

BUXUS DISEASE

A very popular ornamental shrub commonly known as Buxus or Boxwood and often grown as a border plant, trimmed to keep compact for a more formal type setting. In the past thousands of these plants have been produced by nurseries to satisfy the demand from gardeners wanting to establish box hedges. The same plants have been used for topiary as well.

Then a disease appeared which has caused great problems for both nurseries and home gardeners.

Firstly lets have a look at the problem from a web site on the net:

The early stages of Box Blight infection are easily missed, commonly it is not detected until parts of the plant die and pronounced leaf fall occurs. Examination of the stems below the dead leaves will show dark lesions in the vascular tissues, viewed through a microscope these lesions are seen to be a mass of hyphae with conidium characterised by ellipsoid vesicle with pointed apices.

The initial phase of infection in the leaf is indicated by a general darkening often spreading in a circular fashion until the whole leaf is discoloured, by then the fungus will have spread to the stem and the leaf usually dies and turns a straw or tan colour.

Unfortunately these colour characteristics can be caused by a variety of other reasons making diagnosis difficult to the untrained eye.

Frequently these leaves will be infected by secondary fungus, Volutella, which creates a pink dusty mildew effect. Volutella itself is not a serious problem, it is a wound pathogen which usually effects plants which are suffering from another problem.

Box in gardens is frequently arranged in parterres, edging and knot gardens etc and is clipped to regular forms and shapes. Advanced infections can be readily recognised as often a central section of the top foliage will appear to be dead whilst the side foliage retains its green. On a topiary piece, such as balls, cones and spirals, commonly a small area comprised of individual stems will die first, however the fungus will spread throughout the plant eventually killing it.

TREATMENT - Can Box Blight be cured or prevented ?

There are no effective fungicides available on the retail market specifically for treating Box Blight.

PREVENTION - What cultural practices minimize the risk of infection and spread ?

Box Blight, *Cylindrocladium buxicola*, is widespread throughout the UK and as it is an airborne disease there is no guaranteed means of prevention, however there are measures which significantly reduce the possibility of severe infection.

The conditions in which the fungus proliferates are damp, shade and poor ventilation, so avoidance of these will help prevent firm establishment of the disease.

It is most important to avoid overhead irrigation as the spores are carried and activated in water droplets and damp leaves provide ideal conditions for the fungus. Water the roots if required, possibly by a 'leaky hose', Buxus do not need foliage irrigation.

Always ensure that all garden tools, particularly shears and clippers, are clean. Do not infect healthy plants with dirty shears. Shears may be cleaned by dipping in bleach or

disinfectant mixed in the dilutions indicated on the label for domestic/kitchen use. Improving ventilation may be problematical; by its very nature Box is often tightly clipped and hence poorly ventilated. With new plantings it is worth bearing in mind ventilation and shade implications.

Removal of dead leaves, plant debris and foliage will reduce the availability of spore releasing material and may reduce any 'resting spores'.

IMMUNITY, RESISTANCE

There are no Buxus species that are immune to *Cylindrocladium buxicola*.

Practical experience however shows that some varieties seem more susceptible to the disease; we suspect that this is not due to any inherent properties of the plants but more due to the physical features such as water retaining foliage. End.

Last week I spoke to a gardener who has a number of Buxus for their display gardens which are open to the public. They told me that they had been able to keep their Buxus in a perfect, healthy condition by spraying the plants all over with a solution of **Vaporgard** every 3 months or so.

Vaporgard places a film over the foliage and stems which cannot be penetrated by the disease and cause damage or death to the plants. By doing this and using other preventive measures as indicated above, keeps their Buxus in prime condition.

Vaporgard is used for many practical garden applications to great advantage besides its frost protection aspects.

Used on transplanting seedlings and established plants as it reduces moisture loss through the foliage and thus reduces transplant stress or shock. This factor can be used to great advantage in summer on your container plants when they start to suffer through drying out. Just spray the plants and they will require far less watering. In a glasshouse, or on very hot days in summer, plants such as tomatoes and cabbages can droop during the day. At that time they have stopped growing. Just spray with the product to reduce this problem also.

Another interesting aspect is, **VaporGard** develops a polymerised skin over each spray-droplet which filters out UVA and UVB. Providing a sunscreen for the chlorophyll, which is normally under attack by UV light. This results in a darker green colour of the foliage within a few days of application. The chlorophyll build-up makes the leaf a more efficient food factory producing more carbohydrates, especially glycols giving stress protection from moisture loss and extra fuel for better growth and faster maturity. The film also offers some protection against some fungus diseases. Sprayed on fruit it will give your fruit better colour, reduce splitting problems, increases sugar content and earlier maturity. The picked fruit will store for longer also. This aspect also applies to vegetables, potatoes and pumpkins, sprayed before or after harvest they will keep longer. You could also use this for keeping cut flowers longer. A magic product that has uses all year round. A few don'ts though; never put chemicals in the spray mix if using on food crops as the harmful chemical will still be present when you harvest. Safe products such as **Neem** and **Perkfection** can still be used.

Do not spray blue conifers with **VaporGard** as it will turn them green for about a year. Vaporgard enhances the establishment of plants in open windy situations and prevents salt spray damage to plants in coastal locations.

A very practical use this time of the year is to spray seedlings with **Vaporgard** prior to disturbing them for transplanting.

Roses sprayed with **Vaporgard** will greatly enhance their beauty giving a darker richer appearance to the foliage and a lovely shine to the same. With the film being in place over the foliage treated, for about 3 months, will reduce disease and pest problems. Problems ring me at 0800 466464 (Palmerston North 3570606)