INVASIVE PEST WARNING

SPOTTED WING DROSOPHILA – A POTENTIAL PEST OF NEW JERSEY BLUEBERRIES and OTHER SOFT FRUIT

In 7 July 2011, we found the first adults of the Spotted Wing Drosophila in blueberry farms in New Jersey. Spotted Wing Drosophila (*Drosophila suzukii*) is an insect pest of fruit that has spread from California in the past two years to Oregon, Washington, British Columbia, North Carolina, South Carolina, Michigan, Virginia, and Florida, and other states. The greatest potential impact is expected to be in blueberry, peach, cherry, strawberry, raspberry, and blackberry crops because soft-fleshed fruit are easier for the flies to lay eggs in and for larvae to develop. This pest has also been reared out of other fruit crops, and from berries of wild plants.

Spotted Wing Drosophila flies are small, around 2.5-3 mm in length, with light brown bodies and darker brown bands on the abdomen. Adults have characteristic bright red eyes, and the males have a prominent dark spot on each wing that can be easily seen with a hand lens (Figure). Females are less distinctive, but their serrated ovipositor is a distinguishing feature. This fly is native to Asia and is also reported in Hawaii.

Currently, the fruit IPM program is monitoring traps placed in several blueberry fields and vineyards. Trapping results and insect identification is being done at the Rutgers P.E. Marucci Center in Chatsworth. Results from these monitoring efforts will be provided in future newsletters and at grower meetings.

Spotted Wing Drosophila is not a true fruit fly like blueberry maggot or cherry fruit fly. It is a vinegar fly similar to the other small flies that infest ripe fruit during the summer, but with some important differences. This species attacks intact fruit, using the saw-like ovipositor to lay eggs under the skin. Also, female flies can lay hundreds of eggs and this species develops quickly, completing a life cycle in about three weeks during our typical summer temperatures, allowing buildup of the populations through the season. Although these facts make the potential impact high, our fruit crops are managed already using IPM programs for other pre-harvest insect pests such as blueberry maggot. This, coupled with our cold winters, is expected to provide some level of resilience against Spotted Wing Drosophila.

At this time, we recommend that growers, scouts, consultants, and processors become educated about Spotted Wing Drosophila and what signs to look for in ripe fruit. A good central source for information on this pest has been developed by Oregon State University, available online at [swd.hort.oregonstate.edu](http://swd.hort.oregonstate.edu). If larvae are found in fruit that are suspected of being Spotted Wing Drosophila, samples should be given to the Fruit IPM Program (Dean Polk at 609-902-1134, e-mail: polk@aesop.rutgers.edu) or Gene Rizio at 609-313-2406, e-mail: rizio@aesop.rutgers.edu), or brought to the Rutgers P.E. Marucci Center, 125A Lake Oswego Rd., Chatsworth, New Jersey (attn: Cesar Rodriguez-Saona), or contact Cesar Rodriguez-Saona at (609)-726-1590 ext. 4412 (email: crodriguez@aesop.rutgers.edu).
Photo: Adult male fly of Spotted Wing Drosophila, showing the distinctive wing pattern. Photo: University of California.