

Managing Fire Ants in Butterfly Gardens

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If you are cultivating butterfly gardens in Texas, the red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: Formicidae), can be a serious problem. Fire ant stings can cause allergic reactions that lead to serious health problems in sensitive people (see [Medical Problems and Treatment Considerations for the Red Imported Fire Ant](#)).

Fire ants prey on caterpillars, the developing stage of butterflies (see [What do fire ants eat?](#)), and must be eliminated where you plant butterfly gardens to raise butterflies (see [Butterfly Gardening in Texas](#) and [Landscape IPM, Butterfly Gardening](#)).

Nectar-producing flowers planted to attract adult butterflies are mostly ornamental bedding plants or shrubs. Some host plants of caterpillars occur on vegetable plants. For instance, the black swallowtail caterpillar or parsleyworm feeds on dill, fennel, parsley, and related wild host plants. Pesticides must be approved for the

site or crop on which they are used, compatible with butterfly gardening, and applied according to product label directions and applicable regulations (see [Fire Ants and the Texas IPM in Schools Program](#)).

MANAGEMENT OPTIONS

There are few approved methods for controlling fire ants in vegetable gardens (see [Managing Fire Ants in Vegetable Gardens](#)). They include everything from home remedies such as using very hot or boiling water drenches (see [Are there any home remedies that will kill fire ants?](#)), using bait insecticides, organic methods (see [Natural, Organic and Alternative Methods for Imported Fire Ant Management](#)), and, as a last resort, conventional chemical treatments (see [Managing Fire Ants in Urban Areas](#)). If the butterfly garden is not a vegetable garden, you will find that more options are available.

Nonchemical methods. One nonchemical fire ant management method uses very hot water. Pouring 2 to 3 gallons of very hot water on a newly constructed fire ant mound will kill the mound about 60 percent of the time. However, take care when using this method not to “cook” valuable garden plants in the process! When applying the hot water, use extreme caution so that the hot water or steam does not burn you.



Chemical methods. Do not apply dusts or liquid spray contact insecticide formulations directly to butterfly host plants or butterfly nectar plants because it is likely the caterpillars or butterflies will also be affected. Study the modes of action of insecticide products and do not use products such as *Bacillus thuringiensis* var. *kurstaki* that are known to be toxic to butterfly caterpillars (see *Landscape IPM, Microbial Insecticides*).

Using bait insecticides is the most effective way to suppress fire ant populations without introducing high levels of pesticides near butterfly plants (see *Broadcast Baits for Fire Ant Control*, or *Fire Ant Control: The Two-Step Method and Other Approaches* and *Latest Broadcast on Fire Ant Control Products*). Granular bait insecticide products are fairly specific for fire ants while having minimal impact on butterflies and caterpillars. Most bait insecticides are not approved for use directly within vegetable garden beds, but can be used in ornamental gardens. For vegetable gardens, fire ant bait products containing spinosad (Fertilome Come and Get It! or Payback) or methoprene (Extinguish) are approved for use directly in vegetable garden beds or croplands. You can apply other fire ant bait products **outside the perimeter** of the vegetable garden so that foraging fire ants can collect the bait granules and take them back to their mound.

Bait-formulated insecticides containing hydramethylnon (Amdro, Maxforce), abamectin (Ascend, Award II, Optigard, or Clinch), spinosad (Fertilome Come and Get It!), or indoxacarb (Advion) work quickly (1 day to 2 weeks). Insect growth regulator baits containing, methoprene, or pyriproxyfen (Distance, Esteem, or Extinguish) work slowly (4 to 6 weeks). Extinguish Plus is a mixture of hydramethylnon and methoprene ingredients that provides rather quick suppression and longer-lasting control from the IGR component.

When applying broadcast bait around a vegetable garden, a band of 50 feet or more (as space allows) on all sides should provide maximum suppression.

There are organic options for fire ant management (see *Natural, Organic, and Alternative Methods for Imported Fire Ant Management*); however, take special care on butterfly garden plants because most of these products are in the liquid form and can affect caterpillars and butterflies. Avoid drift onto the plant by drenching the soil on nonwindy days. Spinosad, a product derived from a naturally occurring bacterium, is an organic product recognized by the Organic Materials Review Institute (OMRI) and the National Organic Standards Board as being a natural substance. Products containing plant-derived substances such as the pyrethrins or d-limonene (citrus oil extract) are also approved as fire ants mound treatments.

ACKNOWLEDGMENTS

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REFERENCES

- Medical Problems and Treatment Considerations for the Red Imported Fire Ant*
u.tamu.edu/ento-005
- What do fire ants eat?*
www.extension.org/pages/60922/what-do-fire-ants-eat
- Butterfly Gardening in Texas*
www.agrilifebookstore.org/product-p/L-5313.htm
- Landscape IPM, Butterfly Gardening*
landscapeipm.tamu.edu/what-is-ipm/ipm-concepts/pest-identification/good-bug-bad-bug/beneficials/butterfly-gardening
- Fire Ants and the Texas IPM in Schools Program*
u.tamu.edu/ento-017

Managing Fire Ants in Vegetable Gardens

u.tamu.edu/ento-015

Are there any home remedies that will kill fire ants?

www.extension.org/pages/34814/are-there-any-home-remedies-that-will-kill-fire-ants

Natural, Organic, and Alternative Methods for Imported Fire Ant Management

u.tamu.edu/ento-009

Managing Red Imported Fire Ants in Urban Areas

www.extension.org/pages/11004/managing-imported-fire-ants-in-urban-areas-printable-version

Landscape IPM, Microbial Insecticides

landscapeipm.tamu.edu/what-is-ipm/types-of-pest-control/biological-2/microbials/

Broadcast Baits for Fire Ant Control

www.agrilifebookstore.org/product-p/nto34.htm

Latest Broadcast on Fire Ant Control Products

www.extension.org/pages/68606/the-latest-broadcast-on-fire-ant-control-products

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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