## LAWN INSECTS

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A variety of insects attack turf. Grubs, ants, sod webworms, armyworms, cutworms, chinch bugs, leafhoppers, etc., are only a few of the pests that can give you a headache. Choosing the proper insecticide and using it at the recommended dosage is important if you're goin to gain control of the problem facing you this summer. Be prepared! Following is a chart to assist you in choosing and applying your pesticides.

If I could be of service to your particular operation, please feel free to call upon me at any time.

Insects	Insecticide <sup>1</sup>	Dosage per 1,000 sq. ft. <sup>2</sup>	Suggestions
True white grubs Annual white grubs Japanese beetle larvae Green June beetle larvae Ants	chlordane 45% E.C. 40% W.P. 10% G. 5%	1/2 cup 5 oz. 1 1/4 lb. 2 1/2 lb.	This treatment provides 5-year protection. In established sod, apply as granules or spray to small area and then water in very thoroughly before treating another small area. For new seedings, mix in soil before planting. Do not plant vegetable root crops in treated soil for 5 years.
Ants Cicada killer and other soil-nesting wasps	diazinon 25% E.C. 2% G.	¾ cup 5 lb.	Apply as spray or granules and water in thoroughly. For individual nests pour 1% diazinon in nest. Seal in with dirt.
Sod webworms Millipedes and sowbugs	carbaryl 50% W.P. 5% G. diazinon 25% E.C. 2% G. trichlorfon 50% W.P. 5% G.	1/2 lb. 4 lb. 3/4 cup 5 lb. 4 oz. 2 1/2 lb.	As sprays, use at least 2.5 gal. of water per 1,000 sq. ft. Do not water for 72 hours after treatment. As granules, apply from fertilizer spreader.
Armyworms Cutworms Chinch bugs	carbaryl 50% W.P. 5% G.	2 oz. 1 lb.	Apply as sprays or granules. Use 5 to 10 gal. of water per 1,000 sq. ft.
Leafhoppers	carbaryl 50% W.P. methoxychlor 25% E.C.	2 oz. 2 oz.	Apply as a spray.
Chiggers	diazinon	1 tbl.	Spray grass thoroughly.
Mites	dicofol 18.5% E.C. malathion 50-57% E.C.	1 tbl. 1 tbl.	Spray grass thoroughly, 2 to 2.5 gal. of water per 1,000 sq. ft.
Slugs	Slug baits	Scatter in grass	Apply where slugs are numerous.

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<sup>1</sup> E.C. = emulsion concentrate; W.P. = wettable powder; G. = granules. <sup>\*</sup> To determine lawn size in square feet, multiply length times width of lawn and subtract non-lawn areas including house, driveway, garden, etc. Do not allow people or pets on lawn until the spray has dried.

growth hinder even spread. Rows of crabgrass approximately 1 inch apart might be the result.

Always use herbicides that have been proven effective DCPA (Dacthal), bensulide (Betasan or Pre-San) and siduron (Tupersan) have been very effective in a five year testing program here at the University. These herbicides should be applied prior to April 15. However, if applied too early, such as in February and early March, the residual effect of some herbicides such as siduron may be lost before the crabgrass season passes. Also in this respect, desirable grasses which may be seeded shortly after a herbicide application will also be inhibited except when using siduron according to label recommendations. A minimum of 3 months should elapse before attempting to re-seed after application of bensulide or DCPA. This does not effect the timing of re-seeding however, since the

preemergence herbicide is applied in early spring and overseeding of desirable species should not be accomplished until fall.

Preemergence herbicides are effective when properly used but are not the complete answer to a quality lawn. This paradox may be summed up in the following quotation by Engel and Ilnicki 1:

"Weeds are encouraged by any use pattern or practice that reduces turf cover, such as heavy traffic, misuse of herbicidal or fertility chemicals, improper fertilization, mowing below optimum cutting height, and removing too much growth at one time. Many of these reflect unfavorably on man's complicity in turf weed problems."

1 Engel, R. E. and Ilnicki, R. D. 1969. Turf Weeds and Their Control. In: Hanson, A. A. and Juska, F. V., Turfgrass Science, Agronomy Series 14: 240.