

WSU Pest Management Transition Project Field Days

Tree fruit producers, pesticide applicators, and field representatives are encouraged to attend one of the pest management field days scheduled for the location and dates shown below. All field days will begin at 3:00 pm and end at 5:00 pm. Signs will be post-

ed to direct you to the on farm meeting site. The field days will allow for interactive discussions with WSU IPM experts on the topics of codling moth and leafroller management programs, secondary pest issues, the Decision Aid System (DAS), and tree architec-

ture/sprayer technology. The field days are sponsored by the Pest Management Transition Project, a joint project between WSU and the Washington State Tree Fruit Industry. For additional information and maps go to: <http://pmtp.wsu.edu/tours.html>, or email pmtp.info@wsu.edu or call the WSU Tree Fruit Research and Extension Center at 509.663.8181

See you there!

Quincy – Tuesday, June 10 – *Morgan Orchards, 22532 Rd. 9 NW*
 Prosser – Wednesday, June 11 – *Oasis Farms, 73201 E. Evans Rd.*
 Brewster – Thursday, June 12 – *Crane & Crane, Crane Warehouse Rd.*

Codling Moth and Leafroller

There are many new insecticides that are now available for the control of codling moth (CM) and leafroller (LR). The most successful use of these new products employs a strategic and programmatic approach that targets multiple life stages and, when possible, multiple pests. One strategy, that has proven to be successful, combines the use of codling moth mating disruption, a codling moth ovicide, and one or more codling

moth larvicides. Mating disruption reduces the number of eggs that are laid in the orchard, which can reduce the number of insecticide applications that will be needed later. An insect growth regulator (IGR) applied between 50-200DD can control feeding LR larvae as well as kill CM eggs that are laid on top of residues from the application, which will allow delaying the first larvicide application until 350DD. One or

more larvicide applications (or a tank-mix of an ovicide + larvicide) applied at 350DD, and repeated as necessary based on the length of residual control of the product used and pest pressure in the orchard, will provide control of first generation CM larvae. WSU researchers, and growers who have used this type of strategy in their pest management programs, will discuss their experiences at PMTP field days.

Secondary Pests

In some cases, the challenge of transitioning pest management programs away from the use of organophosphates has not been the control of direct pests, but rather the flare-ups of secondary pests that have come with the introduction of new insecticides into our orchard systems. Often times, the flare-up is difficult to trace back to

one specific cause. Woolly apple aphid (WAA) is an example of a pest that stands out as increasing in importance as the use of organophosphates, such as Lorsban, have been reduced. New insecticides that are being used to control other insects also have the potential to disrupt biological control of this pest. Dr. Betsy Beers' research program is

currently working to identify reasons behind the increase in WAA. This, and other, research will be discussed at the PMTP field days.



Woolly Apple Aphid Colony

Sprayer Technology

Thorough spray coverage is very important when using new insecticides that must be consumed by feeding larvae or come into direct contact with the egg. Horticultural practices, such as pruning and thinning, should aim to improve spray penetration and coverage in the tree canopy. Another important consideration is the type of sprayer being used. Some new sprayer types can achieve good coverage while traveling at faster speeds and using a lower volume of water than

traditional airblast technologies. The fundamental theory of orchard spraying is to displace 100% of the clean orchard air with pesticide laden air. Sprayer fan capacity and tractor speed have a direct influence on air displacement. New sprayer technologies try to address the issue of air displacement, while incorporating the physics of droplets and wind to improve on the technology of airblast sprayers. Horticultural practices and spray technologies to improve pest



management will be discussed at PMTP field days.

Decision Aid System

The WSU Decision Aid System (DAS) is a web-based program that integrates weather data, insect and disease models, management recommendations, and pesticide recommendation databases. The DAS is powered by data from WSU-AgWeather-Net and predicted weather from NOAA. The DAS provides one stop shopping for time-sensitive IPM information. As pest management programs for CM and LR transition away from organophosphates to new insecticides, the use of monitoring programs

has become more important for timing insecticide applications and sampling efforts and to help determine when insecticide input can be reduced or needs to be increased to manage insect pest populations. Using computer models is an important aspect of a sound monitoring program and the DAS makes these models easier to use and more informative than ever before. The DAS provides current conditions for insect and disease models at each site, management options that should be considered based

on current conditions, and predicted conditions and management options forecasted from one to ten days. The DAS also links to the WSU spray guide so that information about possible materials for control is readily accessible. New and current features of the DAS and implementing the DAS into our pest management programs will be discussed at PMTP field tours.

Visit PMTP online at:
<http://pmtip.wsu.edu>

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