

ARGENTINE ANT (*Linepithema humile*)

INTRODUCTION

There are 28 species and subspecies. Only one of these occurs outside Central and South America, *L. humile*. Now established in many countries, well beyond its original range, this species was first recorded as established here in January 1990, at Mt Smart stadium, Penrose, Auckland. Since its discovery, *L. humile* has not only spread in the Auckland area but is now to be found in Northland, Coromandel Peninsula, Bay of Plenty, Waikato, Hawkes Bay, Wellington City, Nelson City and Christchurch.

RECOGNITION

Length 2.2 to 2.6 mm; antennae 12-segmented; upper and rear faces of the propodeum convex; colour uniformly light brown; similar to some *Iridomyrmex* in overall body shape and colour, it differs in the number of teeth on the mandibles, a more tear-drop shaped head and the relatively low placement of the eyes

Workers are light brown or brown.

Nests are in refuse piles, bird nests, wall voids, masonry voids and in cracks in concrete slabs around the perimeter of buildings. Nests may be deep in the ground during dry or cold weather.

The colonies are usually large and contain hundreds of queens. New colonies are formed when a queen and a small number of workers migrate to a new site.

Several biological factors ensure the success of this species as a notorious pest. These include: multi-queened (polygynous) colonies — hence a high fecundity; large numbers of offspring and rapid recruitment that lead to dominance over larger ants at food sources; an ability to exploit a diversity of habitats and food sources; a propensity for forming supercolonies through successful mixing of individuals from separate nests linked by foraging trails.

HABITS

Foragers move steadily in defined continuous trails and tend to walk over objects placed on trails. They have only a slight greasy odour when crushed, as opposed to the strong formic acid smell of some ant species when crushed. Trails can often be found along smooth surfaces, and in an urban environment they are commonly found by pulling back the grass at the edge of the footpath. Foragers collect honeydew from scales [scale insects] and aphids and collect nectar from flowers. Trails can often be found ascending flowering trees and shrubs. Nests can be found under wood, stones, piles of leaves in potted plants, etc.





Argentine ants are very aggressive insects. Although they are not poisonous, they do bite people. They are capable of completely eliminating other types of ant colonies, and also destroy and eat other insect species and earthworms. They particularly like sweet food, and tend populations of aphids and scale insects on plants, using them as a source of honeydew while protecting them from their natural predators. Unlike other ant species, Argentine ant colonies co-operate with each other, and can combine over winter into super-colonies. This makes them more competitive and aggressive towards other insect populations through their sheer numbers.

They forage day and night. Food includes sweets, meats, fruit, eggs, dairy products, animal fats and vegetable oils. Excessively dry or wet conditions cause workers to invade houses.

Rank highly as a domestic nuisance species. They invade houses and are capable of penetrating food containers. They infest gardens, making outdoor dining difficult. When nests are disturbed, foragers will run up legs and arms, and some people are sensitive to their bite, and has the potential to carry and hence spread disease (e.g., *Staphylococcus*, *Candida*, and *Enterococcus*) around buildings, including hospitals.

CONTROL

Tips for controlling Argentine ants

- Remove or securely store food that is favoured by ants. Clean surfaces with lemon juice, soapy water or diluted eucalyptus or tea tree oil.
- Trim trees near your home to reduce ant access to your roof or window areas. Use two-sided tape or chalk dust around tree trunks to discourage ants (especially where birds are nesting).
- Reduce moisture sources (e.g. leaking taps, irrigation), as Argentine ants prefer moist conditions. Keep your roof gap and sub-floor dry and well-ventilated to discourage Argentine ants from nesting there.
- Where ant trails enter your house, spray with a permethrin spray such as “Ant Ban” on the surface. Use the spray where it will not be affected by the weather, so the permethrin will remain on the surface and repel ants. Stop obvious entry points.
- In winter you may be able to follow the ant trails back to the super-colony. If you discover this colony, you may be able to kill it with boiling water. However be warned that the ants may swarm and bite if they get the chance.

DO NOT try and spray generally for ants, as this may encourage new nests to “bud off” from the main colony and could worsen the situation

Non-chemical control

- Eliminate food sources and entry points into buildings
- Clean up food scraps, spilt sugar and fat in food preparation & mess areas.



- Keep sugary foods in containers with tight fitting lids.
- Keep outdoor rubbish areas free of food scraps.
- Seal cracks around foundations, drains etc.
- Tip hot water over ant trails and into cracks in paths from which they emerge (dilutes their chemical trail).

Chemical Control

Control can involve baiting, repellent sprays and dusting.

The correct method of ant control is to locate the full extent of the infestation and to track the trails all the way back to the source, and locate the nests before treatment.

The outside areas of entry will be treated with a residual pesticide to a height of 1 metre up the wall and 2 metres out from the wall. If numerous entry points are located the entire perimeter of the building will require treatment, as will the nesting areas. Recently baiting has also proved successful in controlling ant populations.

As can be realised by the nest locations, it is virtually impossible to completely eradicate an ant problem.

Because of the breeding habits of these pests, we recommend that all affected areas be treated by one or more of the above methods where appropriate.

- Apply a contact insecticide around areas where ants are a nuisance and around entry points, particularly around drains, doorways, steps and foundations.
- Apply slow-acting bait at sites where ants feed. (This will be taken back to the nest where it will kill most of the ants). This may take 2 – 3 weeks to gain control.