



Forages & Pastures

Department of Entomology Insect Note

NC STATE UNIVERSITY North Carolina Cooperative Extension

FIRE ANT MANAGEMENT IN HORSE OPERATIONS



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CAUTION: This information was developed for North Carolina and may not apply to other areas.

FIRE ANT, *Solenopsis invicta*, Formicidae, HYMENOPTERA

General Information

Fire ants have established themselves across much of North Carolina, which includes the major areas of horse operations. These ants require access to sunshine and open land and have become very successful in this habitat. However, their presence in a pasture may impact horse operations in many ways. Impact may be felt through:

- Lost Labor
- Animal Injury
- Equipment Damage/Wear
- Hay Production
- Medical/Veterinary Costs
- Forage Degradation
- Electrical Equipment Damage
- Infested Feed
- Reduced Feeding
- Foal endangerment



Management



There is no single simple solution for managing fire ants on a farm. Management depends upon the number of mounds and locations. There are numerous fire ant pesticides, however, only a few are labeled for use directly in the pasture. Some chemicals are for directly treating a mound, and some are baits containing insect growth regulators (IGRs) that may be broadcast across the pasture. There are no effective sprays. In addition, it may be helpful or necessary to control fire ants in adjacent areas outside the pasture with different products. Fire ants may also infest barns or paddocks and create additional problems to horses and caretakers.



Direct mound drenches

Advantages

- Fast acting
- Insecticides applied only to targeted mounds

Disadvantages

- More expensive for large areas
- More labor intensive
- Treatments affect only colonies with visible mounds

Broadcast bait treatments

Advantages

- Quick and easy application
- Less hazardous, generally
- Least expensive method for large areas
- Less labor required

Disadvantages

- Slower than liquids (too slow for immediate control)
- May harm helpful non-target ants

"What can I use in grazed pasture?"

BAITS

hydramethylnon (Amdro Pro)	For mound or broadcast; Consult label for restrictions and directions in using this bait in pasture.
hydramethylnon (Amdro)	For mounds in <u>horse</u> pasture only where horses are not used for human consumption and in nonpasture farm areas.
methoprene (Extinguish)	For mound or broadcast, no withdrawal period. Insect growth regulator affecting brood.
methoprene + hydramethylnon (Extinguish Plus)	For mound or broadcast.
pyriproxyfen (Esteem Ant Bait)	For mound or broadcast on grass pasture. Slower working bait that kills developing brood rather than workers. Spring or Summer application recommended. (may be combined with Amdro)
fenoxycarb (Award)	For mounds in <u>horse</u> pasture only where horses are not used for human consumption and in nonpasture farm areas. Slower working bait that kills developing brood rather than workers.

DRENCHES

carbaryl (Sevin SL)

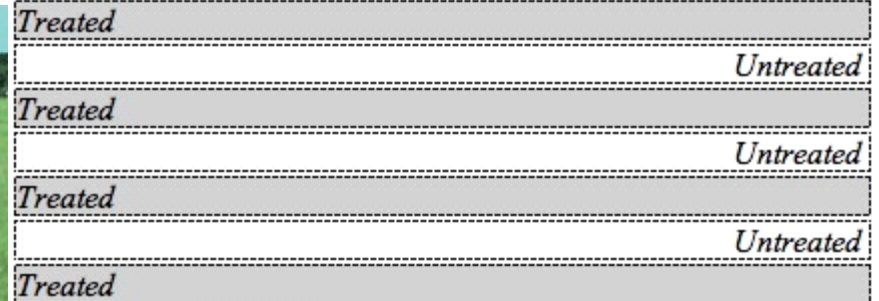
For mound drench only; follow label directions; may be foraged after application has dried. Best when applied in morning when air temperature is about 70° F.



Do not apply baits and drench at the same time. Allow 7-10 days between the two applications. Ants will not forage and accept bait while they are disrupted by poison. The best months to treat are mid-Spring and Fall. The best time of day to treat is mid-morning when air temperatures are around 70 degrees F. To check if fire ants are active, place a few potato chips or puffed cheese snack on the ground. If ants are noticed within 30 minutes, then colonies are active and foraging.



For bait broadcast treatment, based on two [Alabama Extension studies](#) by Henry Dorough, an effective application strategy is to use a 50/50 bait mix of hydromethylnon (AmdroPro) and methoprene (Extinguish). Apply in a skip-swath pattern in a pasture. This can save 50% on material applied and was just as effective as complete coverage.



Skip-Swath pattern for Fire Ant Bait application

"What can I use to treat areas outside of the pasture?"

For a list of the products available for treating fire ants in pens, corrals, barns and outside of pastures, nongrazed pasture and rangeland, consult the [Agricultural Chemicals Manual](#). Included in the list may be Award, Distance, Suspend SC, Clinch. Consult each label for specific limitations of where and how these products may be used.

Nongrazed Areas

- Clinch- abamectin bait; use around barns
- Come and Get It Fire Ant Killer by Fertilome, spinosad; bait; permanent pasture, corrals, around barns
- Distance- pyriproxyfen bait; nongrazed areas
- Siege Pro- hydromethylnon bait; labeled in NC and limited other states. See label. Not for horses ever used for food.
- Award- fenoxycarb bait; use in nongrazed areas. Not for use around horses ever used for food.
- Other products may be allowed in adjacent areas with no direct exposure to animals.

Treating Inside Barns and Paddocks

- Tempo SC Ultra- β -cyfluthrin spot treatment spray; Use in livestock housing. Follow directions.
- Suspend SC- deltamethrin spot treatment; Use in livestock areas while animals are not present. Follow directions.
- Extinguish- S-methoprene bait; May be applied indoors in cracks, crevices and inaccessible places.

Special Tips for Using Baits ! Do's and Don'ts (Most bait failures are attributed to application error.)

Check for ant activity using potato chip test first.

Do not apply if ground is wet or rain occurs within 36 hours.

Do not store open product for longer than package allows. Some baits have a short shelf life and are not attractive when carrier is stale.

Do not store baits near other pesticides or fuels from which they may absorb odors and taste.

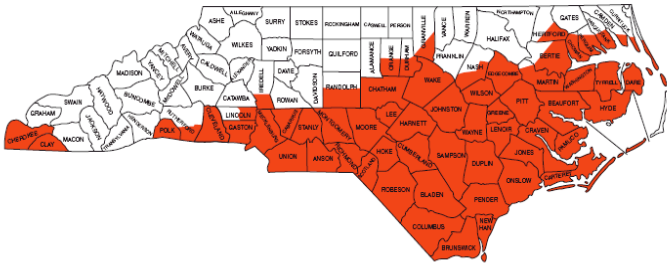
Do not apply baits directly on mounds, fire ants do not come and go from the top of the mound.

Do not disturb mounds when using baits so as not to interfere with normal foraging patterns, no matter how much fun it is.

Do not apply within ten days of applying a direct poison as there will be limited or no foraging.

Reapply as suggested by the label. This is not a permanent solution.

North Carolina Fire Ant Quarantine <http://www.ncagr.com/plantindustry/plant/entomology/ifamap.htm>



 Regulated Area - Movement of regulated articles from this area into or through white area requires inspection.

 Non Regulated Area - Movement of articles from or through these areas does not require inspection.

Movement of [Hay](#) and other commodities outside of the red area are regulated by the NC Department of Agriculture and Consumer Services and require a [permit](#).

<http://www.ncagr.com/plantindustry/plant/entomology/ifamap.htm>

Helpful References and Resources (for links see html version)

- [Easy & Economical Control of Fire Ants in Alabama Pastures](#)
- [Management of Imported Fire Ants in Cattle Production Systems](#)
- [eXtension Fire Ant Site](#)
- [eXtension Horse Site](#)
- [North Carolina Agricultural Chemicals Manual](#)
- [North Carolina Cooperative Extension Service](#)

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