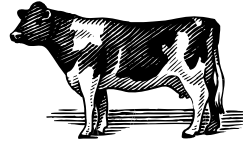# Bug-Wise

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Controlling Fire Ants on Large Acreage or Around Grazing Animals or Edible Crops: I know how to use baits and mound treatments to control fire ants in my home lawn, but we've got 12 acres. What can I do on this much acreage? My pasture has thousands of fire ant mounds. Is there anything I can use around grazing animals? Uncle Earl has pick-your-own blueberries and grows a half-acre of tomatoes every year. Is there anything that can be used to control fire ants around edible crops? I use one of those little hand-cranked spreaders to apply fire ant bait in my yard. Is there a better way to treat large acreage?

Treating large acreage: Broadcast treatments with granular baits are the easiest and cheapest way to control fire ants on large acreage. Many of the fire ant baits sold to homeowners to control fire ants in the lawn are also sold in larger quantities, usually 25-pound bags. The cost per pound is considerably lower than buying the same amount of product in small, 'lawn-sized' containers. You usually won't find these larger packages on the shelf at the local lawn and garden center, but they can usually special order them for you, or you can order them from specialty suppliers. It may take a bit of effort and persistence to find a source for the bait you want. Be careful not to buy more bait than you can use at one time, because the oil in fire ant baits will go rancid, and fire ants don't like rancid bait.

How to Apply fire ant bait on large acreage: Rates for most granular fire ant baits range from 1 to 2 lbs per acre. That's not very much bait, and it is easy to over apply and waste a lot of money, if you don't have the proper applicator. A fertilizer spreader will put out way too much bait, and it's not a good idea to mix the bait in with fertilizer.

The Herd Seeder Company makes applicators specifically designed to apply fire ant baits to large acreage. Currently this seems to be the only company that makes such applicators. These bait spreaders are driven by a small electric motor, and can be mounted on a tractor, ATV, or other vehicle. These can be purchased, usually as a special order item, though local co-ops or other farm supply stores for around $350 to $400.

Fire ant baits for pastures and hay fields: Four baits are labeled for use in pastures or hay fields: Extinguish (methoprene), Esteem (pyriproxyfen), Amdro Pro (hydramethylnon) and Siege Pro (hydramethylnon). Note that while these baits can be applied in pastures with no pre-grazing interval, there may be a waiting period before cutting hay. Be sure to read and follow the label. Note that Extinguish Plus is not labeled for use in pastures and hay fields.

Fire ant baits for use around edible crops: Extinguish (methoprene) and Esteem (pyriproxyfen) are the only fire ant baits labeled for use in vegetable and orchard crops. Be sure to read the label, because Esteem is not labeled for use on all fruits and vegetables. If you want to control fire ants in a commercial soybean field, Extinguish is the product to use. It's labeled for use on "cropland". Note that Extinguish Plus (methoprene + hydramethylnon) is not labeled for use in edible crops.

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How much do these bait treatments cost?: When purchased in bulk, fire ant baits cost around $8 to $10 per pound. If you use 1.5 pounds per acre and only treat once per year, that's about $12 to $15 per acre. One way to reduce costs when treating pastures with the growth regulator products (Extinguish or Esteem) is to skip every other swath. These take longer to work, but are more forgiving of wide swaths than the quicker acting hydramethylnon products. This cuts the cost of treatment in half and does not seem to reduce efficacy that much. This is because fire ants workers routinely forage as far as 100 feet, or more, from their mound.

How long does it take for these baits to work and how long do they last?: Fire ant baits are designed to be slow-acting. The worker ants find the bait granules when they are out foraging, take them back to the colony, and feed them to their young. With the faster-acting active ingredients, like hydramethylnon, you can begin to see results in two to four weeks, but it can take one to two months, or more, to see the effects of a growth regulator product, like methoprene or pyriproxyfen. These work by interfering with development of eggs and larvae, but they do not kill adults. This doesn't mean the slower-acting baits are not a good option, because they provide long-term control. But, it does mean that you have to plan ahead, know what results to expect, and be patient.

The effects of a single bait application can persist for the whole season. You won't get rid of every mound, but if you applied the bait properly and did not get rain for a couple of days after application, you should get around 80% control. You can improve control by treating again later in the season.

When is the best time to apply baits?: You can apply fire ant baits any time during the growing season, but, spring is probably the best time. Wait till trees begin to leaf out and fire ants are actively foraging. You can use potato chips, the nice greasy kind, not the baked ones, or pieces of hot dogs to check for foraging activity. Scatter a few chips in the area and come back and check on them in 20 to 30 minutes. If fire ants find the chips in this time, they will find the bait.

A single bait treatment, applied in the spring will substantially reduce fire ant numbers. If you want even better control, and are willing to spend the time and money to get it, make a second and even a third treatment later in the season, like mid-summer and fall. Fall treatment helps reduce the number of mounds present the following spring, but it does not eliminate the need for the spring treatment.

Bait application tips: 1} One to two pounds per acre is not very much bait. At first it may look like the spreader is not putting out enough bait, just a granule here and there. That's probably about right. Follow the calibration directions that come with the spreader. 2} Try to pick a time when its not likely to rain for a day or two after treatment. Rainfall will wash away or dissolve your costly bait. Reapply if you get significant rain within 6 to12 hours after treatment. 3} Don't be tempted to apply excessive rates in order to 'really get um'. If you are willing to spend more money for improved control, it's much better to spend it on a second application later in the season. 4} Don't worry if you have a few gaps between your bait swaths. Remember, the fire ant workers are out there looking for the bait. That's why baits work so well. 5} Know what results to expect. Baits aren't fast, and they won't eliminate every mound in the area, but by one to two months after treatment, depending on which bait your use, you should get around 80% control. 6} Always read the label <u>before</u> treating and follow label directions.

Baits for Control of Fire Ants on Large Acreage *

Brand Name (insecticide) (% ai)	Rate/acre	Pastures & Hay Fields	Around Edible Crops
Amdro Pro (hydromethylnon) (0.73%)	1 to 1.5 lb	**Yes** [1]	No
Siege-Pro (hydromethylnon) (0.73%)	1 to 1.5 lb	**Yes** [1]	No
Esteem (pyriproxyfen) (0.5%)	1.5 to 2 lb.	**Yes**	**Yes** [2]
Extinquish (methoprene) (0.5%)	1 to 1.5 lb	**Yes**	**Yes** [3]
Extinguish Plus (methoprene .25% + hydramethylnon 0.365%)	1.5 lb	No	No
Award Bait (fenoxycarb) (1.0%)	1 to 1.5 lb	No	No
Advion (indoxacarb) (0.45%)	1.5 lb	No	No
Ascend (abamectin) (0.011%)	1 lb	No	No

* These baits are all available in 25-pound quantities. Some are more difficult to locate than others.

[1] Amdro Pro and Siege-Pro are only labeled for use on pastures and range land in Mississippi, and 11 other Southern states. Verify state label before using.

[2] Esteem is labeled on many, <u>but not all</u>, fruits and vegetables. Check the label before treating.

[3] Extinguish is labeled for use on 'cropland', which covers most fruit, vegetable and field crops.

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