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# Control Fire Ants in Your Yard



Fire ants are easier to control than many people realize. The key is to understand their biology, apply the right treatments at the right times, and understand how each treatment works.

Fire ants are the most common insect pests of home lawns. They occur in practically every lawn in the state! Even if you manage to achieve a totally fire ant-free yard, it probably won't stay that way long because newly mated fire ant queens will quickly recolonize it. And new fire ant colonies thrive especially well in areas that are free of other, competing colonies. Fire ant control is a never-ending battle in the South, but there are steps you can take to keep your lawn and landscape relatively free of these troublesome pests.

The easiest, cheapest, most effective thing you can do to control fire ants is to use baits. Learn to use baits properly and preventively, and you will reduce the number of mounds in your yard by 80 to 90 percent. If you want even better control, you can supplement your baiting program with some additional tricks, like spot-treating mounds that survive the bait treatments.



Not sure you have enough fire ants to justify a bait treatment? Use potato chips, the greasy unflavored kind, to check for fire ant foraging activity. If there are active foragers in the area, they will usually respond within 30 minutes or so. If they respond to potato chips, they will respond to granular fire ant bait.



Fire ant stings hurt, and they cause characteristic raised pustules at the site of the sting.



This is the smallest possible fire ant colony. This newly mated queen has completed her mating flight and shed her wings, and is excavating a gallery to begin her nest.

**Baits**—The key to success with baits is applying them as broadcast treatments instead of treating only individual mounds. You will never win the battle against fire ants by only treating individual mounds. In addition to the big mounds you can easily see—or trip over—there are a lot of little colonies that are just getting started. If you eliminate only the big mounds, the small colonies will thrive because they have less competition, and they will quickly grow into large mounds. Broadcast bait treatments target all colonies in the yard, regardless of size.

Early spring is one of the best times to apply fire ant baits because fire ants are actively foraging for food at this time. If you are going to treat only one time per year, do it in the spring. But you can improve control by treating again in midsummer and a third time in the fall, especially if you live in a rural area where fire ants are abundant. In more urban areas, you may only need to treat once or twice per year.

Be proactive! Don't wait until you see more big mounds to make the next bait treatment. If you don't like to have big fire ant mounds in your yard, you have to treat **before** you have big fire ant mounds in your yard. Use the holidays—Easter, Independence Day, and Labor Day—to remind you when it is time to put out fire ant bait. Try to pick a time when it is not likely to rain for a couple of days. This gives the ants time to collect the bait and carry it back to the mound before it is washed away. You also need to avoid watering for a couple of days after applying bait.

For small areas like home lawns, most broadcast fire ant baits are easily applied using a small, hand-powered spreader. Don't try to use your fertilizer spreader—it will put out way too much! Most fire ant baits are applied at rates

of 1 to 2½ pounds per acre. That's not very much material, and it's easy to over-apply fire ant baits if you don't read and follow the label directions. Baits are a cheap way to control fire ants if you use the proper rate, but they can be very expensive if over-applied.

A few baits are formulated for application at higher rates so they can be applied with a lawn fertilizer spreader. These products usually give suggested spreader settings on their labels and are applied at rates of around 20 pounds per acre.

Maintaining uniform coverage is less important when applying fire ant baits than when applying fertilizers, herbicides, or other lawn insecticides. The foraging fire ant workers will compensate for any narrow untreated areas that may occur between swaths. It is not necessary to apply fire ant baits in a crisscross pattern, as is normally done with seed, fertilizers, herbicides, or granular insecticides. Apply baits when the ground is dry

## Baits for Control of Fire Ants in Home Lawns<sup>1</sup>

Brand Name (insecticide) (% ai)	Rate/mound <sup>2</sup>	Rate/acre <sup>3</sup>
Amdro Fire Ant Bait (hydramethylnon) (0.73%)	2 to 5 Tbsp	1 to 1.5 lb
Advion Fire Ant Bait (indoxacarb) (0.045%)	4 Tbsp	1.5 lb
Come & Get It Bait (spinosad) (0.015%)	4 to 6 Tbsp	2.5 to 5 lb
Distance (pyriproxyfen) (0.5%)	1 to 4 Tbsp	1 to 1.5 lb
Extinguish Professional Fire Ant Bait (methoprene) (0.5%)	3 to 5 Tbsp	1 to 1.5 lb
Extinguish Plus (methoprene) (0.25%) + (hydramethylnon) (0.365%)	2 to 5 Tbsp	1.5 lb
Siesta Insecticide Fire Ant Bait (metaflumizone) (0.063%)	2 to 4 Tbsp	1.5 lb

<sup>1</sup>Avoid applying baits immediately before or after irrigation or rainfall. Baits may require 4 to 8 weeks to provide maximum results.

<sup>2</sup>Apply baits around the mound, not on top of the mound.

<sup>3</sup>There are 43,560 square feet in 1 acre.

and when ground temperatures are between 70 and 90°F with no forecast of rain.

Remember that fire ant baits are supposed to be slow-acting. The worker fire ants pick up the bait granules and carry them back to the colony. Adult fire ants can't eat solid food; they have to feed it to the larvae, which digest and liquefy it. This liquid food, which still contains the insecticide, is then collected from the larvae by other workers and passed among the ants in the colony, eventually reaching and killing the queen.

The insecticides used in fire ant baits have to be slow-acting to allow time for the insecticide to be spread throughout the colony. A fast-acting insecticide would kill the worker ant before she got back to the colony with the bait granule, defeating the objective. Depending on which bait you use, it can take 2 to 6 weeks to obtain maximum control. Baits work great, but you have to be patient!

Where they are properly applied two to three times per year, baits will give 80 to 90 percent control. You can improve control by spot-treating any mounds that survive the bait treatments. It's best to wait several days after applying baits before you treat individual mounds with contact insecticide treatments. This allows time for foraging worker ants to carry the baits into the colonies and improves your chances of killing the queen.

You can use baits to treat individual mounds, but they won't work as fast as other types of mound treatments.

If you do use baits for individual mounds, don't put the bait directly on top of the mound. The ants won't find it up there on the roof! Instead, spread the specified amount of bait on the area around the mound so that foraging workers can find it readily. Ever wonder where the door of a fire ant mound is? Worker ants enter and exit through underground tunnels that radiate away from the mound. The entrances to these tunnels are anywhere from 5 to more than 20 feet away from the mound.



This foraging fire ant worker is carrying a granule of fire ant bait back to the colony.



Use a small, hand-held spreader to preventively apply a granular fire ant bait two or three times per year, and you will have a lot fewer fire ant mounds in your yard.



Advion is the fastest acting granular fire ant bait and is capable of killing mounds in as little as one week or less. This was a large, active mound when the area around it was treated seven days before this photo was taken. Note the unconsumed bait granules that are stored in "pantry galleries" on the right side of the mound.

**Mound Treatments**—Can't wait 4 weeks for a bait treatment to control that big mound by the edge of the patio? Individual mound treatments containing contact insecticides provide much quicker control than bait treatments, and they are the best way to quickly eliminate mounds that are especially troublesome. There are two basic methods of treating individual fire ant mounds: liquid drenches and dry mound treatments.

The liquid drenches provide the quickest control, but they are time-consuming to mix and apply. The dry mound treatments are easy and convenient to use, but these are less effective and usually take a few days to

work. Regardless of which method you use, **don't disturb mounds before treating.** If you do, the workers may take the queen or queens to safety, by moving them either deep into the mound or out one of those underground tunnels to establish satellite mounds.

Use a watering can to mix and apply liquid drenches. Just mix the specified amount of insecticide in water and pour over the mound. The key to success with liquid drenches is to use enough liquid to thoroughly soak the mound. Depending on the size of the mound, this ranges from 1 to 2 gallons of mixed drench. Begin by applying about one-fourth of the total volume to a 10- to 12-inch



Use liquid mound drench treatments to quickly eliminate problem fire ant mounds.



Keep a can of one of the dry fire ant mound treatment products on hand to spot-treat mounds you notice while doing lawn chores.

band around the outside of the mound. This prevents the queen from escaping through those underground foraging tunnels and improves control of workers. Then apply the rest of the drench directly to the mound. Failure to use enough drench to thoroughly soak the mound is the main reason for unsuccessful mound-drenching efforts.

Dry mound treatments may not work as fast as drenches, but they sure are convenient, and they provide a quick, easy way to treat that mound you spotted while mowing the lawn. Sprinkle the specified amount of powder

over and around the mound, and be patient. It can take a few days for a dry mound treatment to work.

Dry mound treatments containing acephate as the active ingredient are the most effective, but acephate stinks, and the odor can linger in the treated area for weeks. For this reason, many people prefer to use dry mound treatments that contain active ingredients like deltamethrin or cyfluthrin. They don't work quite as fast, but they don't have the odor, either.

<b>Liquid Mound Drench Treatments<sup>1</sup></b>		
<b>Insecticide</b>	<b>Brand Name (example)</b>	<b>Rate</b>
bifenthrin (2.4% concentrate)	Hi-Yield Bug Blaster	0.5 fl oz/gal
permethrin (2.5% concentrate)	Bonide Eight Insect Control	0.67 fl oz/gal
permethrin (10% concentrate)	Hi-Yield Lawn, Garden, Pet, and Livestock Insect Control	1.5 fl oz/gal
permethrin (38% concentrate)	Hi Yield 38 Plus	1.6 fl oz/gal
spinosad (0.5% concentrate)	Monterey Garden Insect Spray <sup>2</sup>	2 fl oz/gal

<sup>1</sup>Depending on the size of the mound, it takes 1 to 2 gallons of water–insecticide mix to drench a fire ant mound effectively. Drench the mound and an area approximately 10 to 12 inches around the perimeter of the mound. Do not disturb mounds before or after drenching.

<sup>2</sup>This is an organic treatment, but it is slower-acting and less effective.

<b>Dry Mound Treatments Applied as Powders<sup>1</sup></b>		
<b>Insecticide</b>	<b>Brand Name (example)</b>	<b>Amount/mound</b>
acephate	Ortho Orthene Fire Ant Killer (50%)	1–3 Tbsp
acephate	Martin's Surrender Fire Ant Killer (75%)	1–2 tsp
beta-cyfluthrin	BioAdvanced Fire Ant Killer (0.5%)	1 tsp
deltamethrin	Bengal Ultra Dust 2X Fire Ant Killer (0.1%)	1 tsp
deltamethrin	Terro Ant Dust (0.05%)	1 Tbsp

<sup>1</sup>Sprinkle dry product on and around mound as directed on label. Do not disturb mounds before or after treatment.

## Dry Mound Treatments Applied as Granules<sup>1</sup>

Insecticide	Brand Name (example)	Amount/mound
bifenthrin	Ortho Fire Ant Killer Broadcast Granules	0.5 cup
zeta-cypermethrin + bifenthrin	GardenTech Sevin Insect Killer Lawn Granules	0.5 cup

<sup>1</sup>Sprinkle dry product on and around mound as directed on label. Do not disturb mounds before or after treatment.

**Broadcast Insecticide Treatments**—Broadcast insecticide treatments are contact insecticides that are applied over the entire lawn. They are generally more time-consuming and costly to use than baits. They are more commonly used in highly managed areas, such as athletic fields and golf courses, than in home lawns. Broadcast insecticide treatments may be formulated as liquids, which are mixed according to label directions and sprayed over the turf area, or as granular treatments, which are spread over the turf area using an appropriate spreader.

Don't confuse granular contact insecticides with granular baits. Baits are impregnated with oil or some other food substance and a small amount of slow-acting insecticide. The worker ants actively collect the bait granules and carry them back to the colony. Granular insecticides are simply granules that are impregnated with insecticide. They are not attractive to ants. Instead, the insecticide in the granules moves into the soil and controls foraging ants and newly settled queens by contact activity. Consequently, obtaining uniform coverage is more important when applying broadcast insecticide granules than when applying granular baits.

Many of the insecticides used as broadcast treatments for fire ants also control other lawn pests, such as chinch bugs, white grubs, or mole crickets. If you have multiple pest problems, this can be useful to know. Choose the right insecticide and you can control fire ants and mole crickets, or fire ants and white grubs. Before buying a broadcast insecticide, read the label carefully to be sure that the insecticide you choose controls the particular group of pests you need to control. See **Extension Publication 2331 Control Insect Pests In and Around the Home Lawn** for additional information.

If you have an especially low tolerance for fire ants and are willing to go the extra mile to control them, you may wish to use a combination of methods. Some people use broadcast insecticide treatments on those areas where they really don't want to see any fire ant mounds—like around the patio and in pet yards and play yards (follow re-entry interval specified on label). Then, they use baits on the rest of the yard, as well as these especially sensitive areas.

**For more information on fire ants, fire ant biology, and fire ant control in other settings, visit [extension.msstate.edu/insects/fire-ants](http://extension.msstate.edu/insects/fire-ants).**

### Broadcast Insecticide Treatments Applied as Sprays<sup>1</sup>

Insecticide	Brand Name (example)	Rate/1,000 sq ft
bifenthrin (0.3% concentrate)	Fertilome Broad Spectrum Insecticide	12 fl oz (1.5 fl oz/gal)
bifenthrin (2.4% concentrate)	Hi-Yield Bug Blaster	3 fl oz (0.5 fl oz/gal)
bifenthrin (0.3%) + zeta-cypermethrin (0.075% concentrate)	Ortho Bug B Gon Insect Killer for Lawns and Gardens	12 fl oz (1.5 fl oz/gal)
cyfluthrin (0.36%) + imidacloprid (0.72%)	BioAdvanced Complete Insect Killer	6 fl oz
gamma-cyhalothrin (0.25% concentrate)	Spectracide Triazicide Insect Killer	2 fl oz
permethrin (38% concentrate)	Hi-Yield 38 Plus Turf, Termite, & Ornamental Insect Concentrate	0.8 fl oz

<sup>1</sup>Most broadcast treatments will provide control for approximately 4 to 8 weeks.

### Broadcast Insecticide Treatments Applied as Granules<sup>1</sup>

Insecticide	Brand Name (example)	Rate/1,000 sq ft
bifenthrin (0.2% granules)	Ortho Max Fire Ant Killer Granules	2.3 lb
gamma-cyhalothrin (0.05% granules)	Triazicide Soil & Turf Insect Killer Granules	2 lb
permethrin (0.5% granules)	Hi-Yield Kill A Bug II Lawn Granules	2 to 3 lb
zeta-cypermethrin (0.029%) + bifenthrin (0.115% granules)	GardenTech Sevin Insect Killer Lawn Granules	4 lb

<sup>1</sup>Most broadcast treatments will provide control for approximately 4 to 8 weeks.

Note: TopChoice (fipronil 0.00143%) is a granular insecticide treatment that can be applied only by a professional pest control company or other properly licensed commercial applicator. This product is costly but provides long-lasting residual control of fire ants with only one application per year. Application rate is 2 lb of product per 1,000 sq ft. Homeowners who are willing to spend extra money in order to obtain improved fire ant control in sensitive areas may be interested in arranging with a commercial applicator to provide this service.

**For application only by licensed commercial applicators.**

This work is partially supported by Crop Protection and Pest Management Extension Implementation Program grant no. 2021-70006-35580/CRIS Number 1027242 from the USDA National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.



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**Publication 2429** (POD-08-23)

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Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. STEVE MARTIN, Interim Director