

Protecting Penned Animals from Fire Ants

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The red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: Formicidae), poses serious threats to many small and young animals. While true for animals that roam free or are confined in a large corral or pasture, animals that are even more confined are at a higher risk of attack. Confined livestock (such as chickens, goats, pigs, rabbits, and sheep) for 4-H or FFA programs, pets in kennels, horses in stables, and exotic animals in zoos are just a few of the many animals vulnerable to fire ants.

Fire ants are a nuisance. People who come into contact with ant mounds or sources that have attracted ants can suffer multiple stings that can be medically serious (see *Medical Problems and Treatment Considerations for the Red Imported Fire Ant*).

Occasionally, foraging ants are attracted to the moisture associated with newly born or hatching animals, stinging them repeatedly and, occasionally, killing them (see *Diagnosing and Treating Animals for Red Imported Fire Ant*

Injury). Ants are also attracted to electrical and utility units and can cause equipment failure in cages with heating elements or lights (see *Managing Red Imported Fire Ants in Electrical Equipment and Utility Housings*).

ATTRACTION TO MANURE AND FEED

Fire ants are omnivorous and feed on a variety of food sources, although certain insects are their primary food source (see What do fire ants eat?). When large populations of flies and other manure-feeding insects breed in animal manure, fire ants can be attracted to the area to feed on the insects and build nests nearby. They are also drawn to water sources during dry periods, many types of animal feed, and they have been known to feed on dry dog food, livestock feeds containing molasses, and other types of "sweet" or oil-containing feeds (see *Fire* Ant Control Methods around Pets). If stung in the mouth when they feed on fire ant-infested feed, animals can "go off" the infested feed for a short time.

Prevention and Control Considerations

Integrated pest management considerations and management alternatives for eliminating red imported fire ant problems include cultural and



nonchemical practices as well as the judicious use of selected insecticides (see *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).

Nonchemical preventive practices. To prevent these fire ant problems:

- Give the animal only the amount of feed it can eat and do not leave any remaining in the bunk or bowl.
- Store the feed or food in a way that ants cannot get into it. Some pet bowls (see Fool-A-Bug at the *Museum of Novel Fire Ant Control Methods and Products*) claim to prevent insects from accessing food.
- Keep cages and premises clean of all food and excess water.
- Remove excrement, soiled bedding, boards, or other debris.
- Fix leaky faucets and improve drainage, if feasible.
- For caged fowl, remove cracked eggs (see *Texas Poultry Pest Control Practices*).

Ants can get into cages housed on supports or benches by crawling up the legs or support beams and disabling the electrical units (see *Managing Red Imported Fire Ants in Electrical Equipment and Utility Housings*). Create barriers by placing the cage legs in cans of soapy water, another suitable fluid, or permethrin-impregnated nylon plastic Arinix products (Nix of America, 2055 Junction Ave., Suite 230, San Jose, CA 95134, 408-321-8286, http://nixofamerica.com/arinix.php). Other noninsecticidal barrier concepts are discussed in *Managing Imported Fire Ants in Urban Areas*.

In addition, ants occasionally gain access by crawling on objects such as tree limbs, clothes, or electrical cords (not major power lines) touching or connected to the cages. Remove and/or reposition these cords to prevent ant entry. (Use safe practices including cutting

off the power before performing this activity). Regularly inspect the area around the pens for fire ant mounds and properly identify the ant species (see Texas Ant Pest Identification: An Illustrated Key and Managing Household Ant Pests) and consider all management options (see Natural, Organic, and Alternative Methods for Imported Fire Ant Management).

Chemical control options. Select products with information on the label about the site(s) where the animals are confined. Fire ant baits are one of the least toxic approaches for treating fire ants around animals (see *Broadcast Baits for Fire Ant Control* or *Fire Ant Control Methods around Pets*). When treating near cattle, dogs, goats, horses, pigs, poultry, and sheep, broadcast fire ant bait products (such as Extinguish, containing s-methoprene, or Amdro Pro, containing hydramethylnon) as directed at a rate of 2 to 3 oz. per 5,000 sq. ft. or 1½ lbs. per acre applied to individual ant mounds surrounding outdoor corrals and other animal holding areas.

Avoid directly exposing animals to the bait granules. Whenever feasible, treat an area around the penned animals at least 120 feet wide to give these sensitive sites maximum protection from ants foraging from nearby colonies (Martin et al. 1998. *SW Entomol.* 23:221-228).

Treating around rabbit cages involves a combination of fire ant bait products applied beneath and around the cages and, if necessary, applying a long-acting contact insecticide to the cage legs and ground around the supports to prevent fire ants from getting into the cages. One product, YTex GardStar 40 percent EC containing permethrin (see http://www.y-tex.com/pdfs/Gard-Star40.PDF), is registered for treating fire ants in and around pens and kennels and can be used both as a surface spray and a mound drench. Make sure that the sprays do not contact the rabbits or their cages.

For poultry and caged fowl, treatment options must include careful planning (see *Texas Poultry Pest Control Practices*). For caged birds

not in contact with the ground, fire ant bait products registered for use in these sites work well, although, if sanitation practices are poor, ants may be more attracted to competing food sources. When birds (including ratites—ostriches and emus) are housed on the ground in pens or yards, chickens, ducks, and turkeys will eat any bait particles they can reach. In those cases, confine the birds in their enclosure (chicken coop) before applying bait to the yard, or apply it so that the birds cannot reach the bait. Also, if concerned about fowl eating the bait, apply it at night while the birds are roosting. In warm weather, fire ants will usually collect most of the bait by morning.

Many other treatments for individual imported fire ant mounds may be suitable for use around animal pens, including hot water drenches or products containing d-limonene or orange oil and synergized pyrethrins. Some of these alternatives are "organic" and leave very little, if any, residues, providing relatively fast control of fire ant mounds (see *Natural*, *Organic*, *and Alternative Methods for Imported Fire Ant Control*).

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REFERENCES

Medical Problems and Treatment Considerations for the Red Imported Fire Ant u.tamu.edu/ento-005

Diagnosing and Treating Animals for Red Imported Fire Ant Injury u.tamu.edu/ento-004 Managing Red Imported Fire Ants in Electrical Equipment and Utility Housings u.tamu.edu/ento020

What do fire ants eat?

www.extension.org/pages/60922/what-do-fireants-eat

Fire Ant Control Methods around Pets u.tamu.edu/ento-014

Managing Red Imported Fire Ants in Urban Areas

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

Broadcast Baits for Fire Ant Control www.agrilifebookstore.org/product-p/e-628.htm

Fire Ant Control: The Two-Step Method and Other Approaches

www.agrilifebookstore.org/product-p/ento-034. htm

Museum of Novel Fire Ant Control Methods and Products

www.extension.org/pages/21854/museum-of-novel-fire-ant-control-methods-and-products

Texas Poultry Pest Control Practices www.agrilifebookstore.org/product-p/e-27.htm

Managing Household Ant Pests

www.agrilifebookstore.org/product-p/eb-6183. htm

Texas Pest Ant Identification: An Illustrated Key to Common Pest Ants and Fire Ant Species u.tamu.edu-001

Natural, Organic, and Alternative Methods for Imported Fire Ant Management u.tamu.edu/ento-009

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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