



Red Imported Fire Ant Control Around Bodies of Water

Paul R. Nester, Ph.D.
Extension Agent - IPM
Texas Cooperative Extension
Harris County/Houston Metro Area

The red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: Formicidae) is the Number One problem pest for which homeowners in Texas buy and apply pesticides. Pesticides can contaminate both surface and ground water, including naturally occurring bodies of water and the increasingly popular water gardens. Fire ants are attracted to bodies of water; and using pesticides around these sites can pose dangers. However, taking simple precautions when using insecticides around bodies of water can reduce the potential harm to fish and other aquatic organisms and the danger of polluting other water sources.

Fire ants need water daily to survive. Therefore, they often nest and forage near surface water. If they have no surface water, fire ants will tunnel down to reach free water in saturated soil. It is extremely important to protect water supplies when using insecticides. Pesticides may contaminate surface water in two ways: 1) direct application to the water, or 2) indirectly from pesticide drifting into water during application or water runoff after pesticide is applied.

Using Bait Formulated Products

Fire ant bait products contain extremely low amounts of active ingredients (hydamethylnon, methoprene, spinosad, indoxycarb, pyriproxyfen, fenoxycarb, or abamectin) and can be applied near but not directly into the water. To broadcast these fire ant bait products safely around a pond (lake, stream, etc.) use a handheld seeder/spreader while keeping your back toward the water. This reduces the likelihood that you broadcast the material directly into the water. *Always read and follow the label instructions carefully.* Applying fire ant bait products while the fire ants are actively foraging will reduce the chances of runoff into the water. Test to see if the fire ants are foraging by placing a small amount of bait on the ground. Examine after 30 minutes or so to determine if fire ants are actively collecting the bait. Fire ants are most active when the temperature is 70° to 95° F, or in the evening (and through the night) when daytime temperatures are higher. If the fire ants are not actively foraging, wait until a more favorable time to apply the bait. Be patient when using baits. Most baits are slow acting; reducing fire ant numbers in 3 to 12 weeks, depending on the specific product used. Do not wet the bait or apply water immediately after applying insecticidal baits because it makes the bait unattractive to the pest and generally degrades the active ingredient.

Fire ants may establish colonies in water well pumps. Do not treat these colonies directly, because the pesticide may seep into the groundwater. Because fire ants will forage for food outside these units you can apply fire ant bait products away from the well pump and the fire ants will contact and pick up the bait. Avoid applying the bait in areas where the bait might wash into the water system.

Using Contact Insecticides

Be careful when treating individual fire ant mounds around water (see [FAPFS011](#)). Use products containing acephate (Orthene®) which are relatively low in toxicity to organisms such as fish. Avoid using products containing synthetic pyrethroids, pyrethrins, spinosad, or rotenone near water due to their high toxicity to fish. Even if you apply a product away from the water itself, the next rain may wash it into the pond (lake, stream etc.). Avoid applying products if rain is expected.

If you use a granular formulation (and some dusts) water the product in after application, when the label instructs you to do so. It is vital that you read and follow carefully the instructions on the label; otherwise you might either apply too little and fail to control the fire ants, or apply too much and harm the environment. Do not over water, as this will wash the product away from the ants and may carry it into the water.

In urban areas, a major source of surface water contamination is pesticide runoff. This occurs when a pesticide (insecticide, herbicide, fungicide etc.) is used improperly. Many products, such as fipronil granular products (Over 'N Out®, TopChoice®), have specific use restrictions around water edges described on the product label. Contact insecticides (bifenthrin, cyfluthrin, deltamethrin, permethrin,, s-fenvalerate, spinosad, etc.) generally require watering in after application to wash the active ingredient into the insect's contact zone. Following application, water according to the manufacturer's label directions, but never so much so as to have water running off into the drive, walkway or street. This is a sign of over watering. Do not broadcast contact insecticides to concrete sidewalks, drives or roadways, because these products will be washed away into the storm water drainage system, polluting water in neighborhood creeks, lakes and rivers.

Equipment Cleanup and Product Disposal

You can also contaminate water when you clean application equipment and dispose of empty containers. When rinsing application equipment and empty containers, use the rinse water to treat additional mounds. Never pour the rinse water down a household drain (or toilet). This practice will cause "red flags" during water quality monitoring, as the city water treatment facilities are not equipped to remove pesticides from residential wastewater. Never pour this rinse water down the driveway or street gutter/sewer. These pollutants will end up in the storm water runoff system, which empties directly into nearby bodies of surface water. High or frequent contamination of sewer and/or storm water with pesticides may result in products being banned from use in certain areas or removed from the market entirely.

Dispose of leftover pesticides by using for a pest and location listed on the label or through the local household hazardous waste disposal facilities. Contact the city where you live for information regarding local collection sites and policies. Local municipal where you live likely to have information include: environmental, sanitation, water and public works departments. Contact the city managers office if these others do not have the information. Never dispose of partially emptied containers with ordinary household wastes; they can pollute ground water.

The USERS are always responsible for the effects of pesticide residues on their lawn, garden, livestock and crops, as well as for problems arising when pesticides drift or move from their property to that of others. *Always read and follow carefully the instructions on the product label.*

You can easily avoid contaminating water with fire ant pesticides. Taking simple application precautions and choosing the best product can not only protect the environment, but also save you money and control fire ants better.

Acknowledgments

This fact sheet, first released in September 1999, was authored by Scott A. Russell, Extension Agent - IPM Texas Cooperative Extension, currently serving Terry and Yoakum counties. Earlier drafts of this fact sheet were reviewed by Scott Timms, Mary Gugliuzza, Roni Crotty, Dr. Charles L. Barr and Dr. Bastiaan "Bart" M. Drees.

For more information regarding fire ant management, see Extension publications: B-6043, *Managing Red Imported Fire Ants in Urban Areas*; SP-196, *Management of Imported Fire Ants in Cattle Production Systems*; B-6099, *Broadcast Baits for Fire Ant Control*; or L-5070, *The Texas Two-Step Method Do-It-Yourself Fire Ant Control for Homes and Neighborhoods*. Also visit our web site at <http://fireant.tamu.edu>.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas Cooperative Extension or the Texas Agricultural Experiment Station is implied.

Educational programs conducted by Texas Cooperative Extension serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability or national origin.