

Growing Diversity Evaluation

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Consulting

Objectives

- To evaluate the success of Growing Diversity's funded activities against the project aims and objectives, and planned outcomes.
- Identify challenges and opportunities for CTNs as part of the wider tree production sector.
- Assess support mechanisms to help CTNs overcome the challenges and realise the opportunities.
- Set out a road map for how these support mechanisms can be implemented.

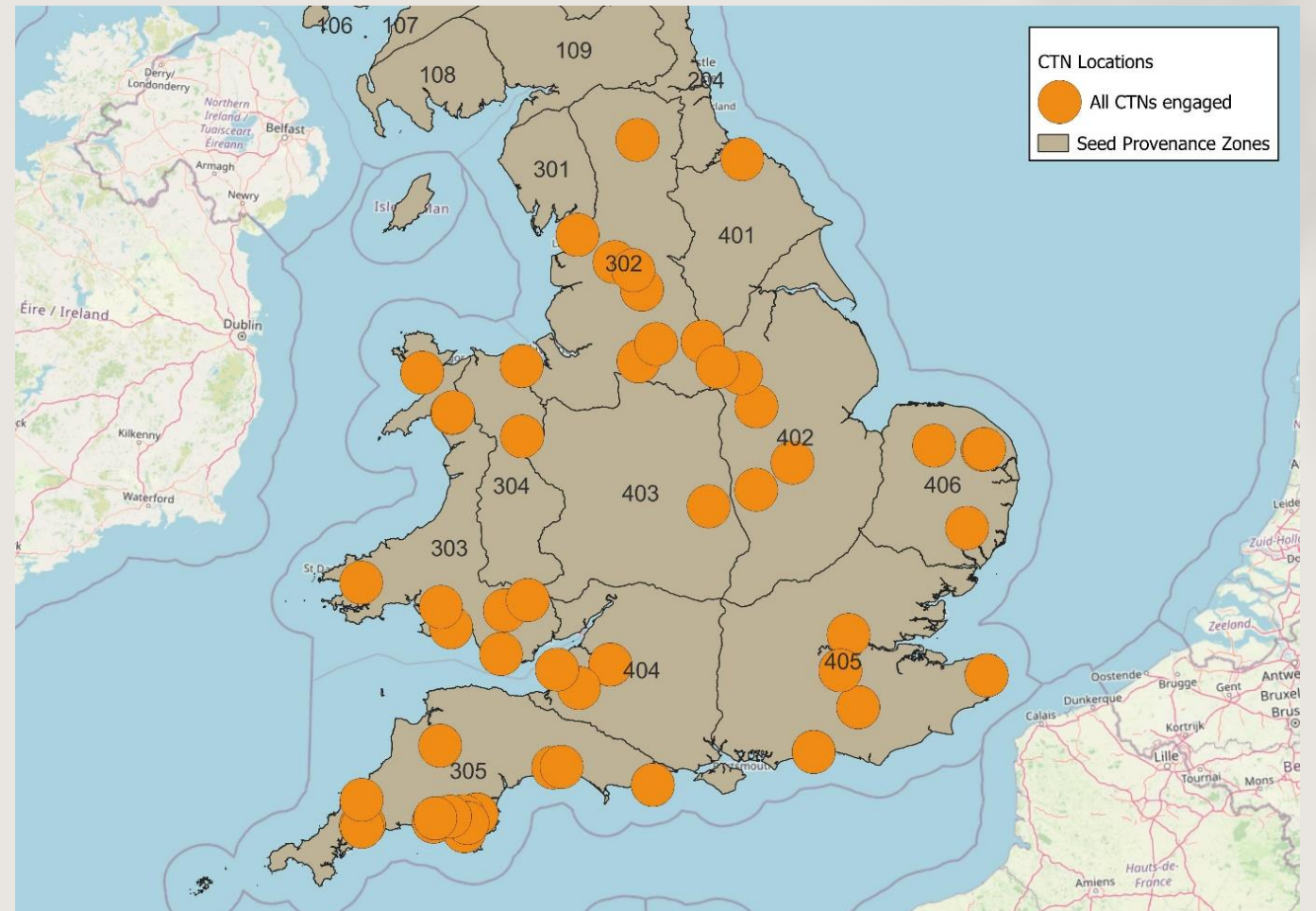


Methodology

- **Literature review:** Analysed reports from Growing Diversity, Forest Research, Fellowship of the Trees, and Growing Connections to understand the existing CTN setup and resources available.
- **Evaluation survey and drop-ins:** Conducted an evaluation survey for CTNs engaged with Growing Diversity either as event hosts or attendees, and beneficiaries of the equipment and material grant. The survey had 11 responses and 7 CTNs attended project evaluation drop-in sessions.
- **Post-event feedback forms:** Feedback forms were also used directly following events.
- **Engagement with stakeholders:** Interviews were held with two other CTN-focussed projects, the national CTN network, and the Woodland Trust external affairs team.

CTN Networking

- 67 CTNs engaged across the UK (54 in England, 2 in Scotland and 11 in Wales) – over half the estimated number of CTNs.
- CTNs engaged through emails, social media and a SubStack account.
- Engaged with other CTN-focussed projects to avoid duplication of effort.



Map of CTNs engaged with Growing Diversity project

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Identifying Supply Gaps

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- Survey of 26 responses from CTNs to assess range and provenance of trees grown.
- Identified priority seed provenance zones and tree species underserved by current market.
- Priority Seed Provenance Zones: 302, 305, 405, 406.
- Priority Tree Species: Wayfaring tree, spindle, wych elm, wild pear, guelder rose, hazel, holly, hornbeam, wild service tree, small-leaved lime, whitebeam (spp.) and yew.

Identifying Training and Resource Gaps

Training need identified	No. responses	% responses	Covered by training/resource
Biosecurity and Quality Assurance Standards	20	77%	Biosecurity Scheme (webinar), Biosecurity training (on site)
Seed Processing	16	62%	Seed protocols (webinar), seed processing handbook, seed processing video
Nursery Admin and Finance	15	58%	Admin and finance (webinar)
Pricking out and potting on	13	50%	Bare plots to trees (on site and two webinars)
Lifting and planting trees	13	50%	Bare plots to trees (on site and two webinars)
Marketing and Communications	11	42%	
Forecasting - Demand planning	10	38%	
Seed Collection	10	38%	Three seed collection events, handbook and seed processing video
Transporting trees	7	27%	

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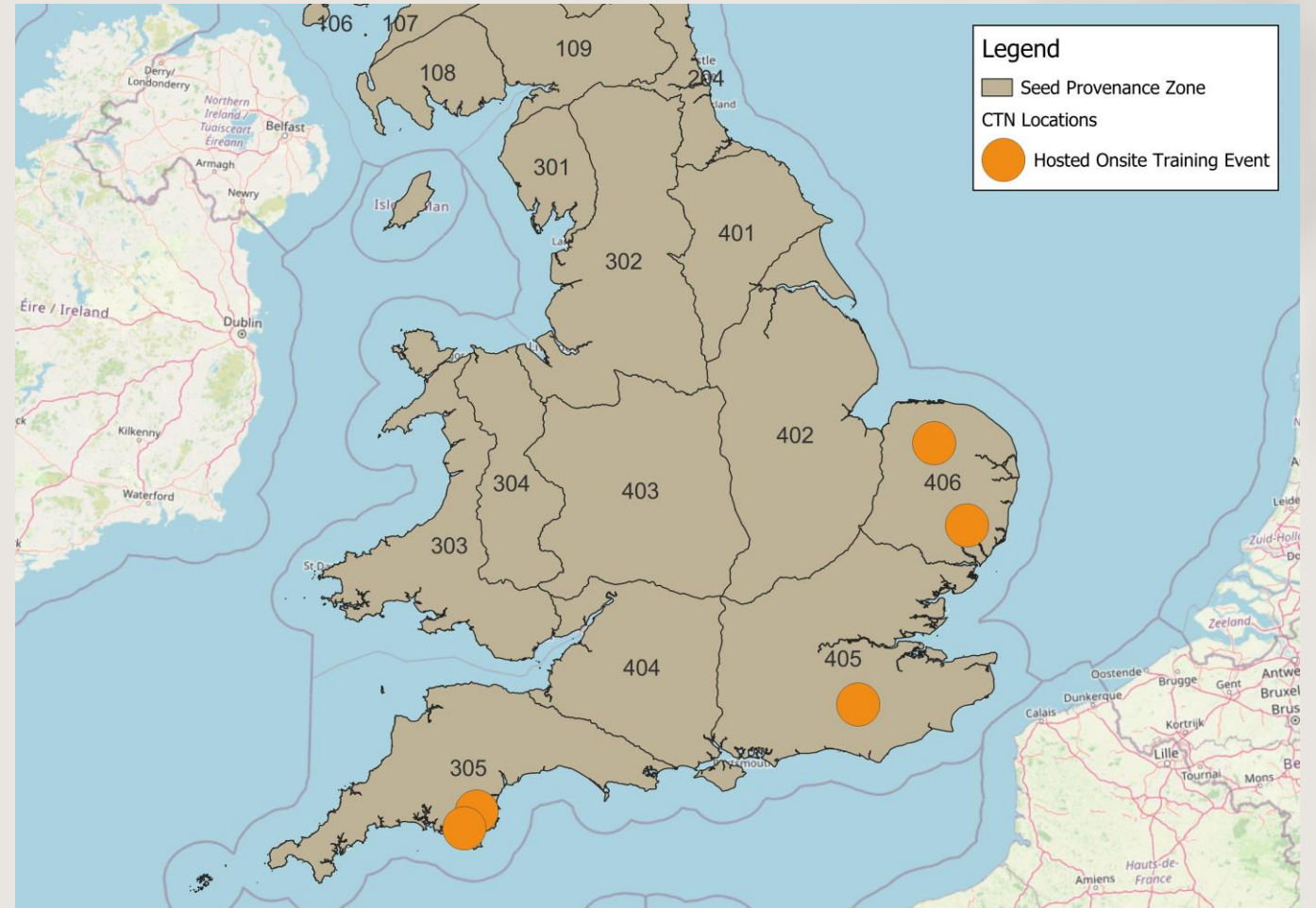
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Webinar Series

- Nine webinars held covering a range of topics.
- Average of 29 live participants (total 275) per webinar.
- Average of 98 views on YouTube (total 781) per webinar.
- 72% of survey respondents attended three or more webinars.
- Very high satisfaction with the organisation, format and the content of the webinars.
- Over half of survey respondents have implemented positive changes at their nurseries since attending a webinar.

Site Visit Programme

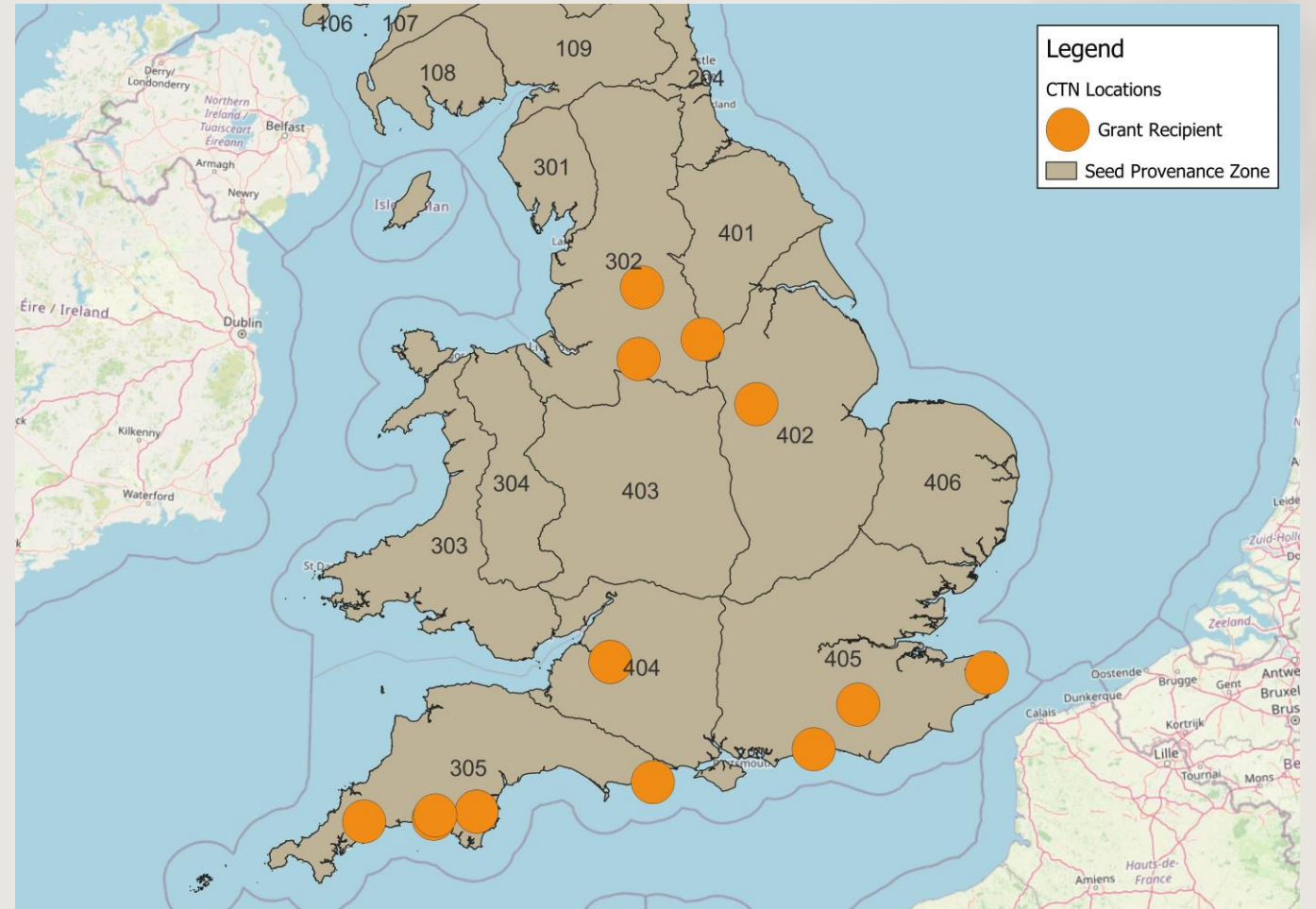
- Events hosted by existing CTNs and held in priority seed zones.
- Average attendance of 8 per event (total of 40).
- Very positive feedback for events.
- To extend the reach some of the site visits were written up as Substack posts (50+ views each).



Map of locations of onsite visits (training sessions)

Equipment and Materials Grant

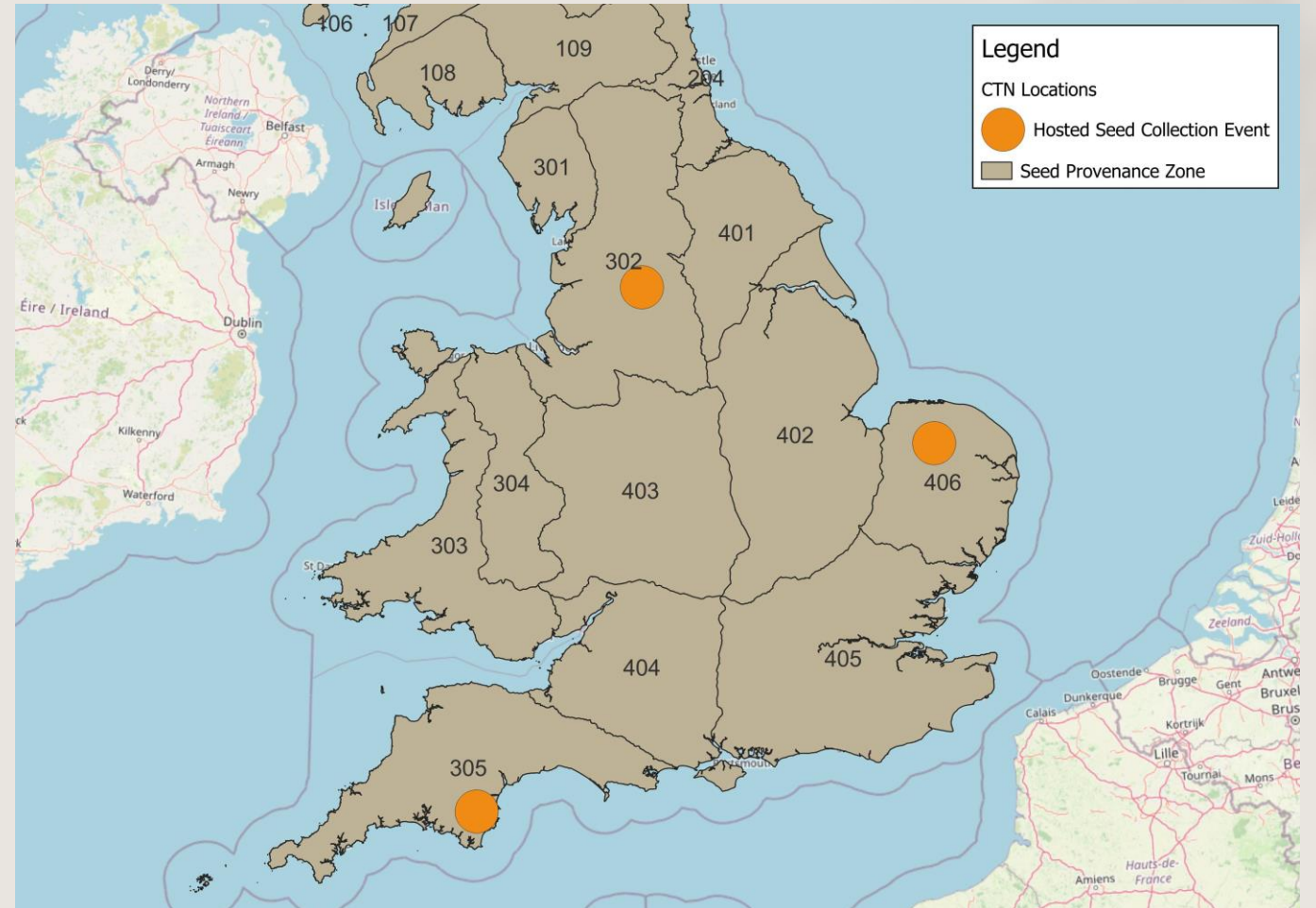
- 13 grants of £500 awarded to CTNs over two rounds of the grant.
- Applicants from three of priority seed zones (302, 305, and 405) made up the vast majority (83%) of CTNs.
- Most common grant theme was biosecurity improvements.
- Positive feedback from grant recipients and all would recommend it to other CTNs.



Map of locations of grant recipients

Seed Collection Volunteering Events

- Events held in three of the priority seed zones (302, 305 and 406).
- For latter events, travel expenses were made available to remove financial barrier of attending.
- CTN hosts received grants for seed collection equipment's.
- 40 participants took part across the 3 events.
- Positive feedback from event hosts and attendees.



Map of locations of seed collection events



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Film Production

- Four films were produced by Stroma and Superlative Films in collaboration with Forus Tree, Elsons Trees, and Moor Trees nurseries, receiving positive feedback from CTNs and the Forestry Commission.

Name of film	Viewing figures		
	Substack	YouTube	Total
Introduction to Biosecurity	Not available ¹	232 views	232
Seed Collection	128 views (in 2 weeks)	112 views (in 2 weeks)	240
Seed Processing	86 views (in 1 week)	125 views (in 1 week)	211
Introduction to Volunteer Roles and Seed Collection events	170 (in 2 weeks)	25.(in 2 weeks)	195
Totals:	494	384	878

¹ The Introduction to biosecurity video was created eight months ago, before the creation of the Growing Diversity Substack account.

Seed Collection Handbook Production

- Photographic guide to seed collection with seed processing and germination tips, designed for volunteer field use.
- Produced in collaboration with the Seed Collection Pilot in Scotland (a partnership involving the Woodland Trust for Scotland, Elsons Trees and Trees for Life) .
- Includes over 30 native tree species including all 12 priority tree species.
- Available for free online and hard copies being sent to CTNs.

YEW
(*Taxus baccata* L.)

WHEN TO COLLECT

J	F	M	A	M	J	J	A	S	O	N	D
								■	■	■	

Classification:
Fruit/seed type: Fleshy fruit (aril) containing a single seed
Reproductive age: 20+ years*
Masting frequency: No information available

Collection:
Technique: Either pick from branches by hand or lay a net on the ground and shake the branches, taking care not to stand in the line of fall
Equipment required: Gloves, nets and soap and water for handwashing

Preparation:
Processing: If fruit is wet, dry and store it whole in a paper or cloth bag and send to the nursery as soon as possible. If you want to keep seed for longer, remove the hard seeds from the fleshy fruit by crushing with your fingers, or an electric hand whisk with beaters on slow speed for larger quantities. The seeds and pulp can be separated by flotation or by rubbing the pulp in a sieve with flowing water. Surface dry at room temperature.
Storage and delivery: If keeping fruits whole, send to the nursery as soon as possible. Seeds are easy to store if removed from their fleshy casings and could be kept for the entire collection season. If processed, store the seeds dry in a loosely tied polythene bag at 4°C (e.g. a domestic refrigerator). If unable to refrigerate, send to the nursery at the earliest opportunity.
Dormancy: Deep - difficult to germinate.
Pretreatment: 20-52 weeks warm stratification (c. 15°C) followed by 32-52 weeks cold stratification (c. 4°C). Scarification/abrasion of the seed coat may reduce pretreatment times but may not be practical with large quantities.
Notes: Yew is dioecious, i.e. separate male and female trees with fruits only found on female trees.

1 When unripe, berries are small and green.

2 A ripe and unripe berry side by side.

3 Yew berries (technically arils) are ready to collect when bright red.

4 Beware the toxicity of yew berries when picking - wear gloves and ensure you thoroughly wash your hands after handling.

ID TIPS
Distinctive red fleshy berry-like arils on female trees in autumn. Buds are green [1], shoots are hairless and remain green for several years before becoming woody and brown. Needles are dark green above, pale green below.

HABITAT PREFERENCES
Found in mixed deciduous woods, within pure ancient woods occurring on chalk in southern England*. Very widely planted in churchyards, parks and large gardens*. Found across the UK mainly on well-drained calcareous soils.

MAY BE CONFUSED WITH
Western hemlock (*Tsuga heterophylla*).

ASSESSING RIPENESS:
When the arils (commonly called berries) are bright red [3].

TOXICITY WARNING
Parts of yew trees, including the foliage, shoots and seeds, are poisonous so take adequate precautions when handling**. Wear gloves and avoid touching your face until you have thoroughly washed your hands.

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Written Reports

- Two papers produced as part of Growing Diversity.
- One was a feasibility study that explored market opportunities for community tree nurseries (CTNs) to expand tree and tree seed sales.
- The second was the evaluation of Growing Diversity and the development of support mechanisms for the CTN sector.
- Helping contribute valuable research to the young but growing CTN sector.



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Challenges and Opportunities for CTNs

Key Challenges

- Visibility and reputation.
- Government policy and legislation.
- Lack of appropriate infrastructure.
- Capacity constraints.

Key Opportunities

- Expanding tree supply and species diversity.
- Selling tree seed.
- Local networks.
- Offering training and other services.



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Recommendations for CTN Support (1/3)

Responsible Group	Recommendations
CTN community and researchers	<ul style="list-style-type: none">• The development, implementation and resourcing of a CTN hub to host resources relevant to CTNs, both to support CTNs and to help tree buyers learn about CTNs.
Woodland Trust	<ul style="list-style-type: none">• Encourage uptake of UK and Ireland Sourced and Grown (UKISG) through increased marketing to CTNs.
Tree buying organisation	<ul style="list-style-type: none">• Offer flexible and partial-fulfilment contracts, with minimum and maximum number on species within an order and allowing individual nurseries to fulfil part or a larger order.
UK and devolved governments	<ul style="list-style-type: none">• Commit to funding the Fellowship of the Trees' Community Tree Nursery Collaborative (CTNC) Coordinator role when current funding ends (March 2025).• Commit to development of an accessible grant for CTNs, based on evidence gathered by CTN-related research projects. The streamlining of FRM requirements for seed testing to reflect small-scale seed collection and non-commercial forestry seed. Support for smaller seed collectors such as CTNs to engage with the system to enable them to sell seed.



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Recommendations for CTN Support (2/3)

Responsible Group	Recommendations
UK and devolved governments (cont.)	<ul style="list-style-type: none">• Free or subsidised entry to Plant Healthy, with support of plant health experts to create scale-appropriate biosecurity protocols for CTNs, that meet existing biosecurity standards without excessive administrative burdens on CTNs.• Extend the Biosecure Procurement Requirement exemption form to include evidence-based low risk tree suppliers such as CTNs producing trees for local tree planting schemes and allow membership of the UKISG scheme as evidence of sufficient biosecurity measures in the “sourcing summary”.• The streamlining of FRM requirements for seed testing to reflect small-scale seed collection and non-commercial forestry seed. Support for smaller seed collectors such as CTNs to engage with the system to enable them to sell seed.

Recommendations for CTN Support (3/3)

Responsible Group	Recommendations
Local government	<ul style="list-style-type: none">• The development of a trial of local networks to foster collaboration between CTNs and LAs, local businesses and other organisations.• Inclusion of commitments within Local Plans and Local Nature Recovery Strategies to use locally grown trees to achieve tree planting ambitions, including support for existing CTNs and support for the creation of new CTNs to grow these trees.