Forest Operations Frequently Asked Questions

1. Phytophthora ramorum

1.1. What is *Phytophthora ramorum*?

Phytophthora ramorum (larch disease) is an algae-like organism called a water mould. It causes extensive damage and death to more than 150 species of plants and trees, which were widely planted historically for the timber market.

As of 2021, over 4000 sites have been investigated and 14,400ha of larch found affected by this pathogen, on both private and public land.

This short video explains more.

1.2. Is it only larch trees which are affected?

Larch disease has also been found in sweet chestnut trees (*Castanea sativa*) at a number of locations in southern and central England.

Phytophthora ramorum disease on tan oak trees in the USA is known as 'sudden oak death'. However, the genetic forms of the organism found in the UK have had little effect on our two native oak species, which are English oak (*Quercus robur*) and sessile oak (*Querus petraea*).

Other conifer species such as Douglas fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis),* noble fir (*Abies procera)*, and western hemlock (*Tsuga heterophylla*) can be infected when growing near infected larch.

1.3. How do you test for the disease?

We undertake regular aerial plant health surveys and flights. They have identified significant outbreaks of larch disease across the country. Once identified, our Tree Health Teams work with Forest Research to collect samples and confirm the infection on the ground.

Individual branch and crown dieback are the first symptoms that are normally seen, spreading through the crown and to the stems as the disease progresses. Symptoms on the bark include resin bleeds and lesions. Resin bleeds can dry to a white crust on the bark. The inner bark under the bleeding area is usually discoloured and dying.

Trees die when the lesions become extensive on the main trunk. Shoots and foliage can also be affected. Infected shoots and foliage will have wilted, withered shoot tips with blackened needles. The infected shoots shed their needles prematurely.

1.4. How did the trees catch the disease?

Larch disease was first discovered in the UK in 2002 on an imported *Viburnum* plant. It can spread naturally in wind-blown rain (up to four miles) but it is the plant trade that spread this disease across the globe.

Before discovery of larch disease, there were approximately 154,000 hectares of larch planted in Great Britain, 5% of the total woodland area. Most of this has been lost and larch can no longer be planted for timber.

In Wales, larch growth is uneven. It is a dominant species in the south, where it was originally planted to supply the mining industry. Roughly 20% of crops in the south of Wales were larch crops at the beginning of the outbreak.

1.5. Is larch disease dangerous to humans, dogs and wildlife?

No, larch disease only affects trees and plants.

2. Tackling larch disease

2.1. Do you have to cut them down? Isn't there a way to treat the disease?

Cutting down trees (or 'felling') stops the spread of the disease. If the infected trees are not cut down, the disease can potentially infect other species in the locality, and we would not have any control in the spread of the disease.

Destroying the tree is the best way to slow the spread of the disease. To date there has been no effective method developed for treating the disease.

2.2. How big is the area you must fell?

By law, NRW and private landowners must remove all larch that has been issued a Statutory Plant Health Notice (SPHN) by Welsh Government. The area will depend on what is covered within the SPHN. It is important to note that the spread of the disease from 2010 has changed from year to year, depending on weather conditions. Therefore, NRW is undertaking the planning for the removal of all larch from its woodlands across Wales.

2.3. How long will the operation take?

NRW and its legacy body (Forestry Commission Wales) have been removing larch since 2010. Within the south east region, most larch crops will be removed by 2025.

Welsh Government Woodland Estate (WGWE) also has a number of woodlands where agreements need to be made with private landowners to gain access to undertake felling. Making these arrangements takes time and infrastructure will sometimes need to be built in order to carry out the work. With this in mind, the larch removal programme could go on for longer.

3. Working near communities

3.1. Will you have to close access to the forest during felling?

We understand how much people value their local woodland and closing an entire woodland is always a last resort. The health and well-being benefits associated to being out in the woods have been well documented and is a part of the Welsh Government's Woodland for Wales Strategy.

During forest operations, we will endeavour to keep as many trails, footpaths and forest roads open to the public as possible. However, this is not always possible and there are times when areas of the woodland must be closed to ensure the safety of forest users and our forest operators.

The areas closed can often feel a little excessive to the public, but there is good reason for this. There are safety issues associated with mechanised harvesting machinery which can result in injury or even death for machine operators and bystanders.

Please obey signage associated with harvesting activities as it is there for you own safety.

3.2. I use this woodland every day, why can't I keep using it when I know the contractors are not in there working?

It is not always easy to know when a harvesting work is taking place. Even when the harvesting machinery isn't working, there can be other operational activity occurring within the wood. These activities also have risks associated with them. Machines can also break down and can be waiting for parts, which means that trees can be left unsafe. If a site is closed to the public, it is closed for their own safety.

3.3. At what time will work take place during the day, and how many days in the week?

This depends on the site and how close it is to local communities. Generally, work will take place during normal working hours (no use of saws/machinery between 7:00pm and 8:00am; no haulage between 6:00pm and 6:00am). If the site is not close to local communities, hours can be extended. Bank Holiday and weekend working must be approved, and if the site was close to a local community, approval would not be given.

3.4. I'm worried about the level of noise there is going to be during the work, what are you going to do to alleviate this?

All sites are assessed for how close they are to local communities before operating hours are agreed. Purchasers/contractors must follow certain rules, such as start and finish times for working with machinery and moving timber around to ensure as little disturbance as possible to local communities.

3.5. Where can I walk my dog when the forest operations are going on?

We will always re-direct paths and Public Rights of Way where possible. However, this cannot always be done and if this is the case, you will need to find alternative arrangements for walking your dog while the operations are underway.

3.6. How will you get the timber out of the forest?

The timber will leave the forest on timber wagons on a set route. The route will be use public highways and will be chosen to ensure as little disturbance as possible to local communities.

The number of lorries is dependent on the size of the coupe and the amount of timber produced, and this can vary from site to site. When a site is close to a local community, we will restrict the number of timber wagons to a maximum of eight per day. In built up areas there will also be a further restriction on this activity to hours outside mornings and evening rush hours.

3.7. Why can't the wood be given to local people to use and collect themselves?

The wood is an infected material and must go to licenced mills for processing.

4. Protecting wildlife during felling operations

4.1. How do you safeguard wildlife during felling?

Felling areas of woodland (called 'coupes') takes two years to plan before the work is carried out. This allows us to ensure that there is enough time to undertake all ecological surveys required for the coupe, including survey of birds, bats, badgers, fauna, flora and other European protected species.

All felling is conducted in accordance with the UK Forestry Standard, which outlines best practice when dealing with a number of these species. NRW also has its own internal conservation policies to further protect and minimise any disturbance to species found within its woodlands.

4.2. Why is felling taking place during bird nesting season?

Sometimes, in order to comply with the Statutory Plant Health Notice and due to the urgency to remove such large areas of larch, it is necessary for operations to continue during bird nesting season (February-August).

Where this is the case, extensive surveys are conducted in the woodland to identify potential nesting birds. An exclusion zone is then placed around any nests identified, and our forestry operators will work around these areas until the birds have fledged the nest.

Read more about felling during bird nesting season.

4.3. Why are you cutting them down now?

Quite often the larch that needs to be felled must be felled in accordance with a European Protected Species (EPS) Licence. In order to secure this licence, the operation must ensure the reduction of risk to certain species (mitigation). The ways in which this must be done often mean that the infected trees can only be cut down at certain times of year.

4.4. Why are you removing other trees, which aren't larch?

Occasionally, once we remove the infected larch, it can affect the stability of other tree species. After the larch is removed, we carry out safety inspections of the remaining trees, and sometimes this identifies trees which are unstable and at risk of falling.

While we always try to retain as many of the other trees as we can, such as native broadleaves, sometimes we have to remove other trees as they pose a health and safety risk.

5. Future management of our woodlands

5.1. Is there a chance that larch disease will spread further once you've cut the trees down? How will you know if it is gone?

Unfortunately, larch disease is here to stay. The felling is done in order to slow the spread of the disease rather than stopping it completely. Lowering the levels of spores in the environment will also decrease the disease's ability to infect other susceptible species, which would be devastating to the natural environment.

NRW monitors the spread and reports nationally with its other associated counterpart organisations within the UK.

5.2. Why do you leave logs and brash lying around? The woodland looks messy after felling has taken place.

The removal of the side branches and the tops of the trees ('lop and top') is part of the harvesting process. These are left on site for machines to drive on, ensuring as little ground damage as possible. The lop and top left behind also helps nutrient recycling on the site, ensuring fertility of the soil.

Standing trees are left for several reasons. They may be a different species of tree not affected by larch disease. They may be home to certain animal species, such as bats. Standing trees can also be deadwood, which can be home to a variety of specialised species not found in live wood.

5.3. What happens to all the wood?

The timber is sold and can still be processed and used despite the disease. The trees will be transported to mills to be processed into wood-based products. Depending on how long the disease has been present in the wood determines what

it can be used for. If there is significant decay it may only be appropriate for chip or biofuel. Other uses include wood products for building materials, pallets and fencing. All infected larch must be processed in licenced mills.

5.4. Will you plant new trees?

NRW operates sustainable woodland management and is certified by UK Woodland Assurance Scheme (UKWAS). After felling has taken place, a decision will be made as to whether a woodland can sufficiently regenerate naturally, or whether re-planting will need to take place. Some woodlands have a good seed source and our knowledge of the woodland tells us that it will regenerate itself fairly quickly. In other areas, perhaps where we have had to clear fell large areas, we send teams in to plant new, young trees using a diverse range of species making the woodland more resilient for the future.

How the land will be used in future, will be set out in government policy and our Forest Resource Plans (FRPs). The FRP is developed in consultation with local communities.

When this happens depends on the site and its objectives laid out in the FRP. It may make sense to leave some areas for a few years to see what natural regeneration occurs before committing to buying trees for a whole site. Other areas may have steep slope where it makes sense to plant straight after harvesting, when there are less weeds present on site.

5.5. Why is it important that visitors keep to paths and clean their boots?

Larch disease is spread by water borne spores. This means that mud on your boots and clothing can spread the disease. We encourage you to wash your boots and clothing at home after visiting our woodlands.