

Researchers see progress in fight against stink bug

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By Val Van Meter

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WINCHESTER — Researchers are investigating two promising weapons in the war against crop-ruining brown marmorated stink bugs — an Asian wasp that attacks their eggs and a pheromone that attracts them so they can be trapped.

“We’re making progress,” said Tracy Leskey, who is with the U.S. Department of Agriculture’s Applied Fruit Research Station in Kearnesville, W.Va.

The brown marmorated stink bug, an invasive alien from Asia, feeds on fruits and vegetables, as well as corn, cotton and soybeans.

“That’s why they are such pests, because they have such a wide host range,” said entomologist Chris Bergh at Virginia Cooperative Extension’s Alson H. Smith Jr. Agricultural Research and Extension Center in Frederick County.

The insect sucks juices from products like fruits, leaving behind brown marks and making the items unsellable.

It created chaos in farming areas in the Central Atlantic states in 2010, doing an estimated \$37 million in damage to fruit crops alone.

It is a threat because it has no natural predators in the United States, and pesticides labeled for use against it are mostly ineffective.

Add to that the fact that the bugs are constantly on the move, and can raise two generations of descendants in a single year, and farmers in the area have plenty of reason for concern.

Leskey said research entomologist Kim Hoelmer, at the Agricultural Research Station in Newark, Del., is evaluating a tiny wasp from Asia that attacks the stink bug’s eggs in its native home.

Leskey described the initial findings as “positive.”

The female *Trissolcus* wasp searches for stink bug eggs on host plants. When she finds them, the wasp deposits her eggs inside the stink bug’s eggs. After the wasp eggs hatch, the young wasps consume the stink bug eggs.

Trissolcus wasps do not attack other kinds of insects, animals or plants, according to Hoelmer.

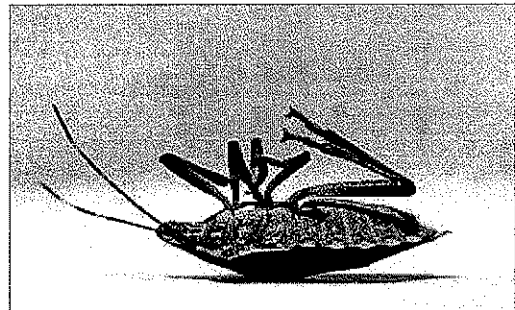
It is important, Leskey said, that the wasps be “species-specific.” There are native stink bugs, like the spined soldier bug, that feed on other, harmful insects and need to be protected.

Leskey said other research laboratories in Michigan, Florida, Oregon and Mississippi are also screening the wasps’ interaction with native species. But it could be several years before they are deemed safe to release.

In Asia, Leskey said, the wasps reportedly parasitize about 80 percent of the stink bug eggs, reducing the insect to a nuisance, not a major threat.



T'ai Roulston, curator and research associate professor at Blandy Experimental Farm at the State Arboretum of Virginia in Boyce, lets a stink bug crawl on his hand.



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“If researchers can find a natural predator that will control these pests, that will definitely help our fruit, vegetable and crop farmers,” said Spencer Neale, a commodity marketing specialist for Virginia Farm Bureau Federation. “This type of stink bug is more aggressive and resistant than other species.”

The U.S. Department of Agriculture’s Agricultural Research Service has also been working to develop management programs to use on the stink bug.

Leskey said she has discovered a pheromone that appears to attract the brown marmorated type.

This is a needed tool, Leskey said, because it is difficult to nail down just how many of the bugs might be infesting any particular place since they often feed at night and move from place to place.

Luring the bugs to a trap helps identify “the level of the threat,” Leskey said.

The new pheromone seems to attract the stink bug all season long, she added.

“It’s looking good.”

Bill Mackintosh, of Mackintosh Fruit Farm in Clarke County, said the population of the pests appears to be lower this year. And for some reason, they seem to be feasting more on peaches than apples.

He also wondered if weather patterns don’t affect the numbers of stink bugs.

Bergh agreed the bugs don’t seem to be doing quite as much damage so far this year, but no one can predict what will happen for the rest of the growing season.

— *Contact Val Van Meter at vvanmeter@winchesterstar.com*