



Plant health considerations for planting schemes

A recent increase in invasive tree diseases has highlighted the growing risks to UK forest and woodland ecosystems from the dissemination and establishment of pests and pathogens in diseased planting material through trade pathways. These risks can be mitigated by ensuring good biosecurity practice throughout the supply chain.

The following guidance aims to help those responsible for planting schemes to identify and select plant providers who follow good biosecurity practice.

Key biosecurity considerations when sourcing plants

Plant origin

Understand where the stock will/has come from. Stock grown in the UK for its entire life (i.e. from UK-sourced seed) has a lower risk of introducing diseases not yet present in the country. However, if it is raised alongside imported stock, it is still at risk from infection.

Bare root versus containerised stock

Some pathogens can survive for long periods in soil or contaminated growing media, so bare root stock has a lower risk of carrying soil-borne diseases than containerised stock.

Get to know your grower

Visit prospective suppliers to look around before deciding where to obtain your plants. Look out for the following issues.



Covered borehole water storage tank.

- **Water source:** Water is an effective carrier of many pathogens. Mains or borehole water supplies carry the least risk. Sourcing water from open reservoirs, ponds, rainfall butts or extracting from rivers carries a high risk, unless the water is treated using a method proven to kill damaging microorganisms.
- **Growing media:** Is the growing media sterile? This may be particularly important when using peat-free mixes that may contain local authority green waste, bark and coir (the latter being imported from the tropics).
- **Quarantine holding area:** Importing plants from overseas carries a risk of introducing diseases new to the UK. If your supplier imports plants, do they have a 'quarantine area' where imports are well separated from main stock and observed regularly over several months for disease symptoms? (Effective nursery quarantine measures will become more defined in the near future.)

- **Drainage:** Puddles and excess run-off can spread waterborne pathogens. Plants should be grown on a free-draining surface, preferably raised above the ground. Persistent puddles in nurseries – especially on roadways – are a high risk.



Puddles can act as reservoirs of waterborne pathogens so good drainage is key.

- **Surroundings:** Check shelterbelt and landscape trees/shrubs growing in and around the nursery premises. Are these healthy?
- **Plant disposal:** How are unhealthy or unwanted plants dealt with? Dumping such plants close to the nursery premises carries a high risk of pathogen proliferation. Ideally, plants should be disposed of through a contained composting system well away from stock or natural ecosystems.



Phytophthora lateralis infecting Lawson cypress adjacent to a garden centre.

- **General nursery hygiene:** Is the area free of weeds, spilt soil/potting mix and piles of soiled pots? Are there facilities for disinfestation of tools, pots, boots and vehicles?
- **Plant health knowledge:** Does the grower have staff with plant health training who can effectively oversee disease management? Are they authorised to issue plant passports?

Understand your responsibilities

Importing trees is particularly risky. Be aware that a government notification scheme for some tree species is in place, which aims to protect against the introduction and spread of pests and diseases.

Certification to improve supply chain biosecurity

Probably the best way of having confidence in the health of the plants you specify is by choosing a certified supplier. The new Plant Healthy Certification Scheme, now being rolled out in the UK, is based on the Plant Health Management Standard. More details are available at <https://planthealthy.org.uk>

Strongly consider supporting growers who are part of this scheme or who are actively working towards joining it.

More information

Further details of our work on biosecurity is available at

www.forestresearch.gov.uk/research/global-threats-from-phytophthora-spp

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