

Electric ants

Treatment program and chemical bait applications

The Queensland Government is undertaking a treatment and surveillance program in the Smithfield and Kewarra Beach suburbs of Cairns, following the detection of electric ants (*Wasmannia auropunctata*) in these areas. The National Electric Ant Eradication Program is being managed by Biosecurity Queensland, an agency of the Department of Primary Industries and Fisheries (DPI&F).

Frequently asked questions

What method of treatment application is used?

Broadcast baiting is used as an effective means of distribution using handheld applicators. The bait is collected by the worker ants and taken to the queen in colonies in the area. It can affect colonies not visible to surveillance staff, and is a quick method of covering broad areas.

Will one treatment get rid of these pests?

Although one treatment can rapidly reduce ant populations, effective treatment requires a program of several applications of bait over an extended period of time.

When will treatment be undertaken?

The first round of treatment of infested properties in Smithfield was undertaken in August 2006. In February 2007, a treatment program began in Kewarra Beach after electric ants were identified in the area. Each treatment round is followed by monitoring to determine the effectiveness of the program. Follow-up surveillance in both areas indicated a strong impact on the electric ant populations. Several more rounds of treatment and monitoring will need to be conducted each year as the program progresses. Treatment and surveillance is dependent on weather conditions to ensure the effectiveness of bait and safety of staff.

What chemicals are used in the ant bait?

The ant bait is comprised of small pieces of corn grit (about 1–3 mm in size) that are soaked in soybean oil and one of two chemicals—*Hydramethylnon* or *Methoprene*. Both types of bait contain less than 1% active chemical and are non-residual, which means the chemicals do not last long before breaking down.



Measuring corn grit bait into spreader

How do the chemicals work?

Hydramethylnon is a slow-acting insecticide. Worker ants find the corn grit, carry it back to the nest and pass it to the queen and other ants in the nest to consume. *Hydramethylnon* works by disrupting the metabolic processes of the ants, preventing them from digesting food. This effectively starves them.

Methoprene is an insect growth regulator (IGR) and is widely used in mosquito control programs by local councils. It is the preferred treatment for electric ant baiting near waterways.

IGRs work specifically on insects by interfering with their normal life cycle. *Methoprene* breaks the reproductive cycle of electric ants and prevents the larval stages of the ant from maturing into adult ants. After the last adult worker ants have died of old age, the queen is effectively starved as she has no new workers to feed her or her brood.



How much chemical is used?

On an average suburban residential block (approximately 1000 m²), about 200 g of bait will be used in each treatment (approximately half a teaspoon/m²). As the bait contains less than 1% chemical, very little chemical (about 2 g) will be contained within the corn grits distributed on an average block during each treatment.

What can residents do to assist treatment?

We ask residents not to irrigate treated areas within 24 hours after application, as moisture can reduce the effectiveness of the bait. We also ask residents to not handle or make contact with the bait. If contact occurs, wash hands (or contact area) well.



Corn grit spreader

How toxic are these chemicals to humans and animals?

The bait is of very low toxicity to humans and animals (if swallowed or absorbed through skin contact), as it is specifically targeted at insects. Skin irritation or other health effects should not occur, due to the low application rate used in this program. If absorbed, these chemicals are rapidly passed out of the body—they do not build up.

In addition, after the bait is distributed the chemicals break down rapidly, particularly in direct sunlight. After one day, very little (if any) chemical would still be present in any bait material remaining on the ground.

Are these chemicals safe during pregnancy?

Scientific testing does not indicate that these chemicals cause birth defects. The method of bait application is not considered to pose a risk to pregnant women or their unborn babies. It is, however, recommended that exposure to all chemicals during pregnancy is minimised.



Close-up of electric ants

P Zborowski, DPI&F

Do these chemicals cause cancer?

These chemicals are not considered to cause cancer.

What precautions do I need to take?

The electric ant bait treatments are considered to pose negligible risks to public health. However, householders should ensure that young children are kept from crawling on baited areas for a day or so following treatment, and that they do not try to eat any of the bait material soon after it is applied. Apart from this precautionary measure, no other specific health precautions by householders are considered necessary. It is quite safe to walk on ground that has been treated with bait.

What should I do if I think someone has become sick from the bait?

Given the low toxicity of the bait, no unpleasant health effects would be expected. However, if you think someone has become sick as a direct result of electric ant bait, seek medical advice from a doctor. Please also notify DPI&F on 13 25 23 following consultation with a doctor.

Further information

For further information, contact DPI&F on **13 25 23** or visit the DPI&F website at www.dpi.qld.gov.au/ants