### **Dusting, Spraying** or Baiting?

#### **Dusting**

Dusting can be used in areas occupied by electrical equipment and / or walls voids.

Note: always read and follow the product label



## **Spraying**

Residual sprays can be used as internal / external barrier treatments, but residual sprays or dusts must never be applied for Pharaoh ant control as they ause the colony to bud' and spread.

#### **Baiting**

Baiting gels and liquids can be used in a variety of locations. Allowing for targeted control of colonies. These are increasingly favoured over the use of conventiona sprays and dusts.



# **Assessment**

The inspection process is to ascertain the presence and scope of the infestation.

- For effective control it is essential that the target insect is correctly identified.
- Obtain access to all parts of the property where activity is visible.
- Monitor ants near food and moist areas.
- Inspect under sinks, in cupboards, and along pipework and electrical cable runs.
- Look indoors and outdoors for holes and cracks that provide a point of entry.
- Sufficient detail must be recorded of the severity of the infestation.
- Assess treatment plan and communicate this to the customer.
- Appropriate Personal Protective Equipment (PPE) must be worn as per manufacturer's insecticide instructions.

# **Inspection & Process:**



Potential baiting points

**Baiting in a residential property** 



Brown Ant, Lasius brunneus activity

Black Ant, Lasius niger

activity in gardens

Ant nest

(Directly treating the nest is preferable to using baits)

in beams and woodwork

Ants are a prevalent pest in households, but they can also be a nuisance in restaurants, hospitals, offices and warehouses.

There are risks to public health, as ants may walk across unclean or contaminated surfaces during their foraging behaviour.

This guide brings together a selection of tips, solutions as well as products and curious facts!

### What's the Active?

Imidacloprid - A chloronicotinyl insecticide with contact and stomach action, acting as a synaptic nervous system poison. Maxforce Quantum Gel & Maxforce pushbox.

Indoxacarb - A member of the new oxadiazine class of insecticides that act by inhibiting sodium ion entry into nerve cells. Classed as a 'reduced risk' active ingredient by the environmental protection agency (EPA). Advion Ant Gel and Outcast Ant station.

**Fipronil** - A phenylpyrazole insecticide acting on the GABA- gated chloride channel in the insect nervous system. Formidor Ant Gel.

**Spinosad** - An adulticide derived from Actinomycete fungi. Nippon Ant Gel.

### Threat to public health - Disease and contamination

Even though ants pose lower risk to public health than some other insects there is still bacteria and viruses.

Pharaoh ants (Monomorium pharaonis) in UK hospitals were found to harbour Salmonella spp, Pseudomonas spp, Staphylococcus spp, Streptococcus spp, Klebsiella spp and Clostridium spp (Beatson, 1972).

A UK study found *Clostridium welchii* (now Clostridium perfringens) associated with pharaoh ants (Monomorium pharaonis) collected from a hospital kitchen and Clostridium cochlearium from ants of the same species collected from washrooms and toilets (Beatson, 1972).

# Post treatment advice

Insecticidal treatment can take time to eradicate a colony. Some customers may see an increase in ant activity when baiting is used, which is because the ants are communicating that there is a new food

Provide your customers with a detailed plan about how the treatment has been undertaken. e.g. a treatment record / report.

Educate your customers in reducing food sources. Keep all food sealed in containers, don't leave scraps around, manage waste and keep it away from the areas of ant activity. Even simple jobs such as vacuuming regularly and cleaning can help to manage or limit activity.

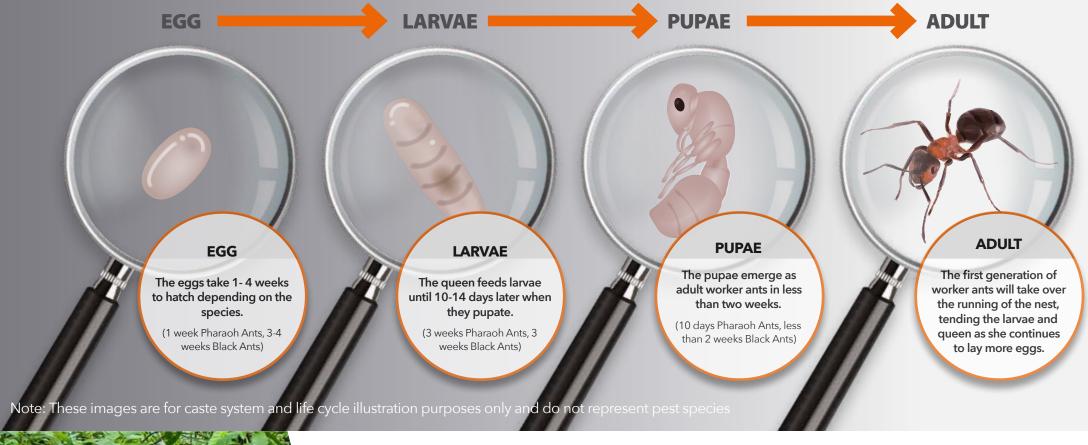


### **Interesting facts**

- Ants have colonised almost every landmass on earth apart from Antarctica and a few remote islands.
- Colonies of ants can range from a few dozen scavengers to super-colonies of millions of individuals.
- 12,500 species of ants have been classified, but it is believed that 22,000 species exist.
- Ants evolved from wasp-like insects during the cretaceous period over 99 million years ago.
- The family Formicidae (ants) belongs to the order Hymenoptera, which also includes sawflies, bees, and wasps.



### Life cycle of an ant



# **Adult variations**



# Tropical Species

Although not pest species these ants are fascinating and are amazing examples of ant diversity.



### **Bullet Ant**

Paraponera clavata is an infamous species of ant, typically known as the bullet ant, named for it's unusually potent sting. It is reputed to be the most painful sting of any insect. The bullet ant can be found in the lowland forests of Nicaragua and Honduras.



### **Fish Hook Ant**

The fish hook ant (*Polyrhachis bihamata*) has sharp fish hook-like projections. It can be found in the Phillipines, Java, Laos, Sumatra, India and China.



### **Crazy Ants**

Of the various crazy ant species, the Tawny crazy ant, *Nylanderia fulva*, found in many of the Southern States of America, is one example. It can use it's own venom to detoxify venom of the the Fire Ant, *Solenopsis invicta*.

# Ant colony caste system

### Workers (Female)

Duties include foraging and protecting the nest. Workers are sterile females.



### Male

For mating purposes only. In certain species the males are part of the mating flight, also known as 'flying ants'.



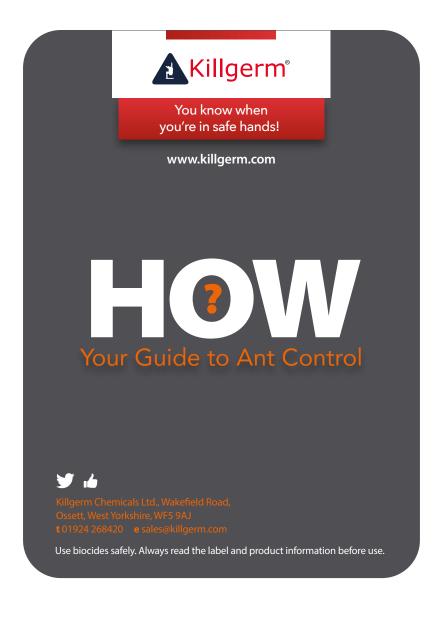
### Queen (Female)

Founds a new colony after mating. An 'egg laying machine'.



Note: These images are for caste system and life cycle illustration purposes only and do not represent pest species

### **ACTUAL SIZE: BACK**



### **ACTUAL SIZE: FRONT**

