STRONG ROOTS

Growing British Tree Nurseries

October 2025

WOODLAND TRUST

HTA

National Trust

RHS

JULIAN WINSLOW

Foreword

The first tree I remember being aware of as a child was an oak. I used to live on a green where all the kids used the tree as the meeting place, for hide and seek, storytelling, our refuge for shade and the point I wasn't allowed to go beyond when playing out. In the storm of 1987, it was gone.

The cultural values of trees have been revered in our landscape for hundreds of years. The public outcry at the felling of the Sycamore Gap tree reminded us of our relationship with trees and that, however subliminal, trees matter.

Introducing, replacing, planting, and establishing trees is essential to address the combined threats of climate change and nature loss, as well as creating cultural markers for future generations.

They play a vital role in our lives, offering ecosystem services that we could not function without. And whilst these benefits are naturally derived and anthropogenically appear free, we only reap the rewards if we sustain and nurture the trees they come from.

Whether it is planting new woodlands, creating wildlife havens, growing crops, designing beautiful public spaces or private gardens, trees are central to, and essential in, our landscapes. And with increasing pressure on urban environments as populations grow, it's imperative that we have the diversity, quantity, and quality of trees to support all life across our nations. Tree nurseries are at the heart of this effort, supplying trees to meet these needs.

There are major advantages to utilising our domestic tree nurseries. It reduces the risk of introducing harmful organisms into our landscapes, which supports our biosecurity, whilst cutting carbon emissions, and boosting local business and the economy. Working with our tree nursery sector for a diverse supply of homegrown trees is not just a matter of preference; it is essential to thriving landscapes and enabling environmental and nature commitments.

The best time to plant a tree was 20 years ago, so the time to act is now. Delay risks undermining both our environmental objectives and the economic potential of this sector.

Investing in British tree nurseries secures the foundation for meeting our ambitious tree establishment goals. This is the moment to build a resilient, sustainable, and green future for Britain.

Arit Anderson

The recommendations in this report, developed in close consultation with the tree nursery sector, represent a significant step change in supporting British tree production. For the first time, four organisations have come together to present a united voice: the Woodland Trust is the UK's largest woodland conservation charity, the National Trust is one of the largest landowners in Britain and the largest conservation charity in Europe, the Royal Horticultural Society is the UK's leading gardening charity, and the Horticultural Trades Association is the trade body representing the environmental horticulture sector, including UK tree production. Each organisation recognises the importance of domestic production to meet our tree planting needs, to support British growers, and aid biosecurity. This report covers England, Scotland and Wales, recognising that tree nurseries in Britain supply across these countries.

Contents

Executive summary 4
Key findings 5
Recommendations 8
Key strategic recommendations for essential and fundamental change 9
Changes for growth in the short and medium term 10
1. Introduction 13
1.1 Why grow trees in Britain? 15
1.2 A plan for a green and prosperous future 19
2. Findings from our research 21
2.1 Strong market confidence and demand for British-grown is vital for growth 21
2.2 Demand for homegrown trees 23
2.3 Seed supply can be limited due to natural fluctuations and poor market confidence 23
2.4 Britain lacks a rootstock production sector 24
2.5 Tree production grants have aided production of forestry saplings but need to be expanded 25
2.6 Labour and skills gaps prevent expansion of the sector 27
2.7 Research and innovation are essential to increase production efficiencies 27
2.8 Community tree nurseries face financial and regulatory barriers 29
3. Moving forward 30
Acknowledgements 31
Glossary 31
References 33

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Strong Roots is a collaboration between:

WOODLAND TRUST HTA National Trust RHS

Executive summary

- This report is the key output of the Strong Roots project, a collaborative project involving the Woodland Trust, Horticultural Trades Association, National Trust and Royal Horticultural Society. Strong Roots explored the key barriers to domestic tree production and identified solutions to increase the availability of homegrown trees, producing evidence-based recommendations for improved governmental support for the sector. This process involved a desk-based review of the existing evidence, two online surveys, and stakeholder interviews. This report applies to Great Britain, which includes England, Scotland, and Wales.
- Trees play an essential role in sustaining biodiversity, mitigating climate change, and enhancing public wellbeing. They improve air quality, provide habitats, store carbon, reduce flooding, and support local economies. In 2023/24, Britain planted over 20,000 hectares of new woodland, the highest in 35 years, yet meeting future planting targets will require a dramatic increase in domestic tree production.
- The UK Government has committed to increasing tree cover as part of its Net Zero Strategy, with targets rising to 40,000 hectares of planting annually by 2030. England's Environmental Improvement Plan sets a legally binding goal of expanding tree cover from 14.5% to 16.5% by 2050. Scotland and Wales have similarly ambitious annual targets, planning to increase planting rates to 18,000 and 4,000 hectares per annum respectively.
- Investment in tree planting and production has grown, with initiatives like the England Woodland Creation Offer, Scotland's Forestry Grant Scheme, and Wales's Sustainable Farming Scheme supporting afforestation. However, to achieve national and international environmental commitments, a robust and resilient tree nursery sector is essential.
- The demand for British-grown trees is evident: all tree importers surveyed expressed a preference for domestically produced stock should it be available.
- Expanding tree production in Britain not only safeguards but also enhances the sector's economic contributions, which currently amount to an estimated £5.02 billion annually. The tree production and management sector supports over 22,000 jobs, and further support would enable potential growth of 45%, creating an additional 9,900 jobs. The majority of these roles are based in rural areas, offering valuable skilled employment and driving sustainable economic growth in local communities.
- Growing trees in Britain not only provides an important green growth opportunity but also strengthens biosecurity by reducing the risk of imported pests and diseases. In 2023, Britain imported 128.5 million trees and shrubs worth £280 million. The movement of plant material increases the likelihood of introducing harmful pests like oak processionary moth and diseases like *Phytophthora ramorum*, which cost an estimated £6.1 million annually to manage.

- The benefits of domestic tree production are evident, and demand continues to grow. Now is the time to unlock this industry's potential to meet key government tree targets. This report sets the foundation for an action plan for Britain led by Defra, the Welsh Government, and the Scottish Government. It outlines key strategic recommendations and immediate actions to strengthen tree production and create the conditions for a thriving and resilient sector.

Key findings

Strong market confidence and demand for British trees is vital for growth

- Market uncertainty remains the biggest challenge for tree nurseries, especially relating to government planting grants which can close or change without warning. In the Strong Roots survey, 93% of nurseries reported that demand forecasting is a challenge for their business.
- Tree nurseries are receptive to using a certified British-grown logo, providing consumers with an easier way to identify and support British growers.

Seed supply can be limited due to natural fluctuations and poor market confidence

- Seed supply was a common concern amongst tree nurseries, with 86% reporting it as a limiting factor. The natural fluctuations in seed supply, coupled with demand forecasting issues, create obstacles in fulfilling demand.
- Further creation of seed stands may be most suitable for rare or sparsely distributed species. To sustain their management, ensuring their use by seed collectors is essential.

Britain lacks a rootstock production sector

- The decline of domestic rootstock production has increased reliance on rootstock imports, resulting in a reduction of breeding programmes.

Tree production grants have aided production of forestry saplings but need to be expanded.

- Tree production grants have been beneficial and well utilised. Capital grants are welcomed for investment in automation which is essential due to labour shortages.
- Further support for tree production needs to align with increases in market demand, or to target shortfalls in supply, to prevent destabilisation of the market.
- Government incentives have primarily focused on production of saplings, with insufficient support for production of larger, mature trees.

Labour and skills gaps prevent expansion of the sector

- A shortage of skilled workers in horticulture and tree production is limiting growth, with 71% of forestry nurseries and 86% of fruit, nut and ornamental growers reporting a skills gap.
- Education and apprenticeships for tree production are scarce, hindering the industry's ability to attract and train new talent.

Research and innovation are essential to increase production efficiencies

- Mechanisation and automation are key to increasing production efficiency, but high costs due to a lack of 'off the shelf' options and an unstable market make widespread adoption difficult.
- Bringing new machinery to market is unattractive for manufacturers due to the small market size for tree production, meaning innovation becomes stuck in the 'valley of death'.

Community tree nurseries face financial and regulatory barriers

- Community Tree Nurseries (CTNs) play a crucial role in growing tree species and provenances that may be unavailable elsewhere, but face financial and regulatory challenges that limit their expansion.

Demand for tree planting is increasing, and Britain must not miss the opportunity to develop its domestic tree nursery sector. Supporting homegrown tree production will strengthen biosecurity, support sustainable economic growth and rural livelihoods, and help meet climate and biodiversity commitments. The recommendations in this report, developed by the Strong Roots partners, provide a roadmap for a thriving, resilient tree production industry that aligns with government targets and will contribute to Britain's green future.

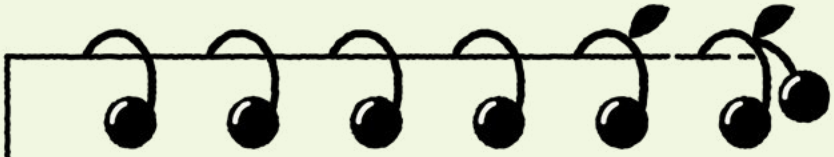
Growing trees in Britain for green growth and stronger biosecurity

Benefits of British-grown trees:

£2.6 billion contributed by the sector to the economy through tree planting and management[1]

22,000 jobs supported and growth could increase this by 9,900[1]

4.1 billion tonnes of carbon dioxide already locked up in UK forests[2]



Our survey of tree nurseries showed:

86% found seed supply a limiting factor

93% found demand forecasting a challenge for their business

78% had invested in automation but saw barriers to expanding

86% of fruit, nut and ornamental nurseries reported a skills gap

83% would use a certified British-grown logo

100% would prefer domestically produced stock

Develop an action plan for British tree supply that will:

- establish a British Tree Procurement Unit.
- support productive and ornamental tree production.
- create and promote a logo for British-grown trees.
- study how much imported material could be grown in Britain.
- establish a tree production research group with research institutions.

[1]Oxford Economics. (2024). The economic impact of environmental horticulture and landscaping in the UK. 16. The Economic Impact of Environmental Horticulture and Landscaping in the UK | Oxford Economics [Accessed 22 January 2025]
[2]Forest Research. (2024). Forestry Statistics 2024. Forestry Statistics 2024 - Forest Research [Accessed 22 January 2025]

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Recommendations

Action is needed to address the issues highlighted above and to allow the three country governments to realise their own commitments. Without this, Great Britain cannot deliver the trees needed to meet ambitious targets.

We recommend the overall responsibility for an action plan to address these issues sits with Defra, the Welsh Government and Scottish Government. The existing UK-wide Forest Genetic Resources Group also provides an opportunity for stakeholder engagement and oversight of this work. Each recommendation also includes a suggested government, department or agency identified as a potential lead body. This often includes three bodies, one from each of the three country governments, shown in brackets after the recommendation.

Key strategic recommendations for essential and fundamental change

1. **Establish a GB Tree Procurement Unit.**
   Work cross-sector and across nations to devise and establish a GB Tree Procurement Unit charged with securing the tree supply chain. This involves modelling demand for trees and issuing multi-year contracts to tree nurseries to fulfil public tree procurement and planting under government grants with British-grown stock, including the creation of new national forests. (Defra, SG, WG)
2. **Conduct a feasibility study on what percentage of imported material could be grown in Britain.**
   Use the study results to inform a strategic framework for tree production funding. Tree production capital grants are necessary across Britain to support production. They should aim to stabilise the market and fill the gaps in supply, ensuring there is a market for the trees and a clear return on investment for the public purse. (Defra, SF, WG)
3. **Develop an action plan for productive and ornamental trees.**
   Use the feasibility study findings to inform a productive (fruit and nut) and ornamental trees action plan detailing how the three country governments will support this industry. This should include addressing issues with homegrown rootstock supply, skills gaps, and grant support for non-forestry tree production. (Defra, WG, SG)
4. **Establish a tree production research group with research institutions.**
   Use the group to drive forward and coordinate automation innovation and identify gaps where public funding can secure entry of new machinery to market. A successful model in the Netherlands involves the 'triple helix' approach whereby researchers, policymakers and industry cooperate to increase efficiency of tree production[1]. (Defra)
5. **Create and promote a logo for British-grown trees.**
   British-grown should apply to trees which have been propagated and grown on in Britain. A public campaign is essential to ensure success, aiding understanding that supporting British growers is important and driving demand for trees with this logo. (Defra, SG, WG)

Changes for growth in the short and medium term

6. **Increase alignment between tree supply, demand, and planting grants.** Consult with the tree supply chain, including tree nurseries, trade bodies, seed merchants and the Environmental Horticulture Group, alongside those involved in tree planting, including local authorities, NGOs, national parks, and foresters, to increase alignment between tree supply, demand, and planting grants. This includes ensuring flexibility to alter timeframes according to supply, consultation on grant changes, and sufficient payment rates for rare species and provenances. (Defra, FC, SF, WG)

7. **Support landowners to contract grow trees when using government planting grants.** This should only be required while the first recommendation, establishment of a GB Tree Procurement unit, is implemented. Contract growing should be encouraged through guidance and by favouring those contract growing trees with increased payment rates and higher application scoring. Further enable this by extending the planting window up to five years. (Defra, FC, SF, WG)

8. **Publish regular and clear data on imports of woody stemmed species, such as trees, shrubs, topiary, and hedging.** Reports should include number, species, and maturity. This would allow the sector to understand where demand is not being met within GB, aiding market confidence for expansion. (Defra, APHA)

9. **Commit to the establishment and management of seed sources.** Recognise the importance of seed sources as a national resource, especially for endangered endemic tree species such as whitebeams. This includes developing grants and incentives to create and manage seed stands for rare species, or where demand outstrips supply, working with landowners to provide information on managing and financing seed stands. (Defra, WG, SG)

10. **Sensitively revisit seed collection procedures on protected sites, including SSSI, to open the genetic resources of these sites.** This includes providing procedures to determine how much seed can be collected so it does not impact natural regeneration but still allows access to the genetic resources for conservation and increasing genetic diversity of planting stock. Align this process with the registration of new Gene Conservation Units (GCUs). (FR, NE, NS, NRW)

11. **Revise the current outdated seed provenance zones.** They should reflect genetic variation within specific species or groups of species, providing more confidence within the supply chain when it comes to selecting provenance. Work with industry to ease this transition. This should involve collecting genetic information for native species across Britain. (FC)

12. **Support competition and diversification of seed supply.** Increase accessibility to processing, testing and FRM (Forest Reproductive

Materials) systems. Fully fund the publicly owned Forestry England seed facility at Delamere to expand its services to process and test seeds for others, especially for small seed lots. (Defra, FE) Redevelop the online FRM platform which is currently cumbersome and unfit for purpose. (FC)

13. **Aid uptake of automation.**
    Ensure provision of tree production capital grants, and flexibility in quote requirements for bespoke and specialised machinery where only one supplier is available. (FC, SF)

14. **Ensure courses and apprenticeship opportunities meet current and future skills needs.**
    Hold working groups between tree nurseries, government departments, and local education providers to ensure courses and apprenticeship opportunities meet current and future skills needs. The Environmental Horticulture Group has an education and employment working group which should also be consulted. Consider the potential for government-funded courses in horticulture and tree production to create a suitable workforce for delivering these public goods. (DfE, ES, DES)

15. **Embed tree production across the national curriculum as part of horticultural education.**
    Champion careers in horticulture as vital green growth jobs, appealing to the next generation through advertising the benefits of a domestic horticulture sector, including through the new Natural History GCSE. (DfE, ES, DES)

16. **Increase tree production skills using publicly owned facilities.**
    Work with publicly owned tree nurseries within Forestry England and Forestry and Land Scotland to offer tree production apprenticeships. (DfE, ES, FE, FLS)

17. **Launch a project on how impacts of climate change may affect tree production.**
    It should include impact on seed viability, germination, survival, growth rates, plant handling and storage, and make recommendations to address these. (FR)

18. **Provide accessible government funding for CTNs and small nurseries.**
    Help them to grow biosecure local provenance species and species that are unavailable elsewhere. Options include channelling funding through intermediary organisations and/or local authorities to foster greater alignment with, for example, local tree strategies and Local Nature Recovery Strategies. (Defra, WG, SG)

19. **Commit to sustained funding to support CTN networks.**
    Build on previous government investments like the Tree Production Innovation Fund and capital support for the Communitree project. Ongoing investment would enhance training, mentoring and peer support, helping CTNs produce more trees. Proposed funding includes £100,000 annually for the Community Tree Nursery Collaborative (UK) and £80,000 annually for Communitree (Wales). This approach is cost-effective, and equivalent to just nine hectares of woodland under the England Woodland Creation Offer. (Defra, WG)

Acronym	Name	Government
Defra	Department for Environment, Food & Rural Affairs	UK Government
FC	Forestry Commission	UK Government
FR	Forest Research	UK Government
APHA	Animal and Plant Health Agency	UK Government
NE	Natural England	UK Government
DfE	Department for Education	UK Government
SG	Scottish Government	
SF	Scottish Forestry	Scottish Government
FLS	Forestry and Land Scotland	Scottish Government
NS	NatureScot	Scottish Government
ES	Education Scotland	Scottish Government
WG	Welsh Government	
NRW	Natural Resources Wales	Welsh Government
DES	Department for Education and Skills	Welsh Government

1. Introduction

Trees play a diverse and indispensable role in our lives and the health of our planet. They form habitats and ecosystems that boost biodiversity, offer a source of nectar and pollen, help reduce air pollution, provide shade to cool our environments, and dampen noise. Trees create attractive spaces, produce food, alleviate flooding, yield timber, store carbon, stabilise soil, and enhance our wellbeing. Their benefits are nearly endless and they are essential to addressing some of the most pressing challenges we face today.

In 2023/24, over 20,000 hectares of new woodland was planted in Britain – more than 20 million trees and the highest number in 35 years. These planting efforts depend on our tree production sector, a diverse network of tree nurseries that grow and supply the trees critical for sustaining and expanding our tree cover across different contexts (e.g. landscaping projects, orchards, agroforestry schemes, private gardens) and for a range of objectives (e.g. nature recovery, amenity, timber). Tree nurseries' expertise and dedication ensure that we have the resources required to make the most of the many benefits trees offer.

Yet, this is only the beginning. Over the next 30 to 40 years, the need for tree planting will massively increase. The UK's Net Zero Strategy[2] requires tree planting to ramp up to 40,000 hectares by 2030, and 50,000 hectares by 2035. This is a vital contribution to UK-wide commitments to tackle

climate change and ensure we are on track with international commitments. The Climate Change Committee's advice on the Seventh Carbon Budget[3] goes even further, suggesting up to 60,000 hectares a year will be needed across the UK to balance carbon in the land use sector. We will need trees not only for carbon sequestration, but for habitat creation and climate mitigation too, providing shade and flood alleviation for our communities.

The creation of the new UK Tree Planting Taskforce demonstrates support for these commitments. The three governments in Great Britain have affirmed their tree planting plans through legislation and policies that necessitate a vast increase in planting efforts. In England, legally binding targets set out in the Environmental Improvement Plan[4] commit to increase tree cover from 14.5% to 16.5% by 2050, which will require significant land use change. This change will in part be delivered through a new Land Use Framework for England, which could include up to 370,000 hectares of new agroforestry planting, substantially increasing demand for agroforestry trees. In Wales, ambitious targets of increasing planting from an average of 680 hectares annually (2020-2024) to 4,000 hectares are outlined in the Low Carbon Delivery Plan for Wales[5]. For Scotland, the Scottish Government's Climate Change Plan[6] outlines tree planting targets and the Scottish Government recently committed to 18,000 hectares of tree planting annually, a 3,000 hectare increase from actual 2023-24 planting rates.

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Investment is being made to support these targets through both planting and tree production grants. New agroforestry grants in England, and the Sustainable Farming Scheme in Wales, are expected to increase tree planting on agricultural land. The benefits of woods and trees are also recognised through commitments to growth and creation of national forests including three new national forests in England, and growth of the national forest in Wales. Grant offerings for tree production have included capital funding in all three countries, alongside innovation and seed sourcing grants in England. As we face climate change and biodiversity loss, the importance of trees, and therefore our tree nursery sector, has never been greater.

1.1 Why grow trees in Britain?

Government policies and targets demonstrate a clear need and opportunity to produce more homegrown trees. In 2023, Britain imported 128.5 million trees, shrubs and bushes, at a cost of £280 million[7]. Yet, in our Strong Roots importers survey, **all importers said they would prefer to source British-grown trees if they were available.**

The tree nursery, planting and management sector is a vital contributor to the economy, generating £2.6 billion annually and supporting over 22,000 jobs[8]. These roles create employment opportunities nationwide. Data from the HTA membership highlights that 69% of jobs within plant production businesses are based in rural areas, supporting local communities and economies[9]. Supporting this industry would both secure these existing jobs and create more for future prosperity. Furthermore, these figures do not include wood processing, which is valued at an additional £2.42 billion annually*[10].

Growing more trees domestically is also important for Britain's biosecurity. In the Plant Biosecurity Strategy for Great Britain[11], the three governments recognise that increasing domestic production of plants will make an important contribution to biosecurity, the economy, the environment, and sustainability. Uptake and recognition of voluntary schemes, such as Plant Healthy, UK and Ireland Sourced and Grown (UKISG), and the Ornamental Horticulture Assurance Scheme (OHAS), has demonstrated a commitment to biosecurity from tree nurseries and the wider sector.

The movement of plant material heightens the potential to introduce pests and pathogens that have serious impacts on individual trees and whole woodlands through direct losses of trees. While there are pests and pathogens that arrive naturally, those such as oak processionary moth (*Thaumetopoea processionea*) and *Phytophthora ramorum* arrived on traded plants and cost the UK £6.1 million annually to manage[12]. The UK Government is committed to reducing these introductions through adoption of the Kunming-Montreal Global Biodiversity Framework[13] and has reiterated this commitment in the GB Invasive Non-Native Species Strategy[14] 'to reduce introductions of invasive alien species by 50%'.

While rigorous biosecurity is clearly critical for our environment, it is also fundamental to protect our existing horticultural sector. New pests and pathogens add to the already lengthy list of threats to monitor and manage within nurseries and retail outlets. While essential to protect our environment and businesses, introductions result in costly restrictions on movement of plants to prevent further spread. A much more effective response would be to grow in Britain where possible. Diversifying and increasing British tree production capacity would not only increase the economic contributions of the sector while protecting our existing trees, woods and horticultural industry, but also help meet important domestic and international commitments.

There is also an understanding that for climate adaptation, species and provenances outside of those currently planted will be explored for suitability for future British climates for uses such as parks, gardens, forestry and in urban green spaces. Although this is a complex and active research area which was not explored as part of this project, it is recognised that a thorough and biosecure process is required to allow any initial import of these species for onwards propagation in Britain where possible.

Economic benefits

Supporting domestic tree nurseries is a critical strategy that can yield both economic and biosecurity benefits while contributing to key policy priorities.

- **Boosting GDP.** The sector contributes £2.6 billion in tree planting and management, and £2.42 billion in primary wood processing annually*[8, 10] demonstrating the importance of securing this contribution and supporting its future growth.
- **Green growth and local economies.** British tree nurseries support local economies by creating skilled employment opportunities across a variety of roles, particularly in rural areas. These nurseries will in turn support the wider British economy through tax contributions[8]. Growth of 45% is possible over the next five years should support be implemented in areas such as increasing green spaces, and research and development for increased productivity. This would support an additional 9,900 jobs[15].
- **Reduction in import dependency.** Britain imports a significant proportion of its trees for planting. Expanding domestic tree nurseries reduces dependency on imports, stabilising supply chains and insulating the sector from external economic shocks.

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Contribution to policy priorities

- **Enhanced resilience in the tree supply.** A stable market fosters the confidence essential for its growth and sustainability. This will ensure that the forestry and woodland sector can respond to national afforestation targets, such as the UK Government's commitment to plant at least 40,000 hectares of trees annually by 2030[2], and the creation of three new national forests in England. Reliable access to locally grown trees is essential to ensure these commitments can be met.
- **Support for climate change commitments.** Supporting local nurseries aligns with climate commitments by enabling large-scale tree planting projects that sequester carbon, reduce urban heat islands, and support climate change commitments. Additionally, growing trees in Britain reduces scope 3 emissions from international shipping. Protecting our existing trees from further potential pest and pathogen introductions also secures the existing 4.1 billion tonnes of carbon dioxide locked up in UK forests[10].

Risk minimisation

- **Prevention of new pests and diseases.** Importing trees carries the risk of introducing invasive pests and diseases which could change our landscapes and threaten our existing trees and food security. For example, oak processionary moth and *Phytophthora ramorum* cost £6.1 million a year to manage[12]. Locally grown trees significantly reduce these risks, protecting Britain's natural ecosystems and biodiversity, and reducing the economic impact of managing introduced pests and pathogens.
- **Adaptation to local conditions.** Trees (native and non-native species) grown in British nurseries are grown in, and for, British environmental conditions. These environmental conditions, such as soils, topography and exposure, combine to influence local conditions and climate and are incredibly variable across Britain, particularly in the uplands. They have an important influence on tree survival and performance[16]. Tree nursery conditions have a vital but under-researched role in tree development and adaptation later in life[17], but growing trees in Britain can be expected to prepare stock for the British environment.
- **Reduced management and movement controls.** Pest and pathogen introductions also pose a significant risk to tree nurseries and the wider horticultural sector through costly management programmes and potential restrictions on the movement of goods. Movement restrictions are put in place to protect the environment and businesses from pests and pathogens, however, the cumulative rise of introductions leads to increasingly difficult, costly, and ineffective measures. A more effective and efficient solution would be to source domestically grown material.


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1.2 A plan for a green and prosperous future

Demand for tree planting is soaring and will only continue to rise. We must not miss this opportunity to build our domestic tree production sector. Homegrown trees provide the greatest benefits for our economy and biosecurity, and in many cases have been demonstrated to be the preferred option. However, key obstacles remain for this industry, which if removed, could stimulate green growth opportunities. Conversely, commitments within the Plant Biosecurity Strategy to increase domestic production remain unmet or are coming to an end. The future of the Sector Capacity Project for trees, backed by the Nature for Climate Fund, is uncertain past March 2026, and the pledged Horticulture Strategy to support growth within domestic sectors has not yet been developed. This paves the way for a new strategic approach to support tree production. This report applies to Great Britain, which includes England, Scotland, and Wales, which is the same geographic region covered by the Plant Biosecurity Strategy.

This report aims to kickstart an action plan for Britain that will be led by a cross-nation team including Defra (Department for Environment, Food & Rural Affairs), the Welsh Government and Scottish Government. It makes key strategic recommendations on what that plan should address, alongside technical shorter-term changes that can be made now to support production. We believe that implementing the recommendations in this report will help create an enabling environment that unlocks the full potential of our tree production sector.

The Strong Roots Survey

The Strong Roots project involved an extensive consultation exercise, with partners exploring the barriers to growing trees in Britain and developing recommendations on the most effective ways to overcome them. This included an evidence review, interviews and two online surveys.

Initially, key themes for barriers to domestic tree supply were identified through an evidence review and by collating partners' understanding and experience. These key themes informed interview questions, which included broad questions to help identify any additional factors and understand stakeholders' main concerns. More detailed questions to explore the known barriers further were also included.

A total of 28 tree nurseries, seed suppliers, and industry professionals were interviewed. We identified suitable individuals and businesses to approach through each partner organisation's contacts and suppliers, including the HTA's Tree and Hedging Group. Interviews were confidential, allowing an honest and open conversation and exchange of ideas. Interviewees shared their experiences, insights, and expertise to help inform this report. Around halfway through the interviews, a survey was also sent out to gain a broader perspective and consensus on some of the emerging common barriers. Two online surveys were conducted, one for tree growers (n = 23) and one for tree importers (n = 14). The survey was sent out to the HTA's Tree and Hedging Group, the RHS Plant Finder mailing list, and Plant Heritage's holders of National Collections of trees. The sample was designed to provide indicative and qualitative data to help formulate policy asks, rather than to generate statistically robust or representative data on the British supply chain for plants and trees as a whole.

Our consultation included tree nurseries of all types, from forestry to ornamentals, and from community tree nurseries to large-scale enterprises. Our areas of focus included production of native and non-native saplings for forestry and woodland creation, fruit and nut tree production, and ornamental tree production including larger standard trees. We recognise the diversity of production types within the sector and consulted a wide range of tree nurseries to understand and develop recommendations that would aid all types of tree production. There was a strong degree of unity amongst the respondents with common themes and consensuses easily identifiable. Each theme is explored in this report, where information from the consultation process has been summarised. The recommendations were developed by the partners using the insight collected and are supported by the organisations listed at the end of this report.

2. Findings from our research

Each theme identified and explored during the project is outlined below, alongside key findings from the surveys and interviews.

2.1 Strong market confidence and demand for British-grown is vital for growth

Market confidence is essential for business. Growing trees is a long-term investment, with a minimum turnaround time of usually three to five years for small 'whips', rising to decades for large 'instant impact' stock. A stable British market has become more critical since Brexit, as it is now the only market tree growers can access with relative ease given the challenges of exporting live plants to the EU.

The Strong Roots survey highlighted market confidence as the largest barrier for a robust British tree supply chain, with 93% of businesses (all but one) saying that demand forecasting is a challenge. It was also the most common concern expressed by forestry nurseries during the interview process. All forestry nurseries highlighted the unstable market in relation to government tree planting grant schemes. When asked what would have the largest impact in supporting their business in the tree growers survey, comments included:

'A consistent UK market with consistent long-term funding to give confidence in the market to grow more trees'

'Stability and confidence in the marketplace'

'Certainty of demand and planting numbers'

This is a known barrier and was highlighted in the Environment, Food and Rural Affairs Committee report on tree planting as a key threat to planting targets[18-20]. This report also referenced the England Tree Action Plan's commitment to a nursery notification system, or a confidential information sharing system, but neither system has been developed. As such, market confidence limiting domestic tree supply remains a substantial threat for the three country governments when delivering their tree planting targets.

As reflected above, for forestry and woodland planting, market confidence is not just driven by customer demand, but also by government policy and budget. Planting targets, underpinned by government grants, drive a substantial proportion of tree planting within Britain. Government targets should provide confidence and certainty on the quantity of trees that are required, but these targets are often missed, and sudden reductions in budgets can result in large wastages of stock and reduced assurance in these commitments. Recent examples include the Scottish Government cutting its Forestry Grant Scheme budget in 2024 by 41% (£32 million) which one grower estimated resulted in as many as 10 million unsold trees. Likewise, closure of the ELM capital grants in England in late 2024 has created uncertainty for those growing to supply farming and environmental schemes. One grower highlighted the need for a more consistent market: 'We have seen overnight cuts in spending in Scotland and stewardship applications closed in England - that is over the last 12 months'.

Such sudden changes can result in a lack of confidence in government commitments and an unstable market for tree nurseries. Consequently, tree nurseries are less inclined to increase production in line with government ambition, reducing governments' ability to meet their own policy objectives and targets. This leads to importing trees instead, missing all the economic and biosecurity benefits that British sourcing brings. Responses from tree nurseries on how to address this included longer term governmental tree planting grant schemes, better data on imported stock, contract growing, stability within grant schemes, advanced notification of grant changes, government delivering on planting targets and quicker approvals for planting grant applications.

While Britain has significant tree production capacity for forestry[21, 22], the infrastructure and systems to coordinate these efforts remain underdeveloped. Creating a system whereby demand and supply can be aligned effectively would have the single largest impact for forestry and woodland nurseries. Identifying the tree species and quantities required to meet government objectives, understanding what is currently available, and projecting future need with secure commitments through contracts would aid confidence in the sector to invest. Data on supply has been collected for the 2022/23 and 2023/24 planting seasons, providing a good starting point for such a system[21, 22]. It would also reap benefits for governmental departments by clearly identifying where contracts cannot be fulfilled and enabling strategic planning to allocate funding and support more effectively. Tree nurseries need excellent data, dynamic reporting, and intelligence gathering to help match supply and demand.

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2.2 Demand for homegrown trees

Although the focus of this project was on supply barriers, another element of market confidence is creating demand for British-grown products. As one tree grower reflected: 'Why import plants for UK funding then dispose of UK stock because of imported stock?' Backing British produce and helping consumers buy British should be front of mind when consumers and businesses are making tree procurement decisions. For retail customers, it is almost impossible to determine where trees have been grown, removing their ability to support British growers. The plant passport system provides information on country of origin, however, this is a traceability system and allows the origin to be changed to 'GB' once grown on. This means plants may be marked as GB in origin when they have only been in Britain for as little as two weeks, necessitating a more robust labelling system to support purchasing decisions. **In the Strong Roots survey, 83% of tree nurseries would use a certified British-grown logo, with a further 11% willing to use the logo if customer awareness was high.**

2.3 Seed supply can be limited due to natural fluctuations and poor market confidence

The Strong Roots interviews also included businesses and individuals involved in seed supply. After market confidence, the second most discussed topic was seed supply. **In our survey, 86% of tree nurseries found seed supply can be a limiting factor.**

Tree seed is a natural product, lending itself to 'boom and bust' years. This can depend on factors such as weather, individual tree health, and whether the species in question has natural mast years. Storing seed is not straightforward; not all tree seed remains viable in storage, and different species can have different requirements for drying and temperature, making it a complex and costly exercise. This results in fluctuating seed supply, emphasising the importance of flexibility within planting grant timescales to allow for seed to become available. For rare or sparsely distributed species, for example montane species, locating the trees at the correct time to collect, and collecting enough seed, increases the cost and can make it commercially unviable, especially when demand is low and final customers have restricted budget.

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There are 445 registered seed stands (groups of trees registered for seed collection) and 61 seed

orchards (trees from breeding programmes, bred usually for specific traits and planted in an orchard for seed collection) on the Register of Basic Materials[23]. However, many are not in use, have limited access, or are not managed well as a source of seed[21]. This is likely caused by a considerable knowledge gap among landowners, including limited understanding of what a seed stand is and how to manage it, and insufficient information about the economic benefits. Landowners may also have competing land use interests, such as a potential seed stand having high timber value. These knowledge gaps and competing interests further diminish the incentive to manage access and quality effectively. However, for productive stands which are collected from regularly by a paying client, the market drives management. Creating and maintaining seed stands needs to come alongside a market for their use, ensuring a final user to drive their onward management.

The significance of market confidence extends to seeds. For example, the process from seed to sale for small holly saplings can take up to five years. While Britain appears to have adequate seed production from its trees, certain key market mechanisms could benefit from government support to enhance seed collection and processing for market entry. This includes improving market stability, increasing incentives for collecting and cultivating rarer species and provenances, and allowing greater flexibility within timelines to accommodate the natural fluctuations in seed supply.

2.4 Britain lacks a rootstock production sector

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When a tree cultivar or variety cannot reliably reproduce true to form from seed, it must be propagated clonally. One of the options is grafting a cutting (a scion) onto a rootstock (a tree typically bred for specific rooting traits). This is common practice for fruiting trees and many ornamental tree species. The scion wood is often sourced in Britain. For example, for fruit trees, Britain hosts orchards with large numbers of cultivars, including heirloom varieties, and nurseries may also hold their own 'mother tree' collection.

Conversely, British-grown rootstock has been in decline over the past decade due to competition from cheaper imports. The loss of this industry has also reduced rootstock breeding within Britain, with 64% of tree nurseries in our survey agreeing that Britain could benefit from more breeding programmes to provide trees and rootstocks for 'the future'. Increasing interest in agroforestry, including planting of productive trees, is expected to drive demand for fruit and nut trees. To ensure that government aims to increase tree cover on farmland and in urban areas deliver maximum economic and biosecurity benefits, rootstock supply should be considered. This includes reviving British rootstock production and breeding.


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2.5 Tree production grants have aided production of forestry saplings but need to be expanded

Grants should continue to support policy objectives and deliver public goods. Significant investment, £16 million over four years, for forestry and woodland nurseries has been made through three new grants in England: Tree Production Capital Grant, Tree Production Innovation Fund and Seed Sourcing Grant. These grants have aided, for example, investment and innovation in automation, support for community tree nurseries, and the creation of seed sources. However, funding for these grants is uncertain from March 2026. The Horticulture Development Scheme which provided capital support in Wales is also now closed. Capital grants for forestry and woodland tree production are available in Scotland through the Harvesting and Processing Grant.

These investments were welcomed by the industry and well-utilised: 71% of tree nurseries surveyed had accessed grant support recently and 39% of the surveyed nurseries had accessed the Tree Production Capital Grant. These grants provide important investment into a sector that underpins many public goods and should be available across Britain. Comments on the importance of the capital grants included:

'The Tree Production Capital Grant has been very helpful and if it continued it would encourage us to keep growing as a business'

'They [grants] have transformed the industry over the past few years, nurseries have invested and new cutting edge technology is now coming into hort'

Additionally, boosting tree production needs to align with either an increase in market demand or to fill an existing shortfall in supply, to ensure it does not confuse the market and decrease market confidence. Ensuring grants have oversight by expert figures and are embedded in a strategic framework is essential.

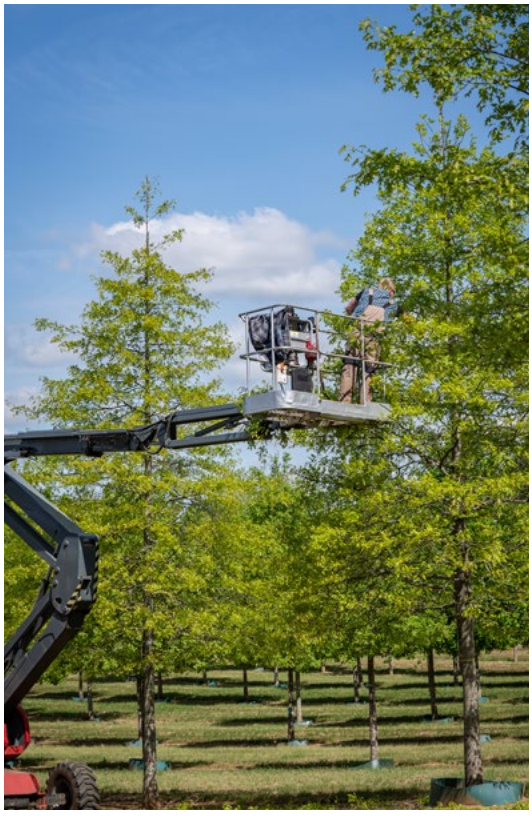
These grants tend to focus on boosting production of saplings for forestry or woodland planting. One tree nursery reflected: 'emphasis on grants does seem to be more focused on forestry and on growing and planting volume (numbers) of trees. Much less focus on ornamental tree production of larger trees for amenity / urban planting'. Semi-mature and mature trees, such as individual trees used in landscaping and in urban planting schemes, are recognised for the value they bring to our neighbourhoods with quicker establishment of canopy cover. These trees fulfil an important role in urban areas, quickly providing screening and other ecosystem services, and are sometimes specified by planning officers.

Tree care after planting is essential to establishment and long-term survival

The importance of tree establishment after planting is recognised by the Strong Roots partners. This area was not directly explored in the project but remains an important part of tree supply. Tree establishment should be considered as a core aspect of planting schemes, especially in urban areas. This should include funding and water access for tree care to secure the investment and the trees' contribution to canopy cover. This will also ease demand on tree supply through reducing the amount of replacement planting. Future water use strategies should include the need for water to establish and maintain trees, and consider water use in horticultural production.

All trees planted in publicly accessible spaces contribute public value by enhancing the environment and wellbeing. Semi-mature and mature trees are often produced on a smaller scale within Britain, and they are frequently imported - the most imported type of tree reported in the Strong Roots importers survey was standard trees. Boosting production of these trees in Britain is important for biosecurity purposes, as importing large trees poses a greater risk since more pests and diseases can survive within their increased volume of bark and large root balls, and they are challenging to inspect. Government investment in producing semi-mature and mature trees has been lacking but recognition is increasing. The latest Tree Production Capital Grant round in England, launched in April 2025, now supports this type of production. It is important that this type of funding is continued and expanded across Britain as a key future growth area to achieve tree equity in urban spaces[24].

2.6 Labour and skills gaps prevent expansion of the sector



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The tree planting and management sector supports over 22,000 jobs[8]. These roles are essential for growing, planting and caring for the trees we need. Horticultural skills are an essential backbone of this workforce and must be nurtured and promoted. A HTA survey found that 62% of growers listed a 'lack of applicants with suitable skills and experience'[25] as the primary cause of recruitment difficulties.

The Strong Roots survey mirrored this, with 71% of participants from forestry/ woodland nurseries saying they believe their sector has a skills gap, alongside 86% of participants from fruit, nut and ornamental nurseries. The forestry sector outlined gaps around basic horticultural and machinery skills and the need for more young entrants into the industry. Nurseries growing fruit, nut and ornamental trees emphasised the importance of propagation skills within their industry. There is a lack of interest and courses available for horticultural production, including tree production, potentially due to a lack of visibility of this sector within horticulture and beyond.

Reports from the House of Lords Horticultural Committee[26] and Environmental Horticulture Group[15] make suitable recommendations on how labour and skills can be boosted. Recommendations include a long-term seasonal worker visa scheme, embedding horticulture across the national curriculum and careers advice, and supporting horticultural education, qualifications and apprenticeships. These initiatives should be undertaken to support the horticultural industry, incorporating tree production and ensuring that skills are developed to create an innovative sector for the future.

2.7 Research and innovation are essential to increase production efficiencies

A prosperous future for our tree production sector requires research and innovation. In a changing world, tree nurseries also need to change, moving away from pesticide use, adapting to a changing climate with associated water management challenges, and transitioning towards peat-free. Innovation is required to help the industry adapt and flourish.

Automation using new and emerging technologies is becoming increasingly important due to labour costs and shortages (including seasonal labour uncertainties post-Brexit), and the opportunities to create efficiencies within

production. While skilled labour and horticultural knowledge remain essential, processes such as lifting, grading, counting, packing and tray preparation can be mechanised. Of the tree nurseries surveyed, 78% had invested in automation already, although they also highlighted significant barriers for further uptake, including cost, evidence for return on investment, lack of options due to the small size of the sector meaning products tend to be bespoke, and the nursery being too small for automation.

Funding for research institutions to develop solutions tends to be plentiful in comparison to funding for industry partners to then bring the machinery to market. This situation, the 'valley of death', is particularly pronounced for the tree production sector where a small market means industry partners are less likely to invest. Instead, automation machinery often requires bespoke elements to adapt the product for tree production, making it increasingly expensive. This bespoke element also creates difficulties when applying for grants that require multiple quotes but only one manufacturer may be available. The larger tree nurseries interviewed for Strong Roots have invested in automation, either by utilising government grants that part-fund the costs, or by covering all the costs themselves. However, there tends to be nervousness around investing too heavily in an unstable and uncertain market environment. Bringing new products to market for tree production is essential to meet increasing automation requirements, alongside creating market confidence to empower tree nursery investment.

Peat-free was raised as a concern by a small number of interviewees during the Strong Roots project, with a good proportion of tree nurseries already using peat-free growing media. Work is already ongoing through the collaborative RHS Transition to Peat Free project between the RHS, Defra, eight commercial growers and growing media manufacturers. The project involves trialling peat-free media to support the transition to using peat-free across horticultural production.

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2.8 Community tree nurseries face financial and regulatory barriers

Community tree nurseries (CTNs) are defined by Forest Research as 'an enterprise, social enterprise, community-based group, charitable or public sector endeavour or network where volunteer community members and groups take part in growing trees, including seed/wilding collection, nursery management and sales/distribution, and also in some cases planting out'[27]. Significant work has already been conducted for CTNs, including a national survey by Forest Research and numerous Tree Production Innovation Fund projects. Therefore, while the Strong Roots project did involve interviews with CTN networks, it did not run a CTN survey.

In 2022, the national survey estimated that the UK hosts 80 CTNs[27]. In the 2021/22 season, 67 CTNs grew 240,000 trees and 87% of these were intending to upscale by at least 10%[27]. However, 66% of CTNs surveyed were three years old or less, indicating a recent expansion of the sector[27]. In Scotland, CTNs tend to be a lesser used model. Small nurseries are often businesses usually run by the nursery owner[28]. However, they may also hold charitable status and often rely on volunteers, showing similarities with CTNs[28]. A recent report on small nurseries in Scotland outlined their barriers and solutions, many of which have also been highlighted for CTNs[28]. Tree nurseries run by eNGOs also tend to follow a model similar to CTNs. Therefore, this section and the recommendations referring to CTNs are also relevant to these enterprises.

CTNs are crucial for supplying tree species and provenances that may not be grown elsewhere due to limited demand. Deeply rooted in their communities, these nurseries often collect and cultivate their own local seeds to support regional projects. Beyond supplying trees, CTNs offer additional benefits, including volunteering opportunities, skills development, community inclusion, and green social prescribing.

Grant support, especially start-up grants for capital items, is a vital lifeline for CTNs and often their initial source of income[27]. However, grants can be a 'postcode lottery', dependent on what small local pots of money are available in the area they are located, such as environmental or wellbeing grants from local authorities, or local water companies. Central government grants are often inaccessible, with minimum awards too high, match funding requirements and a large administrative burden. Commonly quoted barriers include uncertainty around biosecurity schemes and FRM (Forest Reproductive Materials) mechanisms, and business support such as marketing skills.

3. Moving forward

The demand for trees is growing, and most importantly, not going away. The tree production industry and tree buyers recognise the importance of British-grown stock, and the benefits that homegrown trees bring for green growth and biosecurity. The Strong Roots project has highlighted key areas where government intervention is suitable to stimulate market drivers and mechanisms.

Our consultation process emphasised the importance of market confidence and enabling market drivers through governmental policy and commitments. This represented the largest concern amongst forestry nurseries. Market confidence extends into seed supply, where ensuring a diverse and consistent supply is difficult when handling a natural product, made more complex by demand uncertainties. For rare species and provenances where reduced demand results in production becoming commercially unviable, community tree nurseries offer a potential solution. For rootstocks and ornamental trees, imported stock is currently heavily relied upon, particularly for semi-mature and mature trees. There are few incentives to grow large trees domestically, and the loss of our rootstock sector creates a reliance upon imported rootstocks. While skilled labour remains essential, innovation in automation remains key to increase efficiencies within a changing workforce. This is a growth area suitable for governmental support as market drivers are deficient in this small section of the industry.

An action plan is needed to address some of these fundamental barriers and shorter-term actions can be taken to ease supply now.

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Glossary

Agroforestry – the practice of deliberately integrating woody vegetation (trees or shrubs) with crop and/or animal systems to benefit from the resulting ecological and economic interactions.

Automation – the application of technology, programs, robotics or processes to achieve outcomes with minimal human input.

Biosecurity – measures aimed at preventing the introduction or spread of harmful organisms into new environments.

Heirloom variety – an old variety of plant used for food that has been produced for typically over 50 years and is non-genetically modified.

Innovation – the process of developing new ideas, methods, products, services or solutions.

Mast year – every few years, some species of trees and shrubs produce a larger crop of their fruits or nuts than usual.

Montane – provenances of trees from mountain habitats, typically 450m above sea level in tough upland conditions.

Oak processionary moth (*Thaumetopoea processionea*) - a species of moth with caterpillars that feed and nest on oak trees. The caterpillars are covered in small hairs which can cause health risks to humans.

Pathogen – a microorganism or agent that causes disease, for example, a virus, bacterium, viroid or fungus.

Pest – in this context this refers to invertebrate species that cause harm to plants and trees.

Phytophthora ramorum – a fungal-like organism that causes ramorum disease, which causes the death of a wide range of trees and shrubs. The greatest impact so far has been on larch plantations, leading to thousands of hectares of felling around the UK.

Postcode lottery – unequal provision of services depending on geographic area.

Provenance – a broad area from which seed or plant material was sourced.

Rootstock – a tree typically bred for specific rooting traits, to which a scion is grafted.

Sapling - a young, slender tree.

Scion – a young shoot or twig which has been cut for grafting.

Seed orchards - trees from breeding programmes, bred usually for specific traits and planted in an orchard for seed collection.

Seed stands - groups of trees registered for seed collection.

Semi-mature and mature trees – large trees, typically over 20cm stem girth, which are supplied for planting.

Standard trees – trees which have been trained to add instant height, they have a straight trunk which is 1.8 metres or more before branches and foliage begin. They are commonly used when planting trees in urban spaces.

Valley of death – the gap between public funding and private funding, when research funding ends but private investment to bring the product to market has not yet been found.

Whips - a young, slender tree, typically two to three years old.

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*The data collected on the economic contributions of the tree nursery, planting and management sector, and the wood processing sector, was collected via different methodologies

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