

# Red Imported Fire Ant Control around Bodies of Water

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Texas homeowners buy and apply pesticides to combat the red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: Formicidae), more than any other problem pest. Fire ants are attracted to bodies of water and using pesticides around these sites can pose dangers. Pesticides can contaminate both surface and groundwater, including naturally occurring bodies of water as well as water gardens. Taking simple precautions when using insecticides around bodies of water can reduce the potential harm to fish and other aquatic organisms as well as the danger of polluting other water sources.

Because fire ants need water daily to survive, 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 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 the water during application or water runoff after a pesticide is applied.

## USING BAIT-FORMULATED PRODUCTS

Fire ant bait products contain extremely low amounts of active ingredients (abamectin, fenoxycarb, hydramethylnon, indoxacarb, methoprene, metaflumazone, pyriproxyfen, or spinosad) and can be applied near but not directly into the water. To safely broadcast these fire ant bait products around a pond (or lake, stream, etc.), use a handheld seeder/spreader while keeping your back toward the water. This reduces the likelihood that you will broadcast the material directly into the water. *Always read and carefully follow the label instructions.*

Apply fire ant bait products while the fire ants are actively foraging to reduce the chances of the product moving into the water. Test to see if the fire ants are foraging by placing a small amount (about 1 tablespoon) of bait on the ground. After approximately 30 minutes, examine it 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. Also, check the bait's freshness.



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 application 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, apply faster-acting 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 it might wash into the water system (see *Managing Red Imported Fire Ants in Electrical Equipment and Utility Housings*).

## USING CONTACT INSECTICIDES

Be careful when treating individual fire ant mounds around water. Use products containing acephate (Orthene), which are relatively low in toxicity to organisms such as fish. Avoid using products containing fipronil, pyrethrins, spinosad, synthetic pyrethroids, 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 if the label instructs you to do so. It is vital that you read and carefully follow the instructions on the label; otherwise, you could apply too little and fail to control the fire ants or apply too much and harm the environment. Do not overwater, as this will wash the product away from the ants and may carry it into the water.

In urban areas, pesticide runoff is a major source of surface water contamination. This occurs when a pesticide (fungicide, herbicide, insecticide, etc.) is overused or used improperly.



Many products, such as fipronil granular products (TopChoice or Taurus G), 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 pesticide application, water the product according to the manufacturer's label directions, but never so much to have water running into the driveway, walkway, or street. This is a sign of overwatering. Do not broadcast contact insecticides onto concrete sidewalks, drives, or roadways because these products will be washed away into the stormwater drainage system, polluting water in neighborhood creeks, lakes, and rivers.

## EQUIPMENT CLEANUP AND PRODUCT DISPOSAL

Guard against contaminating water when cleaning application equipment and disposing of empty containers. When rinsing the 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 can cause "red flags" during water quality monitoring since the city water treatment facilities are not equipped to remove pes-

ticides from residential wastewater. Never pour rinse water down the driveway or street gutter/sewer. The 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 stormwater with pesticides may result in products being banned from use in certain areas or removed from the market entirely.

It is best to dispose of leftover pesticides by using the remaining pesticide for a pest and location listed on the label. As a last resort, dispose of the pesticide through the local household hazardous waste disposal facilities. Never dispose of partially emptied containers with ordinary household wastes; they can pollute the groundwater! Contact your city or county for information regarding local collection sites and policies. Local municipal offices likely to have information include the environmental, public works, sanitation, and water departments. Contact the city manager's office if these departments do not have the information you need.

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

You can easily avoid contaminating water with fire ant pesticides. By taking simple application precautions and choosing the best product, you can better manage fire ants, protect the environment, and save money.

## ACKNOWLEDGMENTS

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## REFERENCES

*Managing Red Imported Fire Ants in Electrical Equipment and Utility Housings*  
[u.tamu.edu/ento020](http://u.tamu.edu/ento020)

*Managing Red Imported Fire Ants in Urban Areas*  
[www.extension.org/pages/11004/managing-imported-fire-ants-in-urban-areas-printable-version](http://www.extension.org/pages/11004/managing-imported-fire-ants-in-urban-areas-printable-version)

*Broadcast Baits for Fire Ant Control*  
[www.agrilifebookstore.org/product-p/e-628.htm](http://www.agrilifebookstore.org/product-p/e-628.htm)

*Fire Ant Control: The Two-Step Method and Other Approaches*  
[www.agrilifebookstore.org/product-p/ento-034.htm](http://www.agrilifebookstore.org/product-p/ento-034.htm)

**For more information regarding fire ant management, see Extension publications *Managing Red Imported Fire Ants in Urban Areas*, *Broadcast Baits for Fire Ant Control*, or *Fire Ant Control: The Two-Step Method and Other Approaches* posted on <http://AgriLifeBookstore.org>.**

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