

# Ants

GWF226  
Updated January 2009

**Ants rarely feed directly on plants, but can cause damage in other ways. There are many species and they lead complicated lives with fascinating social structures.**

**Q Why are ants called social insects?**

**A** Ants are related to bees and wasps and live in colonies. Each colony makes a nest which contains many worker ants - wingless females that cannot lay eggs. There will be one or more larger, egg-laying queen ants which have been fertilised by winged males. The nest is their base for breeding and where their foraging expeditions start from.

**Q Do ants damage plants?**

**A** Ants seldom feed directly on plants, but they can sometimes damage plants in other ways.

When ant colonies build their nests under plants it disturbs the roots and deprives the plants of water. They can also bury plants by depositing soil on them when excavating nests - which can be very damaging in rockeries and flower pots. This is usually done by black ants (*Lasius niger*), though the common red ant (*Myrmica ruginodis*) may also be responsible. When ants are not directly underneath plants, they can help by loosening the soil, thus improving soil structure and drainage.

In lawns, ant hills are a nuisance as they interfere with mowing. Mound ants or yellow meadow ants (*Lasius flavus*) are the worst offenders. Their mounds are, however, usually

flattened by passing feet and mowers. These ants prefer lawn edges where there is less disturbance.

Ants feed off the honeydew excreted by various insects like mealybugs, scale insects and aphids. Ants protect these pests by fending off their predators. However, some aphids won't produce honeydew for the ants and in that situation the ants may eat them!

Some ants, including yellow meadow ants, also farm aphids on the roots of plants.

**Q Why are ants often seen on plant stems?**

**A** If a plant is infested with insects that excrete honeydew, ants can often be seen collecting it and protecting the insects that produce this sugary substance.

By eating the honeydew, ants actually help plants. Honeydew, while not damaging in itself, supports the growth of sooty moulds. These moulds have dark spores which turn the leaves black. The shading of the leaves by these spores reduces the leaf's ability to photosynthesise.

**Q What else do ants feed on besides honeydew?**

**A** Ants feed on sugary substances such as nectar, on small insects and even on other ants. Some species of ant also collect oily

seeds from plants like buddleja, cyclamen, cabbage, heather, meconopsis, primula, radish, rhododendron and viola. Only one British species of ant eats seeds, and this isn't found in gardens, but ants do eat seedcoats or other nutritious attachments that have evolved to attract them.

Seed collection by ants can be troublesome, especially in warm weather in late spring and summer when ants are most active. If you get poor germination at this time, ants could be a suspect - though this is usually only significant in greenhouses. Ants can also be responsible for spreading weed seeds.

In a warm greenhouse, tiny pharaoh ants (*Monomorium pharaonis*) and Argentine ants (*Iridomyrmex humilis*) may appear. These imported species have been spread as passengers on plant material. They feed on small insects such as wireworms, caterpillars and mites, and they help to destroy many pests.

Wood ants are so important in destroying forest pests that in certain countries, like Germany, they are protected by law.

Ants can attack helpful insects, but on balance, their hunting is helpful to gardeners.

**Q Which ants sting you?**

**A** Ants found in the garden don't

usually sting or bite. If disturbed, ants will rush out and 'attack'. They will attempt to bite but their jaws are too weak to do any damage. Red ants are able to sting.

### **Q Which ants cause problems indoors?**

**A** Black ants are the only species likely to venture indoors. They don't live in houses but are just foraging for food. Blocking entrances and hiding sugary substances will often prevent an invasion.

### **Q How can you tell the different species apart?**

**A** Black ants are about 4mm long, with larger queens. Red ants are slightly larger, about 5mm. Mound ants are dull yellow, usually found in grass and sandy soil. Black wood ants are 6mm long and nest in the soil. Red wood ants make domed nests covered with pine needles.

Pharaoh ants are red and yellow, tiny, with 5mm queens and 2mm long workers. They only survive in warm, indoor environments. Argentine ants are light to dark brown, with darker abdomens, about 4mm long, with queens twice this length.

### **Q Can you tell me more about the colony?**

**A** Colonies are founded by queen ants after their mating flights in late summer, typically in August. Both mound and black garden ants produce huge swarms of flying ants; these are the queens and males, which mate in flight. Many nests produce swarms of mating ants at the same time, which is why there sometimes seem to be plagues of flying ants. The swarms are a nuisance for a

while, but they provide food for many birds and soon die down.

The males die after mating. The queen lands at a suitable site, such as the edge of a lawn or the base of a wall, bites off her wings to facilitate burrowing, then excavates a nesting hole. She looks after the young larvae until they develop into wingless workers that carry on building the nest and rearing more ants.

Ants make nests in varied locations. The nest contains many tunnels, full of worker ants. In winter the nest becomes dormant and the workers stay inside. When spring arrives they go out to search for food. Some species just forage randomly, but others lay scent trails to the food supply for other ants to follow.

Pharaoh ants don't mate in flight. A queen leaves to form a new nest, with a group of workers carrying larvae and pupae.

### **Q How long does an ant nest survive?**

**A** Ant nests can exist for many years, with the worker ants excavating the nest, feeding the queen and larvae, and fighting off predators. Each summer new winged forms are produced.

### **Q How should I get rid of ants?**

**A** Usually you don't need to bother. Just keep down the aphids, scale insects and mealybugs with suitable controls. Where plants are loosened, firm them back into the soil and water well. Good watering tends to discourage ants, as they prefer dry conditions. If plants are seriously damaged, or if ants are a problem inside the house, it is better to follow the ants back to their nest rather than where you see them. The nest can then be treated directly, and this saves

having to use insecticides in the house or on plants.

### **Q How can I get rid of ant nests?**

**A** Ant nests are best broken up with a fork and treated with an insecticide as a drench or dust containing bendiocarb or deltamethrin.

### **Q What can organic gardeners use?**

**A** On uncultivated land, boiling water can be poured into nests. There is also a nematode-based biological control available from Green Gardener. [www.greengardener.co.uk](http://www.greengardener.co.uk)

### **Q Are baits effective?**

**A** Yes, but you must keep replacing the baits as long as the ants visit. Baits work best for black ants, as other species don't take them so enthusiastically. They are worth trying where you cannot find the nest, or when the nest is inaccessible, like in a wall.

### **Q Would it be worth treating every ant nest in the garden?**

**A** No. If every ant nest in the garden is treated, winged female ants from neighbouring gardens seeking new nest sites in the summer are more likely to survive. This is because worker ants predate on new queens, thus

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