

# How to apply the Plant Health Management Standard to your business

## Guidance for Public Gardens

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This is a draft version to allow you to get your business Plant Healthy ready. Any comments or questions about this guidance is welcome. Please send using the Plant Healthy contact page. <https://planthealthy.org.uk/contact-us>

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## Introduction

This guidance has been developed to help public garden owners and managers apply the Plant Health Management Standard to their business and site(s). It is an accompanying document to the Plant Health Management Standard which is a generalised standard for businesses that handle plants and plant material (the term 'plants' throughout the document includes trees and shrubs). This guidance has been developed specifically to assist public garden owners and managers apply the standard to their site(s).

### **Parks and Gardens - Biosecurity Best Practice Protocols**

This guide provides technical information for plant health and biosecurity management in the parks and gardens sector was produced by Fera in 2012. A lot of the information is still relevant. Download from [here](#).



The overarching aim of the Plant Health Management Standard is to improve plant health and biosecurity management systems throughout the plant supply chain and plant care. The standard has adapted the International Plant Protection Convention's framework for pest<sup>1</sup> risk analysis for use on a site(s) and sets out the requirements for a robust plant health management system. This includes periodic reviews for the continual improvement of pest management procedures.

The standard provides a systematic checklist to review organisational activities, identify areas of improvement and develop ways to reduce the pest risk to a site, the supply chain and the wider environment. This document is written in plain English to help an organisation achieve what the standard calls an 'Appropriate Level of Protection' by describing systems for:

- Your statutory obligations for plant health and biosecurity
- Approaching pest risk analysis to control pests and reduce risk of pest introductions and outbreaks.

You may already be doing some or most of what is required by the standard. Relating and applying the requirements of the standard to your operations is an ongoing task. Risks change and the organisation develops, so it is important that the systems you set up must work for your business now and in the future.

## **Plant Health Management Standard – Public Gardens**

The following sections are for reference purposes and are set out to assist your business to meet each requirement of the standard. It has three main elements: preparation for an audit, how to do a pest risk analysis and then a checklist. The checklist takes each section of the standard, and with UK public gardens in mind, provides useful references and links that include templates and guidance to support an organisation to achieve compliance with the standard. It outlines one approach and you may achieve some of the requirements in other ways. However, this checklist should still serve as a useful process to double check if there are any improvements you can make to your procedures.

Section A – Preparing for an Audit

Section B – How to do a pest risk analysis for a site

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<sup>1</sup> Pests are any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products. This includes weeds.

## Section C – Checklist

**Section A: Preparing for an audit**

This section provides a step by step approach to embedding plant health in your business. For those who have not fully considered biosecurity it provides you with a framework to review your business. The links and guidance advise how you can address all the requirements of the Plant Health Management Standard.

This section can be used as guidance for any organisation which wants to implement the standard. Reading and applying this document will enable you to prepare for an audit.

There are two types of audit: internal and external. An internal audit helps you measure if you are meeting the standard and identify areas for improvement. An external audit is where a trained auditor comes into your organisation and provides an independent, impartial review of your processes and procedures to see if you meet the standard. The auditor is not an advisor but is there to provide an objective and independent view, however, they will identify if you are not meeting the standard and provide you with a list of areas where you can improve your biosecurity<sup>2</sup> and plant health measures<sup>3</sup>.

If you already have systems in place to manage biosecurity, you can use this section as a review or to conduct an internal audit. It is good practice to keep records so that you can show an auditor that you have done this review and what your findings were.

**Step 1: Defining the site**

- a. A flow diagram is recommended to illustrate the movement of the public, staff, plants and plant material around the garden, the supply chain for purchase of new plants, disposal of plants and plant material and include if plants are grown on or off site - perhaps in an adjacent nursery. ***This will be of particular use in the Pest Risk Analysis process in section 4.4 of the checklist below.*** The flow diagram should identify distinct actions when plants and plant material are moved around the site or if applicable, between sites (i.e. site assessment, moving from site to site and disposal or use).
- b. You may find it helpful to identify and allocate responsibilities to support each of the processes in the flow diagram which will help the sharing of information to the workforce. Where possible staff responsibilities should be defined.

**Step 2: Recognise factors that influence plant health**

All activities referring to design of the site, selecting and purchase of plants, site assessment, any technical processes, equipment use and supervision (e.g. training of seasonal/temporary staff) must be examined. The factors above have an influence on plant health and how the risks are managed and/or mitigated. ***This will help you gather some of the necessary information for your plant health policy see section 4.2 in the checklist below.***

**Step 3: Identify and document Critical Control Points to maintain biosecurity. *Critical Control Points are points prior to purchase, within a site or between sites where plant material can be readily assessed***

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<sup>2</sup> Biosecurity refers to a set of precautions that aim to prevent the introduction and spread of harmful any organisms. ([www.gov.uk](http://www.gov.uk)) This could include harmful organisms which may be transmitted with the movement of humans, animals or plants.

<sup>3</sup> Relates specifically to the biosecurity relating to plants and plant material.

***and/or managed for pests . These control points will form part of your Pest Risk Analysis, section 4.4 in the checklist below.***

At the Critical Control Points, appropriate checks are carried out by a competent person to ensure that the plants are healthy. Checking can be done by visual inspection and/or sampling and testing, or by purchasing from a PHMS certified nursery/supplier. Frequency of monitoring will depend on external conditions such as:

- time of year and weather conditions
- the sites being worked on and the movement of plants and plant material for example, between a supplier and the garden
- potential pathways which includes movement and disposal of plant material, cleaning and storage of equipment and vehicles

These steps must be periodically reviewed to maintain effective monitoring and plant health control which forms part of **Monitoring and ongoing assessment, section 4.8 in the checklist below.**

Step 4: Select appropriate measures that will give confidence in the biosecurity and health of plants managed.

- a. The allocation of responsibilities, forming the section **4.3 Plant health responsibilities in the checklist**
  - b. Important elements to provide confidence to minimise the movement of pests between the garden and nurseries. This is all part of the **supply chain management section 4.5 in the checklist**
  - c. Establish plant health control measures, feeding into section **4.7 Plant Health controls of the checklist**
  - d. The competence of staff, forming the section **4.9 Training and recognition of the checklist**
- Work instructions or procedures should detail all elements a to d.

Step 5: Establish and document routines for separate handling of infested or diseased materials

Any materials that are found to be infested or diseased at any stage of the production process shall be identified and segregated until corrective action can be taken.

## Section B: Pest Risk Analysis approach

### Pest Risk Analysis Overview

Central to the Plant Health Management Standard is Pest Risk Analysis which is a risk-based approach that identifies and reduces pest risk. This process will assist the organisation to reach an appropriate level of protection for the garden.

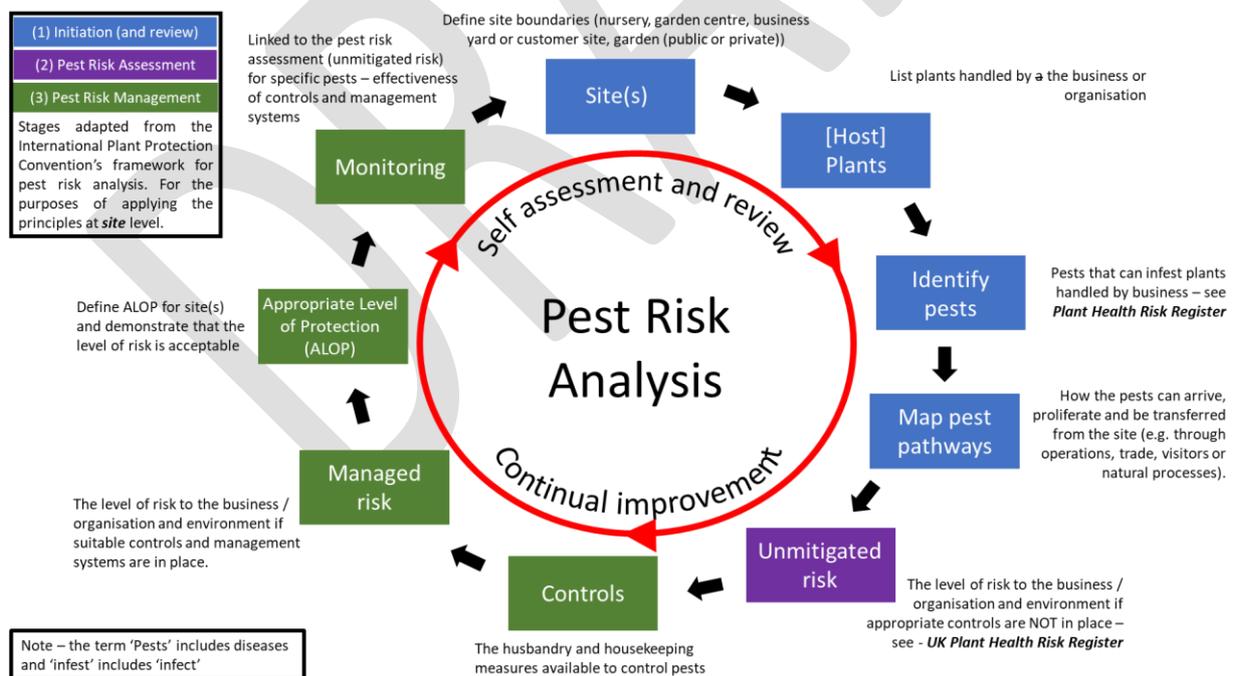
In order to define and achieve an Appropriate Level of Protection, a Pest Risk Analysis should be conducted. The Pest Risk Analysis is a risk management process used to identify and evaluate pests, pathways, and the measures required to ensure that each site is protected appropriately. Key to carrying out a Pest Risk Analysis is the identification of host plants and knowing the pests that can infest these plants.

A critical part of the Pest Risk Analysis is risk assessment. Risk assessment is a term used to describe an evaluation of the probability of harmful events occurring. In the case of plant pests, this is an evaluation of the potential damage caused by pests to an organisation, the customer, the supply chain and the wider environment. Following the identification and assessment of risk, management measures should be put in place to ensure the risk is eliminated or appropriately controlled.

A good Pest Risk Analysis will therefore incorporate a broad range of specific risk assessments, it should be part of the organisation, and be effectively communicated to all staff, as it relies on the participation of all.

The Pest Risk Analysis should be dynamic and viewed as a cycle of monitoring, self-assessment and review, as there are a broad range of factors and circumstances that may influence processes and activities e.g. the range of potential pests, staff, the weather etc.

Figure 1: Pest Risk Analysis



### Analysis process

The first step towards analysing risk is to define the boundaries of the site(s) concerned. This would include the garden itself, any nursery areas, yards, holding areas, car parking for the public. Relevant information on host plants, trees, shrubs and pests should also be gathered.

Next, complete an evaluation of the pathways and processes that could potentially lead to entry of pests to the garden, for example through planting of new plants, trees and shrubs, hard landscaping materials, dismantling and disposal of plant material, any use of contractors, and visitors. These pathways and the *likelihood* of pest entry, establishment and spread should be assessed. The interactions within each site, the range/type of work being carried out, plants, potential pests, and pathways and movement of staff and visitors around the garden and between any sites will provide a framework for the required range of risk assessments.

A generic analysis for each type of area/activity (e.g. garden, nursery area if applicable, etc.) will be adequate. They will vary, for example in cases where the planting site is in a public or private space.

### Data collection

The initial evaluation (gathering of risk data) could take place in various ways, depending on the type and size of the business/organisation, number of employees etc. It is important to take time and include all relevant data at this stage, as this data will form the foundation for successful risk analysis. Data gathering allows the business/organisation to develop an understanding of what hazards and risks exist and how they affect biosecurity. This is the most time-consuming part of the process, however the information you collect is valuable and must be accurate, reliable, and complete.

#### Methods for data collection:

- Gather thoughts and write them down
- Diagrams
- Mind mapping
- Flow/process charts
- Cause and effect diagrams

Every part of the business/organisation should be examined:

The site/garden (what risks do the physical attributes of each area of the site present including the garden itself, any nursery areas, vehicles, and yard/workshops):

- Site layout
- Points of entry (e.g. deliveries visitors, car parking)
- Site hygiene (e.g. cleaning procedures)
- Water management (e.g. water supply and drainage)
- Growing media and soil management
- Waste management
- Surrounding environment/wider landscape (e.g. neighbours, footpaths)

How and where the trees or shrubs or plant material is managed (what risks are presented by the way you manage your stock):

- Incoming material (e.g. plants/the packaging and pallets, compost, hard landscaping materials)
- Storage (if applicable)
- Transportation (vehicles) from supplier to garden/garden to disposal etc.
- Planting site or holding yard/nursery and transmission pathways such as tools, boots, tyres etc

Pests:

- What plants do you buy/handle/manage?

- What are the main pests that are associated with the trees and shrubs you have in the garden or are going to plant in the garden? This should be noted when planning, during or following the site assessment
- Are there any known pests local to the garden and the surrounding area?
- Are there any known pests local to your supplier's sites and surrounding areas?
- Have any of your staff or visitors noticed any infestations or plant health issues? (were pest vectors associated with the infestation?)
- Emerging threats (what could present a threat in the future)

### Risk assessment matrices

The process of risk assessment is to examine the level of risk based on data collection and the consequence of a biosecurity failure related to the specific pest pathway. It highlights when you may need to be more rigorous in your biosecurity measures such as:

- If you have been informed that there is a pest present
- You have found a pest present
- There is an existing Statutory Plant Health Notice in place
- You are working within the vicinity of an infected/infested site.

Table 1: Risk matrix - general likelihood and consequences

Likelihood		Very Likely	Likely	Unlikely	Highly Unlikely
Consequences/impacts of pest entry establishment and spread	High	High	High	High	Medium
	Medium	High	High	Medium	Low
	Low	Medium	Medium	Low	Low

Table 2: Risk matrix - risk situation and level of risk

Risk situation	Level of Risk		
	Low	Medium	High
Potential of a pest being introduced from geographical areas (national and international). Awareness of location of suppliers and the pests present in their locality.			
Have the plant health management procedures of your suppliers been assessed? (e.g. PHAS/BOPP) Low = all suppliers can demonstrate an appropriate level of protection Medium = some suppliers can demonstrate an appropriate level of protection High = No suppliers can demonstrate an appropriate level of protection			

The matrices are based on two criteria:

1. Likelihood: the probability of a risk
2. Consequences: the severity of the impact or the extent of damage caused by the risk

Using the first matrix as an example, based on the likelihood of the occurrence of the risk, the risk could be classified under one of four categories - very likely, likely, unlikely, or highly unlikely. The consequences of a risk can again be ranked and classified into one of three categories, based on how severe the consequences could be.

Once the risks have been evaluated using the matrix, in cells corresponding to the appropriate likelihood and consequences, it becomes visibly clear as to which risks are high. Each of the risks placed in the table will fall under one of the categories, for which different colours have been used in the example above. Those in red are the most critical they are the most likely to occur and have the most severe consequences, and as such should receive higher priority, orange are medium and yellow lowest priority and chance of occurrence, however, there are still reasonable steps that could help in reducing these risks.

Following the risk assessment, the next step in the Pest Risk Analysis is to illustrate how you could mitigate against the risks established to lower/control or eliminate the risk of a pest and disease outbreak. This involves an understanding of the consequences, assigning priorities and then developing the risk prevention strategies.

All the information collected can then be used to produce your full risk assessments. The way in which they are integrated is based on ease of use and understanding for each individual business. Each element may be used as a separate document or they could be integrated. Or there may be a group of risk assessments that cover everything.

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## Examples of layouts for risk analysis and assessment:

Table 3: Example of an Overarching risk analysis for a site(s)

<b>Date:</b> <b>Review Date:</b>		<b>Site:</b>		<b>Signed:</b>	
<b>Risk Description</b>		<b>Inherent Risk</b>		<b>Control/action</b>	<b>Notes</b>
<b>Risk</b>	<b>Consequence</b>	<b>Impact</b>	<b>Likelihood</b>		
Failure of bio-security measures to stop the entry of a harmful pest onto the site	<ul style="list-style-type: none"> <li>• Introduction of a pest</li> <li>• Closure of garden</li> <li>• Quarantine of garden</li> </ul>	<ul style="list-style-type: none"> <li>• Local environmental impact &amp; pest spread</li> <li>• Financial loss</li> <li>• Reputational loss</li> </ul>	Possible	<ul style="list-style-type: none"> <li>• Good biosecurity protocols in place</li> <li>• Monitoring</li> <li>• Training</li> <li>• Effective biosecurity communication</li> <li>• Etc. etc. etc.</li> </ul>	

For other detailed risk assessments:

See Tree Council action plan toolkit <https://www.treecouncil.org.uk/What-We-Do/Ash-Dieback>

See also from page 20 Plant Health and Biosecurity: The Landscape Consultants Toolkit. This can be downloaded for free from the Landscape Institute at <https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/> or from the British Association of Landscape Industries here <https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/>

Table 4: Example of a Risk assessment for a notifiable pest

<b>Date:</b>		<b>Site:</b>		<b>Signed:</b>
<b>Review Date:</b>		<b>Risk</b>		<b>Controls</b>
<b>Risk Description</b>		<b>Impact</b>	<b>Likelihood</b>	
<b>Risk</b>	<b>Consequence</b>			
<p><b><i>Xylella fastidiosa</i></b></p>  <p><b><i>Xylella fastidiosa</i></b> is a bacterial pathogen which causes a variety of symptoms which can include leaf scorch, wilt, dieback and plant death. There are more than 500 plant species which can be infected with Xylella. In Europe the highest risk plants include:</p> <ul style="list-style-type: none"> <li>- <i>Polygala myrtifolia</i> (polygala)</li> <li>- <i>Olea europaea</i> (olive)</li> <li>- <i>Rosmarinus officinalis</i> (rosemary)</li> <li>- <i>Lavandula spp.</i> (lavender)</li> <li>- <i>Prunus spp.</i> (plums, cherries, almonds etc.)</li> <li>- <i>Nerium oleander</i> (oleander)</li> <li>- <i>Coffea</i> (coffee)</li> <li>- <i>Hebe spp.</i> (hebe)</li> <li>- <i>Spartium junceum</i> (Spanish broom)</li> </ul>	<p>If the infected stock is intercepted the stock will be destroyed. If an outbreak occurs (where there is evidence of disease transmission) all host plants will be destroyed within 100 metres and there will be a ban on the movement of host plants within a 5-kilometre radius for up to five years.</p> <p>The implementation of these measures would lead to economic, environmental and social impacts.</p>	High	Medium	<ul style="list-style-type: none"> <li>• Consider sourcing species that are not Xylella high-risk host plants.</li> <li>• Suspected infection of a plant by <i>X. fastidiosa</i> or any other non-native pest must be reported to the relevant authority.</li> <li>• Sourcing of plants from growers that can demonstrate that their site and stock is Xylella free.</li> <li>• Continual monitoring of all susceptible host species.</li> </ul> <p>Other....</p>

Table 5: Example of a risk assessment for specific pests for ash trees in the garden

<b>Date:</b>		<b>Site:</b>		<b>Signed:</b>
<b>Review Date:</b>		<b>Risk</b>		<b>Controls</b>
<b>Risk Description</b>	<b>Consequence</b>	<b>Impact</b>	<b>Likelihood</b>	
 <p><b>Hymenoscyphus fraxineus (Chalara)</b> is an ascomycete fungus that causes <b>ash dieback</b>, a chronic fungal disease of ash trees in Europe characterised by leaf loss and crown dieback in infected trees. Basal lesions may also be observed.</p>	<ul style="list-style-type: none"> <li>Declining and dead trees</li> <li>Potential for death/injury (falling dead trees and limbs -infected trees may act unpredictably)</li> <li>Financial loss</li> </ul>	High	High	<ul style="list-style-type: none"> <li>Monitoring</li> <li>Where more than 50% of the crown is infected and survival of the tree depends on epicormic shoots, felling should be considered</li> <li>Where less than 50% of the crown is infected, trees should be regularly monitored to ensure appropriate management</li> </ul> <p>Plant material (i.e. arb. arisings) should be disposed/ moved in accordance with current guidance.</p> <p>Reference:  <a href="https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/chalara-ash-dieback-hymenoscyphus-fraxineus/chalara-manual-2-managing-ash-trees-and-woodland-including-logs-and-firewood/">https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/chalara-ash-dieback-hymenoscyphus-fraxineus/chalara-manual-2-managing-ash-trees-and-woodland-including-logs-and-firewood/</a></p>

Table 6: Example of a risk assessment for a specific pest or disease for Rosaceae plants in the garden

<b>Date:</b>		<b>Site:</b>		<b>Signed:</b>
<b>Review Date:</b>				
<b>Risk Description</b>		<b>Risk</b>		<b>Controls</b>
<b>Risk</b>	<b>Consequence</b>	<b>Impact</b>	<b>Likelihood</b>	
 <p><b>Fireblight</b> is a contagious disease affecting a broad range of flowers and plants including (but not limited to) apples, pears, and some other members of the family Rosaceae. The causal pathogen is the bacterium <i>Erwinia amylovora</i>. Blossoms wilt and die at flowering time. A slimy white liquid may exude from infections in wet weather. Shoots shrivel and die as the infection spreads down the inner bark. During the short period of active spread, the outer wood is stained a foxy reddish-brown colour when the infected bark is peeled back  <a href="https://www.rhs.org.uk/advice/profile?pid=160">https://www.rhs.org.uk/advice/profile?pid=160</a>.                  Reference:  <a href="https://planthealthportal.defra.gov.uk/data/pests/11792/data">https://planthealthportal.defra.gov.uk/data/pests/11792/data</a></p>	<ul style="list-style-type: none"> <li>• Loss of stock</li> <li>• Financial loss</li> </ul>	Medium	High	<ul style="list-style-type: none"> <li>• Monitoring</li> <li>• Prune and burn infected material</li> <li>• Grow resistant species</li> </ul>

Table 7: Example of a risk assessment for a specific pest for fuschas

<b>Date:</b>	<b>Site:</b>	<b>Signed:</b>
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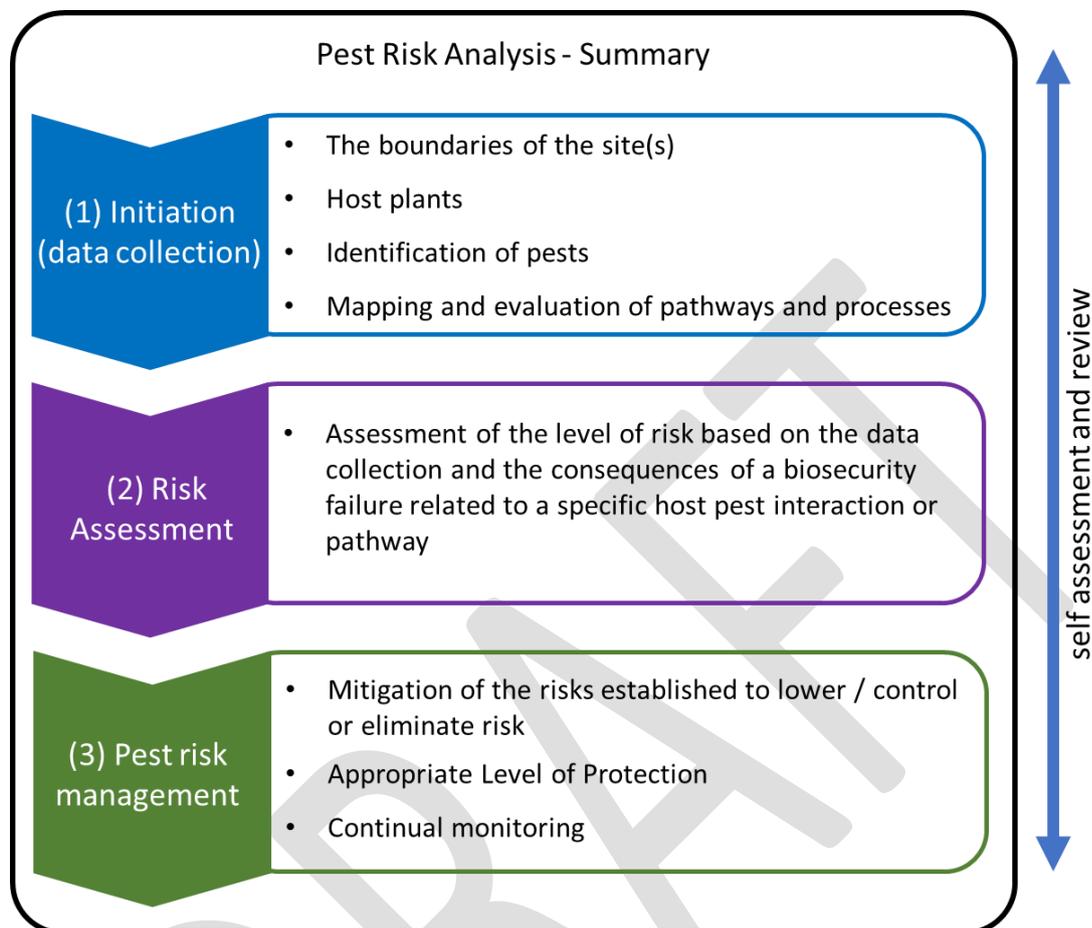
<b>Review Date:</b>					
<b>Risk Description</b>		<b>Risk</b>		<b>Controls</b>	
<b>Risk</b>	<b>Consequence</b>	<b>Impact</b>	<b>Likelihood</b>		
 <p><b>Fuchsia Gall Mite, <i>Aculops fuchsiae</i></b>, is a species of mite feeding on sap causing distortion of growing shoots and flowers.</p> <p>Reference:</p> <p><a href="https://www.rhs.org.uk/advice/profile?PID=512">https://www.rhs.org.uk/advice/profile?PID=512</a></p> <p><a href="https://secure.fera.defra.gov.uk/phiw/riskRegister/viewPestRisks.cfm?cslref=1435&amp;riskId=1435">https://secure.fera.defra.gov.uk/phiw/riskRegister/viewPestRisks.cfm?cslref=1435&amp;riskId=1435</a></p>	<ul style="list-style-type: none"> <li>• Loss of stock (growth and appearance are affected)</li> <li>• Visitor has a poor impression of garden – could lead to loss of income where people do not recommend or return to garden</li> </ul>	Medium	Medium/ High	<ul style="list-style-type: none"> <li>• Monitoring</li> <li>• Prune and burn/bury infected material</li> <li>• Grow less susceptible species/cultivars</li> </ul>	

The above are examples of how pest analysis and assessments could be laid out, the key requirements are that all the information is included, and it is easy to understand and communicate.

### Summary of Pest Risk Analysis

The diagram below outlines the three key steps to Pest Risk Analysis.

Figure 2: Pest Risk Analysis Summary



### Section C: Public garden guidance for PHMS – the checklist

This section goes through section 4 of the Plant Health Management Standard and offers assistance and guidance on what compliance could look like. The numbering reflects the numbering in the standard and this is commonly referred to as ‘the checklist’..

No.	Plant Health Management Standard	Public garden
4.1	Plant Passports, Phytosanitary Certificates and Forest Reproductive Material regulations.	<p>The organisation must comply with statutory requirements with regards to the management, movement and trade in plants, trees or shrubs and plant material.</p> <p>General guidance can be found at: <a href="http://www.gov.uk/guidance/plant-health-controls">www.gov.uk/guidance/plant-health-controls</a>. Further help and support can be given by your local Plant Health and Seed Inspector (PHSI).</p>
4.1.1	<p><b>Plant Passports</b></p> <p>Plant Passport legislative requirements must be followed when plant material is traded between UK businesses or imported from/or exported to EU Member States<sup>4</sup>.</p>	<p>In general, any organisation/organisation that take possession of plants from a nursery/supplier as an end user is required to keep copies of plant passports. The records must allow the plant health authority to conduct a full investigation following any outbreaks of pests or disease.</p> <p>Acceptable evidence: A full understanding of requirements relating to plant passporting/regulated commodities is required. The organisation should be able to provide records/evidence of Plant Passports, records of any Plant Passport Inspections (if any); records of any statutory requirements imposed have been fulfilled and discharged.</p> <p>General guidance for imports can be found at: <a href="https://www.gov.uk/guidance/importing-plants-fruit-vegetables-or-plant-material-to-the-uk">https://www.gov.uk/guidance/importing-plants-fruit-vegetables-or-plant-material-to-the-uk</a></p> <p>General guidance on plant health controls: <a href="https://www.gov.uk/guidance/plant-health-controls">https://www.gov.uk/guidance/plant-health-controls</a></p> <p>If dealing with plants and planting, the organisation should understand when a plant passport is required. This link leads to guidance detailing when a plant passport is needed: <a href="https://www.gov.uk/guidance/issuing-plant-passports-to-trade-plants-in-the-eu#when-you-need-a-plant-passport">https://www.gov.uk/guidance/issuing-plant-passports-to-trade-plants-in-the-eu#when-you-need-a-plant-passport</a>.</p>

<sup>4</sup> NB currently required this may need to be updated as new guidance following a 'no deal' indicates that this will no longer be required (England & Wales) and all imports will require registering as an importer (PEACH) and ensuring that a regulated consignment enters the UK with a phytosanitary certificate (PC) issued in the country of export (or re-export) . This may need to be removed from the audit process. PEACH helpdesk details are on the general Imports page at <https://www.gov.uk/guidance/importing-plants-fruit-vegetables-or-plant-material-to-the-uk>

		<p>The list found at the following link provides information relating to plants requiring plant passports at all stages of growth to end user, and, when material and bulbs are sold or moved to persons professionally engaged in plant production.</p> <p>Links for guidance on plant passports:</p> <p><b>England &amp; Wales:</b> <a href="http://www.gov.uk/guidance/importing-and-exporting-plants-and-plant-products-if-theres-no-withdrawal-deal?utm_source=SubscriberCRM+Integration&amp;utm_campaign=df3938f17c-EMAIL_CAMPAIGN_2019_03_15_03_45&amp;utm_medium=email&amp;utm_term=0_74965a44a4-df3938f17c-88477057">http://www.gov.uk/guidance/importing-and-exporting-plants-and-plant-products-if-theres-no-withdrawal-deal?utm_source=SubscriberCRM+Integration&amp;utm_campaign=df3938f17c-EMAIL_CAMPAIGN_2019_03_15_03_45&amp;utm_medium=email&amp;utm_term=0_74965a44a4-df3938f17c-88477057</a></p> <p><b>Scotland:</b> <a href="https://www.sasa.gov.uk/plant-health/plant-health-licensing">https://www.sasa.gov.uk/plant-health/plant-health-licensing</a></p> <p><b>Northern Ireland:</b> <a href="https://www.daera-ni.gov.uk/topics/plant-and-tree-health">https://www.daera-ni.gov.uk/topics/plant-and-tree-health</a></p> <p>Information relating to plant passporting requirements and trading plants in the EU can be found at: <a href="https://www.gov.uk/guidance/issuing-plant-passports-to-trade-plants-in-the-eu">https://www.gov.uk/guidance/issuing-plant-passports-to-trade-plants-in-the-eu</a></p> <p>Further information can be found via APHA: <a href="https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/access-and-opening#plant-health--seeds-inspectorate">https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/access-and-opening#plant-health--seeds-inspectorate</a>.</p> <p>Other useful guidance:</p> <p>Plant Health and Biosecurity: The Landscape Consultants Toolkit. This can be downloaded for free from the Landscape Institute at <a href="https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/">https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/</a> or from the British Association of Landscape Industries here <a href="https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/">https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/</a></p>
4.1.2	<p><b>Phytosanitary Certificates</b></p> <p>Legislation with respect to Phytosanitary Certificates must be followed if plant material is imported from or exported to third countries.</p>	<p>Some plants, trees and shrubs are prohibited from entering this country from outside the EU while others must be accompanied by a phytosanitary certificate. A phytosanitary certificate is a certificate that is issued by a governmental authority to attest that the plant/plant produce is free from harmful plant pests, it also demonstrates that the plant health-controlled goods conform to the plant health regulations of the importing country. As with a plant passport any</p>

		<p>end user of the plants should keep records of any phytosanitary certificates to ensure full traceability if required.</p> <p><b>Acceptable evidence:</b></p> <p>The organisation should be able to provide records/evidence of Phytosanitary Certificates where appropriate, PEACH entries and other supporting documents used for the import.</p> <p><b>Guidance:</b></p> <p>Guidance for importing plants (including trees and shrubs), fruit, vegetables and plant material can be found at:</p> <p><b>England &amp; Wales:</b> <a href="https://www.gov.uk/guidance/importing-plants-fruit-vegetables-or-plant-material-to-the-uk">https://www.gov.uk/guidance/importing-plants-fruit-vegetables-or-plant-material-to-the-uk</a></p> <p>General guidance relating to Phytosanitary certificates: <a href="https://www.gov.uk/phytosanitary-certificate-england-scotland-wales">https://www.gov.uk/phytosanitary-certificate-england-scotland-wales</a></p> <p><b>Scotland:</b> <a href="https://www.gov.scot/publications/plant-health-guide-guidance-importers/pages/1/">https://www.gov.scot/publications/plant-health-guide-guidance-importers/pages/1/</a></p> <p><b>Northern Ireland:</b> <a href="https://www.gov.uk/phytosanitary-certificate-northern-ireland">https://www.gov.uk/phytosanitary-certificate-northern-ireland</a></p>
4.1.3	<p><b>Forest Reproductive Material (FRM) Regulations</b></p> <p>The detail of the procedure will be specified in the scheme guidance documents to ensure that detail is kept up-to-date with any changes.</p>	<p>This section is only relevant if you deal with Forest Reproductive Material. FRM regulations provides a system of control for seeds, cutting and planting stock used for forestry purposes in Great Britain. Forestry purposes is defined as '<i>woodland planting (woodland is an area greater than 0.25 hectare or more than 15 m in width, with a minimum of 20% canopy cover at maturity) of any description for any multi-purpose forestry purpose</i>'</p> <p>Full guidance can be found at:</p> <p><a href="https://www.forestresearch.gov.uk/research/forest-reproductive-material-regulations-controlling-seed-cuttings-and-planting-stock-for-forestry-in-great-britain-2nd-edition/">https://www.forestresearch.gov.uk/research/forest-reproductive-material-regulations-controlling-seed-cuttings-and-planting-stock-for-forestry-in-great-britain-2nd-edition/</a></p> <p><b>Acceptable evidence:</b> FRM is controlled by a regulatory system covering 46 tree species and the genus <i>Populus</i>. This legislation must be adhered to if appropriate to the business/organisation.</p> <p><b>Guidance:</b> Forest Reproductive Material (FRM) is the generic name for the seeds, cones, cuttings and planting stock used in forest establishment. The Forestry Commission is the</p>

		<p>Official Body that is responsible for the FRM Regulations in England, Scotland and Wales. The Regulations are in place to ensure that planting stock is traceable from seed/cuttings collection.</p> <p>There is also a voluntary scheme which is not regulated, whereby all seed/cuttings used may be listed under FRM even if they are not on the list of controlled species. This should be checked regularly as new species may be added to the list.</p> <p>Further guidance can be found at: <a href="https://www.forestry.gov.uk/forestry/infd-66sg25">https://www.forestry.gov.uk/forestry/infd-66sg25</a></p>
4.1.4	<p><b>Notifiable pest interceptions or outbreaks<sup>5</sup></b></p> <p>A procedure must be in place to identify and deal with issues assessed as notifiable pest interceptions or outbreaks.</p> <p>The procedure shall include: -</p> <ul style="list-style-type: none"> <li>• Inform the local Plant Health &amp; Seeds Inspector (PHSI) immediately if a notifiable pest is suspected</li> <li>• Isolate and contain the affected plants</li> <li>• Clearly mark the affected plants to ensure that they are not inadvertently moved or planted</li> <li>• Act on the PHSI's instructions. No treatment or disposal action shall take place without the authorisation of the PHSI</li> </ul> <p>The detail of the procedure will be specified in the scheme guidance</p>	<p><b>Acceptable evidence:</b> The company should be able to provide evidence that there are written procedures and these procedures are shared with relevant staff; this can be electronically and / or displayed in appropriate area(s).</p> <p><b>Plant health portal website:</b> <a href="https://planthealthportal.defra.gov.uk/">https://planthealthportal.defra.gov.uk/</a></p> <p>Notifiable pests are those which have the potential to cause the greatest damage to our environment.</p> <p><b>General guidance:</b></p> <p><b>Tree pests :</b> <a href="https://www.gov.uk/government/collections/tree-pests-and-diseases;">https://www.gov.uk/government/collections/tree-pests-and-diseases;</a>  <a href="https://www.gov.uk/guidance/report-a-tree-pest-or-disease-overview">https://www.gov.uk/guidance/report-a-tree-pest-or-disease-overview</a></p> <p><b>Notifiable pests :</b> <a href="https://planthealthportal.defra.gov.uk/pests-and-diseases/pest-and-disease-factsheets/notifiable-pests/">https://planthealthportal.defra.gov.uk/pests-and-diseases/pest-and-disease-factsheets/notifiable-pests/</a></p> <p><b>Reporting a pest</b> - in England and Wales, they must be reported to the Forestry Commission or the Animal and Plant Health Agency (APHA).  <a href="https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/access-and-opening#plant-and-bee-health-services">https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/access-and-opening#plant-and-bee-health-services</a></p> <p><b>Scotland:</b> <a href="https://www2.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth">https://www2.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth</a></p> <p><b>Northern Ireland: General guidance:</b> <a href="https://www.daera-ni.gov.uk/topics/plant-and-tree-health">https://www.daera-ni.gov.uk/topics/plant-and-tree-health</a></p> <p><b>Reporting:</b> <a href="https://www.daera-ni.gov.uk/articles/get-involvedreport-suspected-cases">https://www.daera-ni.gov.uk/articles/get-involvedreport-suspected-cases</a></p>

<sup>5</sup> <https://planthealthportal.defra.gov.uk/pests-and-diseases/pest-and-disease-factsheets/notifiable-pests/>

	documents to ensure that detail is kept up-to-date with any changes	
4.1.5	<p><b>Other statutory requirements</b></p> <p>There are other legal requirements, e.g. the statutory notification scheme that involves a legal requirement to notify the Animal and Plant Health Agency (APHA) in advance of the import of certain trees and shrubs from EU member states.</p> <p>There are other legal requirements for disposal of infected material that may need to be adhered to.</p>	<p>It is good practice to ensure that the pest risk analysis is reviewed and updated where necessary</p> <p>* Significant pests are considered, as a minimum, to be (i) all notifiable pests and (ii) other pests specific to your organisation – see the UK Plant Health Risk Register for up-to-date pest and host information</p> <p>This depends on the type of organisation and the plants being managed. Contact the local plant health and seeds inspector (PHSI) from APHA if you are uncertain of other statutory plant health requirements. Keep records of any requirements and ensure that relevant staff know about the requirements and how you comply with them. Guidance:</p> <p><b>England &amp; Wales:</b> <a href="https://www.gov.uk/guidance/plant-health-controls">https://www.gov.uk/guidance/plant-health-controls</a> ;  <a href="https://www.gov.uk/guidance/importing-trees-and-plants-to-england-and-wales-from-the-eu">https://www.gov.uk/guidance/importing-trees-and-plants-to-england-and-wales-from-the-eu</a></p> <p><b>Scotland:</b>  <a href="https://www2.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth/PlantMovements/ImportsAndExports">https://www2.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth/PlantMovements/ImportsAndExports</a></p> <p><b>Northern Ireland:</b> <a href="https://www.daera-ni.gov.uk/topics/plant-and-tree-health">https://www.daera-ni.gov.uk/topics/plant-and-tree-health</a> ;  <a href="http://www.legislation.gov.uk/nisr/2018/184/contents/made">http://www.legislation.gov.uk/nisr/2018/184/contents/made</a></p> <p><b>Statutory Plant Health Notices:</b></p> <p><b>England and Wales:</b> Disposal of trees and plant material under a Statutory Plant Health Notice:  <a href="https://www.trees.org.uk/Trees.org.uk/files/35/35cec61c-bb2e-4e0c-8226-74e3e81748d8.pdf">https://www.trees.org.uk/Trees.org.uk/files/35/35cec61c-bb2e-4e0c-8226-74e3e81748d8.pdf</a></p> <p><b>Wales:</b> Guidance on Statutory Plant Health Notices:  <a href="https://naturalresources.wales/media/680531/2-sphn-faq-english.pdf">https://naturalresources.wales/media/680531/2-sphn-faq-english.pdf</a></p> <p><b>Scotland:</b> Disposal of trees and plant material under a Statutory Plant Health Notice:  <a href="https://www.sepa.org.uk/media/154389/wst-g-037-disposal_of_trees_plants_with_specific_diseases.pdf">https://www.sepa.org.uk/media/154389/wst-g-037-disposal_of_trees_plants_with_specific_diseases.pdf</a></p>

<p>4.2</p>	<p><b>Plant Health Policy</b></p> <p>There must be a plant health policy that considers the following elements:</p> <ul style="list-style-type: none"> <li>• The business’ approach to plant health</li> <li>• Plant health objectives to include pest risk analysis</li> <li>• Designated person(s) and their responsibilities</li> <li>• Description of how the organisation keeps up-to-date with plant health legislation</li> <li>• Recognition of pests (including quarantined and regulated)</li> <li>• Commitment to training of relevant staff in plant health procedures</li> <li>• Site housekeeping standards to control plant health</li> <li>• Visitor and contractor arrangements</li> </ul> <p>It must be communicated to all relevant staff. The policy must be signed and dated by a senior responsible person and reviewed as part of a continual improvement process at least annually.</p>	<p><b>Acceptable evidence:</b></p> <p>Policy document (printed or electronic), induction checklist, staff noticeboard, staff handbook.</p> <p>It must be communicated to all relevant staff. The policy must be signed and dated by a senior responsible person and reviewed as part of a continual improvement process at least annually.</p> <p>An example can be found at <a href="https://www.rhs.org.uk/about-the-rhs/policies/plant-health-policy">https://www.rhs.org.uk/about-the-rhs/policies/plant-health-policy</a></p> <p>A template plant health policy is available in appendix 4 of the Arboricultural Association Guidance Note 2: Application of Biosecurity in Arboriculture (<a href="https://www.trees.org.uk/Book-Shop/Products/Application-of-Biosecurity-in-Arboriculture-en">https://www.trees.org.uk/Book-Shop/Products/Application-of-Biosecurity-in-Arboriculture-en</a>) which can be adapted for your business. The template does not have to be used but the elements within the template could be included in the policy document.</p> <p><b>Guidance:</b></p> <p>A plant health policy statement is a company-level document that sets out commitment and prescribes acceptable methods or behaviours relating to plant health rules and objectives within the business, a set of expectations put in place to manage employee behaviour. Policies are different from procedures and standard operating procedures because they are applicable to an entire organisation and are primarily intended to set direction. As long as the initial policy is well written it would not generally be reviewed unless the organisation changed dramatically (e.g. refer to positions rather than specific names when talking about designated roles). The statement should be relatively brief and easily understood by all working within the organisation. It should avoid use of acronyms and jargon.</p> <p>Procedures and standard operating procedures, on the other hand, typically include very specific instructions used to accomplish defined tasks which lead to delivery of the objectives set within the policy. They tell the employees how to abide by the objectives set in a policy.</p> <p><b>What to Include in your policy statement</b></p> <p>Meaningful policy statements establish the parameters for its effective implementation. Each parameter should state whom they apply to, defines the circumstances under which the</p>
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		<p>statement applies and defines important conditions or restrictions. It can generally be broken down to three sections:</p> <ol style="list-style-type: none"> <li>1. The statement of general policy             <ul style="list-style-type: none"> <li>• Why a plant health policy is being implemented</li> <li>• The organisation’s approach to plant health</li> <li>• Plant health objectives</li> </ul> </li> <li>2. The responsibility section             <ul style="list-style-type: none"> <li>• Designated roles and their responsibilities</li> </ul> </li> <li>3. The arrangements section</li> </ol> <p>What you are going to do in practice to achieve the aims set out in your plant health statement</p> <ul style="list-style-type: none"> <li>• Risk Assessment</li> <li>• A description of how the organisation keeps up to date with legislation (including recognition of quarantined and regulated pests)</li> <li>• Commitment to training</li> <li>• Organisation/site housekeeping standards (including visitor and contractor arrangements)</li> </ul> <p><b>What Not to Include</b></p> <p>Stick to the facts make sure you avoid including any instructions or procedures.</p>
<p>4.3</p>	<p><b>Plant Health responsibility</b></p> <p>Plant health responsibility within the organisation shall be clearly defined.</p> <p>The roles and responsibilities shall include delivering the requirements of this standard throughout the business.</p>	<p><b>Acceptable evidence:</b></p> <p>Job description, organisational structure (organogram), detailed responsibility in the plant health policy.</p> <p><b>Guidance:</b></p> <p>The roles and responsibilities of any employee designated with plant health management should be clearly defined and include delivering the requirements of this standard throughout the organisation. This could be a single member of staff or more, designated with the responsibility to manage plant health within the organisation. In small organisations the plant</p>

		<p>health manager duties can be an additional responsibility of an existing employee. A contractor/consultant may be used to provide assistance/advice on keeping up to date with changes associated to plant health e.g. recent threats, treatments, etc.</p> <p>In a larger organisation, it may be appropriate to have a senior member of staff/manager/director with overall responsibility, then designated responsibility by area e.g. public garden area/and/or team. There may then be further layers where specific members of staff have delegated responsibility e.g. specific roles to deliver a particular element of the plant health policy. Provision should be made so there is an absence, a trained deputy must cover for this person and/or team.</p> <p>Examples of roles include recording all outbreaks and complaints (minor or major) together with any corrective and preventative actions, that may arise from them. Someone who is responsible for plant passporting and the main point of contact for the Plant Health &amp; Seed Inspectorate (PHSI).</p>
<p>4.4</p>	<p><b>Pest Risk Analysis</b></p> <p>Areas of plant health risk shall be identified and assessed, and specific plans shall be in place to reduce these risks to an <i>Appropriate Level of Protection</i> (ALOP). The plans shall detail:</p> <ul style="list-style-type: none"> <li>● The extent of <i>site</i></li> <li>● Susceptible host plants</li> <li>● Significant <i>pests</i><sup>6</sup></li> <li>● <i>Pathways</i> of <i>pests</i> to, within and from the <i>site</i></li> <li>● Potential or level of risk i.e. pest risk assessment</li> <li>● Current or planned mitigation</li> </ul>	<p><b>Acceptable evidence:</b></p> <p>It is good practice to ensure that the pest risk analysis is reviewed and updated where necessary e.g. when a new plant species is grown/stocked or a pest incident has occurred.</p> <p>* Significant pests are considered, as a minimum, to be (i) all notifiable pests and (ii) other pests specific to your organisation – see the UK Plant Health Risk Register for up-to-date pest and host information"</p> <p><b>Guidance:</b> This is one of the most important sections. The information is covered in the Section A above.</p> <p>The organisation should ensure that an appropriate level of protection is in place to reduce the risk of pests within the garden. This should be determined by the organisation and should suit their needs providing a high level of protection against pests, reducing the risk of pest entrance or transference to as low a level as possible.</p>

<sup>6</sup> Significant pests are considered, as a minimum, to be (i) all notifiable pests and (ii) other pests specific to your business – see the UK Plant Health Risk Register for up-to-date pest and host information

	<ul style="list-style-type: none"> <li>● Risk following mitigation</li> <li>● Acceptable Level of Protection (ALOP) description as applied to the <i>site</i></li> <li>● Monitoring of the <i>site</i></li> </ul> <p>Reviews of the <i>pest risk analysis</i> shall be conducted annually as a minimum and updated, e.g. when a new susceptible plant species is grown / stocked, or a <i>new pest</i> risk becomes evident. All reviews must be recorded.</p>	<p>A guide to plants commonly-used by landscape consultants and contractors and their associated risks can be found in section 9 of the 'Plant Health and Biosecurity: The Landscape Consultants Toolkit'. This can be downloaded for free from the Landscape Institute at <a href="https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/">https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/</a> or from the British Association of Landscape Industries here <a href="https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/">https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/</a></p> <p>For more information see <a href="https://planthealthportal.defra.gov.uk/">https://planthealthportal.defra.gov.uk/</a></p>
4.5	<p><b>Supply chain management</b></p> <p>As part of the pest risk analysis, the organisation shall risk-assess their suppliers and approve those that they deem to have met their plant health requirements. The ordering or purchasing process must detail any specific compliance requirements, and suppliers must be made aware of any control measures that are applicable.</p>	<p>The supply chain can include any plant material (living and dead), growing media and other items that may harbour pests such as packaging, pots, equipment and vehicles.</p> <p>The methodology and the outcomes of the supplier assessment should be recorded. This could be in the form of a checklist to ensure that suppliers meet the requirements detailed by the organisation or the supplier's plant health plans or pest risk assessments analysed (this list is not exhaustive).</p> <p><b>Acceptable evidence:</b> Approved suppliers/contractors list, completed self-assessment questionnaire documents, communication with suppliers/contractors to explain applicable control measures (letter, terms of business, email). Include corrective actions from self-assessment document.</p>
4.6	<p><b>Plant health hygiene and housekeeping</b></p> <p>Plant hygiene and housekeeping rules and practices, that have been assessed and developed through the pest risk analysis processes, shall be in place. The rules and procedures shall be communicated to all relevant employees.</p>	<p>The level of documented evidence will depend on the size of organisation. Each organisation should assess each site detailed in 4.6.1 to 4.6.7. For further information see <a href="https://www.gov.uk/guidance/prevent-the-introduction-and-spread-of-tree-pests-and-diseases">https://www.gov.uk/guidance/prevent-the-introduction-and-spread-of-tree-pests-and-diseases</a></p>

	The rules will be dependent on the plants handled and the type of business.	
4.6.1	<p><b>Growing media and soil</b></p> <p>In the production or procurement of plants, the organisation shall demonstrate that the use of growing media and soil have been assessed for the potential to harbour and transmit plant pests.</p>	<p><b>Acceptable evidence:</b> Procedure or standards, guidance notes and industry best practice guides BS3882:2015 – For top-soil National Plant Specification and NBS Landscape Specification</p> <p>Figure 2: Pests and pathogen cycle page 10 <a href="https://www.trees.org.uk/Book-Shop/Products/Application-of-Biosecurity-in-Arbiculture-en">https://www.trees.org.uk/Book-Shop/Products/Application-of-Biosecurity-in-Arbiculture-en</a></p>
4.6.2	<p><b>Weed management</b></p> <p>The organisation shall assess weeds and volunteer plants for the pest potential (as a pest and to host and transmit other plant pests).</p>	<p><b>Acceptable evidence:</b> Procedure or standards, husbandry rules, signage, guidance notes and industry best practice guides such as COSHH.</p>
4.6.3	<p><b>Water usage</b></p> <p>The organisation shall assess water sources, irrigation and drainage systems used in the husbandry of plants for the potential to harbour and transmit plant pests.</p>	<p>The organisation shall assess water sources, irrigation and drainage for the potential to harbour and transmit plant pests. The assessment will include identifying a potential risk and whether or not it is possible to mitigate for it.</p> <p>See AHDB Horticulture Factsheet 21/15: Testing water for plant pathogens for further information.</p>
4.6.4	<p><b>Cleaning and sterilisation</b></p> <p>The organisation shall carry out an assessment of husbandry processes and ensure that safe cleaning and sterilisation practices are implemented.</p>	<p>This may involve the cleaning or sterilisation of plant material, hands, footwear, clothing, tools, machinery, pots, vehicles and production or growing areas (this list is not exhaustive).</p> <p><a href="https://www.gov.uk/guidance/prevent-the-introduction-and-spread-of-tree-pests-and-diseases">https://www.gov.uk/guidance/prevent-the-introduction-and-spread-of-tree-pests-and-diseases</a></p>
4.6.5	<p><b>Waste treatment and disposal</b></p>	<p>Residues or waste materials must be treated or disposed of as per legislative requirements and to ensure that an appropriate level of protection is attained.</p>

	All residues or waste materials shall be assessed for the potential to host, harbour and transmit pests.	Residues or waste materials may include plant material, weeds, water, debris, growing medium, plant pots and any other items utilised in the production process. Relevant documentation (e.g. waste transfer notes) must be retained. Where on-site storage or composting is taking place, it must be shown through e.g. a risk assessment that this does not compromise plant health.  Statutory Plant Health Notices have requirements under the regulations regarding disposal of the plants and dunnage and will be specific to the notice issued – contact your local plant health inspector if clarification is required  See section 4.1.5 for links to all related legislation
4.6.6	<b>Wider environment (including landscape plantings within the site)</b>  The organisation shall assess the wider environment and its potential impact on the health of plants on the site.	This may include plants, trees or shrubs, crops growing on the surrounding land, prevailing wind, local outbreaks, etc. A record of the assessment and any revision where e.g. adjacent land use practices change or known diseases are recognised.
4.6.7	<b>Visitors</b>  The organisation shall be able to demonstrate how the relevant rules above are communicated and complied with by visitors. Areas that are restricted for plant health reasons shall be clearly delineated and signposted.	Acceptable evidence: for public areas - signage, visitor books for areas that are restricted/not open to the public, internal guidance, boot cleaning stations, etc.
<b>4.7</b>	<b>Plant health controls</b>	
4.7.1	<b>Goods in</b>  Incoming goods that have the potential to be infected or harbour pests, shall be checked. There shall be a procedure that details who, where, when and how a consignment or consignment in transit or	Plants and materials that have the potential to be infected or harbour pests could be plants, packaging material, growing media, between pots, bamboo canes, etc. All goods in should be assessed as to their potential to harbour or be infected. This includes plant material, packaging material and other products that potentially harbour pests.  <b>Acceptable evidence:</b> Goods-in procedure, record of checks on delivery notes or goods in documentation, observation of checks.

	<p>other plant material (e.g. woody biomass) is checked upon receipt. Any sampling system used shall be documented.</p> <p>A procedure must be in place to ensure that suspect plant material is isolated (quarantined), and to report findings to the authorities (in line with statutory requirements), suppliers of the material and other parties that could be affected.</p>	
4.7.2	<p><b>Traceability (chain of custody)</b></p> <p>Traceability must be provided for all plant material handled. The traceability system shall provide details and sources of the plant material and demonstrate that control measures identified in the PRA are being carried out. It shall allow a consignment or consignment in transit or other plant material (e.g. woody biomass) to be traced back to the original source, as well as forward to identify all trade customers to which those plants have been supplied.</p>	<p>The traceability system used must be able to provide details of sources, and planting locations and species of plants, trees and shrubs. It must allow plant material to be traced back to the original source. It should also be able to trace infected plant material that has been removed and taken to specific waste disposal sites, etc.</p> <p><b>Acceptable evidence:</b> The auditor selects a finished plant and ask for traceability information to be provided to trace material back to source, as well as to the final destination.</p> <p>See also section 4.1.1 above on plant passports and 4.1.2 on phytosanitary certificates</p>
4.7.3	<p><b>Treatment and mitigation</b></p> <p>Records of all plant protection treatments, whether routine or following an interception or outbreak, must be kept.</p>	<p>Mitigation measures should also be recorded such as: cleaning of tools and vehicles, burning of infected waste and other material (this list is not exhaustive).</p> <p>When an outbreak is related to external factors that have made plants more susceptible to the pest (e.g. drought that has stressed the plants or wetter summer making them more susceptible to mildews) management must demonstrate that such system breakdowns are monitored for continual improvement.</p>
4.7.4	<p><b>Dispatch</b></p>	<p><b>Not required for public gardens unless there is a plant sales area</b></p>

	<p>Informed by the pest risk analysis, plant material must be checked prior to dispatch for plant health issues.</p> <p>If a sampling system is used, the rationale and methodology shall be documented.</p>	<p>Where appropriate, ensure organisation procedures detail who, where, when and how plant material is checked.</p> <p>Acceptable evidence: Records of checks, final positive release notes, observation of checks.</p>
4.7.5	<p><b>Complaints, issues and returns</b></p> <p>There shall be a complaints management procedure for plant health issues. The complaints must be categorised and assessed for continual improvement of the business. Records of any complaints and actions taken shall be reviewed at least annually.</p> <p>There shall be an assessment that details the scale of the issue and whether it is notifiable (see section 4.1.4) and include, where relevant, traceability both forwards and backwards.</p> <p>There shall be consideration of any withdrawal or recall or disposal procedures in the assessment.</p>	<p>For complaints that fall into the pest or plant health category there shall be an assessment that details the scale of the issue. This assessment shall include the extent of the pest issue, whether it is notifiable and if plants are onward supplied or transported – only applicable if plant sales. For notifiable diseases, where the plant(s) has been supplied by an external supplier, the organisation should ensure that the supplier has notified the relevant authority. For plants grown 'in-house', the relevant authority (Plant Health &amp; Seeds Inspectorate or Forestry Commission) should be notified direct.</p> <p>Acceptable evidence: Complaint procedure, complaint and action, communication with customers and contractors.</p>
4.8	<p><b>Monitoring and ongoing plant health assessment</b></p> <p>Plant material must be regularly monitored for plant health issues.</p> <p>The pest risk analysis shall inform the monitoring and ongoing assessment. The method of monitoring and recording will be dependent on susceptibility of the</p>	<p>Link any monitoring to the pest risk analysis for specific pests. The method of monitoring and recording will be dependent on susceptibility of the any plants handled, local/national outbreaks, the type of site and the plant health risks present.</p> <p>A system must be in place to identify infection throughout the period that the plant is kept by that organisation as infection may not have been visible at point of purchase and delivery. The system must identify necessary controls and treatments to reduce risk to an acceptable level of protection and include timescales Records of mitigation/action and infected material disposal must be kept.</p>

	<p>species handled, the type of organisation and customers and any plant health risks. Monitoring records shall be kept.</p> <p>Unless a pest can be immediately and definitively identified as non-quarantine it should be treated as if it is a quarantine pest (see section 4.1.4).</p>	<p>It is good practice, if possible when purchasing larger mature or imported plants to keep them in quarantine at least one year in advance of planting in order to monitor health before planting (see page 10 of 'Plant Health and Biosecurity: The Landscape Consultants Toolkit. This can be downloaded for free from the Landscape Institute at <a href="https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/">https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/</a> or from the British Association of Landscape Industries here <a href="https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/">https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/</a>, also see the RHS plant health policy at <a href="https://www.rhs.org.uk/about-the-rhs/policies/plant-health-policy">https://www.rhs.org.uk/about-the-rhs/policies/plant-health-policy</a>)</p> <p><b>Acceptable evidence:</b> records including sticky traps, written advice, cleaning records of tools and vehicles, waste material disposal.</p>
<p>4.8.1</p>	<p><b>Self-assessment, review and continual improvement</b></p> <p>A review of the pest risk analysis of the organisation site (which could be a single area or multiple areas) shall be carried out. This self-assessment must be at least annually and include a review of outbreaks, interceptions and complaints relating to plant health. A record of this self-assessment shall be kept and must detail any non-conformances, applicable requirements and corrective actions. The scale of this review shall be appropriate to the size of organisation and the performance over the review period.</p>	<p>The review should include:</p> <ul style="list-style-type: none"> <li>● Outbreaks since the last review</li> <li>● Treatments or mitigation or advice offered and how effective they were</li> <li>● Review of any new guidance and legislation (for example, APHA, FR and Plant health portal)</li> <li>● Corrective actions</li> <li>● Any adjustments to pest risk assessment/policy</li> </ul>
<p>4.9</p>	<p><b>Training and recognition</b></p>	

<p>4.9.1</p>	<p><b>Plant health competencies</b></p> <p>There shall be qualified and / or trained personnel responsible for the plant health measures detailed in this standard. This requirement will be proportionate to the size and activities of the organisation and be informed by the pest risk assessment.</p> <p>Training records of internal and external training must be maintained, and evidence of continuing professional development (CPD) to maintain awareness of current plant health issues.</p> <p>In the absence of formal qualifications, the organisation or organisation shall carry out an assessment of relevant employees that have a plant health responsibility to demonstrate compliance with this standard.</p>	<p>Training records must be maintained, an evidence of continued professional development to maintain awareness of current issues. The training should be appropriate to their level of responsibility.</p> <p>For example, relevant personal within or authorised by the organisation should be able to:</p> <ul style="list-style-type: none"> <li>• identify commonly occurring pests, pathogens and disorders, or symptoms, associated with the trees or shrubs planted, managed or maintained.</li> <li>• conduct a pest risk analysis</li> <li>• monitor pest levels of plants/trees/shrubs in the garden</li> <li>• monitor levels of natural enemies of the pests</li> <li>• collect information/knowledge on treatments for common pests to the garden</li> <li>• collect information/knowledge relating to outbreaks of pests in your area</li> <li>• if required, effectively apply pesticides in a safe manner and be qualified to do so</li> <li>• carry out other pest management techniques when required</li> <li>• demonstrate how an acceptable level of protection has been determined</li> </ul> <p><b>Note:</b> In the UK, the Royal Society of Biology operates a register of plant health professionals and raises awareness of all aspects of plant health management and records Continuing Professional Development.</p> <p><b>Acceptable evidence:</b> Training records, identification guides, newsletters, technical notes, posters.</p>
<p>4.9.2</p>	<p><b>Legislation and keeping up to date</b></p> <p>The relevant person(s) responsible for plant health shall demonstrate how they keep up-to-date with legislation and the latest plant health risks. It is also their responsibility to disseminate this</p>	<p>Have the up-to-date training records for relevant employees that relate to plant health. This includes evidence of review of legislation changes and impacts on the organisation and control measures.</p>

	information and knowledge throughout the business.	
4.9.3	<p><b>Information sharing</b></p> <p>Information and knowledge must be shared within the organisation to ensure all relevant employees are aware of plant health issues and their management.</p> <p>The organisation must be able to demonstrate how employees are made aware of plant health management.</p> <p>The organisation must be able to demonstrate that there are processes in place for employees to report any suspected plant health issues to the appropriate member of staff.</p>	<p>The evidence will be dependent on the plant species handled, but may include induction checklist, employee handbook, noticeboards, shared drives, team meetings, training workshops, annual review (this list is not exhaustive).</p> <p>Use of/access to reference material such as plant health portal or plant health and seeds inspector (PHSI)</p> <p><b>Acceptable evidence:</b> Induction checklist, employee handbook, noticeboards, shared drives, team meetings, training workshops.</p>
4.9.4	<p><b>Other relevant training</b></p> <p>The organisation must be able to demonstrate that they follow nationally recognised health and safety guidance relating to plant health control measures.</p>	<p>Have the up-to-date appropriate training records (internal and external) and any certificates for relevant employees that relate to plant health control measures.</p>

## Section D: Further information and Biosecurity Guidance for Public Gardens

Useful websites:

<https://www.rhs.org.uk/about-the-rhs/policies/plant-health-policy>

Useful documents:

Parks and Gardens – Biosecurity Best Practice Protocols. Produced by FERA in 2012.

<https://plantnetwork.org/wordpress/wp-content/uploads/12568/parksbiosecuritysmall.pdf>

### **Tree Preservation Orders and Conservation Areas**

There are legal requirements governing Tree Preservation Orders and tree protection in Conservation Areas. If a tree that has a Tree Preservation Order, or is located in a Conservation Area, is found to have a pest or disease and needs to be dismantled and removed an application to the local planning authority should be made. Guidance can be found at:

<https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

<https://www.trees.org.uk/Help-Advice/Public/A-brief-guide-to-legislation-for-trees>

**Environmental Permitting:** The regulations for the devolved administrations are detailed below:

**England & Wales:** The Environmental Permitting Regulations 2010

<https://www.legislation.gov.uk/ukdsi/2010/9780111491423/contents>

**Scotland:** The Pollution Prevention & Control Regulations 2000

<https://www.legislation.gov.uk/ssi/2000/323/contents/made>

The Waste Management Licensing Regulations 2011

<https://www.legislation.gov.uk/sdsi/2011/9780111012147/contents>

**Northern Ireland:** The Pollution Prevention & Control Regulations 2003

<https://www.legislation.gov.uk/nisr/2003/46/contents/made>

The Waste Management Licensing (Northern Ireland) Regulations 2003

<http://www.legislation.gov.uk/nisr/2003/493/contents/made>

### **Protected Zones**

This is only applicable if the garden or suppliers are from protected zones. Additional requirements apply to movements of specified plants into and within protected zones. These will also need a specific ZP code on their plant passports to confirm they come from a nursery free of the pests that the UK has a Protected Zone for. Please see links below for further information:

<https://planthealthportal.defra.gov.uk/resources/plant-health-protected-zones/>

<https://www.gov.scot/publications/plant-health-guide-passporting-marketing-requirements/pages/22/>

For more information:

Plant Health and Biosecurity: The Landscape Consultants Toolkit. This can be downloaded for free from the Landscape Institute at <https://www.landscapeinstitute.org/technical-resource/biosecurity-toolkit/> or from the British Association of Landscape Industries here <https://www.bali.org.uk/help-and-advice/documents/plant-health-and-biosecurity-the-landscape-consultants-toolkit/>

The Arboricultural Association has published a Biosecurity Guidance Note and is also very useful. This can be purchased or downloaded for free from the Arboricultural Association's website at

<https://www.trees.org.uk/Book-Shop/Products/Application-of-Biosecurity-in-Arboriculture-en>.

Other standards that may be of use:

ISPM Standards covering phytosanitary certificates and wood packaging  
BS5837:2012 for Trees in relation to design, demolition and construction  
BS3882:2015 for topsoil National Plant Specification and NBS Landscape Specification  
BS8545:2014 Trees: from nursery to independence in landscape

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## Appendix: Glossary of terms

For the purposes of this document the following terms and definitions apply. Many of the definitions are as defined by the International Standards for Phytosanitary Measures (ISPM) 5 – Glossary of Phytosanitary Terms 2016. For the purposes of this *standard* and practical application, deviations from the ISPM definitions *standard* are indicated by italics and square brackets.

**[*appropriate level of protection (ALOP)*]:** *the level of protection deemed appropriate by the company establishing a sanitary or phytosanitary measure to protect, human, animal or plant life or health within its territory. This concept is also referred to as the **acceptable level of risk**. (Source SPS Agreement). For the purpose of this standard we apply ALOP principles to individual sites.]*

**consignment:** A quantity of plants, plant products or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate [or plant passport]. *[In this standard a consignment may be composed of one or more commodities or lots and could also be from one location to another within a country (whether inter or intra business)].*

**consignment in transit:** A consignment which passes through a country without being imported, and that may be subject to phytosanitary measures *[for the purpose of this standard, this definition is also used for plants that are grown and traded within the same country if it passes through an area that may be subject to phytosanitary measures].*

**containment:** Application of phytosanitary measures in and around an infested area to prevent spread of a pest

**control (of a pest):** Suppression, containment or eradication of a pest population.

**critical control points** are points within or between production or movement processes where plants can be readily assessed for health and mitigating actions can be taken. For example, a critical control point is when you bring new plants onto a site and your control checking incoming plant material and there could be mitigation following this inspection.

**devitalisation:** A procedure rendering plants or plant products incapable of germination, growth or further reproduction

**eradication:** Application of phytosanitary measures to eliminate a pest from an area [or a *site*].

**[*Forest Reproductive Material Regulations*]:** *Regulations controlling seed, cuttings and planting stock for forestry in Great Britain.*

**[*goods in (incoming goods)*]:** *the receipt of a consignment or consignment in transit by a business].*

**growing medium:** Any material in which plant roots are growing or intended for that purpose.

**host pest list:** A list of pests that infest a plant species, globally or in an area.

**host range:** Species capable, under natural conditions, of sustaining a specific pest or other organism.

**incursion:** An isolated population of a pest recently detected in an area, not known to be established, but expected to survive for the immediate future.

**infestation (of a commodity):** Presence in a commodity of a living pest of the plant or plant product concerned. Infestation includes infection.

**interception (of a pest):** the detection of a pest during inspection or testing of a consignment [or consignment in transit]. *[Finding of a pest at or very soon after arrival on site or if on site for some time that period must have been when the climatic conditions or biology of the pest would not have caused it to spread beyond the original point of introduction].*

**monitoring:** An official ongoing process to verify phytosanitary situations.

**[origin (original source):** *The country or place where the plant material was grown, raised, cultured or produced].*

**outbreak:** A recently detected *pest* or pathogen population, including an incursion, or a sudden significant increase of an established *pest* or pathogen population in an area. *[Spread of a pest beyond the original point of introduction].*

**pathogen:** Micro-organism causing disease.

**pathway:** Any means that allows the entry or spread of a pest

**[Person or Persons Responsible:** *The person or persons within a business with the responsibility for inspecting plants, issuing plant passports and keeping records. Adapted from APHA plant passporting]*

**pest:** Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products.

**pest risk analysis:** The process of evaluating biological or other scientific and economic evidence to determine whether an organism is a *pest*, whether it should be regulated, and the strength of any phytosanitary measures to be taken against it. *[adapted from the PRA at a national level developed by the International Plant Protection Conventions – see normative references]*

**pest risk assessment:** *Evaluation of the probability of the introduction and spread of a pest and the magnitude of the associated potential economic consequences.*

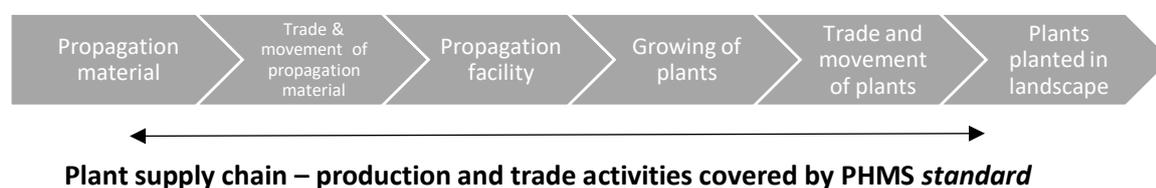
**phytosanitary certificate:** An official paper document or its official electronic equivalent, consistent with the model certificates of the International Plant Protection Convention (IPPC), attesting that a consignment meets phytosanitary import requirements.

**[plant health manager(s):** *A person or persons designated by a business with the responsibility for ensuring plant health in the business. In the UK this person is the Person or Persons Responsible for Plant Health and Seeds Inspectorate (PHSI) e.g. for Plant Passporting].*

**[plant passport:** *Issued by an authorised plant grower/trader/propagator or other professional, the plant passport must accompany material moved within and between Member States including within the UK. Authorisation is provided by the relevant plant health authority in the UK. Plants must leave production nurseries in a healthy condition to prevent the spread of quarantine plant pests.]*

**plant supply chain:** See figure below.

**Figure A1: Generalised elements of the supply chain**



**quarantine:** Official confinement of regulated articles for observation and research or for further inspection, testing or treatment.

**quarantine pest:** A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled. *[listed in the Plant Health Order Schedules i.e. enshrined in UK law].*

**[regularly:** *This is determined by each business/organisation depending on factors such as species and volume handled, location and others, as identified in the pest risk assessments for the species handled by the business/organisation]*

**[sampling system:** *A methodology that provides a representative sample from the consignment or consignment in transit to assess if pests or pathogens are present. The system itself will depend on the risk assessment together with continual review].*

**[site:** *A defined area (or areas) managed as a unit for plant health purposes] In the case of arboricultural businesses, this could be a customer's site where tree/shrub management is being carried out, the company depot and/or any waste disposal sites including firewood processors.*

**standard:** Document established by consensus and approved by a recognised body that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.

**test:** Official examination, other than visual, to determine if *pests* are present or to identify *pests*.

**[third countries:** *Countries that are not members of the European Union]*

**treatment:** Official procedure for the killing, inactivation or removal of *pests*, or for rendering *pests* infertile or for devitalisation.

**wood (as a commodity class):** Commodities such as round wood, sawn wood, wood chips and wood residue, with or without bark, excluding wood packaging material, processed wood material and bamboo products.

**wood packaging material:** Wood or wood products (excluding paper products) used in supporting, protecting or carrying a commodity.