Chemical Control/New Products

True bug control with neonicotinoids on sweet cherry

Dept. of E.S.P.M., University of California, Berkeley, CA

Abstract: A trial was conducted in Stockton, CA, to evaluate the efficacy of three neonicotinoid insecticides (Provado, Actara and V-10112) for the control of mountain leafhopper (ML). ML were caged on cherry foliage at 0, 3, 7, 14 and 21 days after treatment (DAT), and mortality was assessed at 1/2, 1 and 2 days of exposure (DOE). At 1/2 DOE, Asana, the grower standard, provided significantly greater ML mortality compared to all other treatments through 21 DAT except Actara at 21 DAT. At 1 DOE Asana provided significantly greater ML mortality compared to all other treatments through 21 DAT except Actara at 0 and 21 DAT. Asana provided superior ML mortality compared to all of the neonicotinoid insecticides, while Actara provided consistently greater ML mortality than Provado or V-10112. Based on this and past years’ research, Actara would be the most effective neonicotinoid replacement for Asana, Sevin, Diazinon or Guthion.

Chemical Control/New Products

In-orchard management of the consperse stink bug, Euschistus conspersus, and associated non-target effects

Christian H. Krupke and Jay F. Brunner
Washington State University, Tree Fruit Research and Extension Center, Wenatchee, WA

Abstract: The consperse stink bug, Euschistus conspersus Uhler, has emerged as an important pest of pome fruit production in north central Washington in the past decade. Growers have struggled to manage this pest, with limited effective chemical control options near harvest. Application of the synthetic pyrethroid fenpropathrin (Danitol®) resulted in high mortality in laboratory tests. We assessed the field efficacy of Danitol as an in-orchard treatment for stink bug damage. To quantify some of the possible non-target effects of Danitol, we followed both pest and beneficial mite populations before and after insecticide application. We found a significant increase in the populations of pest mite species in treated areas relative to controls, with a concurrent depression in populations of beneficial mite species. In light of this information, we present data from field testing of border-only applications of Danitol as an in-orchard treatment.