Fruit-Destroying Spotted Wing Drosophila Confirmed In Arkansas

SEARCY, ARK.

A tiny fly that has left a multimillion dollar path of destruction in some U.S. fruit growing regions has been confirmed in Arkansas and the state's fruit growers are being urged to learn to identify, sample for, and control the spotted wing drosophila.

"They're the boll weevil of fruit," said Sherri Sanders, White County extension agent for the University of Arkansas System Division of Agriculture, comparing them to the pest that has been an expensive enemy of U.S. cotton farmers for decades. Sanders works in a county with a long history of berry farming, and knows the analogy isn't far-fetched.

The spotted wing drosophila, or SWD, cuts through the skin of ripening fruit to lay eggs that hatch within 12 to 72 hours into white larvae. These larvae feed inside and damage soft-skinned fruits, especially blackberries, raspberries, strawberries, cherries and possibly peaches, plums, tomatoes and melons. The entry and exit holes and feeding damage leave the fruit vulnerable to infections as well as disfiguring the fruits.

Small insect, big cost

While at a fruit-growers conference last year, Sanders learned how devastating the insect -- a vinegar fly -- can be.

In some states, "this insect took growers by surprise," said Sanders. "Almost before they knew what hit them, fruit growers suffered 80 to 100 percent losses – the kind of losses that put people out of business."

In 2010, a report on the potential impact of this fly estimated revenue losses to strawberry growers in California, Oregon and Washington alone to be $314 million. That estimate rose to more than a half billion dollars when including revenue losses due to fly damage to raspberries, blackberries, blueberries and cherries.

In Arkansas, the fruit industry is worth millions. The National Agricultural Statistics Service pegged the 2012 value of the blueberry, peach and grape crops at $6.54 million. Add in tomatoes and watermelons, and the total rises to more than $31.4 million.

Spreading quickly

A native of Asia, the spotted wing drosophila was first spotted in the U.S. in California in 2008. Since then, the insect has spread from Oregon to western Canada, Florida to Maine and several central states such as Michigan.

Since 2010, the Division of Agriculture has been working with county extension agents in seven fruit growing regions to use traps to determine the extent of the flies' presence in Arkansas.

In 2012, the spotted wing drosophila was captured in traps near blackberry, blueberry and raspberry acreage in Johnson, White and Washington counties, said Donn Johnson, professor and research/extension entomologist for the University of Arkansas System Division of Agriculture. USDA's Animal and Plant Health Inspection Service, or APHIS, confirmed the identity of the flies.

"We have additional traps in Crawford, Faulkner and Hempstead counties, but have not captured any flies in those counties," he said.

Johnson recommends:

• Sampling by checking traps month before fruit begins to ripen.

• Scouting ripening fruits twice a week for signs of damage and presence of larvae.

• Disposing of spoiled, fallen or infested fruit by burying or burning the fruit, or bagging in plastic, then freezing or solarizing to ensure no larvae escape.

• If flies are detected, apply recommended insecticides weekly during ripening to minimize damage. Best management practices may be found: www.uaex.edu/Other_Areas/publications/PDF/FSA-7079.pdf.

"Anyone who finds specimens that seem to be the spotted wing drosophila can bring fly specimens in alcohol to their county extension agent, the Arkansas State Plant Board or USDA's Animal and Plant Health Inspection Service," Johnson said. Δ

Adult spotted Wing Drosophila on a raspberry.
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