

The background image shows a garden with a tree on the left that has several green apples hanging from its branches. In the center-right, there is a grey wheelbarrow. To the right of the wheelbarrow, there are raised garden beds made of wooden planks, filled with green plants. The sky is overcast and grey.

Adventures in creating forest gardens: Lessons from our 10 year participatory trial

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Overview

Introduction to the Trial

Methods, Findings, Discussion

Lessons for Forest Gardeners

Lessons for Participatory Research

Outputs



Our approach to participatory research

Key facts

10 forest gardens over 10 years

Initial meeting in 2010 – typology of sites

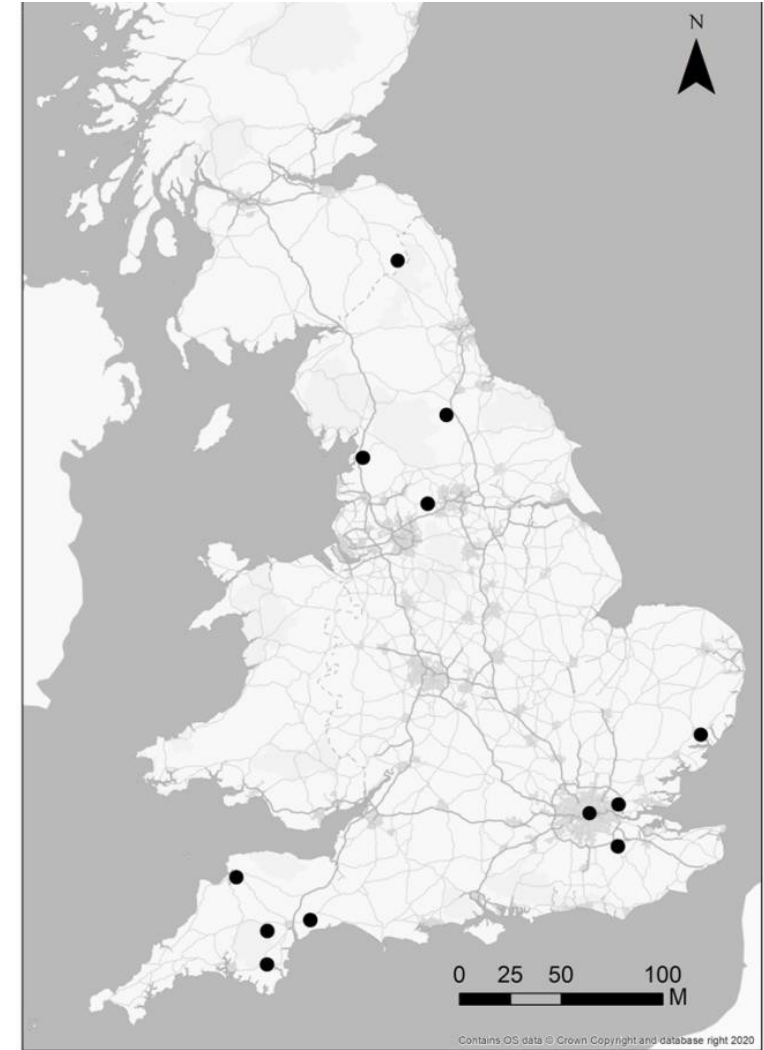
Visits in year 3 and 10

Interviews in years 3, 5 and 10

Additional established sites in Year 10

Research Methods & Key Findings

- 1) Interviews with site owners identified difficulties and successes.
- 2) Woody diversity and abundance surveys identified planting densities.
- 3) Ethnobotanical surveys identified species richness and utilisation.



East Devon Forest Garden

Site Age / Initial Planting: 2012

Size & aspect: 1ha of flat ground

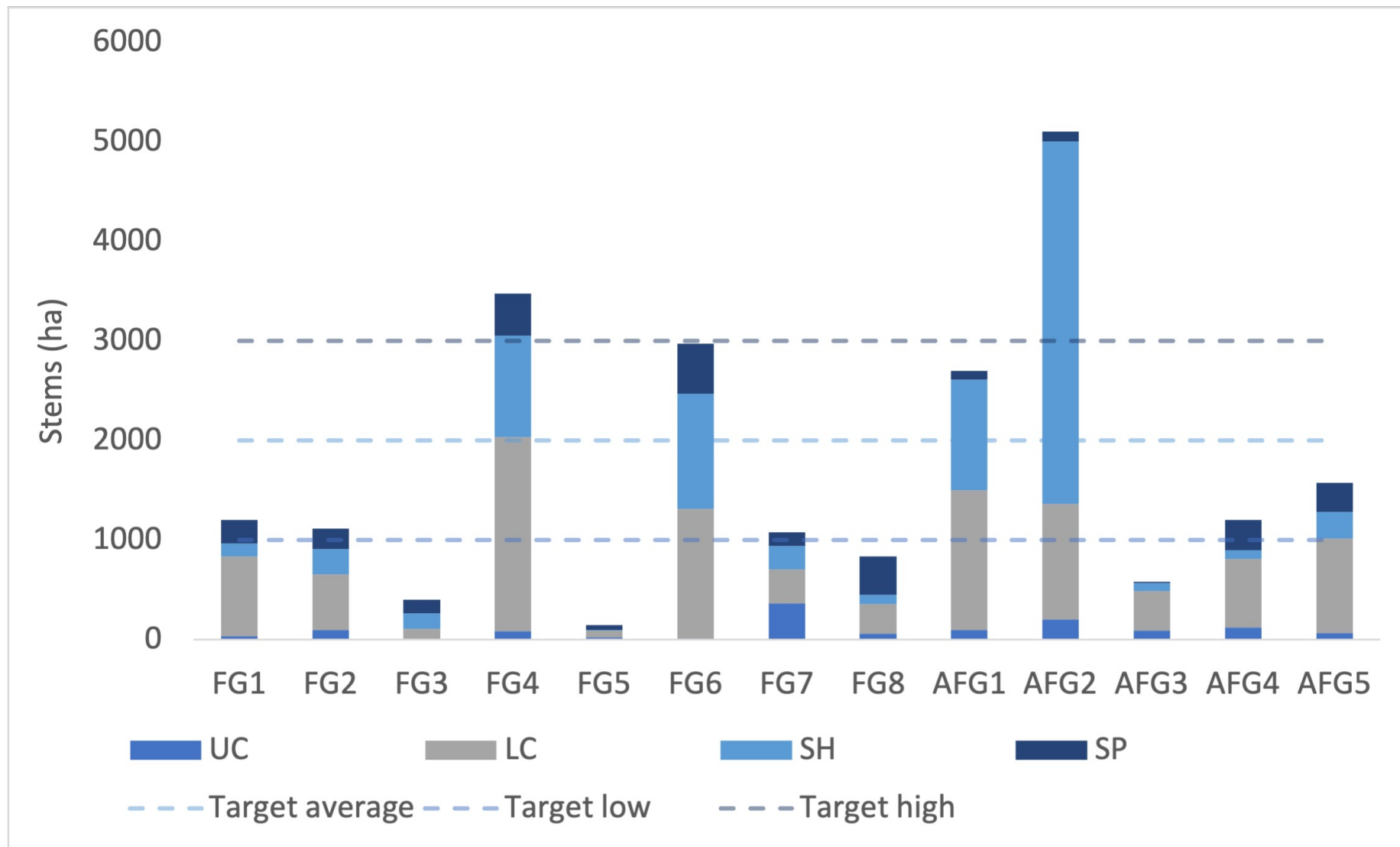
Soil: Sandy loam with 5.4% organic matter, pH 6.2



Yield potential: Garden Cottage, Coldstream

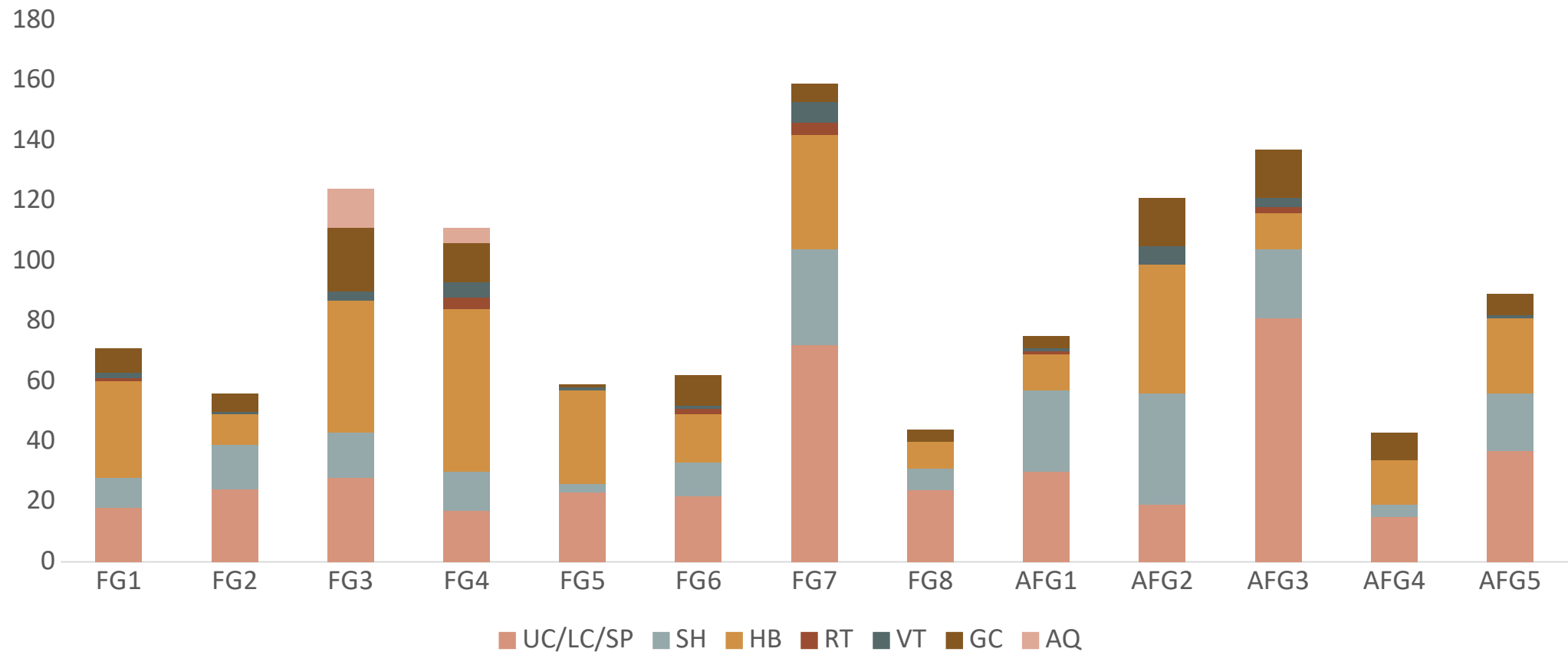
GARDEN COTTAGE COLDSTREAM							PRODUCE OUTPUT JAN-DEC 2021						IN KILOS		seeds saved
category	crop	January	February	March	April	May	June	July	August	September	October	November	December	Totals	
thinnings	last updated														
windfalls	01/12/2021														
seed															
Soft Fruit	Alpine Strawberries							0.5						0.5	
	White Alpine Strawberries							0.6						0.6	
	Autumn Raspberries							0.9						0.9	
	Blackcurrants							4.3						4.3	
	Blackberry							0.8	5.9	1.4				8.1	
	Wildstrawberries													0.0	
Herbs														0.0	
	Angelica													0.0	
	Basil													0.0	
	Bay													1.6	
	Chives													0.4	
	Coriander													0.0	
Vegetables														0.3	
	Artichokes Globe													0.7	
	Artichokes Jerusalem													0.0	
	Bean Sprouts													0.7	
														0.0	
Salads	Flowers													0.0	
	Borage							0.1						0.1	
	Chamomile													0.0	
	Chicory													0.0	
Fungi	Agaricus													0.0	
	Oyster Mushrooms													0.0	
	Parasol Mushrooms													0.0	
	Shiitake			0.4	0.2									0.6	
Top Fruit															
12.9.20	Apple Allington Pippin									77.2				77.2	
	Apple Ardcainn Russet													0.0	
	Apple Ashmeads Kernel													0.0	

2021 Total: 575.40
kilos on 800sq m



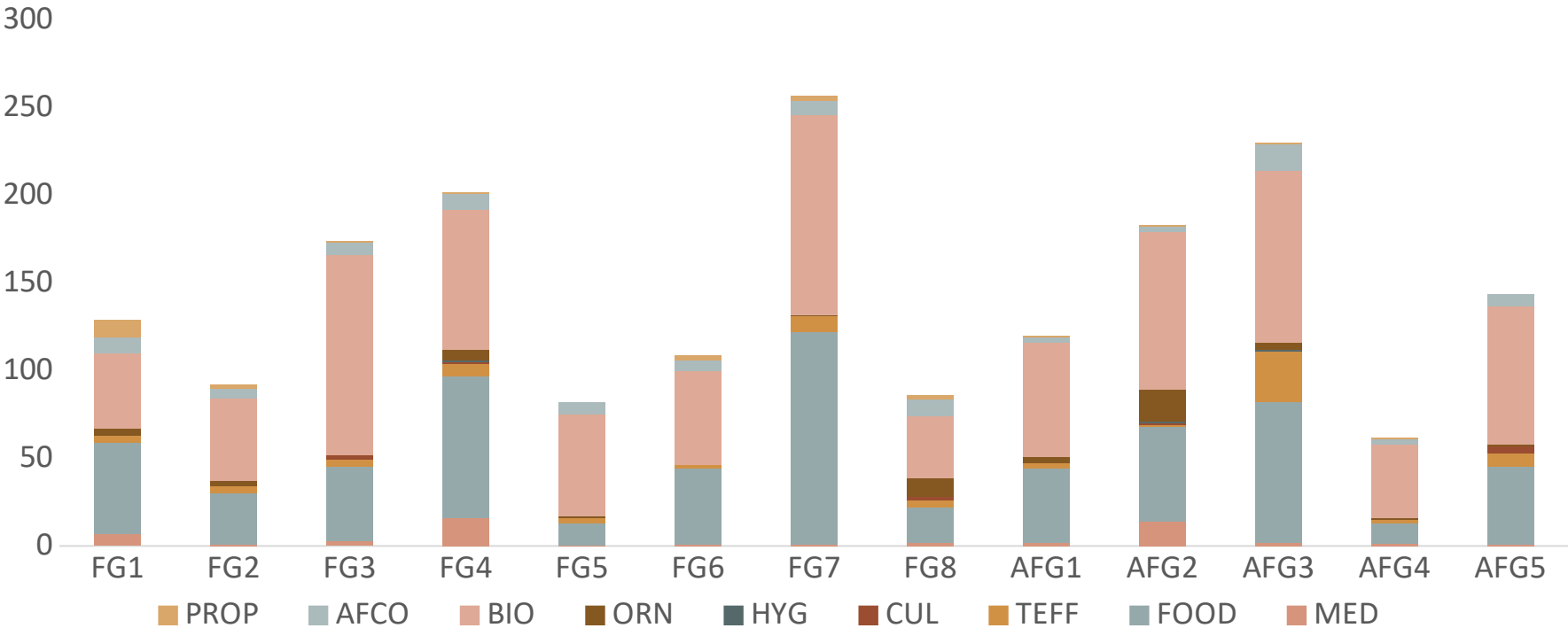
Number of stems (ha) across sites compared to UK broadleaf low-, average- and high stocking densities (Kerr & Evans, 1993) for upper (UC), lower (LC), shrub (SH) and SP (sapling) layers.

Species Richness (AKA Plant Diversity)



Species richness for each layer across thirteen UK forest garden systems; (Upper canopy (UC)/Lower canopy (LC)/Sapling (SP), Shrub (SH), Herbaceous (HB), Root (RT), Vertical (VT), Groundcover (GC), Aquatic (AQ)).

Utilisation

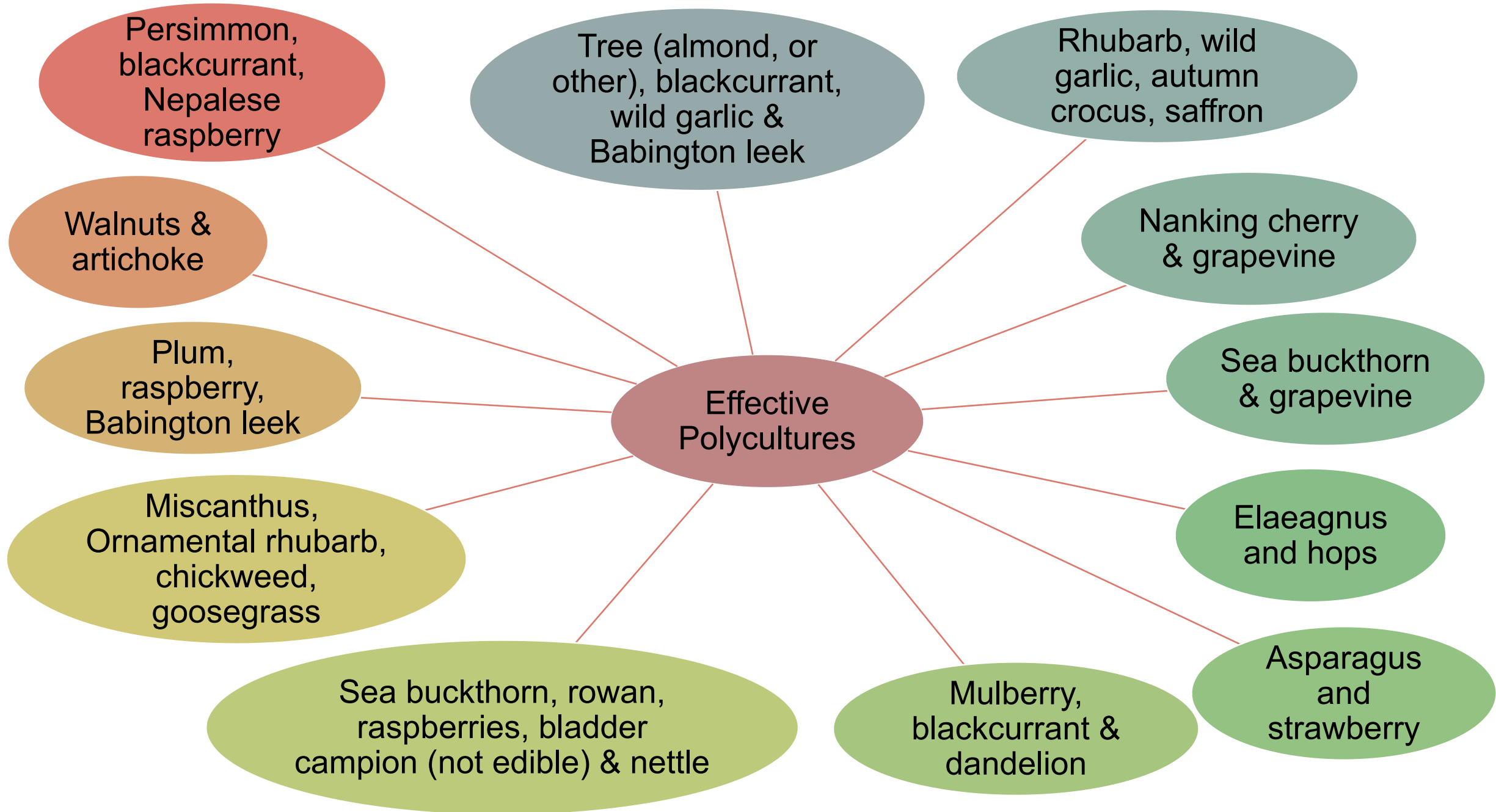


Use categories employed in the study

- MED** (internal/topical medicine)
- FOOD** (food and drink)
- TEFF** (timber/ energy/ firewood/live- or cut-fencing/dying/windbreaks)
- CUL** (culture, stories, poems)
- HYG** (hygiene, soap, bathing)
- AFSCO** (animal feed, compost, mulch, n-fixing – anything that feed the system)
- ORN** (ornamental)
- PROP** (propagating, taking cuttings, selling)
- BIO** (biodiversity/pollination)

Notes on plant uses

Common name	notes
saskatoon	the first fruiter of the year, with cherry sized fruits; birds also love them
american groundnut	n-fixing; edible beans and tubers
american pokeweed	edible when cooked
Aronia / chokeberry	in drinks, etc., very astringent, but a superfood (high in anthocyanins - antioxidants) prepare to make more palatable
babington's leek	perennial - grows bubs like onion sets - very good at establishing and spreading
barberry	one of the best in the family for edible fruits
bladdernut	a large understory shrub; does well in low light conditions, producing nut crop
blue honeysuckle	6 varieties; like blueberries
chinese dogwood	good edible fruit
chinquapin	small sweet fruits in autumn
judas tree	edible sorrel-flavoured flowers in spring
mulberry	can eat the leaves like vine leaves
oca	leaves are similar to nasturtium and good for salads; the root is like potato
ostrich fern	spring shoot vegetable



Summary and Recommendations

Complex
agroecological
systems

Land Reform Act
England (2025?)

Consider MSA in
ELMS

Review of
England's Local
Authority
Smallholdings

Use of the FAO's
Tool for
Agroecological
Performance
Evaluation (TAPE)

Long term study of
crop yields at
established sites

Lessons from the trial – FG Practice

Design

Adaptation to varied scale and settings

Clarity of purpose

Extended observation

Co-evolution of garden and gardener

Combine proven successes with experiments

The background image shows a lush garden scene. In the foreground, there are various green plants and a single pink flower. A wooden deck with a patio umbrella is visible in the middle ground. In the background, a brick house with a grey roof is partially obscured by trees and foliage. The overall atmosphere is peaceful and natural.

Lessons- Diversity

Biodiversity benefits intended and achieved

Advantage over other forms of land use?

Potential for crop diversity

Part of resilient landscapes and communities

- Economics

Household and community resilience

Products and services for trade and sharing

Reduced imports through internal resource cycling

Lessons for Participatory Research

Key role for practitioner networks and small organisations – needs to be resourced

What's the benefit for practitioners in participating?

Value of Co-defining scope and typology of forest gardens

Simple and clear methodologies for data collection



Outputs

1. Ten-Year Forest Garden Trial (Permaculture Association)
2. Participant Profiles
3. Virtual Tours
4. Plant & Utilisation .pdfs
5. Dissertation

**Ten Year Forest Garden Trial
Final Report
(2011 - 2021)**



Karina Ponton and Tomas Remiarz

For The Permaculture Association UK



Esthwaite Forest Garden

Lancaster

Site Age / Initial Planting: 15 / 2007

Size and aspect: 0.02ha of terraced w-facing garden and additional front garden

Soil: Loamy Sand with 8.3% organic matter, pH 7.36



Setting: Small urban garden

Jenni's heroic efforts are inspiring change across the world. Using her plant knowledge, she designs ornamental forest gardens for clients that are fruitful and aesthetically beautiful. Her dedication to the community is infectious - including spearheading a range of local initiatives, designing food forests for local schools and guerrilla gardening. She has created an entire edible hedge along the roads of her culdesac. Even the city's taxi drivers recognise her site as 'the garden.' She focuses her efforts on creating social change, and lets others worry about the record keeping (cheers Graham!).

"...my vision is really one of the cycle of nature of the abundance. And you know, sharing the abundance, which is one of the third permaculture principles."

Key Features

The site has all layers in the forest garden system except a root layer (albeit a natural root system is present) and the forest gardener feels all layers are complete.

A total of 121 species across all layers were identified, whilst 101 individual trees, shrubs and saplings were recorded.

Upper Canopy (4 individuals): wild cherry, silver birch, rowan

Lower Canopy (23 individuals) including: buddlea, amelanchier, apple, hazel, euonymus fortunei

Shrubs including: *rosa mundi*, *rosa apothecary*, *rosa perpetua*, hebe midsummer glory, barberry

Herbaceous layer including: aquilegia, sedum spectabile, bridalwreath, corncockle, self heal

Ground cover including: bugleherb, elephant ear, gold flower, London pride, marjoram

Saplings (2 individuals) including: mulberry, Chilean guava (*ugni molinae*)

Successes

- seed saving and sharing
- several thousand LinkedIn connections and sharing natures patterns with them
- Creating a wildlife refuge and place of spiritual renewal
- Dismantling barriers around wild food
- Guerilla gardening
- Plums, apples, pears and roses

Difficulties

- To not take into account the size or potential size of the trees / overplanting
- Restraining ambition

Uses

Cleavers (goosefoot) and willow herb: use the leaves for herb tea

Climbing hydrangea: the only variety for a north-facing wall

Darwin's barberry: berries can be eaten raw, they are palatable; also used in jam & jelly

Aronia: used in drinks and dried; its very astringent, but it's a superfood (high in anthocyanins - antioxidants) and can be prepared to make more palatable

Evaluations

[Click here or scan for virtual tour >>>](#)



"Let me just say one fun thing, which is the older I get, the more I realise that I need to ask questions of our indigenous elders. And in every place I create gardens. My questions are always 'what did the first people of this place do? How did they grow their food? How did they interact with nature? What medicines did they find?'"

"I'm a keeper of the site. It's not like a sculpture that I created and it's inert..."

"So I think if I had a huge site and I created a woodland and I was allowing the woodland to go wild, then there are parts of it that I could just let do their thing. But you know, I mean this is a tiny suburban site so I can't do that."



Virtual Tours – Esthwaite Gardens, Lancaster

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Virtual Tours – ART

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Questions? Comments?



Processing & Preserving

