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Fire Ant Management

Three species of fire ants inhabit the desert southwest: *Solenopsis xyloni* (southern fire ant), *Solenopsis aurea* and *Solenopsis amblychila* (all are referred to as desert fire ants). *S. xyloni* has the widest distribution of the three species in Arizona.

If the nest location poses no hazard to people, the best solution may be to do *nothing*. Red Imported Fire ants (*Solenopsis invicta*) are not established in Arizona yet, but do show up periodically; these ants are more aggressive than our native fire ant species and the stings are far painful.

Management

The objective – regardless of method used – is to kill the queen; she is the only ant in the colony capable of laying eggs and sustaining colony numbers. Any surviving ants will construct small mounds $\leq$ 10-15 ft. from the parent colony, so control methods should be followed up with a search for new mounds within a week of final treatment. SPRAYING A PESTICIDE TO KILL FORAGING ANTS IS NOT AN EFFECTIVE CONTROL METHOD.

1. Prevention

OUTDOORS (playing fields, lawns)

Maintain healthy turf (easier said than done!) with the following:

- ✓ Do not allow turf to become compacted. Use till methods, aerate and/or apply organic acids (such as fulvic or humic acid).
- ✓ Do not allow turf to become dry and bare. Fire ants love exposed, bare ground.
- ✓ Do not over water turf or garden areas. Fire ants like to take over disturbed soil that gets watered a lot, so people may encounter the ants in garden sites or when planting.
- ✓ Do not apply herbicides such as glyphosate along lawn borders (i.e., don't use Roundup on edges to avoid strimming). This generates an ideal fire ant habitat. Either weed-eat (strim) your borders or let them grow fluffy edges.

INDOORS

If found inside, educate…educate….educate staff. Fire ants do not commonly nest in buildings; if found inside they are generally being drawn there by FOOD. Extreme temperatures may bring them indoors also. Here's what to do:

- ✓ Corner-clean floors very regularly.
- ✓ Restrict food and drink consumption to areas which can be kept clean easily i.e. limit food to tiled areas. Clean up spills quickly, and washout mops and buckets immediately after use. Opt for foods that generate fewer crumbs (bagels instead of muffins), and increase overall sanitation if ants are recurring inside.
- ✓ Food should be stored in containers with tight fitting lids.
- ✓ DO NOT spray! – this will <u>not</u> eliminate the source of the ants, and may even increase your problems.

2. Baits are insecticides mixed with ant food sources. They are best used in situations where mounds can be located.

HOW THEY WORK

Foraging workers carry the bait back to the colony and share the food. After the queen dies, workers may still be active inside the mound for several weeks before the colony finally disappears. Baits are much more effective, easier, and safer to apply than mound drenches.

- ✓ <u>Recommended: Amdro Fire Ant Bait; applying a small amount of water to the baited area causes rapid uptake</u>

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Educate yourself, implement good sanitation, and address basic pest proofing in *all* areas where food is prepared and consumed.
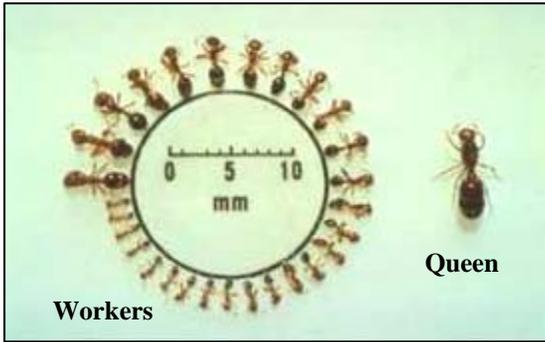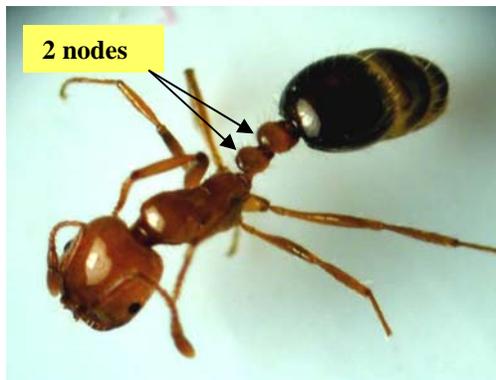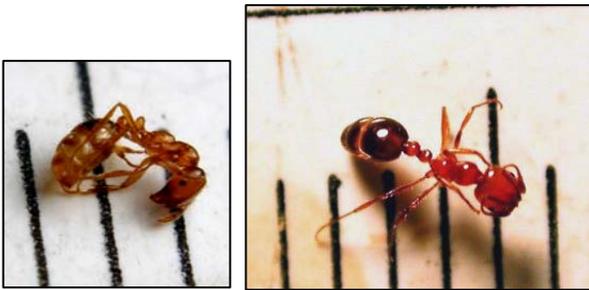
Workers

Queen

Fire Ant, *Solenopsis* spp. (3 spp. in Arizona)

Function is determined by size:

Minor workers: 1.6mm (1/16" inch) long
Major workers: up to 6mm (1/4") long
Queens: around 6.6 mm, slightly larger than the biggest workers.

Color: *Solenopsis* spp. range in color considerably, and even between different worker castes within a nest.

HABITS: Fire ants are scavenger-predators that prefer oily or fatty meats and seeds. This goes for candy bars and other nut-infested sweets. Their diet also consists of insects, vertebrate carrion and fruits. The ants harvest seeds and collect nectar from a number of plants, including various species of cactus.

2 nodes

More information:

(1) http://www.desertusa.com/mag01/aug/papr/ants.html
(2) http://www.safe2use.com/pests/fireants/factoids.htm
(3) http://www.pestworld.org/homeowners/spotlight/fire_ants.asp
(4) http://www.tightloop.com/ants/solxyl1.htm
(5) http://216.239.37.100/search?q=cache:Vais8Lt28QsC:fireant.tamu.edu/materials/factssheets/fapfs013.2002rev.pdf+%22Solenopsis+aurea%22+%22Solenopsis+amblychila%22&hl=en&ie=UTF-8
(6) http://www.tightloop.com/ants/default.htm
(7) http://www.ruf.rice.edu/~bws/saurea1.html
(8) http://www.turffiles.ncsu.edu/pubs/insects/ag486.html#t
(9) http://www.colostate.edu/Depts/IPM/natparks/fireants.html