

Stink bug may meet its match in tiny wasp

By DAN WHEAT
Capital Press

WENATCHEE, Wash. — Scientists hope the discovery of the spread of a natural predator may help control the brown marmorated stink bug.

Trissolcus japonicus, a non-stinging Asian wasp, was found Aug. 14 and again Sept. 23 in a trap in a public park in Vancouver, Wash.

The trap was part of an effort by the Washington State University Tree Fruit Research and Extension Center in Wenatchee to find natural combatants to the brown marmorated stink bug.

Josh Milnes, a field technician in Vancouver for the center, found two small clusters of the wasps. They were verified by USDA research entomologist Elijah Talamas in Washington, D.C., said Elizabeth Beers, WSUTFREC entomologist in Wenatchee and Milnes' supervisor.

Beers is part of a nationwide team of 52 scientists from 10 institutions working to control the stink bug.

"We did not expect to find



Elijah Talamas/USDAARS

A *Trissolcus japonicus* wasp emerges from a brown marmorated stink bug egg. Scientists hope the wasp will help control the stink bug in the U.S.

this wasp here and are very excited. In the insect world, we struck it rich," Beers said.

Since 2007, USDA has been studying *T. japonicus* in quarantine laboratories to determine if it can be released to destroy the brown mar-

marmorated stink bug, also from Asia, without harming native stink bug species beneficial to crops.

Tracy Leskey, USDA entomologist in West Virginia and leader of the national stink bug team, said the discovery

may be a biological-control game-changer.

T. japonicus wasp clusters have been found in Maryland and Virginia in the past two years and the fact that they've shown up 3,000 miles away in Washington state shows the

wasp is deploying for attack, Leskey said.

The discovery also suggests the wasp was accidentally brought to the United States multiple times, much like the stink bug, she said.

The stink bug has caused millions of dollars in damage to fruit orchards in the Mid-Atlantic region since it was discovered in Pennsylvania less than two decades ago. It was discovered in Portland, Ore., in 2004 and is becoming a problem in berries, vineyards and other crops in the Willamette Valley.

It was found in Yakima, Wash., in 2012 and is feared for its potential destruction of apples, pears and cherries.

WSU scientists have been alarmed because only broad-spectrum pesticides have worked against the stink bug. Those pesticides also disrupt Integrated Pest Management programs of biological control.

The *T. japonicus* wasps found by Milnes were destroying brown marmorated stink bug eggs, Beers said.

The female *T. japonicus*

wasps, no bigger than a typed comma, lay eggs inside clusters of stink bug eggs. After a wasp egg hatches, the larva eats the stink bug egg host, "killing it in the process and then bursting out as an adult wasp," Beers said.

T. japonicus has not eradicated the brown marmorated stink bug in Asia but appears to be one of the more effective parasitoids, Beers said.

"What we can hope for is that it will keep the ambient population of brown marmorated stink bug down so we won't have the huge buildup like we've seen on the East Coast," she said.

Kim Hoelmer, a USDA research entomologist studying *T. japonicus* in a quarantine lab in Delaware, said lab research will continue and scientists will monitor the wasp's natural spread.

"We don't want to introduce a non-native wasp that kills native stink bugs beneficial to our crops," he said. "So far, however, the research looks promising that this tiny prizefighter favors the brown marmorated variety."

Some farmers upset that hydroponic crops carry organic label

By WILSON RING
Associated Press

STOWE, Vt. — Some organic crop farmers don't want crops raised sans soil in hydroponic greenhouses to carry the "organic" label, and to make their point, they dumped a pile of compost in a parking lot Monday where a federal advisory board dedicated to the organic community was meeting.

A handful of tractors circled the lot and about 50 protesters carried signs that oppose federal rules that allow some produce grown without soil to be labeled as organic.

But others said the designation as organic shouldn't have



AP Photo/Wilson Ring

A tractor driver participates in a protest in Stowe, Vt. on Oct. 26 by opponents of federal rules that allow crops raised in hydroponic systems to be labeled organic. The protesters claim that crops must be raised in soil to be labeled organic.

anything to do with where the crops are grown.

The National Organic Standards Board is meeting in

Stowe this week.

"Organic farming of terrestrial plants needs to happen in the soil," said Dave Chapman, of Long Wind Farm in East Thetford, who helped organize the protest. "It's a basic principle of organic farming that you feed the soil, not the plant, that you cultivate the life in the soil."

Chapman said he believes hydroponic agriculture has its place, but not with the label organic.

Proponents of the practice say the label "organic" is something that should refer to the nutrients that are used to grow the crops, not where they are grown. To grow something

hydroponically, sand, gravel or water is used, instead of soil. Nutrients are added in.

"The science and the processes are exactly the same. There are a lot of people who have a religious belief, almost, around soil," said Colin Archipley who, with his wife Karen, runs an organic farm outside San Diego with some of their crops being grown hydroponically.

Philip LaRocca, an organic winemaker from Forest Ranch, California, said hydroponic farmers work as hard and as diligently as farmers who farm in soil.

"As long as they follow organic systems, organic plans,

not using any synthetic materials," he said, "why not certify them organic?"

There's a competition to it all, too, said Chapman. Crops can be grown more efficiently and cheaper in hydroponic systems.

Archipley said it helps make organic food available to more people. He said many who advocate for dropping the organic label from hydroponically grown crops are really worried about losing market share.

The National Organic Standards Board is a volunteer group that makes recommendations on organic agriculture policy issues to the U.S. Department of Agriculture.

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MAKING STRIDES Against Breast Cancer®

Kathy McKenzie's world was turned upside down when she heard the daunting words "you have breast cancer". Like many others, Kathy entered her doctor's office, where she received a mammogram per the recommendations of her physician and the American Cancer Society.

Once home, Kathy received a call asking her to come back for additional testing. At the time digital x-rays were becoming more common, and the nurse explained it was not unusual for patients to be called back in with the new, more advanced technology. She returned for a biopsy and was later diagnosed with triple negative stage 1 breast cancer; a variation of the disease that can be extremely difficult to treat and overcome if not diagnosed early.

Luckily, they detected the cancer at its earliest, most treatable stage. Soon after diagnosis, Kathy was able to begin treatment, undergoing four months of chemotherapy.

During those four months, every day Kathy had a treatment appointment, she was greeted with a gift from an anonymous friend. Some days she would go in for treatment and receive a small lotion with a card, other days a small toy. There was always something there to make her smile.

It wasn't until after she had finished treatment that she discovered who had been leaving her gifts. Kathy works as a hygienist within a local dentist's office, and upon hearing the news that she was undergoing breast cancer treatments, one of her patients decided to brighten her appointment days with an ongoing act of kindness.

Extremely touched by the hope and happiness these gifts had given her during a time of such hardship, Kathy decided to pay forward the gesture, and began looking for ways to give back to other women facing breast cancer.

It was important to her to not only give back through providing those same comforting gifts, but to also make a difference by helping them navigate their cancer diagnosis. Kathy began volunteering for the American Cancer Society's Reach to Recovery

program, and was able to provide that same comfort to the women she mentored.

Reach to Recovery is designed to help women cope specifically with their breast cancer diagnosis and experience. The program provides information and support to those facing breast cancer through one-on-one contact with trained American Cancer Society volunteers. Often times it is difficult for someone facing a diagnosis to see that there is a life after cancer and being paired with someone who knows firsthand what they are going through, helps remind them.

The Reach to Recovery program is made possible by funds raised through the Society's Making Strides Against Breast Cancer events.

"Making Strides Against Breast Cancer walks give us a real opportunity to make a dramatic difference in the battle to end breast cancer. Silence won't finish this fight, but our action will", states Neah Jackson, American Cancer Society event manager. "We want every person, in every community to join us, bring their friends and family, take action and help us to finish the fight against breast cancer!"

Making Strides Against Breast Cancer is the largest network of breast cancer awareness events in the nation, uniting more than 300 communities — to finish the fight. Each event is an incredible and inspiring opportunity to honor those who have battled breast cancer, raise awareness about what can be done to reduce the risk of breast cancer, and raise money to help the American Cancer Society fight the disease with research, information, patient services, and access to mammograms for women who need them.

Breast cancer is the most common cancer among women in the United States, other than skin cancer, and is the second leading cause of cancer death in women, after lung cancer. This year, more than 231,000 women nationwide will be diagnosed with breast cancer- that is 231,000 too many to have to face such a horrible disease.

The chance of a woman having invasive breast cancer some time during her life is about 1 in 8. The chance of dying from breast cancer is about 1 in 36, however breast cancer death rates have declined, with the increase finding breast cancer earlier and better treatment options. Today, the American Cancer Society celebrates the more than 2.9 million breast cancer survivors in the United States.

If you have a passion for finishing the fight against the disease, we invite you to join us for Making Strides Against Breast Cancer. Visit MakingStridesWalk.org for more information!

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