

ENTOMOLOGY RESEARCH IN PNW GRASS SEED

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Silver top disease (*Fusarium poae* Pike) is a major source of economic loss in PNW Region Kentucky blue grass seed fields. Damage appears as silver (blank) heads just after anthesis due to the disease occurring right on the 1st node below the head. Loss can reach 50% of seed yield. The vector in trials conducted over 3-years at 7 site locations appears to be the grass mealy bug (*Heterococcus graminiculus* Morrison). No effective insecticides are registered. A variety of “soft” insecticides including Bifenthrin, Lambda-Cyhalothrin, Cyfluthrin, and Imidacloprid, can provide 90% reduction of white heads when applied at jointing of the grass according to RCBD trial results. Literature suggests treatment at the time of dandelion bloom in the vicinity of the field as a “best management practice”. Research show treating 2-weeks later provides S.D. better control than the earlier treatments, and as compared to the UTC by ANOVA; LSD t Test 0.05.

Hessian fly (*Myetolia destructor* Say) appeared in older variety Kentucky blue grass fields (e.g. “Shamrock”) on the Rathdrum Prairie of Idaho, around Worley, Id., and in Union County, Oregon, during 2001. Growers reported yield losses of 30% average seed yield due to the blanking of heads by fly larva feeding near the crowns. Since Hessian fly attacks mature grass stands, no insecticide treatments are effective. Good potential for biological control exists. Four genera and 6 species of micro-hymenopteran parasitoids have been recovered from Hessian fly in the PNW to date. More work is in progress.