Marin Model School Integrated Pest Management Project: Fact Sheets for Maintenance Directors

Argentine Ant (Linepithema humile)

Important Biological Facts

General

- The Argentine ant is not native to the U.S. It came on Brazilian coffee ships to New Orleans about 1891.
- This ant does not sting but will occasionally bite.
- Argentine ants are capable of carrying pathogenic bacteria in hospitals and food establishments.

Colonies

- This ant lives in colonies that are linked by tunnels, and Argentine ant workers move freely from nest to nest. Each colony has many queens that live in harmony. It may be more accurate to think of Argentine ants as living in huge colonies with 1000's of entrances. Some researchers consider the Argentine ants from San Diego to the Bay Area to be one vast colony.
- Because of these immense "supercolonies," the concept of finding and killing "the" nest is not always valid.
- Argentine ant queens are not just egg-laying machines, they feed and clean themselves and help care for the young. Queens can be seen walking in foraging trails (they are much larger than the workers).

Feeding Behavior

- Worker ants (all females) feed and care for the young, but they also feed each other. Up to 50% of the food they ingest is shared with fellow workers. The technical term for insects exchanging food with one another is trophallaxis.
- Because of trophallaxis, ant baits can affect a much larger number of ants than just those in the foraging trail that encounter and feed on the bait. On average at any one time, only about 5 to 7% of the ants in a colony are out foraging.

- Argentine ants will feed on just about anything from dead animals (including insects) to all kinds of human and pet food, to vomit, feces, and even human sputum.
- A favorite food of this ant is the honeydew produced by insects like aphids, mealybugs, scales, and whiteflies. Argentine ants protect these insects from their natural enemies. Plants that harbor these pest and are growing near a structure will attract ants to the building.
- Liquid baits with sugar as the attractant are useful throughout the year, because adult ants will always feed on sugary liquids. Baits with a protein attractant may only be useful when the colony is expanding and ants are feeding a large number of young.

Nesting Sites

- Argentine ants are very mobile and can move their colonies in hours to take advantage of a food source or to escape inhospitable conditions. In winter they look for places that are warmer and drier than the surrounding area, and in summer they seek cooler and moister sites.
- They nest primarily in the ground, but they can be found nesting in unusual places including inside metal curtain rods, under tiles on kitchen counters, in wall voids, in soil accumulated in the corners of a roof, and in vehicles such as cars, buses, mobile lunch vehicles, and motor homes.

Summary of ANT Management Techniques Compatible with an IPM Program

Education

Educate principals, teachers, and students about the effects their actions have on pest management and about the relationship between ants and food/garbage. Encourage all staff to store food in ant-proof containers (see page 2).

Summary of ANT Management Techniques Compatible with an IPM Program, cont.

Physical/Mechanical Controls

- Exclusion
 - Keep buildings in good repair.
 - Caulk cracks and crevices.
 - Fill gaps around pipes, cables, and wires that pass through walls inside and outside the structure.
 - Weather-strip doors and windows.
- Vacuum up ant trails.
- Mop up ant trails with detergent and water. Supply teachers and staff with

spray bottles containing detergent and water for wiping up ant trails.

Sanitation/Habitat Modification

- Inspect landscaping near structures for honeydew-producing insects (aphids, mealybugs, scales, whiteflies). Use sticky barriers on plants, control honeydew-producing insects, or remove plants.
- Use plastic liners in garbage cans and remove garbage from building before nightfall.
- Store garbage in cans or dumpsters outside the building.

- Keep interior and exterior garbage cans clean.
- Encourage policies that keep food out of the classroom.
- Limit areas where food can be eaten.
- Store food in plastic containers with snap-on lids or screw-top jars that have a rubber gasket on the lid.
- Store can or bottle recycling outside, or empty nightly to an outside container.
- Thoroughly clean food preparation and eating areas daily.
- Regularly steam clean large appliances in kitchens.

Chemical Controls (Use according to directions on product label.)

Note: New products are constantly coming on the market. Brand names listed are for example only. No endorsement of specific products is intended nor is criticism implied of similar products that are not mentioned.

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Product	Active Ingredients	Notes
CLEANING UP ANT TRAILS		
Detergent and water in spray bottle Orange Guard, various citrus cleaners	Detergent & water d-limonene	Can be used in mopping solution Can be used in mopping solution
ANT BAITS		
Advance granular A.C.E. System bait (liquid) Maxforce—granules and bait stations Niban (granules) Terro (liquid) Drax gel, Drax Liquidator (liquid)	Abamectin Boric acid Hydramethylnon/fipronil Boric acid Borax Boric acid	Slow acting Fipronil gives quicker kill Slow acting Slow acting Slow acting
DUSTS	Use in wall voids and cracks and crevices. Not effective in wet sites.	
Borid Drione Timbor	Boric acid Silica gel + pyrethrin	Slow acting
PT239 Tri-Die Perma-Dust	Silica gel + pyrethrin Boric acid	Slow acting
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For more information on pest management, call the Marin Dept. of Agriculture at 415-499-6700.