

Section V  
Soil Arthropods

**Orchardgrass billbug, *Sphenophorous venatus confluens* Chittenden, control  
in Commercial seed fields.**

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The biology and control of this pest have been studied over the past 5 years in unirrigated commercial orchardgrass fields in the Willamette Valley. The biology is similar to that reported by Kamm in the late 1960's. We took soil samples to monitor larval and pupal stages, used adult feeding scars on the grass blades in the spring and again in the fall of the year to monitor initiation of adult feeding and numbers of crowns/100 sampled to determine if control was necessary, and used pitfall traps in the fall to determine adult movement for the purpose of applying an insecticide to control adults.

As a result of these studies and trials with various insecticides, we now recommend bifenthrin at 0.1 lb ai/A (section 18 registrations) applied as a broadcast spray in the fall after OCT 20<sup>th</sup> and before NOV 10<sup>th</sup> to control the adults of this pest. The previous recommendation was for Lorsban 4E to be applied at 1.0lb ai/A in the spring time (late MAR, early APR) in a rain shower to control adults breaking winter diapause, but before egg laying and prior to substantial grass re-growth that prevents insecticide from reaching target pests on soil surface.

Bifenthrin applied in the fall provides in excess of 90% control of adult billbugs present. Other pyrethroids evaluated at suggested label rates have not provided satisfactory control. We think fall applications have provided excellent control because (1) sprays occur when vegetative regrowth is minimal (compared to spring applications made to knee-high orchard grass), (2) adults are actively dispersing on soil surface and come into contact with insecticides, rain is NOT needed for product to hit the soil surface target site and (3) since field burning has been reduced or eliminated by many growers, little charcoal residues remain to adsorb insecticides.