

Section III  
Root-Feeding Coleoptera and Symphylans

## LAWN BILLBUG CONTROL

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Lawn billbugs Sphenophorus spp. are a common and often serious pest of bluegrass lawns in eastern Washington. Current Washington State University recommendations suggest diazinon as either the 25% EC or 2% or 5% granular formulations for treatment of this pest. The Pacific Northwest Insect Control Handbook also recommends these materials, and in addition, 0.5% Dursban granules. Reports from homeowners during 1983 and 1984 indicated that some insecticides being recommended by Master Gardeners were not giving adequate control of lawn billbugs. Therefore, an experiment was conducted during the summer of 1984 to evaluate the efficacy of several insecticides and their various commonly available formulations for control of lawn billbugs.

A lawn exhibiting lawn billbug damage and having a reasonably uniform distribution of billbug larvae was located in Yakima. A randomized complete block consisting of four replications of each of five treatments and an untreated check was selected. All plots were 5 ft x 5 ft. All of the materials were applied according to their labeled instructions. Soil beneath the plots was moist, and the plot had been mowed to 1-1/2 inches the previous day and the clippings removed. After the pesticide applications were made, approximately 1/2 inch of water was applied (sufficient to carry the materials through the small amount of thatch and to the root zone where the larval feeding was occurring). After 7 days, 1 square foot of sod was removed from each plot and the larvae were counted. The results, including treatments and rates, are as follows:

Treatment	Rate of Formulation /1000 Sq. Ft.	Mean* Larvae/Sq.Ft.
Check		4.75 A
Dursban, 0.5% G	5 lbs	4.25 A
Orthene, 9% EC**	6 oz	1.75 B
Dursban, 5% EC**	8 oz	1.75 B
Diazinon, 5% G	2.5 lbs	1.75 B
Diazinon, 25% EC**	8 oz	0 C

\* Means followed by the same letter are not significantly different at the P = 0.05 level. (Duncan's multiple range test) .

\*\* Liquid formulations at given rates and area are applied in 6, 15, and 15 gal water for Orthene, Dursban, and Diazinon respectively.