

Root aphids

GWF255

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These common pests go largely unnoticed because they are hidden away underground. The damage they do mostly affects plants when conditions are dry.

Q What are root aphids?

A They are greenfly-like creatures which live on the roots of plants. Just like their counterparts above ground, they feed by sucking sap, but from roots instead of stems or leaves. They are not easily seen, but they are a common pest.

Q How do I know if they are present?

A When plants wilt, are stunted, have unhealthily coloured foliage and lose leaves prematurely, suspect root aphids. Remember that other factors, especially drought, can have the same effect. Often there will be many ants around infested plants, feeding on the honeydew aphids produce, even below ground.

Q Which root aphids am I likely to come across?

A There are several fairly common root aphids.

Lettuce-root aphid (*Pemphigus bursarius*) is a very common pest of summer lettuce outdoors. It overwinters as eggs in cracks in the bark of black poplars (including the common Lombardy poplar). In spring, the eggs hatch and cause pouch-like galls on the leaf stalks of the tree. Inside each gall 100-250 aphids develop. By midsummer

the winged forms disperse on the breeze to lettuce crops and the closely related weed sowthistle. Wingless forms soon colonise the new host's roots. The yellow/white aphids become covered in a greyish waxy covering. They reach maximum numbers in August. By late summer, winged forms set off to find the winter host trees to breed and lay eggs for next year. Some survive winter in the soil.

Rose-root aphid (*Maculolachnus submacula*) seldom harms plants, but looks unsightly as it lays eggs on plant stems in autumn.

Currant-root aphid (*Eriosoma ulmi*) is only damaging to young or newly planted plants.

Gooseberry-root aphid (*Eriosoma grossulariae*) is only damaging to young plants.

Grape phylloxera (*Daktulosphaira vitifoliae*) is the pest that destroyed nineteenth-century continental vineyards. It has never become established in the UK. If you suspect it's attacking your grapes, tell your local agricultural government department.

Pear-parsnip aphid (*Anuraphis subterranea*) does no real damage.

Auricula-root aphid (*Pemphigus auriculae*) mainly attacks pot plants in greenhouses, but will also attack outdoor

primulas. The pale-green or white aphids with a mealy covering surround the roots.

Elder aphid (*Aphis sambuci*) attacks the roots of pinks and saxifrages, such as London pride.

Artichoke-tuber aphid (*Trama troglodytes*) feeds on artichoke tubers.

Bean-root aphid (*Trifidaphus phaseoli*) occurs in large numbers on broad, French and runner bean roots.

Q What do they look like?

A They usually look like a waxy mould or powder on the roots of the affected plants. They can build up to huge numbers. The affected roots often split.

Q What could I mistake them for?

A Mealy bugs also infest roots of pot plants indoors and could be mistaken for root aphids.

Some harmless fungi cover roots with a powdery covering. Look out for the tiny aphids.

Apples can sometimes have woolly aphids on their roots, but this is not a true root aphid, being mostly a pest of shoots and trunk.

Ants are thought to take a few ordinary aphids into their nests, which may be around the roots of plants.

Q Can root aphids be controlled?

A The damage they cause is worst in dry conditions, so keeping plants watered will often help them shake off an attack. In the case of lettuce, plants may survive long enough to heart up and be harvested.

If you catch infestations on pot plants early enough, plants can be saved by washing off the aphids from affected roots and repotting in fresh compost.

Covering lettuce with insect-proof mesh - from June until August prevents the aphids

getting to their roots.

There is no chemical control for root aphids, so try to avoid the problem or grow a resistant variety.

Q Can they be avoided?

A Only lettuces sown or planted between mid-April and the end of June are at risk. At these times use resistant varieties. Other root aphids probably can't be avoided.

Q Which varieties are resistant?

A The following varieties of lettuce are resistant: 'Debby' and

'Lakeland' (butterhead); 'Salad Bowl' (oak leaf); and 'Beatrice' (iceberg). 'Little Gem' (cos) is also tolerant of root aphid.

Q What should I do with affected roots?

A Composting, burning or burying affected plant material will reduce the number of survivors. Always aim to get rid of as much of the aphid-infested root and surrounding soil and compost as possible. Avoid growing susceptible plants in the same soil or site for a year.

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