Abstracts of the 77th Annual Western Orchard Pest & Disease Management Conference

Chemical Control/New Products

Evaluation of new insecticides for control of green and woolly apple aphids in apple - 2002

Diane G. Alston
Utah State University, Department of Biology, Logan, UT

Abstract: The efficacy of Actara 25WG and an unregistered compound under development by Bayer Corp., USU02, was compared with three codling moth control materials (Guthion, Calypso and Novaluron) and an untreated control for control of green and woolly apple aphids in apple. USU02 was highly efficacious for control of both green (likely a mixture of Aphis pomi and A. spiraecola) and woolly (Eriosoma lanigerum) apple aphids for at least four weeks after treatment. Actara also kept green apple aphid incidence and densities relatively low but was significantly greater than USU02 by four weeks. Actara did not suppress woolly apple aphid densities. A high rate of Calypso and Guthion was moderately to highly suppressive of green and woolly aphids. Novaluron significantly increased green apple aphid incidence and densities on apple shoots and did not suppress woolly apple aphid densities as compared to untreated trees and other treatments. Densities of predaceous insects and parasitized aphids were low until four weeks after treatment when they were significantly greater in Novaluron plots than all others, likely because of high availability of aphid prey and low toxicity of Novaluron to natural enemies.