Arkansas Fruit and Nut News Volume 2, Issue 6, 28 August 2012

Update on Spotted Wing Drosophila (SWD)

Captures in Arkansas:

On July 9, 2012, we captured several suspect vinegar flies in apple cider vinegar traps (directions to build traps are below) near wild and commercial blackberry plantings in White Co. Arkansas. The USDA-APHIS-PPQ office recently confirmed that these fly specimens were **Spotted Wing Drosophila (SWD)**, *Drosophila suzukii*. Since 9 July, we have captured SWD adults in traps in both Johnson and Washington counties. It is likely that there are active SWD populations elsewhere in Arkansas. Other Arkansas counties where we are monitoring for SWD, but have not captured any SWD flies, include: Crawford, Faulkner, Franklin, and Hempstead.

Arkansas fact sheet: *Spotted Wing Drosophila: Potential Pest of Arkansas Fruit* – click here.

This sheet gives detailed information on fly biology, how to monitor for SWD presence, identify this particular fruit fly pest, and suggested management strategies.

SWD Biology:

The female fly cuts into the skin of ripening fruit to lay eggs that hatch into larvae. The larvae will feed on undamaged, ripening fruits of several crops with caneberries preferred over blueberries and strawberries.

Monitoring for SWD:

Berry growers should be very vigilant now and set out SWD traps and sample undamaged, ripening fruit for presence of small, legless maggots to confirm whether or not this pest is active on their farms.

To see how to make SWD trap, click video.
To see how to monitor for SWD, click video.
To see larvae-checking sugar method, click video or video (sugar test.mov).

Sift flies from the vinegar trap, place flies in a small vial of alcohol, and give vial to your county agent to mail for specimen species identification to:

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Comments from Other States on Managing SWD Infestations

Oregon and SW Washington spotted wing drosophila (SWD)
(Source: 7-3-12 update composed by Peerbolt Crop Management, click 7-3-12)

Damage:

In caneberries with any SWD larvae in them, the fruit softens & falls apart much more visibly than in strawberries. Pay particular attention to berries that look like they're prematurely soft/over ripe.

Important to check fruit…

While these traps (*baited with apple cider vinegar*) give us some data on SWD populations it's strongly advised to not make management decisions on trap numbers. This monitoring system is not reliable enough to be able to do that. It is advised to monitor fruit quality closely and maintain a preventative schedule of insecticide applications to mitigate the risk of potential crop losses due to SWD larval contamination.

SWD Risk Factors:

It's becoming clearer which field characteristics increase the chances of having SWD infestations. This is still a work in progress but observations over the last three seasons indicate the following:

Increased Risk:

- Borders of field have wild blackberries, wild cherries or other favored overwintering habitat.
- Field is relatively small in size and is part of a mixed crop farm with other susceptible crops adjacent (Example: 1-3 acre plantings of strawberries, raspberries, blueberries with 5 acre cherry and peach orchards).
- Caneberries appear to be preferred over blueberries and strawberries.
- The later the harvest season the more the risk with late season caneberries the most susceptible.
- U Pick/ Fresh market fields that are difficult to treat with insecticides on a regular schedule.

Decreased Risk:

- Field is bordered by grass seed fields or other non-host plantings.
- Field is relatively large and doesn't border other fields of SWD susceptible crops.
- Harvest season is earlier (Example: Duke is lower risk than Liberty in blueberries).
- In general, caneberries are higher risk than blueberries. But the late season blueberries are under a very high risk due to the higher insect populations.

Comments on Efficacy of Insecticides (The SWD Team, July 20, 2012, click here)

Late season fruits are more vulnerable to SWD infestation because SWD populations tend to peak after late-July as seen in the past two seasons….

Laboratory and field studies indicate the efficacy of carbaryl is intermediate. Organophosphates, synthetic pyrethroids, and spinosyns provide the most consistent control. Entrust is the most effective organic product available, while recent lab studies indicate female SWD treated with Pyganic can recover and lay fertile eggs. Growers should be advised of reports of fruit spotting due to the use of oil-based formulations of malathion.

Listings of Insecticides Registered for Use for Spotted Wing Drosophila:

Click Caneberries

Click Blueberry

Click Strawberry

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Much of the information obtained for this newsletter was gathered from several cited online sites that distribute updates on Spotted Wing Drosophila management information. All chemical information is given with the understanding that no endorsement of named products is intended nor is criticism implied of similar products that are not mentioned. Before purchasing or using any pesticide, always read and carefully follow the directions on the container label.