment for distribution. Thorough mixing is important and this may be done by putting the materials in a pressed paper or metal drum with a tight top. By rolling and turning a thorough mixing is assured.

(Excerpts from Circular 168, May, 1949, by J. C. Schread, Connecticut Agricultural Experiment Station, New Haven, Conn.)

Chlordane in Fertilizer For Soil-Insects Control

Mixtures of Chlordane with fertilizer materials have controlled soil insects satisfactorily when broadcast over the soil surface and disced or harrowed in lightly on seedbags, or when applied to the surface of turf on lawns, golf courses and pastures, and watered in. Stimulated plant growth has been reported from numerous areas attributed not only to a direct stimulation but also to the control of the organisms that attack root systems. Some of the insects which Chlordane controls have not even been mentioned in turf literature as affecting turf grasses. It appears that organisms enter through the feeding scars.

Chlordane exhibits a wide margin of safety to plant roots. From rates of 1 pound of actual Chlordane to the acre for controlling mole crickets to 10 pounds to the acre for controlling Japanese beetle grubs, no injury has been observed on any plants. The best guide for mixing Chlordane with fertilizer is to use the correct poundage of Chlordane per acre blended with the correct fertilizer and quantity of fertilizer for the crop in question. Chlordane may be blended with fertilizer as a diluted dust, as a wettable-powder concentrate or as an emulsion concentrate. Mixture under observation for 192 days indicated no appreciable loss of Chlordane. Chlordane should not be mixed with fertilizers containing appreciable amounts of lime or other alkaline materials.

(Abstract of article by Dr. C. C. Compton in *Agricultural Chemicals*, Vol. 4, No. 5, May, 1949)