

News from the Watershed

Fire Ants: Harmful insects that affect our lifestyle

Living in Florida, you have probably had the misfortune of being stung by fire ants at some time in your life. Fire ants are everywhere, in pastures, yards, parks, wood and even electrical boxes. The sting of this imported pest is quite painful and causes a lot of harm, not only to people, but to animals. These ants are very aggressive. Their large populations (10 to 30 million ants per acre) present many challenges for people and industries

Billions of dollars are spent annually because of these pesky creatures; not only on prevention, but on repairs, medical and veterinary expenses. In addition, fire ants build mounds that cause damage to farm equipment, mowers and other landscaping apparatus. Their mounds appear as large domes, up to 15-16 inches high. They can also be located under objects such as logs, rocks, bricks and other objects placed on the ground. Generally, mounds are obvious in their location; however they can be difficult to see in some instances.

Fire ants are small, coppery-brown in color, and come in a variety of sizes (2mm to 6mm). They are an exotic species - introduced to the U.S. from South America. In the early 1900's these pests are believed to have hitched a ride within the soil used as ballast in cargo ships. Since their arrival, they have spread very rapidly. Today, the red fire ant has spread throughout the southeastern United States and Puerto Rico replacing two native species of ants. Recently, fire ants have been discovered as far away as California, Kansas and Maryland.

Fire ants' diet consists of almost any plant or animal material. They prefer other insects, but will feast on what is available. In fact, when they enter an ecosystem, they impact the native species of plants and animals that reside there in a big way. In addition to foraging on new growth, buds and fruit that the plants produce, they harm the wildlife. Researchers have found that the reduction and even elimination of many species such as field mice, snakes, turtles and other vertebrates have resulted from the introduction of fire ants to an area.

Since they enjoy a diet of plant materials such as the seeds of many crops and buds of developing fruits, the agriculture industry has been affected by these destructive creatures. In addition to their voracious appetite, they cause destruction by girdling stems and trunks, digging underground, and constructing mounds which often inhibit irrigation systems by blocking the flow of water.

In an urban setting, fire ants wreak havoc as well. They reduce the number of birds and mammals in the areas in which they live; they nest in walls, under sidewalks and many other inconvenient places. When they exit their mounds, they leave behind an unstable area, which may result in structural damage. They are attracted to electrical currents, which have resulted in damage to air conditioners, heat pumps, phone boxes, traffic lights, transformers and gas pumps.

But perhaps the most irritating trait of these creatures is simply that they make our outdoor and sometimes indoor activities less enjoyable. They invade our yards and homes and their sting can bring fun to a screeching halt. Children and the elderly may suffer serious effects from fire ants and require medical attention. Since a single ant can sting repeatedly, when one comes in contact with a nest, the results can be excruciating.

There may be some good news though. Phorid flies are a species of insect that originate in South America. Research has shown that they attack fire ants. According to *Agricultural Research*, these insects will pursue an ant and lay a single egg inside its body. The maggot then burrows into the ant's head. Just before the maggot reaches maturity, it eats the inside of the ant's head and causes it to fall off. The ant's head then becomes part of the pupal case. This sounds really disgusting; however, these flies are being researched as a possible aide in the reduction and control of fire ants.

Other insects are also being looked at in an effort to control fire ants. A required trait in all this research is that the insect selected to control fire ants must infect only imported fire ants! Therefore, there is no risk to other species and as a result, fire ants could be severely reduced and maybe someday even eliminated in the U.S.

In a project that unites many organizations including USDA's Animal and Plant Health Inspection Service, state agencies and land-grant universities, the Center for Medical, Agricultural, and Veterinary Entomology in Gainesville, Florida has been attempting to control the spread of imported fire ants since 2001. By utilizing a "natural" method of control, it is hoped that in the near future, these aggressive creatures will be reduced and controlled. For more information about agriculture and the environment, please visit our website at <http://www.highlandswcd.org/>