Implementation Programs

Lake Osoyoos Areawide Project Year 2: The Worms are on the Run

Alan Knight, Glenn Richardson, and Carrol Calkins
USDA, ARS, Yakima, WA

Keywords: areawide, Lake Osoyoos, codling moth, CAMP, Lorsban, Bt, apple

Situated on either side of Lake Osoyoos at the U.S.-Canadian border, this codling moth areawide management project (CAMP) was initiated in 1995. It comprises 380 acres farmed by 14 growers. Over 90% of the tree fruit production is apple and orchards vary from traditional Red Delicious plantings to newer high density Gala and bagged Fuji. Management of codling moth in both years has consisted of limited use of cover sprays plus mating disruption and the releases of sterile moths during the second half of the season. Sterile moths are furnished by the Canadians and are released each week from four wheelers at 600-1,000 per acre. Control of codling moth was excellent in most orchards (mean = 0.22%) and growers saved 3.5 sprays per season in the first year of the project. During 1996 fruit injury from codling moth was lowered to an average of 0.04% and recaptures of sterile versus fertile moths increased from 31:1 in 1995 to 181:1. Leafrollers were the big problem in 1995, averaging 1.2% in the project. In 1996 leafroller populations were controlled early with an application of Lorsban plus oil followed by two applications of Bt. Fruit injury from leafrollers at harvest averaged 0.36%. Secondary pests have not been a problem within the project and, in general, pest populations are lower and natural enemy populations are higher in these orchards compared with conventional orchards outside the project. Next year some growers in the project will reduce their dispenser rate and sterile moths will be available for the entire season. In addition, the project will expand by 300 acres. Codling moths in these orchards will be controlled with a limited number of insecticide sprays and mating disruption.