

Fire ants are emerging nuisance for Virginians

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Red imported worker fire ants of various sizes. Credit: Bart Drees, Texas A&M University

Red imported fire ants (RIFAs), which have caused trouble in Florida and Texas for decades, are now advancing in Virginia. Colonies of the tiny, highly aggressive insects have been observed in the commonwealth since 1989 and, in recent years, have caught the attention of Virginia Tech scientists who are trying to learn more about the increasing number of fire ant infestations.

"Virginia Cooperative Extension has begun a research and outreach program to train Extension agents and industry officials in southeastern Virginia about this emerging problem," said Dini Miller, Virginia Cooperative Extension specialist on urban pest management and

associate professor of entomology in the College of Agriculture and Life Sciences. Miller and Peter Schultz, Extension specialist of horticulture crop insects and entomology professor, are leading Extension's efforts to research RIFAs and educate Virginians about this issue.

The Virginia Department of Agriculture and Consumer Services (VDACS) currently manages and treats all fire ant infestations in the commonwealth. Most homeowners and landscape workers do not have the training or resources needed to stamp out a fire ant infestation. This often requires a multi-faceted approach using a bait and low-toxicity granular formation, techniques not commonly used for similar pests in urban areas. Burning a fire ant mound, for example, will not work and may even cause the colony to scatter and multiply.

RIFAs are the one of the most aggressive insects in North America. When a colony of these ants perceives a disturbance to the nest or a food source, they respond quickly by rushing forward and grasping onto the enemy with barbed mandibles. While still biting, these ants repeatedly sting their enemy, injecting toxic venom and leaving a small, acutely painful wound. A day or two later, small, blister-like pustules will develop on the victim, which may lead to secondary infection or permanent scarring without proper care.

"This is a horrid, obnoxious pest that we do not want in Virginia," Miller said. "What's worse, to an untrained eye the red imported fire ants and their mounds are difficult to distinguish from other ant species."

RIFAs are believed to have first arrived in the United States in the 1930s. According to Schultz, they may have been introduced from their native habitat in Argentina and Brazil from the soil used as ballast in cargo ships. Although humans are most commonly to blame for the spread of RIFAs, the insects have extended their range to nearby territories during annual mating flights and by moving into a new region

in search of food or a better nest site. They have also rafted to new locations during floods.

Since the 1930s, fire ants have spread to infest large parts of the southern United States, including Puerto Rico and as far west as Texas and parts of California. The ants, which have a high reproduction rate, experienced dramatic growth during the housing boom of the 1950s, likely from sod and nursery plants being transported from production sites to areas under development for housing or commercial use.

"Today, the red imported fire ants are still extending their range from the south to the north," said Schultz, who is also director of the Hampton Roads Agricultural Research and Extension Center in Virginia Beach. "Even though sod and nursery plants are treated and must meet strict guidelines to be transported from areas with fire ant infestations, you can never be 100 percent sure that the material is free from the tiny insects."

The ants have been increasing their numbers ever since they were first spotted in the commonwealth. Although mostly concentrated in the Tidewater area and nearby areas in Eastern Virginia, RIFAs have recently been observed at mall construction sites in Richmond and Roanoke. Fire ants caught the public's attention in 2006 when a 30-year-old landscape worker in Virginia Beach died after a fire ant attack. Although reports of human deaths are rare, Miller explained that people who are allergic to bee stings might also have severe reactions to fire ant stings.

In Virginia, fire ants have only been found in urban areas and are not currently an issue for the agricultural industry. In other states, however, RIFAs pose a threat to both crops and livestock. They feed on almost any plant or animal material, alive or dead, and are known to damage more than 50 cultivated plants such as corn, sorghum, and soybeans by feeding on germinating seeds. The fire ants can also damage developing

fruit and flower buds on tomatoes and other plants. "They also pose a problem for young or debilitated livestock," Miller added. "A calf may not have the strength or mobility to escape an attack by ant workers, especially if it is disabled in some way."

Although a significant agricultural, economic, and safety problem, Miller and Schultz emphasized that a fire ant infestation is not the end of the world.

"Homeowners and landscape workers in Florida and Texas have been dealing with this issue for decades now," Schultz said. "Virginians need to be more careful and be aware of their surroundings when outdoors. If you know that there are fire ants in your area, you must be cautious when setting up for a picnic or mowing your lawn. What the fire ants really bring is a lifestyle change."

Source: Virginia Tech

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