

## APPLICATIONS OF NEW PEST STRATEGIES IN CRANBERRIES

Kim Patten, Washington State University - Long Beach Research and Extension Unit  
2907 Pioneer Rd., Long Beach WA 98631, 360-642-2031, pattenk@wsu.edu

Peter Bristow, Washington State University - Puyallup Center, Puyallup WA 98372

Based on four years of data, diluted vinegar (3 to 5% acetic acid) applied as a soil drench at rates of 3,000 to 8,000 gpa just prior to bud break (mid- to late April) resulted in fair to good control of false lily-of-the-valley (*Maianthemum dilatatum*). Weed control and crop phytotoxicity were affected by soil moisture level and temperature, timing and soil type. Results were not consistent enough to be predictive. A second crisis exemption was obtained for the reduced risk herbicide mesotrione (Callisto) and large-scale application occurred across the majority of farms in Oregon and Washington. Excellent control was obtained for many of the most critical weed species and millions of dollars in crop loss were prevented. Herbicide trials with combinations of mesotrione and other herbicides were conducted on the more recalcitrant weed species. Mesotrione plus chlorimuron or rimsulfuron provided excellent control of *Potentilla pacifica* and *Lysimachia terrestris*. Late fall applications of imazamox provided excellent control of *Ranunculus repens* and some perennial rushes with no crop damage, but spring or summer application caused significant crop damage.

Of the several sulfonylurea herbicides evaluated (rimsulfuron, iodosulfuron, mesosulfuron, nicosulfuron), rimsulfuron provided the most control of broadleaf perennials without noticeable crop damage. An SLN registration for Admire was obtained for weevil control. Large-scale application occurred in 2004 and 2005. In general, control was adequate but not as good as expected, based on research on sandy soils. Studies were conducted on peat soil using winter applications of imidacloprid and clothianidin. Eighty percent control was achieved, which was not adequate to prevent damage to grower's fields. Summer applications of clothianidin were evaluated for cranberry girdler control. The variation in adult emergence was too high to make inferences on efficacy. Research studies on the early timing and use of Abound, and several new fungicide combinations and timing have been initiated. Comparisons will be made with the standard grower practices. Fruit keeping quality data for 2005 are pending.