

Managing Ants on Golf Courses

Mitchell D. Stamm, Research Technician
Frederick P. Baxendale, Extension Entomologist

On golf courses, field ant mounds disrupt play and their underground tunneling damages turf stands. Learn more about the problem and chemical control options.

A small species of field ant (*Lasius* spp.) has become an increasingly serious problem on golf courses and other high-maintenance turf areas in Nebraska over the past 10 years. Mounds produced by these ants are particularly troublesome on golf greens, tees, and fairways where maintaining a uniform playing surface is essential (*Figure 1*). In addition, worker ants can become a nuisance as they forage in and around buildings and their soil mounds can clutter sidewalks, cart paths, and driveways. Several other ant species, including yellow ants and cornfield ants, can be occasional pests of turf, but are not covered in this publication.



Figure 1. *Lasius* ant mounds on a golf course fairway.

Field Ant Biology

A typical ant colony consists of a single egg-laying queen, immatures (eggs, larvae, and pupae), a few males, and hundreds to thousands of sterile female workers (*Figure 2*). Field ants normally establish their colonies in sunny locations with well-drained soils. In turf, a colony consists of a series of interconnected underground tunnels and galleries which may extend a foot or more beneath the soil surface.



Figure 2. Ants emerging from subterranean colony.

Ant Damage

During colony construction, ants excavate large quantities of soil which they deposit in mounds on the soil surface (*Figure 3*). These mounds, measuring 2 to 4 inches in diameter, are unsightly, smother grass immediately surrounding openings, and produce a bumpy, uneven turf surface which interferes with golf play. Ant mounds also hinder routine turfgrass maintenance by rapidly dulling mower blades.



Figure 3. Close-up of ant mound.

Beneath the surface, soil excavations cause root desiccation which can severely injure the turfgrass stand. In newly seeded areas, ants occasionally become a problem when they collect seeds and carry them back to the colony for later consumption. Some ant species nurture colonies of root-feeding aphids which they “milk” for their honeydew. These aphids can further stress the turf by withdrawing sap from the roots and underground stems.

Ant Management

Ants are among the most important natural enemies of many turf pests. They voraciously feed on many small insects including chinch bugs, aphids, and leafhoppers, as well as the eggs and larvae of white grubs, billbugs, cutworms, and sod webworms. Whenever possible, ants should be conserved for their beneficial activities.

Chemical Control of Ants

Effective ant control normally requires destruction of the queen. Unfortunately, this is not an easy task since the queen, her eggs, and larvae are located in deep subterranean chambers throughout much of the season. Most ant insecticides only control worker ants foraging on the soil surface.

Where there are only a few colonies, apply insecticides directly to colony openings and the areas immediately surrounding the mounds. Where colonies are more numerous or widespread, broadcast treatments over the entire infested area may be the only practical solution.

- **Short-term Control.** For quick knockdown of ant infestations, apply bifenthrin (Talstar), deltamethrin (DeltaGard), lambda-cyhalothrin (Scimitar), or cyfluthrin (Tempo) when mounds first appear in the spring. These applications typically only provide two to three weeks of control as they do not penetrate deeply enough into the soil to reliably kill colonies. Multiple applications will likely be necessary.
- **Season-long Control.** Apply clothianidin (Arena), imidacloprid (Merit), or thiamethoxam (Meridian) when mounds first appear in the spring. These applications should suppress ant colonies for 8 to 12 weeks but may take two to four weeks to work. Combination products such as Allectus (Merit + Talstar) or Aloft (Arena + generic bifenthrin) provide quick control plus colony suppression for 8 to 12 weeks.

- **Baits.** Although not always cost effective, baits can be used to control ants on golf courses and other turf areas. Maxforce Professional Insect Control Fine Granule Insect Bait (Clorox Co.; contains the active ingredient hydramethylnon) or Advance Granular Carpenter Ant Bait (Whitmire Micro-Gen; contains abamectin) can be placed near mounds and in areas where worker activity is observed. Because baits work relatively slowly and rely on foraging workers to carry granules back to the colony, do not apply standard liquid or granular insecticides for several days following a bait application. It is important to note that baits can lose their effectiveness when ants are not actively foraging due to cold or wet weather and repeated applications may be necessary.

Caution: Always read, understand, and follow all label instructions before applying any pesticide.

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