

Managing Fire Ants in Texas Schoolyard and Butterfly Gardens

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Red Imported Fire Ants can be a serious problem for teachers and children who are cultivating schoolyard gardens in Texas. Fire ant stings can cause allergic reactions that lead to serious health problems in sensitive people (see [FAPFS023](#)). Fire ants prey on caterpillars and must be eliminated where butterfly gardens are planted to raise butterflies (see publication [L-5313](#) and posters on <http://tcebookstore.org>). Managing fire ants safely and in accordance with State laws and school district policies ensures that the classroom gardening experience is pleasant for all involved.

Although nectar-producing flowers planted to attract adult butterflies are mostly ornamental bedding plants or shrubs, some host plants of caterpillars, the developing stages of butterflies, occur on vegetable plants. For instance, the black swallowtail caterpillar or parsleyworm feeds on parsley, dill, fennel and related wild host plants. Pesticides must be approved for the site or crop on which they are used.

Special Rules and Regulations for School Grounds

Managing fire ants or any other type of pest in and around school campuses must be done with cooperation from the school district IPM Coordinator. Since 1995, Texas schools are required by law to adopt integrated pest management. This law only applies to public schools; however, private and Charter schools should also choose carefully how to make and treat pest related problems. The Texas Occupational Code, Subtitle B, Chapter 1951 – Structural Pest Control Act is the law that mandates school districts to adopt integrated pest management (IPM). Under §595.11 of the Texas Structural Pest Control Board Regulations states that all school districts have an IPM Coordinator who is responsible for pest control conducted on school district property (see [FAPFS020](#)). These regulations mandate that no one that does not hold a pest control applicator license can apply a pesticide on school district property. What this means for classroom gardens is that the school district IPM Coordinator must be contacted about the garden and the need for a fire ant treatment in the schoolyard garden. This places your fire ant problem in the hands of someone who is knowledgeable and understands the rules and regulations of pesticide use in classroom gardens. In all cases, only the IPM Coordinator or designee has the authority to initiate fire ant treatments in the classroom garden. This includes all types of pesticides. It is no longer permissible for teachers to purchase fire ant control products and bring them to school to treat fire ants or even conduct some non-chemical measures without first consulting the district's IPM Coordinator (see [FAPFS012](#)).

Management Options

Approved methods for controlling fire ants in vegetable gardens are few (see [FAPFS004](#)). They include everything from using very hot or boiling water drenches, using bait insecticides, organic methods, and as a last resort, conventional chemical treatments applied either to the garden or around it. Additional options occur for non-food crop areas such as ornamental plants used to attract adult butterflies (see publication [B-6043](#)).

Non-chemical Methods. One non-chemical method of fire ant management involves the use of very hot water. Pouring 2-3 gallons of very hot water on a newly constructed fire ant mound will kill the mound about 60% of the time. However, we recommend that you use caution when using this method, using scolding hot water in and around the school yard can cause other problems. Take care not to “cook” valuable garden plants in the process! Always use extreme care so that the hot water or the steam generated from the hot water does not burn the person applying the hot water.

Chemical Methods. Currently, the most effective way to suppress fire ant populations without introducing high levels of pesticides near butterfly plants is to use bait insecticides (see [FAPFS004](#), and publication [B-6099](#)). Granular insecticide bait products are fairly specific for fire ants and a few other species of ants while leaving birds, mammals, and other insects unaffected. Most bait insecticides are not approved for use directly within vegetable garden beds, but can be used in ornamental gardens. For vegetable gardens, only fire ant bait products containing spinosad (Green Light Fire Ant Control with Conserve®, Safer® Brand Fire Ant Bait, and Fertilome “Come and Get It”) are approved for use directly in vegetable garden beds. Other fire ant bait products can be applied **outside the perimeter** of the garden so that foraging fire ants can collect the bait granules and take them back to their mound. For schoolyard gardens, the **perimeter** is the outside edge of the landscape timbers, railroad ties, or cement blocks used to make the raised garden beds. There is no certain distance outside of the perimeter area. Bait formulated insecticides containing hydramethylnon (Amdro®, Probait®, Maxforce®), abamectin (Ascend®, Varsity, or Clinch), spinosad (Green Light, Fertilome), or indoxacarb (Advion®, Spectricide®) work quickly (1 day-2 weeks). Insect growth regulator baits containing fenoxycarb, methoprene, or pyriproxyfen (Award®, Distance®, Esteem®, or Extinguish™) work slowly (4-6 weeks). Only insect growth regulator products, spinosad, and the abamectin products are considered to be in the “Green List” category that is mandated by the Texas Structural Pest Control Board.

Organic products for fire ants are few. Spinosad, a product derived from a naturally occurring bacterium, and recently recognized by the Organic Materials Review Institute (OMRI) and the National Organic Standards Board as being a natural substance, fits into the organic methods for controlling insects, including the red imported fire ant. Also, products containing plant derived substances (considered botanical under the Green List Category) such as the pyrethrins, d-limonene (citrus oil extract), rotenone, or pine oil extracts are approved against fire ants. **Remember, when a product is selected for use in a vegetable garden, it must be approved for use in that site.**

Fire ant control in the school setting is extremely important. If you are planning a student garden or just maintaining one, talk with your IPM Coordinator about treatment options. Some granular insecticides are approved against soil insects in vegetable gardens. When applied before planting, treatment with one of these products provides some secondary suppression of fire ant activity. Also, a few products containing carbaryl (Sevin®) have been registered for treating fire ants in the garden. **ALWAYS READ AND CLOSELY FOLLOW THE LABEL DIRECTIONS.**

Acknowledgments

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For more information regarding fire ant management in classroom gardens, call your school district’s maintenance office and ask for the pest control supervisor, IPM Coordinator or call your local County Extension Agent, the Structural Pest Control Board, or the Southwest Technical Resource Center for IPM in Schools.

For more information regarding fire ant management, see Extension publications [B-6043](#), *Managing Red Imported Fire Ants in Urban Areas*; [B-6076](#), *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>.

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