

Asparagus problems

GWF324

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Asparagus suffers from two main problems: violet root rot and asparagus beetle. Several other minor pests and diseases are also detailed on this factsheet.

Q What is violet root rot?

A Violet root rot is the worst disease affecting asparagus. It is caused by the fungus *Helicobasidium purpureum*.

Q How do I know when my plants have been attacked?

A If you see fronds yellowing and dying in circular patches, before the natural time in autumn, check out the roots. If you find reddish purple-brown filaments spreading across the asparagus roots, violet root rot is to blame. You might also find rotting roots and black lumps in the filaments. These are the resting bodies or sclerotia. Violet root rot spreads slowly. The increase in damage is usually seen in late summer. Older plants are the usual victims, but young plants are occasionally affected. It is less common in cooler districts.

Q Can it attack other plants?

A Violet root rot appears to occur in strains, each strain having its favourite host plants. The strain that attacks asparagus also infects weeds – docks, bindweed and dandelions, for example. These keep the disease going even if asparagus is not grown on a plot for years. It will also infect root vegetables. Beetroot, carrots, parsnips, potatoes, swedes and turnips can all fall victim. Celery and seakale

can be infected too, as can some ornamental plants. Cabbage-family plants, such as Brussels sprouts, appear to be immune.

Q What can I do about it?

A The sclerotia or resting bodies can lie dormant in the soil for years, and once there, are impossible for gardeners to destroy. Try to prevent them getting into the soil by removing all dead plant material. Ideally, burn this, or if this is not possible, consign it to the dustbin. Remember that soil falling from infected plants can spread the disease, so bag up the plants to be destroyed on the spot. To be safe, destroy neighbouring apparently healthy crowns as well, in case they are harbouring the disease. If it is likely to spread into valuable nearby plots, you can contain it with a barrier of thick polythene sheeting buried at least 30cm into the soil. There are no chemical cures or resistant varieties. Avoid planting susceptible crops in infected soil.

Q Are there any other common diseases to look out for?

A Asparagus rust (*Puccinia asparagi*) is a disease that commonly turns up during the summer, causing red spots or pustules on stems and fern. This damage to the foliage reduces the following year's crop. Later, these spots release clouds of reddish-

brown spores, which spread the disease at this time. Even later in the autumn, dark streaks on the foliage appear, associated with a different type of spore, tough enough to last over winter. In spring these spores 'germinate' and infect emerging buds; yellowish pustules result. Yet another spore is produced by the yellow pustules, leading to the formation of red summer pustules. Asparagus rust also infects Egyptian or tree onions.

Q How can I avoid asparagus rust next year?

A Good hygiene is the first step. Remove and destroy infected plant material by burning, efficiently composting or consigning it to the dustbin. Try to get rid of old crops before the following year's ones are above ground. Take special care to pull out self-seeded stray plants that may grow nearby. Even so-called 'all-male' kinds of asparagus produce seed occasionally. Where attacks take place year after year, a series of fortnightly preventative sprays with a *mancozeb*-based spray may reduce their severity.

Q What is asparagus beetle?

A Asparagus beetle (*Crioceris asparagi*) feeds on asparagus and can be a severe problem if allowed to build up.

Q What does it look like?

A This handsome red, yellow and black pest is slender and 8mm long. It is pretty easy to spot, unlike its dull-grey-green, caterpillar-like grubs. You might also notice the brown eggs on the spears. They are flask-shaped and laid on end in groups in June.

Q Could I mistake them for anything else?

A The adults are very distinctive, but you might think they are a ladybird at a casual glance.

Q What damage do they do?

A Only asparagus is affected. The adults and larvae graze on the foliage, sometimes completely stripping the plants of leaves. This weakens the plants and could reduce the crop.

Q When should I expect asparagus beetle?

A The adults shelter over the winter in the soil, under stones and in old plant debris. In late spring, usually after the cutting season is over, they lay eggs on the plant's foliage. After about a week the larvae hatch and eat the foliage for about two weeks. They then form 5mm pupae in the soil, which last for another two weeks, when the adults emerge. This cycle is repeated with up to three generations before the foliage dies down in late autumn. The adults can fly and infest other gardens.

Q Can I spray them?

A Often they are only a minor nuisance, and you can pick off enough beetles and larvae by hand on a small patch to prevent them doing much harm. Some experts suggest that spraying is needed if 10% of the foliage has

been eaten or if more than half is infested with larvae. If you think larvae are sufficiently numerous, apply an insecticide containing bifenthrin. You need to make sure all the foliage gets covered as bifenthrin does not travel around the plant. Further sprays may be needed as more larvae emerge.

Q Can I reduce the chances of an attack next year?

A Getting rid of the beetles' overwintering sites will help keep their numbers down. Clear away, shred, compost or burn old fern at the end of the year. Remove plant rubbish, stones, planks and any other cover that beetles could use around the asparagus plot.

Q Are there any other problems I should know about?

A There are several other pests and diseases that can affect asparagus. Slugs attack the new spears in a wet spring. Control them with a thin sprinkling of slug pellets. Growing Success Advanced Slug Killer is an organic option.

Asparagus fly *Platyparea poeciloptera* is a common pest abroad, but fortunately does not cause much trouble here. The eggs are laid on the young spears. After hatching, the larvae drill into stems, distorting leaves and eventually killing the stem by eating away water-conducting tissue. This can weaken the whole plant, leading to poor crops the next year. They pupate in the stems, and fall to the ground when the stems rot in winter. If you are unlucky enough to get this pest, gather up and burn the stems early in the autumn.

Root rot Root rots are very occasionally caused by a fungus (*Zopfia rhizophila*). The fronds yellow and die. The distinctive

sign is the presence of pinhead-like bodies on the dying roots. You would be very unlucky to encounter this disease, but if it turns up, deal with it as described for violet root rot.

Wilt disease *Fusarium oxysporum*, or *F. asparagi* gets into the water-conducting cells in the stem. The first sign is yellowing fronds, which then turn brown and die. The plants are often stunted. Affected stems are typically red-brown in colour and rot when severely infected. In early cases the reddening is only inside the wilted stems. Root-rot and death often result. It is thought to be spread on contaminated seed, and is most common where plants are grown in soil with a poor structure. This strain seems unlikely to damage other plants.

Virus Viruses can occur but these are seldom serious.

Frost This can severely damage young spears - they darken and shrivel. In frosty areas, cover emerging spears with a double layer of fleece or with a cloche.