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## TURF MANAGEMENT

**A. J. Powell, Turf Specialist**

### A COMBINATION FOR CRABGRASS CONTROL

Since the early 1960's, crabgrass preemergence herbicides have been used advantageously to control or reduce crabgrass infestations in turf. These herbicides are very effective if applied correctly but a program of continuous herbicide utilization is not necessary. If the crabgrass can once be controlled, proper turf management will inhibit re-infestations. Ehus, a combination of preemergence herbicides plus good turf management equals excellent crabgrass control. Any management practice which improves the density and vigor of the desired turf will discourage crabgrass invasion through competition. Thus, crabgrass is generally a result of poor management, not a cause of poor turf.

There are many management practices which are important to promote good turf, but mowing height and fertilization management are most important to reduce re-occurrence of crabgrass. Mowing bluegrasses and fescues less than 2" will weaken and open up the turf just enough to allow light to reach the soil surface and reduce the competition of the cool-season grasses. Summer fertilization cannot only destroy or weaken the cool-season grasses which are in a stress period during the summer but promotes the crabgrass which is in its most optimum growing season. To encourage the growth of cool-season grasses, fertilizer should be applied in the fall, winter, and spring.

Herbicides are often necessary for crabgrass control and their application should not be delayed. A thin stand of crabgrass in late spring can become quite dominant by fall and severely reduce the cool-season specie. Then with a lapse period of another year, crabgrass may completely destroy the bluegrass and/or fescue stand and re-establishment would be necessary.

With medium to heavy infestations of crabgrass, one must decide if controlling crabgrass or complete re-establishment is necessary. It is difficult to make this decision during the summer or early fall since the presence of bluegrass can be completely masked by the crabgrass. However, during late fall or early spring the bluegrass is obvious. If the bluegrass (or fescue) is present in at least a general stand throughout the turf area, e.g. approximately 20 to 40 plants per square foot, a good weed control program could be implemented. However, other factors such as heavy soil compaction, low pH or the presence of other hard to kill weeds such as goosegrass (silver crabgrass), numblewill, guackgrass, or bermudagrass might influence this decision.

Applying herbicides correctly is most important. Skips are always obvious and as crabgrass flowers, new seeds are scattered. This is also a good reason to help a neighbor with crabgrass control. Make sure to distribute the material in at least two directions and when using droptype spreaders do not let fall

# LAWN INSECTS

by Stanley Rachesky  
Entomologist, University of Illinois

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 going 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.

## LAWN INSECTS

Insects	Insecticide <sup>1</sup>	Dosage per 1,000 sq. ft. <sup>2</sup>	Suggestions
True white grubs	chlordane 45% E.C.	½ cup	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.
Annual white grubs	40% W.P.	5 oz.	
Japanese beetle larvae	10% G.	1¼ lb.	
Green June beetle larvae	5%	2½ lb.	
Ants			
Ants	diazinon 25% E.C.	¾ cup	Apply as spray or granules and water in thoroughly. For individual nests pour 1% diazinon in nest. Seal in with dirt.
Cicada killer and other soil-nesting wasps	2% G.	5 lb.	
Sod webworms	carbaryl 50% W.P.	½ 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.
Millipedes and sowbugs	5% G.	4 lb.	
	diazinon 25% E.C.	¾ cup	
	2% G.	5 lb.	
	trichlorfon 50% W.P.	4 oz.	
	5% G.	2½ lb.	
Armyworms	carbaryl 50% W.P.	2 oz.	Apply as sprays or granules. Use 5 to 10 gal. of water per 1,000 sq. ft.
Cutworms	5% G.	1 lb.	
Chinch bugs			
Leafhoppers	carbaryl 50% W.P.	2 oz.	Apply as a spray.
	methoxychlor 25% E.C.	2 oz.	
Chiggers	diazinon	1 tbl.	Spray grass thoroughly.
Mites	dicofol 18.5% E.C.	1 tbl.	Spray grass thoroughly, 2 to 2.5 gal. of water per 1,000 sq. ft.
	malathion 50-57% E.C.	1 tbl.	
Slugs	Slug baits	Scatter in grass	Apply where slugs are numerous.

<sup>1</sup> E.C. = emulsion concentrate; W.P. = wettable powder; G. = granules.

<sup>2</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<sup>1</sup>:

"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."

<sup>1</sup> 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.