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. Fire ants prey on caterpillars and must be eliminated where butterfly gardens are planted to raise butterflies. 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.

Special Rules and Regulations for School Grounds

Because schoolyard gardens are located on public school grounds, they fall under the jurisdiction of the Texas Structural Pest Control Board. Section 595.11 of the Texas Structural Pest Control Laws and Regulations mandates that all school districts have an IPM (Integrated Pest Management) Coordinator who is responsible for supervising or conducting pest control efforts (ss FAPFS020). What this means for classroom gardens is that the school district IPM Coordinators must be contacted before any kind of pesticide treatment is initiated. In all cases, only the IPM Coordinator or designee has the authority to initiate fire ant treatments in the classroom garden. This includes insecticides or herbicides. It is no longer permissible for teachers to purchase fire ant control products and bring them to school to treat fire ants. However, non-chemical methods can be used without IPM coordinator supervision if practiced with care under adult supervision.

Management Options

Approved methods for controlling fire ants in vegetable gardens are few. They include everything from using very hot or boiling water drenches, using bait insecticides, organic methods, and as a last resort, conventional chemical treatments.

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, 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. Sometimes a small amount of liquid soap added to the hot water helps the water to penetrate more effectively.

Chemical Methods. Currently, the most effective way to suppress fire ant populations without introducing high levels of harmful pesticides near food crops is to use bait insecticides. Bait insecticides are very specific for fire ants and a few other species of ants while leaving birds, mammals, and other insects unaffected. Although bait insecticides are not approved for use directly within vegetable garden beds, they can be used in ornamental gardens. For vegetable gardens they 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 or railroad ties used to make the raised garden beds. There is no certain distance outside of the perimeter area. Bait formulated insecticides containing hydramethylnon (Amdro®, Combat®, Maxforce®) or abamectin (Ascend®, Varsity, or Clinch) begin to work more quickly (1-4 weeks vs. 4-6 weeks) than insect growth regulator baits containing fenoxycarb, methoprene, or pyriproxyfen (Award®, Distance®, Spectracide® Fire Ant Bait and Extinguish™). Extinguish™ is approved for use within the perimeter of "cropland". Only insect growth regulator products are on the "green list" governing pesticide use on public school grounds.

Organic products for fire ants are few. Plant derived products containing 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.**

Insecticides should be used only as a last resort against fire ants in schoolyard gardens and only under the supervision of the IPM coordinator in public schools. 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.

Managing fire ants in schoolyard gardens is a task complicated by several specific laws and regulations pertaining to pesticide applications. These regulations reduce the amount of flexibility a teacher has in protecting his or her students from potentially serious encounters with fire ants. The easiest way to uncomplicate this matter is to call your school district's IPM coordinator and explain the need for a fire ant treatment for the schoolyard garden in question. 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 vegetable gardens.

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 or the Structural Pest Control Board.

For more information regarding fire ant management, see Extension publications B-6043, *Managing Red Imported Fire Ants in Urban Areas*; B-6076, *Managing Red Imported Fire Ants in Agriculture*; 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.
