CONTENTS

• INTRODUCTION
  • Choosing which trees to grow and where
  • Focus on tree health
  • A preventative approach

• Identification guide – orchard diseases and pests

• DISEASE – cause, symptoms and control
  • Scab (black spot) – apples and pears
  • Silver leaf – plums, damsons, cherries, apricots
  • Bacterial canker – Prunus spp.
  • Fireblight – mainly pears
  • Apple powdery mildew – all fruit trees
  • Canker – apples and pears
  • Fruit brown rot – apples, pears and plums
  • Phytophthora root rot – all fruit trees

• PESTS – nature knows best
  • Aphids
  • Apple sawfly
  • Codling moth
  • Pear sawfly
  • Pear midge
  • Winter moth
  • Leaf miners
  • Birds, Squirrels etc.
Introduction

The ‘holistic’ approach to orcharding is one that considers the orchard as an ecosystem made up of many components, from the life in the soil beneath the trees to the other plants in and around the trees. We seek to design and nurture a balanced system. In natural systems diversity is strength and resilience: a larger range of predators for example means there is less chance that any one ‘pest’ organism will become a problem.

Choosing which trees to grow and where

A simple yet often overlooked consideration is choosing disease resistant fruit cultivars and planting well in the correct location. Making good choices about what species and cultivars to grow is the first step towards creating a successful orchard; the wrong tree in the wrong place means that you'll be struggling from the beginning. It is worth spending some time to do research around selection. The three main things to consider are species (e.g. apple, plum, apricot), cultivar (e.g. Bramley, Victoria, Tomcot etc) and the rootstocks, which will have differing levels of hardiness and therefore suitability for different soil types.

How many hours of sunlight does the tree require to fruit successfully? Will it get the light it needs where you plan to plant it?

Does the soil become waterlogged during the winter? These are the sorts of important questions that need to be addressed when choosing where to plant your orchard, and most can be answered by observation of the site through the season (see resource on planting your orchard).

Occasionally, when pests or diseases do get out of hand, it is possible to spot treat problems with a limited number of organically approved plant protection products (most of which are derived from natural plant extracts), although applications of these should preferably be carried out by someone who can take appropriate care.

Orchard Diseases and Pests
When choosing varieties you may research what was grown locally in the past as these should be suited to local conditions. However, it should be considered that there can be a trade-off between planting older heritage varieties and more modern disease resistant varieties. Some of the older varieties may not be suited to organic cultivation, that is to say they are very susceptible to diseases like scab and mildew that would be dealt with using fungicides in a commercial orchard set up. Choosing varieties that have had higher levels of pest and disease can make life much easier if you’re not using chemicals – for example planting a variety that is susceptible to canker on a heavy clay soil (which can increase canker) is asking for trouble. However, there is huge value in planting regionally distinct varieties in order to retain the valuable genetic diversity of species like apple. Planting a mixture can be a good option and ensure that you ‘don’t put all of your eggs in one basket’.

Focus on tree health

If you are sick and your immune system is lower than usual you may be weakened and be more susceptible to further pathogens/illness. This is the same for trees. A tree lacking nutrients or water will end up stressed and this can lead to further problems – for example, aphids can detect stress hormones from a tree and are attracted to already weakened trees. Aphids are vectors of disease, spreading disease from plant to plant. The key defence to all pest and diseases is a healthy plant.

Trees use a range of strategies to defend themselves against the range of creatures and pathogens that may attack them but it all costs energy. They can only successfully defend themselves if they have enough resources to fulfil their basic need to grow and reproduce. A programme of aftercare is then essential to get your trees off to a good start in their new position. Watering, weeding and maintaining a well-mulched zone around the base of the tree are the key tasks for the first few years after planting and all three will speed up the establishment of the tree (a tree is ‘established’ once it has grown enough roots to keep it alive without the need for additional watering and growth rates become more or less consistent from year to year). Feeding the tree once it begins to fruit properly after a few years will ensure that the nutrients used to create each years’ harvest will be replenished.

A preventative approach

As an organic orchardist, you should aim for a preventative approach to dealing with pests and disease; by maximising tree vitality and resilience, while seeking to break the life cycles of the problematic organisms. This hopefully negates the need for a reactive or curative approach.
which deals with the problem once it has started. The latter usually ends up requiring the use of chemical interventions like fungicides and pesticides, which we try to avoid in organic growing. In a preventative approach, observation is key, so the more you can get to know your trees and look at the leaves and shoots throughout the year, the more likely you’ll spot any issues before they get out of control. Many pests and disease are seasonal, so you’ll learn to anticipate their arrival and build this into your annual orchard care calendar.

It’s best to aim for an orchard that provides habitat and food for a range of ‘beneficial’ predators that will eat your pests and keep them in control. A single pair of Blue tits or Great tits will skilfully pluck thousands of caterpillars from an orchard in a single spring. Ladybird and hoverfly larvae consume thousands of aphids. Ground beetles, lacewings, plant bugs, earwigs and wasps all do the same. Then there are spiders. Those that do not get eaten by predators still have to avoid parasitism by thousands of species of parasitic flies and wasps.

Traditional control methods for many pests include tying grease bands around the stem of trees to prevent them climbing up during winter and spring. Biological pest controls such as pheromone traps can be used in spring from late May onwards to control pest species such as codling and plum moth. Such traps use specific chemical pheromones to lure in and trap male moths, preventing them mating with the females. However, you may find damage and losses are too modest to require much action.

DISEASE

Scab (black spot) – apples and pears

Cause

Scab is a fungal disease of apples, pears and sometimes peach trees. It is particularly a problem in areas of high rainfall and humidity or where the soil is heavy or badly drained. It is often found in trees where pruning has ceased and the canopy has become overgrown; the resulting congestion means that moisture is retained in the canopy for longer after rainfall, creating the right environment for scab spores. Outbreaks are worst in cool, wet periods in spring and early summer. Recent warm winters in the UK have resulted in leaves hanging on the trees for longer and new leaves developing earlier, which, when combined equals more scab (there is less time for fallen leaves to break down).

Some varieties are especially susceptible, notably Cox’s Orange Pippin and crab John Downie.
**Symptoms**

The leaves become puckered and develop dark, rounded, dusty blotches and fall prematurely. Young shoots can also develop pimples like blisters which turn to cracks and scabs. The fruits develop brown or blackish corky scabs, cracks and blisters on the skin. These are usually only skin-deep and do not affect the yield or flavour. However, affected fruit may split, making it vulnerable to other infections.

![Scab on pear, by Russell Miller](image)

**Control**

Choose scab resistant cultivars to plant. Remove leaves and fallen fruit in the autumn to destroy the over-wintering stages of the fungus – you could remove them from your site or burn them, but another strategy would be to allow infected leaves to fall but speed up their degradation on the ground. This can be done my mowing the leaves to increase the surface area on which microbes can work on, or by sprinkling a N-rich liquid such as comfrey or nettle tea or urine over them to boost bacterial activity; or both. Each has the same affect – the leaves break down more quickly and are taken down by worms leaving the overwintering spores to perish as they lose their habitat. Some control can be gained by pruning out obvious overwintered infections which can be seen as discoloured and stunted shoots. More generally, good pruning practise that allows airflow in the canopy and prevents prolonged humidity after rainfall can go a long way to preventing scab. For the same reasons, good tree spacing at planting is also important, so that there is not too much overlapping canopy between trees.

**Silver leaf – plums, damsons, cherries, apricots**

**Cause**

This is a fungus (*Chondrostereum purpureum*) that is active in the living sapwood (rather than the dead heartwood) of trees. Silver leaf can affect a wide range of fruit and ornamental tree species, particularly *Prunus* species.

Fruiting fungal brackets form on dead, previously infected branches during autumn. Spores released from these are carried in the air, infecting new trees by entering living tissue through fresh wounds caused by pruning, rubbing or
other damage. They produce fungal threads which grow through the living wood, producing toxins in the sap and killing the tissues. Large wounds (>5cm diameter) are more susceptible to silverleaf infection, due to a reduction in the inhibitory influence of the cambial layer and their greater surface area.

Rainfall and humidity determine the number of spores released from the fruit bodies. Large numbers of spores are released on days when it is rainy, foggy or calm and there is high humidity. Spore numbers drop rapidly on sunny days with low humidity and strong winds. Temperature also has an important influence on the numbers of spores released; this peaks at around 18°C and then declines rapidly above 20°C. Trees are most vulnerable to this in winter: rainfall and relative humidity are higher in winter; reduced evaporation enables fungal fruit bodies to remain hydrated for longer; fruit trees are dormant and more susceptible to infection; and conditions are more likely to be suitable for fungal germination.

**Symptoms**

The leaves develop a silvery sheen, caused by air between cells in the tissues. The foliage and shoots then discolor and wither, dying off progressively as the disease works back along the branch.

As infected branches thicken they develop a purplish stain in the centre which can be seen when cut across. Sometimes the tree may bear flat, small, purple or brown fungal bracket growths with a wavy margin and a whitish woolly upper surface, produced on dead, previously infected wood. Other symptoms can include reduced leaf area, reduced root growth and smaller and fewer fruit.

**Control**

Silver leaf is incurable, but trees with only mild infections may recover from it. Diseased wood should be pruned out, cutting back to a point 10-15 cm after an unstained cross-section is reached. The further back into a tree the fungus has spread the less chance the tree has of recovering and if it has reached the main trunk, it may be necessary to remove the tree completely.

There is no chance of infection from the silvered leaves and transfer by secateurs, pruning shears and root grafts is not significant. Similarly, trees and branches killed by silverleaf do not carry infective material themselves. Any bracket fungi should be removed from the orchard and burnt.

Grow resistant varieties. Partially resistant plum cultivars include: 'Black Prince', 'Blaisdon Red', 'Jefferson', 'Marjorie's Seedling', 'Merton Gem', 'Monarch', 'Pershore Yellow Egg', 'Purple Pershore', 'River's Early Prolific' is particularly resistant. 'Victoria' plum is particularly susceptible.

Regular maintenance pruning, maintaining an open structure and removing damaged wood, will minimise the chances of infection occurring. Pruning should be confined to small branches where possible. Any pruning should be carried out between May and August (any month without an 'r' in!), when there are fewer fungal spores present in the air and the tree is actively growing. This allows the rising sap to 'flush out' the wound which will also heal
more quickly. Ideally, pruning should be undertaken on warm, sunny days, preferably with some wind, when there has been no rainfall for 24 hours.

**Bacterial Canker - Prunus spp.**

Bacterial canker (*Pseudomonas syringae* pv. *morsprunorum* and *P. syringae* pv. *syringae* – where ‘pv’ stands for pathovar, a bit like a subspecies)

These give rise to small cankers in which the bacteria survive the winter.

**Symptoms**

Brown spots often ringed with a yellow halo that appear on the leaves in summer – known as ‘shothole’. These dry and turn into holes, causing premature leaf fall. Shallow hollows that exude gum may also appear on the branches. The main other symptom is cankers. These may appear on twigs, branches and the trunk. Inside the cankered areas, bark becomes darker, looks wet and shrivelled. These can kill the branch completely, causing the tree to die back. Cankers can kill the tree if they completely girdle the stem.

**Cause**

A bacterial disease of *Prunus* species (stone fruits) most common on cherries and plums, but also affecting apricots, peaches and ornamental *Prunus* species. “Victoria” plum and “Laxtons” gages are particular susceptible. The disease weakens the plant and can cause extensive die back if not treated. Plants growing in poorly drained soil are more susceptible to this disease.

The disease infects the leaves in summer, gaining entry through stomata. During autumn, bacteria can enter the scars left by falling leaves. They can also enter the bark through any natural bark openings and injuries, or through pruning wounds.

Control

There is no positive remedy, apart from pruning off affected growth during July/August. You’ll need to go back as far as there is ‘good’ cambium. Trees often recover and become immune. Pruning should be avoided during winter dormancy (see Silver leaf below), and tools should be wiped with disinfectant between each cut.
Certain rootstocks may convey some resistance to bacterial canker, for example:

- Myrobalan and ‘Marjorie’s Seedling’ for plum
- F12/1, ‘Merton Glory’, ‘Merton Premier’ for cherry

**Fireblight – mainly pears**

**Cause**

This bacterial disease, *Erwinia amylovora*, affects apples, quinces and related trees, particularly pears – not the *Prunus* species.

Although heavy persistent infections can be fatal, fireblight rarely kills a tree completely and with correct pruning the tree is likely to recover and not be re-infected for many years.

While hawthorn in hedges is good for attracting pollinating insects it may also harbour fireblight. Hawthorn has been a major cause of spread through the country. Indigenous to North America, fireblight was first recorded in the UK in Kent in 1957 and is now widespread in south and central England, with scattered occurrences in northern counties.

Fireblight is easily spread from one plant to another by rain splashes, birds, bees and other pollen and nectar gathering insects, and by an infected plant rubbing against its neighbour. Infection usually occurs in spring through lenticels or wounds in young shoots, or through blossom.

The time of maximum risk of infection is late spring or early summer when the bacteria emerge from their dormant period and the oozing from cankers is most pronounced. Warm and wet weather conditions facilitate this. For this reason, late flowering varieties are particularly susceptible. Cankers become dormant in autumn.

**Symptoms**

Fireblight gets its name from the burnt appearance of affected blossoms, leaves and twigs, but it can affect all aerial parts of the tree. Flower clusters wilt and turn brown following blossom infection. Fruits turn brown or black and become shrivelled, but remain attached to the tree.

In more advanced cases, cankers form on branches. These look like sunken, discoloured oozing patches surrounded by irregular cracks in the bark. The translucent amber or reddish ooze contains masses of bacteria, which may then be distributed to other parts of the same plant or to different plants, causing secondary infections.

When the bark is removed, a reddish-brown discoloration of the underlying tissues may be revealed.
Control

Although heavy persistent infections can be fatal, fireblight rarely kills a tree completely and with correct pruning the tree is likely to recover and not be re-infected for many years.

There are no effective chemical measures available in the UK to control fireblight. The only solution is to remove the wood back 60cm below the affected area. Young trees and shrubs are best removed entirely. Pruning should be carried out in dry weather, tools should be sterilised between cuts and the diseased material should be removed from the orchard and burnt. The whole orchard and surroundings should be carefully inspected for further signs of infection.

Late-flowering varieties are more susceptible, so early-flowering cultivars may be a better choice. In addition, planting on resistant rootstocks can help prevent infection. ‘Old Home’, an American pear variety with a degree of fireblight resistance, could be used. ‘Pyrodwarf’ - a semi-vigorous rootstock that has a similar vigour to ‘Quince A’ rootstocks, has been used for bush pear trees.

Trees become less susceptible to fireblight as they get older. Generally, trees over 20 years of age are unlikely to be affected. However, even 200-year-old trees can succumb to fireblight.

If there is a severe fireblight problem in your orchard it may be worth trimming hawthorn hedges annually to reduce the numbers of flowers, which are a major site for fireblight infection. However, this will also reduce the numbers of pollinating insects visiting the orchard, and reduce the wildlife value of the hedges.

Apple Powdery Mildew – all fruit trees

Apple mildew is very common and is caused by the fungus *Pododsphaera leucotricha* and affects shoots, leaves and sometime flowers and fruits. exacerbated by drought. Some apples varieties are far more susceptible than others.
underside, and less commonly on flowers and fruits too. The disease causes stunting of shoots on young trees, potentially causing poorly formed and misshapen trees and the reduction of flowers and fruiting spurs on older trees.

**Control**

Mildewed shoots can be spotted during dormancy (winter) and should be pruned out during winter pruning. Prune three buds beneath the visible infection. Look out for new infection on new shoots during the spring and cut out the infected tips (take care not to spread the spores to uninfected shoots by putting the prunings into a plastic bag as work tree to tree). All infected leaves and shoots should be disposed of offsite. Thinning the tree to create a more open structure will help reduce any occurrence. An organic mulch applied around the base of young fruit trees will help maintain moisture, as will regular watering during the growing season – especially important if you’re in a warmer, drier region like the South East.

Very resistant apple cultivars include: Discovery, Ellison’s Orange, Lord Lambourne, Spartan and Worceester Pearmain.

**Canker – apples and pears**

**Cause**

Not the same as bacterial canker, *Neonectria ditissima* affects the majority of fruit trees, but most often apples and pears. It is caused by wind-borne fungus invading natural openings or scars left by fallen leaf stalks and pruning. It is often problematic on heavy and poorly drained soils.

Symptoms

Sunken lesions and fissures of dead bark appear on branches or main stems showing as dark water-soaked patches surrounded by cracked or corky, brown, flaky bark. Branches may swell up around the infected area. Canker can also be identified by its fruiting bodies which appear as tiny white dots in summer, and red dots in autumn. If left unchecked it will cause misshapen growth, eventually girdling branches and causing die-back. If it surrounds the stem the branch will die.
**Control**

The only effective way of removing canker is by cutting out affected material to clean wood and burning all infected branches. Affected larger branches can have affected wood scraped away with a sharp knife, removing all parings. If canker has reached the main trunk it may be necessary to remove the whole tree. Avoid susceptible varieties, especially if planting on cold, wet soils like heavy clay (where canker is more common). Can also be caused by a lack of nutrients, so make sure your trees are well fed (see nutrient deficiencies resource). Aston garlic and citrus fruit tree wash is a treatment that can be bought that some growers believe can help to dry up canker.

**Fruit Brown rot – apples, pears and plums**

*Brown rot on apple, by Arthuc01 [GFDL or CC BY-SA 3.0], via Wikimedia Commons*

**Cause**

Caused by a fungus, this affects the fruit of apples, pears and plums.

**Symptoms**

The fruit first develops brown areas of soft decaying flesh which quickly envelop the whole fruit, followed by concentric rings of yellowish white mould. Fruit that remains on the tree shrivels up and persists through winter.

**Control**

All rotting fruits should be removed from the tree and destroyed, including mummified fruits left hanging during the winter.

**Phytophthora (root rot) – all fruit trees**

*Phytophthora by Andrej Kunca, National Forest Centre - Slovakia, Bugwood.org licensed under a Creative Commons Attribution-Noncommercial 3.0 License*

Phytophthora is responsible for much crop damage. From potatoes to oak trees, strawberry plants to orchard fruit, no plant seems to be immune. They are host specific, so can spread from botanically related plants when there is poor orchard hygiene. Members of the rose family such as hawthorn can be hosts, for example.

*Phytophthora damage occurs at root level, but you will notice the wilting foliage, yellowing leaves and branch dieback. If you are able to see the roots, they will look*
rotten, but without the fungal evidence you would see with honey fungus.

Usually a problem in water logged soils.

**PESTS - Nature knows best**

**Newer orchards**

It usually takes two to five years for predator and parasite numbers to build up and become balanced, so the first few years are often the worst for insect pests like aphids and codling moth. Be patient. The need for manual intervention in the first year or two, rubbing off aphids or collecting and disposing of damaged apples, will ease as nature catches up with your new habitats. All species have cycles so one year may be worse for a particular pest but it will be better the next year.

**Aphids**

Aphids suck sap from leaves and shoots causing leaf curling and tip distortion. In doing so, they inadvertently spread disease between plants and are known as major vectors of plant disease. They multiply very quickly and can stunt growth but they are rarely a major problem in the long term. The first few years are key since this is when young trees are at their most vulnerable. Even severe infestations have little long term impact on larger trees. Control aphids by removing or rubbing them off by hand, washing them off with water pressure or introduce ladybird larvae directly onto the affected tree. You can also use garlic spray. Fortunately, there are many aphid predators that can be attracted into your orchard.

It is worth noting that predators will only arrive if there are enough prey in any location to make it worth their while....

**Top Tip**

If possible, allow a few small nettle patches in your orchard. These will attract a species of aphid that only feed on nettles. This means that while the new leaves are developing on your trees in the spring, the aphid population will have already begun to increase, resulting in a build-up of aphid predators like ladybirds. Once they’ve cleared up the nettle aphids, they’ll be hungry for more and will move up into your trees to deal with any aphids there.

**Apple Sawfly**

Aphids sizing up aphids and ant ‘farmer’ via Pixa bay

Aphids suck sap from leaves and shoots causing leaf curling and tip distortion. In doing so, they inadvertently spread disease between plants and are known as major vectors of plant disease. They multiply very quickly and can stunt growth but they are rarely a major problem in the long term. The first few years are key since this is when young trees are at their most vulnerable. Even severe infestations have little long term impact on larger trees. Control aphids by removing or rubbing them off by hand, washing them off with water pressure or introduce ladybird larvae directly onto the affected tree. You can also use garlic spray. Fortunately, there are many aphid predators that can be attracted into your orchard.

It is worth noting that predators will only arrive if there are enough prey in any location to make it worth their while....

**Top Tip**

If possible, allow a few small nettle patches in your orchard. These will attract a species of aphid that only feed on nettles. This means that while the new leaves are developing on your trees in the spring, the aphid population will have already begun to increase, resulting in a build-up of aphid predators like ladybirds. Once they’ve cleared up the nettle aphids, they’ll be hungry for more and will move up into your trees to deal with any aphids there.
Similar to codling moth sawfly larvae live inside apples. However, being active in May, they occur much earlier in the season and inhabit young fruit. Because the larvae often eat the central reproductive core trees tend to drop infected fruits and sawfly can actually assist with fruit thinning.

Larvae that fail to penetrate the apple’s outer skin cause the familiar ribbon shaped scars or blemishes on ripened apples. These apples remain both good to eat and have fertile seeds.

You can break the apple sawfly lifecycle by removing infected fruit during thinning along with promptly fallen fruit.

**Codling moth**

Codling moth larvae, despite being caterpillars, are commonly known as ‘the maggot in the apple’ living inside apples and often ruining the fruit. They are hard to distinguish from apple sawfly larvae but occur much later in the season. Many infested fruit will fall prematurely as the tree rejects them but larvae can move between fruits causing significant damage.

Pheromone traps can be used from late May to control codling moths. They can also be controlled by tying cardboard or sacking around the trunk in the summer when the caterpillars are looking for somewhere to pupate; in the winter these materials can be removed and destroyed. However, codling moths will always be present. If you build up natural populations of parasitic wasps will reduce their impact. Bats may also provide effective control if present – providing bat boxes if you have bats in the area can be an effective way to help to control the moths – so you can sleep soundly knowing that your pest control is being dealt with!

**Pear sawfly**

The delightful looking larvae of these sawflies (*Caliroa cerasi*) eat the leaves of cherry, pear and plum trees. Their slime coating makes them unpalatable to birds and other potential predators. They drop from the tree to pupate below soil level. The adult sawflies climb back into the tree to mate and she lays her eggs on the leaves.

You can deal with them by blasting the tree with a jet wash or by spraying on diatomaceous earth.

**Pear midge**

The larvae of these tiny flies can decimate a pear crop. The fruitlet turns black before dropping off in June.
Control

It’s worth removing infested fruitlets to break the insect’s lifecycle.

If infestation is bad you may gently disturb the soil underneath the tree during late winter so expose them to birds (allowing chickens to forage around your orchard soon takes care of these larvae!) – however, as the larvae burrow to 5-7.5cm deep, you may end up damaging the trees’ roots.

One option is to pick up and remove all the infested fruits in the summer (destroy these – don’t add them to the compost!) and then peg down some plastic sheeting around the base of the tree to aid collection of further infected fruits and prevent the larvae from reaching the soil. Repeating this over a few years should reduce the population size significantly.

Winter moth

Winter moth caterpillars feed on young leaves, flowers and fruit in the spring. Although they are usually associated with apple, they will also eat cherries, plum and pear. The caterpillar uses silk to create a shelter by binding leaves together.

Sometimes they can be found hanging from the tree on a silk thread.

The wingless females climb up the trunk to lay eggs between October and April – this is the best time to focus on stopping them. Grease bands which can be bought from most garden centres and are attached around the trunk will prevent them climbing up the tree. Be sure to put bands on any tree stakes also as they will climb the stakes and get onto the tree that way.

Attracting birds like Blue Tits and Great Tits helps to keep their numbers down, especially during the nesting season where there are hungry chicks to feed and the adults are actively hunting all day. Providing well positioned nesting boxes and a water source will both encourage tits to take up residence in your orchard and they’ll eat a number of different fruit tree pest species.

Leaf miners

Several insects have larva that feed on leaf tissue – including some moths, sawflies, flies and beetles. The problem is usually just cosmetic and not significant enough to affect photosynthesis.
Birds

Some bird species can become a problem if they attack buds, blossom and fruit too much. Species like Bullfinches may eat the buds, so find out if they are a common species to your YMCA. In the London area the exotic Ring Necked Parakeets are spreading after being introduced by accident! They are very efficient at demolishing whole apple crops!!

Generally however, they are not likely to be an issue for most YMCA sites and birds in your orchard is a good sign; they’ll likely be doing more good than harm.

If they are a problem, netting is often the only option to prevent birds eating fruit but is only practical on small trees and can be harmful to the birds if they become tangled. Scare crows may be useful, if moved frequently (birds aren’t stupid!), as might large imitation owls or bird of prey mimicking kites that can be attached to the ground. In cherry orchards, every few minutes you’ll hear a loud ‘BANG’ during the fruiting season – this is caused by a propane-powered gas gun which produces a periodic explosion! This may not be a practical option for most YMCAs or Foyers!

Squirrels

Grey squirrels can be a severe pest especially with nut crops, particularly in urban areas where they may also take fruit from fruit trees. Where trees have a clear stem, e.g. walnut, baffles may prevent squirrels from accessing the tree, but only if the tree stands far enough away from other trees and buildings so that they can’t jump onto it. They are crafty and will try hard to get to your crop! Usually, there is not a lot that can be done unless you are prepared to trap or shoot them – which again may not be practical or desirable! Note: as the grey squirrel is an invasive species, any trapped must then be killed by law!

Dogs

In many urban areas people and dogs are by far the greatest threat to young trees. Dogs can ring bark even older trees in seconds and tree guards are usually an unattractive necessity. The only way to protect trees is by putting sturdy guards around them.

People

People can be biggest pests in urban orchards because they may snap trees when harvesting fruit or deliberately vandalise trees. Other common culprits are the contractors who are paid to manage the grass around trees by mowing and strimming. A strimmer that gets too close to a young fruit tree will strip the bark off and allow disease in, or kill it by girdling the tree. A good layer of mulch should prevent this from happening. Heavy duty guards can also be applied.
DISEASE

Scab (black spot) – apple

Scab (black spot) – pear leaves

Silverleaf – plums, damsons, cherries and apricots

Bacterial canker

Bacterial canker on cherry trunk

Fireblight in cut stem with red staining

Content provided by The Orchard Project
Apple Mildew

Brown rot on apple

Canker on apple

Phytophthora
PESTS

Aphids

Pear sawfly

Pear midge damage

Apple sawfly maggot and damage

Leaf miner moth & leaf damage

Content provided by The Orchard Project