

## ► Pest and Disease Control

It is important to remember that your trees are living organisms, existing in nature, which will be joining the ecosystem of your landscape.

Aphid infestations, fungal leaf spots, mildews, etc. are **common, naturally occurring** and, in low numbers, will have little/no adverse effect on semi mature trees, just as in nature. Trees which have just been planted may briefly suffer from transplant shock before new roots are produced into new soil and this short-term period of stress can be a window where opportunistic pests and diseases may move onto a tree. At this point, if excessive damage is being caused, it may be necessary to perform remedial treatment in order to prevent serious and lasting damage.

**A certain degree of tolerance to pest and disease** will allow your trees to play their natural role in promoting biodiversity. If the problem is spoiling your enjoyment of the trees or threatening permanent disfigurement, you may need to apply a suitable remedial treatment to help resolve this, though by no means do we suggest resorting to chemical applications as a first resort. In woodland environments, there is a biodiverse range of organisms which tend to keep populations of pests and diseases balanced. Woodlands therefore typically survive most pest and disease attacks. However we, in this age of wanting everything to look perfect, fail to grasp that we cannot reduce our environmental impact whilst still spraying or drenching chemicals at will. In years past, it was perfectly acceptable to buy an apple with a worm in it, whereas now we are not only intolerant of fruit or vegetables that are not perfect, but also want them looking perfect, often with a film of wax sprayed on to make them shine!

To help you with diagnosing potential issues, we have included a number of photographs to demonstrate common pests and diseases which you may observe in your garden.

Majestic Trees have compiled a list of recommended amateur products available at most good garden centres on our website: click through on 'AfterCare' then 'Pest and Disease Control' for an up to date list of products which are available at most good local garden centres. We do our best to keep this list current and up to date but accept no liability based on the manufacturers claims.



**Box tree caterpillars are the larvae of a moth that feeds on Buxus, that lays its eggs throughout the growing season. With no natural predators, the caterpillars hatch out inside the Buxus plant and eat all the internal leaves first. It is difficult to control, let alone eradicate. Regular inspection of all your Buxus is critical, and is best controlled by picking them off by hand.**

If after viewing these pictures, you are ever unsure of whether a pest or disease may be detrimentally affecting your tree(s), please send photographs along with a description of the symptoms that you are seeing to your horticultural advisor.

## ▮ Troubleshooting

Listed below are in our experience some of the most common tree issues reported by customers and how to solve them.

### PESTS

#### CATERPILLAR

**SYMPTOMS:** Irregular or total defoliation of leaves, often leaving the vein structure of the leaf. There are many species of caterpillar which each prefer different trees as a food source, though in this example, pigeons have also been ripping the new young leaves.

**CONTROL:** In small populations, it is advisable that they are tolerated. Caterpillars are a vital food source for birds and are part of the natural ecosystem. In severe cases where a large portion of foliage has been eaten, it may be necessary to apply an insecticide available from most good garden centres. Please see our website for recommended products.



#### APHIDS

**SYMPTOMS:** Aphids are small, visible, sap sucking insects which can cause leaves to curl and become distorted. There are many different species, however they all cause an overall lack in vigour in the tree and often excrete a sticky honeydew on which black moulds grow. You may see Ants climbing up and down a tree - these do not cause damage but are simply attracted to the sticky honeydew.

**CONTROL:** A small population will have little effect on a large, healthy tree. Often as predator (ladybird) numbers increase as the year progresses, they will disappear. In EXTREME cases, where all of the new growth is covered in Aphid, it may be necessary to purchase an appropriate insecticide from a garden centre, although this really should be a last resort. Majestic Trees can recommend an organic/non organic alternative. Please check our website under AfterCare for current recommendations.



## WOOLLY APHIDS

**SYMPTOMS:** Visible to the naked eye as a white sticky fuzz, usually on the underside of branches. A division of Aphids, these will cause a very similar extent of damage. If large populations are left untreated, they will often lead to swollen areas on branches and the vigour of the tree may be dramatically reduced.

**CONTROL:** Woolly Aphid are more difficult to control than Aphid due to the white waxy covering which totally surrounds the insect. In small outbreaks, wearing gloves, you may simply wish to squash the insects to achieve control, or even better brushing them out with an old toothbrush. If this does not appeal, a high-pressure hose can be effective at washing these insects off, but please be careful that the pressure is not too high that you cause damage to buds. Repeat monitoring and treatment will be required.



## VINE WEEVIL

**SYMPTOMS:** Adults weevils are usually only seen at night, about 1-1.5cm in length and tend to move slowly. They cause very distinctive notching to leaves of a wide range of plants. Larvae however, are more damaging to the plant. They live in the soil and feed on root systems for long lengths of time. A common symptom seen is the wilting of foliage in warm weather as the reduced number of roots struggle to supply enough water to the leaves.

**CONTROL:** With the removal of many chemicals from the market in recent years, the very best option left is a biological nematode drench. These microscopic insects seek out and destroy vine weevil larvae. Be sure to follow the instructions carefully.

These are available direct from:

<https://www.nematodesdirect.co.uk/>

and are very easy and safe to apply as a drench with your watering can. Once they have hatched and become adults, one of the best controls is to place a piece of sacking, cloth or thin carpet at the base of the tree, then quickly lift it during the day and capture and kill the weevils.



## OAK PROCESSIONARY MOTH

**SYMPTOMS:** Sadly, this pest was accidentally introduced into the UK. Until 2018 it was confined to London and the home counties, but it is now seen throughout the country. The caterpillars tend to feed at night and can often defoliate entire branches of their leaves. If you see a large number of hairy grey caterpillars on an Oak Tree DO NOT under any circumstance touch them. Hairs on the caterpillar are extremely toxic to human skin and respiratory systems. Instead you must immediately report it to the Forestry Commission via its Tree Alert online form. Alternatively, email: [opm@forestrycommission.gov.uk](mailto:opm@forestrycommission.gov.uk) or call 0300 067 4442.

**CONTROL:** You should contact a licensed OPM removal tree company to extract the caterpillars and nests as soon as possible. Majestic Trees can recommend an approved company near you, please contact your sales advisor for more information.



## PEAR SUCKER

**SYMPTOMS:** Another sap sucking pest which can cause damage to Pear species when in high numbers. First seen in spring, the juveniles will begin to feed on new leaves and blossom shoots. The production of honeydew and secondary sooty mould is characteristic of an outbreak. Swift action is advisable to eradicate this pest, as it can increase in numbers very rapidly and also transmit plant viruses.

**CONTROL:** Many of the products which in the past have proven effective for the control of Pear Sucker, have unfortunately been removed from the market with few viable alternatives, thus proving harder to control this pest. The insect overwinter as adults, and can be removed by squashing, washing the tree with a high-pressure hose, scrubbing the bark near the buds but being careful not to damage the buds. Alternatively, apply a winter tree wash available from most good garden centres. Please see our website for the list of recommended products.



## SCALE INSECT

**SYMPTOMS:** There are many different species of scale insect which in turn affect different tree species. These are sap sucking pests, and for most of their life cycle are immobile. They tend to feed on the underside of leaves, along the central vein reducing the vigour of leaves and new growth. They can also cause distorted growth and transmit viruses. Scale tend to have a tough outer coating impenetrable to many contact insecticides.



**CONTROL:** By far the best method of control is manual removal, though we appreciate that this is not practical on large trees. The clearing up and disposing off site of all leaf litter is advisable to break the cycle of overwintering. For evergreens it may be necessary to treat large pest populations with a systemic insecticide available from most good garden centres. Please see our website for recommended products which will treat this.

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## DISEASES

### PEAR RUST

**SYMPTOMS:** Pear Rust is a disease which causes bright orange spots on the upper surfaces of pear leaves in summer and early autumn. The fruits are still edible but the leaves may turn colour and fall off prematurely. Spores tend to be released from raised areas on the leaf underside in late summer and autumn.

**CONTROL:** It is very important to clear up and dispose of the leaves offsite to ensure the disease cannot overwinter and re infect the tree the following year, so do not put the leaves on your compost heap. The disease can actually overwinter on Juniper Trees as well without causing significant damage to them. When incidences are small, it is advisable that this is tolerated, with focus on maintaining optimum vitality within the tree. If the disease becomes out of control, it may be necessary to spray with an appropriate fungicide available from most good garden centres. Please see our website for recommended product which will treat this.



## APPLE SCAB

**SYMPTOMS:** Apple scab is a common fungal disease in the UK. Spores are airborne and, when the conditions are right, they can infect leaves and fruit. Trees are most susceptible for the first 2 seasons after planting, after which the trees resilience greatly increases.

**CONTROL:** This disease will have very little affect on the trees long term health if the prevalence of disease is relatively low. If visually the disease can be tolerated for the first couple of seasons, the best course of action is to be diligent clearing up fallen leaves in autumn. The disease can 'rest' on fallen leaves and if these are left to blow around your garden, when temperatures increase the following spring, spores will be released which may reinfect the tree. In severe cases fungicides are available from most good garden centres. Please visit our website for recommended products.



## BACTERIAL CANKER

**SYMPTOMS:** There are many species of bacterial canker which can infect the leaves and stems of tree species. They tend to cause dieback, open lesions and sometimes the oozing out of a jelly like liquid. Cankers begin to form in mid-spring and soon afterwards shoots may die back.

**CONTROL:** It is best to prune out the canker with clean secateurs, cutting back into clean disease-free wood. Carefully remove infected branches to ensure they do not brush healthy growth. Dispose of offsite or burn diseased wood making sure not to spread the bacterium in the process and then disinfect your tools and wash your hands carefully.



## QUINCE LEAF BLIGHT

**SYMPTOMS:** This disease is becoming increasingly common on Hawthorn species during wet summers as well as Quince trees. The disease is spread in the air and by rain splash and causes leaf spots with grey centres all over the tree. The leaves may also prematurely turn colour and fall off. Fruit may also be spotted and distorted.

**CONTROL:** As with many diseases, keeping the tree in the best possible health will give the greatest chances of the tree resisting disease. This disease overwinters on fallen leaves and so diligence with clearing up and disposing of all fallen leaves is important to ensure that the disease does not re infect the tree the following year. In severe cases, it may be necessary to spray with a fungicide which is available at many good garden centres. Please see our website for a recommended list of products



## VERTICILLIUM WILT

**SYMPTOMS:** This disease is caused by a soil borne fungus which can remain dormant in the soil for many years until a suitable host is found. Stressed trees are more likely to contract the disease, with some varieties more susceptible if planted on heavy, wet clay. The disease is often first seen as the wilting of certain branches during hot weather. This is caused by fungal spores physically blocking the water conducting vessels in the tree. As the branches become completely blocked off, they will fail. When a branch with suspected verticillium wilt is cut there will be black staining present. This is simply the fungal spores.

**CONTROL:** All effective fungicide controls have been removed from the market. It is possible to hard prune trees, removing all infected growth. It is CRITICAL that pruning tools are sterilised in between each cut. Growth must be carefully removed and disposed off site or burned. The tree would benefit from afternoon shade and being given a low nitrogen, high phosphorus feed. If the disease is widespread throughout the tree, there is little further treatment.



## CORAL SPOT

**SYMPTOMS:** This is a fungal disease which primarily infects dead or decaying branches. However, as shown in the photograph, it can retreat back into live wood and cause extensive dieback in trees.

**CONTROL:** Pruning out infected growth in dry weather is the best course of action. Pruning tools must be sterilised in between each cut made, and branches carefully disposed of. Pruning 10-15cm back into healthy wood is advised to ensure none of the disease is left in the tree. Keeping the tree in good health will ensure that the tree has the best chances of resisting further infection.



## SHOT HOLE DISEASE

**SYMPTOMS:** Shot hole a fungal disease which causes many tiny, perfectly round holes in leaves. This gives the appearance that the tree has been blasted with a shotgun. If conditions are right, (12-17°C and the leaf surface remains wet for 12-24 hours), and if a fungal spore lands on a leaf, it will germinate and cause an area of cell death which will eventually fall through leaving a hole.

**CONTROL:** Mainly affecting Prunus species during the first few seasons after planting, this disease is not serious and may only persist until the tree is established. The disease has little effect on the health and vigour of a tree and will grow through it quickly. No known controls. Keeping the tree in optimal health will reduce the chances of infection.



## PHYTOPHTHORA

**SYMPTOMS:** There are many species of Phytophthora which are microscopic fungus like organisms which causes rotting of roots and the bases of stems. This disease is soil borne and may survive in the soil for many years in the absence of a host until a suitable tree is found. Bleeding wounds and open lesions are common symptoms.

**CONTROL:** No known control for this disease. Keeping the tree in optimal health and ensuring there is no standing water around the tree are the best preventative measures.

