

Practical Guidance to Help You Meet the Plant Health Management Standard

Keeping your plants and trees healthy isn't just about how they look, it's about protecting the wider environment we all share.

Plant Healthy Certification exists to help minimise the risk of harmful plant pests and diseases¹ spreading by supporting organisations like yours to take responsible action to protect plant health.

The guidance, examples and templates provided below, and within the 'Resources' section of our website, are designed to help you understand what you need to demonstrate that you meet the requirements of the [Plant Health Management Standard](#). This Standard is a whole plant biosecurity system. As such it aims to help protect the plants and trees that you grow from harmful pests and diseases, and importantly, protect the wider environment that we all share.

The Standard is designed to be applied proportionately to any size of business or organisation. We recognise that many of you will already be doing some of what it requires. In that case this guidance will help you check for any gaps and bring everything together in readiness for your Plant Healthy audit.

The Standard has nine separate sections and, as you work through the process, you may find that putting actions in place to satisfy one section will often support other aspects. The sections of this guidance are ordered and numbered in the same way as the Standard.

Please contact the Plant Healthy team by emailing info@planthealthy.org.uk if you need Word or Excel versions of the templates. **You will need to keep your records and documents up to date by reviewing them annually.**

1. Regulations

There are three key statutory obligations or regulations that you may need to comply with:

- You are likely to need to register as a professional operator with your regional plant health authority. This has the added benefit of putting you in touch with your local plant health inspector who will be able to offer help and advice on protecting your plants and trees from harmful pests and diseases.
 - If you are based in England or Wales, please follow this guidance: [Register to become a plant health professional operator](#)

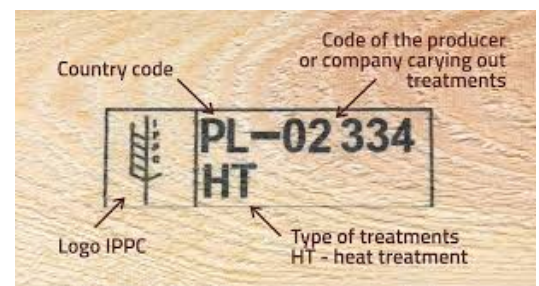
¹ In this case these are 'notifiable' pests and diseases i.e. any non-native pest or disease that has the potential to cause significant damage to our trees, crops, gardens and wider countryside. Such pests and diseases must be reported to the relevant plant health authority if suspected or confirmed.

- In Scotland please return this [form](#) to SASA
- For Northern Ireland information on how to register with DAERA is available [here](#)
- In other regions please contact the relevant plant health authority
- You might also need to become authorised to issue [plant passports](#). The guidance at the preceding link explains more. If you do need this please follow this guidance (for GB): [Issue plant passports to move regulated plant material in Great Britain](#). If you're still unsure if you need to issue passports, you should contact Animal and Plant Health Agency (APHA) at PlantPassportRegistration@apha.gov.uk
- You may also need to register as a supplier of [Forest Reproductive Materials \(FRM\)](#) with the Forestry Commission and comply with FRM regulations for GB.

This guidance [booklet](#) will help you decide which of the above regulations you need to comply with and explains how you can get started. Although this guidance was written for tree nurseries most of the content relates to ALL plants. You should also take a look at the government guidance on [Plant Health Controls](#).

You must also ensure that:

- You have procedures in place to identify, report and manage any suspected notifiable pests or diseases. Look at our [FAQs page](#) for information on what a notifiable pest is.
- You comply with all Statutory Plant Health Notices and Special Conditions issued by the relevant authority. For example, where APHA, SASA or DAERA has written to you with instructions on how to deal with an outbreak of a notifiable pest or disease.
- Where relevant, phytosanitary certificates accompany plants, seeds and other plant material imported from or exported to third (non-EU) countries
- Where relevant, solid wood packaging material (WPM) associated with imports or exports must meet [certain requirements](#) as WPM can harbour harmful pests. For example, solid wood packaging must meet the [ISPM15 international standard](#) if you use it to import goods into Great Britain. You should look for the recognised mark (shown in this image) which indicates that wood packaging material has been subjected to approved treatments to kill any pests it may be harbouring.



2. Plant Biosecurity Policy

You must have a written plant-biosecurity policy, which is communicated to all your employees/volunteers and reviewed at least annually. This [template](#) provides an example of the sorts of things you should include in your policy.

3. Plant Health Responsibility

You or another named person in your organisation must be designated as having responsibility for plant health. You don't need to employ someone specifically to do this – it can be done as part of their existing responsibilities. It is important to assign responsibility as it helps to make sure that all the checks and procedures are actually carried out.

You will need to make a record of this person's plant health responsibilities. For a smaller organisation this could be a simple written description of what a person/each person does, or it could be a flow chart/organogram for a larger organisation.

All plant health responsibilities should be documented. This includes making a note of who has overall responsibility, but also of who reports suspected notifiable pests, who decides what is grown, bought or collected and where from, who carries out the plant health checks on receipt of plants, who does the regular checking of plants on site and the checks prior to despatch. Clearly for a very small organisation this might all be carried out by one person, but it is good practice to make it clear what the various responsibilities are

4. Understanding and Minimising the Risks from Plant Pest

Pathways (also known as the Site and Operations Pest Risk Analysis (SOPRA))

You should assess the particular plant health risks for all of your sites as well as those associated with how you run operations. This will help you understand what action you might need to take to minimise the risks of notifiable plant pests and diseases being accidentally moved on around and off your site(s). The aim of this exercise is to proactively examine relevant plant health risks to protect your site(s) and operations, as well as the people you trade with, and to minimise the chance of spreading notifiable pests and diseases to the wider environment. **Your goal is to reduce the risk to an appropriate level by putting in place effective management systems and controls.**

Examples are provided in the stepwise summary below, but every site will be different so you will need to develop your own. If you want to use the assessment template we have developed take a look at our [10-minute video](#) which guides you through the steps needed to complete the [SOPRA template](#). You can contact the Plant Healthy team for an Excel version.

1. Understand your site and what happens there

Clearly define your site(s) and what happens there. The site might be permanent, such as a nursery, or temporary, such as a rented field. The SOPRA template asks you to provide a simple map or sketch of the site and a basic list of activities. Doing this can help you spot where pests and diseases could enter or spread and helps you to define the area over which you have the ability to act to mitigate risks.

2. List plants and materials that could carry pests

Write a list of the plant genera that you grow, buy, sell, or move, focusing on the plants that are most likely to carry notifiable pests or diseases², such as large plants or plants with soil or growing media attached to the roots.

If certain pests or diseases only affect specific plant types, list those plants separately.

Include materials that could carry pests or diseases such as soil, growing media, wood packaging and equipment.

Your focus should be on plants, equipment, and materials that are brought onto the site or taken off the site. Plants already growing permanently on or around your site are considered in a separate section.

3. Identify the highest-risk pests

Using the plant and materials list from Step 2, use the SOPRA template and the short guidance video to identify the plants you grow or handle and those notifiable pests and diseases that they could carry. **Consider asking your local plant health inspector if there are others you should be concerned about in relation to the stock you grow or handle.** You will consider how likely it is that these pests and diseases could affect your site in the next steps.

4. Identify pest movement pathways

Consider how plant pests and diseases could get onto your site, move around it, or leave it. For example, things such as plants, soil, growing media (and other media such as woodchips, mulches, etc), water, tools, footwear, seed

² Reminder: Notifiable pests and diseases are any non-native pest or disease that has the potential to cause significant damage to our trees, crops, gardens and wider countryside and which must be reported to the relevant plant health authority if suspected or confirmed.

collection, vehicles, or packaging, all provide pathways by which pests and diseases may be carried.

List the main routes for the highest risk pests and diseases that apply to your business. These are pests and diseases that are considered high risk by plant health authorities based on their impact if they were to be introduced and/or spread to a region. You should pay particular attention if anything you grow could be affected by them or host them. Again, the guidance video will show you how, and the SOPRA template provides links to [pest management factsheets](#) that describe the key pathways for each key pest or disease. You might also find this [example](#) from Salhouse nursery helpful.

You should avoid having ‘unofficial’ plants on site without robust procedures in place. For example, be careful with plants brought from home/allotment and do not allow plants brought back from international holidays. **People should not bring plants back to this country from abroad unofficially. Take a look at ‘Don’t Risk It’ to find out why.**

5. Decide where the biggest risks are

Use the SOPRA template and guidance video to build a table (or build your own) that links the plant types, materials, and movement pathways, and prioritise those pests and diseases which pose the highest risk to your site and operations.

6. Consider adding additional control measures

You can now use your table to see where problems are most likely to occur, check what controls you have in place and assess if any extra controls could reasonably be introduced to reduce the risk further. Your controls should be reasonable and practical for your site(s) and operations.

7. Re-evaluate the risk with any additional controls in place

Add a line or two explaining how each of your control measures works in reducing the risk of bringing in or spreading plant pests and diseases. For example, a control measure might be to clean and sterilise used pots which will help to minimise the risk of spreading pathogens around or off your site.

8. Consider if you have an appropriate level of protection for your site and operations

Now think about whether all the controls that you have put in place work together to achieve an appropriate level of protection³ for your site and operations. Once you are confident that they do write a short statement that explains how your processes achieve this level of protection and clearly describes your overall approach

9. Incorporate what you have learnt from the SOPRA exercise into your regular practices

Update your existing rules, policies or practices as required. For example relevant staff should know the symptoms of the notifiable pests that are covered.

Regularly review your assessment

You should review and update your assessment at least once a year and also when circumstances change like, for example, when new plant species are grown or stocked, or a new pest risk arises. This will help you find ways to continually improve your practices and procedures.

5. Supply Chain Management

During your audit you will be asked to demonstrate that you have assessed your suppliers and are assured that they have minimised the pest and disease risks of the plants, seeds and related products they are supplying.

An easy way to ensure your plant and tree suppliers are minimising their own risks is to only use those who are listed on the [Plant Healthy directory](#).

Alternatively, and as a minimum, you should visit your suppliers' sites in person to see their plants and practices for yourself and record the evidence. Consider asking for specific information. For example, you could ring or email compost suppliers to find out how they make sure their products are free from plant pests and diseases.

You must risk assess all your suppliers of plants, plant material, and growing materials and only use those that meet your plant health requirements. Here is a [template](#) that you can use or adapt to help you do this.

You must review all your existing suppliers at least annually and review any new suppliers before using them.

6. Plant Health Hygiene and Housekeeping

³ This term originates from the World Trade Organisation (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). It describes the level of protection deemed appropriate by any WTO member in establishing sanitary or phytosanitary measures to protect human, animal, or plant life or health within its territory. The term can also be referred to as the '**acceptable level of risk**'. The Plant Health Management Standard adapts the principle of ALOP and applies it to an organisation's site(s) and operations.

Everyone working on your site should incorporate good plant health practice as part of their everyday actions. You must have in place good plant hygiene and housekeeping rules and practices (for example defined processes for site cleaning, maintenance and disinfection regimes). These must be documented and communicated to all your employees/volunteers.

These plant hygiene and housekeeping rules and practices must cover:

- **Growing Media, Soil, Manures and Mulches**

You should assess the potential for growing media, soil, manures, mulches, coir, bark and woodchip to harbour and transmit plant pests, and put in place procedures to make sure that these materials are stored and handled in a biosecure manner.

Some examples of good practice include:

- Use fresh, sterile growing media where possible
- Use PAS 100 commercially processed compost
- Carefully risk assess the components and processes you use to make your own compost to minimise the risk of spreading soil-borne diseases when potting up seeds and seedlings. Best practice guidance on waste and on-site composting is available [here](#).
- Keep your growing media covered (for example in a sealed bag) and store it above the ground.
- Use well-rotted or composted manure to minimize pathogens and nutrient burn

- **Weed Management**

You should assess weeds and volunteer⁴ plants for their potential to harbour and transmit plant pests and manage them regularly in areas where plants are grown and handled.

- **Water Usage**

Water can carry various types of plant pests, in particular certain *Phytophthora* species. You must assess your water sources, irrigation and drainage systems for the potential to harbour and transmit plant pests. Regular crop monitoring can help you identify whether your water source may be contaminated.

⁴ A volunteer plant is any plant that persists beyond a previous planted crop lifecycle. Such plants should be managed to minimise the risk of harbouring and subsequently spreading plant pests and diseases on and from the site.

If space allows, harvested rainwater can be used for irrigation provided it is stored in a biosecure way. For example, in lidded containers that can be regularly cleaned – at least annually - to help prevent pathogens from building up in the water.

Bore holes, lagoons and river water can also be considered. Otherwise mains water provides clean fresh water for use around the site.

Paths and other surfaces with good drainage can avoid too much standing water collecting around the site which may harbour *Phytophthora* species and other plant pathogens. For example, trays and pots could be arranged on a gravel surface/weed suppressing material or raised off the ground.

Look at how water flows through your nursery and consider how this can help you decide where to site waste heaps and areas for cleaning machinery etc.

- **Cleaning and sterilisation**

Plant pests can be spread from one plant to another via people, tools and equipment. This can be directly, e.g. on pruning equipment, or indirectly, e.g. on water or soil carried on boots. Regularly cleaning your tools and boots is an important way to reduce the risk of plant pests and diseases being brought into or spread around your nursery.

Some suggestions for how you can do this include:

- Install a boot cleaning station near the site entrance and other areas as required. This can be as simple as a plastic box containing suitable disinfectant (consider contacting a growing supplies company to ask for suitable products) by the entrance to your site(s) and make sure all employees, volunteers and visitors use it before entering and leaving the site.
- Encourage employees/volunteers to have footwear they only wear at the site and leave there.
- Small tools such as snips should be cleaned between plant batches – hand-held sprays or wipes could be used for this purpose. A portable, handheld steam cleaner could be used to clean larger tools regularly after use.
- Put a system in place to ensure reusable pots and seed trays are disinfected after every use. This can also reduce weed build up.
- Capillary matting should be washed between batches

- **Waste Treatment and Disposal**

Plant waste and spent growing media can harbour pests and diseases. These organisms can spread from untreated waste piles to cultivated plants and the wider environment.

Any plant or other material that is suspected of harbouring notifiable pests and diseases must be contained on site and be reported to your local plant health inspector who will advise on the required treatment.

All other waste material can be managed through the following methods:

- On-site composting, including 'hot composting' as heat kills weeds and pathogens. This [guidance](#) explains more.
- Incineration (with a relevant permit/exemption in place)
- Disposal at a landfill site
- Removal to a commercial composting facility

Any on-site waste storage should ideally be situated on hard standing (e.g. concrete) with clear separation from growing stock, hedgerows, woodlands or water courses. If hard standing is not available, keep all your organic waste in one place that is separate from your main growing area, and ideally downhill from it.

Plant waste heaps should also be covered to prevent water ingress and run-off after rain.

Make sure that unwanted waste is removed from your site(s) regularly

- **Wider environment**

Where feasible, consider the trees and shrubs on the land surrounding your site or associated with businesses/gardens neighbouring your site for anything that could pose a plant health risk to your stock.

- **Visitors**

Visitors and contractors can bring plant pests onto a site by, for example, by bringing plant material on to the site, on their footwear or on the vehicles they arrive in. Your hygiene and housekeeping rules for the site must be communicated to visitors and contractors (in advance if practical) and you should make sure these are followed.

For example, you could display a simple biosecurity notice at the site entrance (e.g. "Please clean footwear and do not bring outside plants").

Where there are public footpaths across your site your hygiene rules should also be made clear to, and followed by, the footpath users.

7. Plant Health Controls

These must be documented and communicated to relevant employees/contractors / volunteers.

- **Goods in**

Delivery of materials and plants are potential risk pathways for the movement of pathogens onto your site(s). Plants and materials should be checked on delivery and if necessary, you should isolate them in a quarantine area so that they can be monitored for a suitable period, ideally for a growing season.

A quarantine area can be used to keep new batches of plants or materials separate from your stock. Even if you have limited space, a few square feet is better than nothing. Ideally it should be physically separate from the other stock on your site and clearly labelled with restricted access. If you spot any worrying signs of ill health on incoming plants, you should keep them in quarantine until you've uncovered the cause of the problem with the help of your local plant health inspector.

You should always wash boots and tools that were used in the quarantine area before using them around the rest of the site(s).

- **Traceability**

Traceability must be provided for all plant material sourced, grown and handled and records must be kept for a minimum of three years

Your traceability system should identify where plant material is sourced from (e.g. seed or mother plants) and if and when batches of live plants have been split for either the purposes of production or dispatch. You must be able to produce this information if infested plant material is identified within your supply chain. This helps plant health authorities to trace the source of any outbreak.

Labelling and record keeping are also important to meet Forest Reproductive Materials (FRM) regulations. These regulations cover the sale of seed and trees for forestry purposes.

- **Plant Protection Treatments**

You should record all treatments and physical control measures used whether routinely or following an interception or outbreak. For pesticides and bio-controls your records should include how they were applied, how often and at what concentration.

- **Dispatch**

You must check all plant material before it leaves your site for plant health issues and keep a record of any plant health quality control issues to demonstrate that you have a system in place

- **Complaints, issues and returns**

You must keep records of any complaints received in relation to plant health issues and what action was taken.

8. Monitoring and Ongoing Plant Health Assessment

- **Monitoring**

You should know what good health looks like in all the plant and tree species you grow as early detection of pests and diseases can help prevent problems from spreading and becoming even more expensive to deal with.

Your SOPRA (covered in section 4) will help to inform your monitoring regime. If you only grow a very small number of plant species you should be able to familiarise yourself with the notifiable pests and diseases associated with those species.

Learn what the symptoms of the notifiable pests and diseases are for the plants you grow and regularly check your plants to make sure they are healthy and pest/disease free.

If you find what you think are signs of a notifiable pest or disease, immediately tape off the plants and let your employees or volunteers know they should not be moved. Contact your local plant health inspector about next steps, including following advice on safely destroying the plants if necessary.

- **Self-assessment**

You must assess yourself against the PHMS (using this [checklist](#) for example) at least annually and keep a record of it and any action you take as a result of your findings.

- **Continual Improvement**

As the threats posed by plant pests and diseases evolve, so you must commit to identifying and acting upon areas where you spot room for improvement and keep records of when and how you do this. For example, if you think of a way to improve how manage your record keeping, implement it and make a note of what you did and how effective it was.

- **Detection of Notifiable Pests**

All notifiable pest findings and outbreaks must be recorded, and the cause investigated so that specific solutions can be put in place. This links back to section 1 of the guidance.

9. Training and Recognition

- **Plant health competencies**

Make sure that all your employees and or volunteers understand the importance of good plant health management and how to reduce the risk of pests and diseases entering or leaving your site(s). Toolbox talks can be useful. You should make a note of who attended and when, or if any employees and volunteers were unavailable so that you know who missed out or when you need to repeat it.

As the person responsible for plant health on your site(s) you have to lead by example. You can keep up to date with the latest plant health and biosecurity advice by using online resources such as those available on the Plant Healthy website, including the [Plant Healthy e-learning modules](#) and [Plant Passporting e-learning](#).

- **Legislation and keeping up to date**

You or the person responsible for plant health must be able to show how you keep up to date with legislation and the latest plant health risks. For example, you could sign up for regular Plant Passporting updates (for GB) by emailing planthealth.info@apha.gov.uk and consider regularly checking what's being intercepted at our borders [here](#).

- **Information sharing**

Share information to keep your employees/volunteers up to date with your hygiene and housekeeping rules and current plant pest threats. This could include the use of information boards, shared drives, team meetings and training workshops.

Next Steps and Further Guidance

We recognise that achieving the Plant Health Management Standard can be a journey, particularly for very small businesses and Community Tree Nurseries. This guidance is intended to help you meet the requirements of the Standard by adopting practical, proportionate plant health measures, regardless of the size of your organisation.

Every step you take to strengthen your plant health practices contributes to a more resilient nursery sector, builds confidence among your customers, and helps protect our trees, plants and wider environment for future generations.

Additional guidance you may find useful:

[Plant Health for the horticultural sector: key considerations](#) Despite its title, this guidance is relevant to anyone responsible for growing or handling plants. It provides practical advice on good plant health and biosecurity practices that complement the Plant Health Management Standard.