Box problems

Box has been popular in gardens for centuries due to its ability to survive close trimming, making it ideal for topiary. But the future of box in gardens is now uncertain with box blight (below and right) and box tree caterpillar causing problems around the UK.

Dealing with box problems

Our familiar plantings of box face twin threats to their health. What are our best defences – and treatments – against box blight and box tree caterpillar?

Authors: Matthew Cromey, RHS Principal Plant Pathologist and Anna Platoni, RHS Entomologist.
Photography: Tim Sandall
Fighting box blight

Matthew Cromey, RHS Principal Plant Pathologist

Box blight is most often encountered on clipped hedges and topiaries, but it can also occur on untrimmed box. Careful attention and strategies are needed to prevent or manage the disease, but the effort is likely to pay dividends.

Causes
- Cylindrocladium buxicola is the fungus responsible, and outbreaks can occur at any time of year, but are more prevalent in wet weather. Spores of the fungus infect damp leaves and stems.
- Do not confuse with less-serious Volutella blight, which appears on leaves turn yellow and darken to tan, staying close to the stem.

Symptoms
- Box blight starts as brown lesions on the foliage, followed by leaf drop leading to bare patches. Young stems can be affected by black streaks and dieback.
- Early stages are easy to miss and infection might have spread along a box hedge or around a topiary before it is noticed.

Prevention and treatment of box blight

Fortunately, the pathogen has key weaknesses that can be exploited: it is sticky so spores do not travel far undistracted, and the disease thrives only in damp conditions.

Prevention is better than cure and should be the first line of defence. The disease is most likely to arrive in a garden on plant material, tools or clothing.

Quarantine: set up an observation area where you can keep new Buxus plants for a few months before planting.

Sanitation: pay attention to cleaning tools, gloves and shoes and after working on areas of box to reduce the risk of introducing or spreading disease.

Be prepared: box blight is most severe where there are frequent periods of leaf wetness, so consider the environment when choosing where to plant box. Avoid planting beneath overhanging trees and be ready to treat outbreaks, should box blight arrive unexpectedly.

Good air flow: allows leaves to dry out, so trimming back plants to reduce the density of the canopy can help air to circulate.

Ensure box plants are not overcrowded by their neighbours.

If possible, avoid overhead watering.

Treatment: if you do find box blight in your garden, available courses of action include removing whole areas of your hedge to more subtle interventions.

Removal: remove one or more infected plants if the box is seriously defoliated, is in a wet area of the garden, or threatens more valuable box plants.

Management works best by combining strategies:
- Pruning: box responds well to pruning. Cutting out affected areas will reduce the outbreak and reduce humidity prior to re-growth.
- Remove as many fallen leaves as possible, add mulch to reduce rain splash, and direct water to the base of the plant.
- Good plant nutrition helps promote regrowth.
- Fungicides can be used as part of the strategy. Bayer Fungus Fighter Plus and Bayer Fungus Fighter Concentrate are registered for box blight and can be used up to six times a year. Make the first application just before or just after cutting out infected areas to clear up undetected infections and protect new growth.

Box tree caterpillar

Anna Platoni, RHS Entomologist, Plant Health

Box tree moth (Cydalima perspectalis) is relatively new to the UK and was first reported in 2011. The moth’s caterpillars (below) cause the problem as they defoliate box plants.

Identifying box tree moth and caterpillar
- Originally from eastern Asia, the moth is now considered established in London and the surrounding counties.
- The most common form of the adult box moth has white wings with a faintly iridescent brown border, although occasionally moths with completely brown or clear wings can be found. Wingspan is approximately 4cm (1½in).
- It is the caterpillars of the moth rather than the adults that cause damage to box plants. Caterpillars are active from the first warm days in spring and are voracious pests of box.
- Caterpillars are greenish-yellow with a black head when young but grow to a length of their body. Fully grown caterpillars can reach 4cm (1½in) long.
- Caterpillars can be applied up to six times a year.
- As the caterpillars feed and grow, they can rapidly defoliate plants.
- They produce a fine silk webbing, which they use to bind leaves together to create a sheltered place to feed.

Symptoms
- As the caterpillars feed and grow, they can rapidly defoliate plants.
- They produce a fine silk webbing, which they use to bind leaves together to create a sheltered place to feed.

Prevention and management
- Good hygiene: keep box trees clean, avoiding overcrowded areas where caterpillars can breed. Leaf wetness, so consider the environment when choosing where to plant box.
- Box responds well to pruning. Cutting out affected areas will reduce the outbreak and reduce humidity prior to re-growth.
- Prune out affected parts, clear up fallen leaves, add mulches to reduce rain splash, water only at the base of the plant.
- Good plant nutrition helps promote regrowth.
- Fungicides can be used as part of the strategy. Bayer Fungus Fighter Plus and Bayer Fungus Fighter Concentrate are registered for box blight and can be used up to six times a year. Make the first application just before or just after cutting out infected areas to clear up undetected infections and protect new growth.

Further information
- www.rhs.org.uk
- www.fightboxblight.org
- Buxus moth pheromone traps are available from Agriam, www.agriam-growers.co.uk, and BuXtrap, www.amazon.co.uk
- Monitoring moths in your garden
- Box tree moth pheromone traps are available from Agriam, www.agriam-growers.co.uk, and BuXtrap, www.amazon.co.uk
- Thorough spray coverage will be required to control these caterpillars. Do not spray near plants in flower due to the danger to bees and other pollinating insects.