Box Blight
Identification, Prevention and Treatment
Pocket Guide
What is Box Blight?

Box Blight is a fungal disease that affects members of the Buxaceae family.

Life cycle

Box blight has a rapid disease-cycle that can be completed within one week. The fungal spores can remain ‘viable’ in leaves for up to six years even when they have fallen to the ground and dried. The spores will become active again when conditions are warm and damp. The spores are not affected by frost, so can remain dormant over winter, ready to spring back into life in the warmer weather. Germination of spores can occur just three hours after the disease has come into contact with the healthy plant, with the disease penetrating the plant within five hours. Fungal growth can be seen on the underside of the leaf after seven days. Most people will only recognise that they have Box blight once the plant is suffering with significant leaf-drop. There are two species of box blight which look similar and quite often occur at the same time.

Pseudonectria buxi (Volutella)

A fungus that creates spores and enters Buxus via wounds (often created by clipping). It can be seen on the underside of infected plants leaves as a pink spore mass in wet conditions.

Cylindrocladium buxicola

A fungus that creates spores and does not need a wound to infect the plant, causing leaf and stem dieback and can be seen as a white spore mass in wet conditions.

Symptoms

- Leaves go brown and fall, causing bare patches.
- Dieback on young stems.
- Spore masses on the underside of leaves.
BOX BLIGHT - Identification, Prevention & Treatment

**Prevention**

If there is Box in a garden, assume infection...

**Resistance tolerance and varieties choice**

Currently there are no resistant varieties of Buxus, but there are some that seem to be more tolerant than others. Buxus sempervirens is very susceptible to the infection, this creates a problem as it is the most common form of Buxus we see - specifically, B. sempervirens ‘Suffruticosa’.

The more tolerant varieties come from B. microphylla. Varieties include:

'Belvédère'
'Rococo'
'National'
'Trompenburg’

**Hygiene**

Disinfect clipping tools and hedge trimmers between individual shrubs. Use disinfectant in spray bottles to clean tools. Bathroom cleaner containing hydrochloride is suitable.

**Clear up your clippings**

Collect clippings and dead leaves from around the plant. Where possible, protect the ground with either a length of Mypex for hedging or an old rubbish bag cut out to surround a ball. After clipping, give the shrub/hedge a shake to dislodge any clipped leaves. Do not use your hand to shake the shrub - use a plastic rake head, then disinfect it. All clippings should then be bagged, sealed with a cable tie and taken directly to a skip.
**Watering**

Do not water from above. It is best to water Box from below, so trickle irrigation is recommended. Box blight spores are more active in wet or damp and warm conditions so do not clip Box if it is wet! Another preventive measure that could be considered would be to spray disinfectant under the plants after rain.

**Spacing and feeding**

Air circulation around the shrub is key, it is best to have a clear space of at least 30cm around a ball or topiary and the same either side of a hedge. This may involve the removing or pruning back of plants that are overcrowding it.

Box should be given a general feed in the spring to maintain its general health as this will help fight any infections. Mulch Box to a good depth to help improve aeration and microorganism balance in the soil - Mushroom compost is a good mulch for Box!

**Treatment**

**What should you do?**

The key thing is spotting any infection at an early stage. Take a sample of what you expect to be the infected part of the plant, ensure you have leaves and stem. Place in a plastic bag and seal. Take photographs of the entire hedge/topiary and close ups of infected area. The samples and photos can then be sent to FERA Plant Clinic at Sand Hutton. Alternatively, if you visit the Topbuxus website, you can email them an image of the infected plant for them to inspect.
Spraying (chemical control)

Nicholsons use ‘Signum’ (26.7% w/w boscalid and 6.7% w/w pyraclostrobin) used in either a knapsack sprayer or powered mist blower. We will now also be looking at an alternative spray of a weak copper solution. In order to be really effective there should be between 4 and 6 applications a year between May and October, alternating between Signum and copper liquid. This programme can only be conducted by people with a PA1 and PA6 certificate.

Those without PA6 can use Topbuxus Health-mix, available to buy in our plant centre. Other sprays include: Bayer Fungus Fighter (tebuconazole) and Bayer Fungus Fighter Plus (tebuconazole and trifloxystrobin). These carry label recommendations for use against box blight. Triticonazole (Scotts Fungus Clear Ultra and Scotts Fungus Clear Ultra Gun). Tebuconazole is effective against both genetic types of Cylindrocladium. Disinfectant has a role as a preventative spray around the base of the plant.

Cultural controls

Cut back any plants within 30cm of the hedge or topiary.

Cut out any infections and bag them up.

Reduce the hedge by thirty percent.

Remove topsoil / mulch around the base of hedge or plant and replace with fresh mulch (spores can remain active on or in the soil for up to 6 years).

Consider replacing the hedge or shrub with another species.

Keep the plant healthy and feed regularly. A healthy plant can fend off infection more easily.

DON’T FORGET TO DISINFECT YOUR TOOLS!!!

Something worth knowing…

Dog wee burns the leaves of box and turns them brown. It is usually on the lower part of the plant in one patch, but is often mistaken for Box blight.
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