



Transition Kerry

Biodiversity & Climate

Community Leadership Programme

Biodiversity is the foundation of all life on earth and its interconnections

*Forest
Gardens &
Permaculture*



Forest Gardens & Permaculture

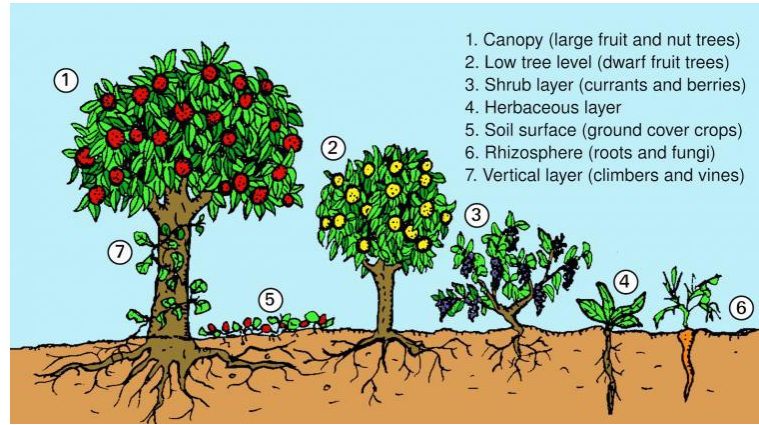
What is a Forest Garden?

A Forest Garden is like the 'edge' of a forest, where you grow plants in groups and use all levels from ground covering plants, low growing shrubs, to climbers and trees. It makes great use of space, creates more diverse habitat layers and produces healthy perennial food orchards and gardens. It uses mulching techniques in the planting of the orchard, trees and hedges (cardboard, grass clippings, straw) to manage unwanted weeds and grass.

In Ireland we are 52 degrees north of the equator so we have a temperate growing climate. The south-west, west and north-west are next to the Atlantic Ocean, with the gulf stream influencing the high rain fall and warmth. The midlands can be colder in the winter and the east coast can be more sheltered and less buffeted by storms. A changing climate and weather patterns means that planting with this kind of multi-layered perennial approach creates more resilient gardens. When researching what plants will grow best in your spaces, make sure that you look into temperate loving plants, as opposed to tropical - as those plants require different growing conditions!

Forest gardens are:

- ✓ Low maintenance, sustainable food production system
- ✓ Based on observing and mimicking the layers in natural woodland ecology
- ✓ Incorporate fruit and nut trees, shrubs, herbs, vines and perennial vegetables
- ✓ Able to be grown in small urban spaces or larger community gardens including public parks, housing estates, school grounds or even containers
- ✓ Places that store water, carbon and other important elements that support diverse habitats and ecosystems
- ✓ Full of useful plants that can be grown to: be eaten, feed wild creatures, make fibre/rope, provide fuel and charcoal, make simple home/garden medicines, provide wild food, perennial food and a constant supply of mulch material
- ✓ Consist of many interconnected layers, including:
 - Canopy layers
 - Low tree layers
 - Shrub layers
 - Herbaceous layers
 - Ground cover layers
 - Rhizosphere / underground layers
 - Vertical layers of climbers/vines



Source: [Spiralseed Forest Garden Booklet](#)

Why plant a Forest Garden?

- Increases biodiversity.
- Promotes composting and growing food locally so reduces food miles / packaging.
- Great crop yields for humans and wildlife.
- Good for health and wellbeing.
- Community Meitheal – they make a great project to bring people together for planting and then revisit as needed throughout the year for harvesting, processing fruit / nuts.

Resources Needed:

- Trees / Plants
- Mulch materials, eg. sheets of cardboard, wood chip, bark mulch, hedge clippings, cut grass, compost, seaweed, manures, etc.
- Tools – spades, shovels, secateurs, loppers
- Space to plant
- Community group – People!

Suggested Plants:

Please note that everywhere has different growing conditions and microclimates. See what is growing around you and chat with other people growing perennial forest gardens:

CANOPY LAYERS:

Usually over 30 ft / 9 m
Walnuts, Crab Apples, Apple Trees (with large rootstocks), Amelanchier spp., Medlar, Damson, Quince, Mulberry (check heights).



SUB-CANOPY LAYERS:

Usually 10-30 ft / 3-9 m: Hazel, Apple Trees (with dwarf to medium rootstocks), Amelanchier spp., Medlar, Damson, Quince, Mulberry (check heights).

SHRUB LAYERS:

Edible Myrtle Berry (Chilean Guava), Aronia, Summer and Autumn Fruiting Raspberries (plant in separate areas), Blackcurrants, Redcurrants, etc.

HERBACEOUS LAYERS:

Include plants that die back in the winter and grow back again in the spring, eg. Comfrey, Nettles, Babbington Leeks (perennial leeks), Mints, Lemon Balm, Globe Artichokes, Cardoon, Good King Henry.

CLIMBING/VERTICAL LAYER:

Hops, Passion Flower, Sweet Pea, New Zealand Spinach.

GROUND/CREEPING LAYER:

Alpine and Wild Strawberries, Ground Covering Comfrey, Wild Garlic, Sorrels, Selfheal, Bugle.

UNDERGROUND LAYERS:

Includes roots crops and many interesting plants such as Yacon, Jerusalem Artichokes, Maca, Oca.

MYCELIAL/FUNGAL LAYER:

These will arise over time due to the mulching, as the cardboard and organic matter decompose and add more carbon to the soil.

SOME FOOD FOREST DESIGNERS INCLUDE OTHER LAYERS: Aquatic/Wetland Layers

How To / Next Steps To Take:

- Visit other gardens close to you where food forest gardens are being grown.
- Start to map what you have already.
- Design the layers / layout of the Forest Garden.
- Sheet mulch the areas to be planted. It can be useful to mulch the area first and then plant in, but you can always plant and then go back in with mulching afterwards.
- Sheet mulching technique – see **Mulching** resource for further information.
- Plant layers into mulched areas. This can be done over a period of time too, as some climbers may need the trees to be established before introducing the plants.
- Some ground layer plants require shading from above, so may be introduced 2-3 years after the shrub or canopy layers have been planted, eg. wild garlic.

Some Useful Plants in a Perennial Food Forest Garden:

Some Liquid Feed Recipes: If you liquid feed with nettles and comfrey, you are providing all that the plants need, as they contain such a range of nutrients, minerals and trace elements between them. Wear gloves as it tends to be smelly. You can make them in separate buckets or put them together.

Liquid feed helps plants to grow and produce, especially if they have used the food in the soil/container. Always feed the soil, not the plant. Liquid feeds work better in soil that is well balanced, which can take time to cultivate.

Weed Tea: You can also make a tea with other wild plants from your garden – which is called weed tea. If you have weeded them from your beds or garden, you are returning their fertility to your soil. Same recipe as below.

Nettle Tea:

1. Cut nettles down and shake out any insects (wear gloves and long sleeves). Rough guide is 100g/4oz per litre
2. Put in a breathable sack/old tights (optional)
3. Put in a barrel/container and cover. You may need to put a rock or something to stop the bag from rising to the top
4. Leave to sit for 4-10 days. Stir if you want/
5. Strain and put the plant material on your compost
6. General dilution rate is 1 part nettle juice to 10 parts water. Or what looks like a weak tea.
7. Water the soil around the base of the plant as it also stimulates root activity.

How often to liquid feed?

Once per week or fortnight if you have time.

Comfrey Tea:

- || More or less the same as the nettle tea recipe.
- || Comfrey leaves are hairy too, but not as stinky as nettles.
- || Cut back just as they are about to flower.
- || They will grow back again, so you may be able to make another 1-2 batches of feed if required.
- || Plant more than one clump of comfrey, so that there will be some flowering for the bees too.
- || Same goes for nettles, as 3 species of butterflies need them as their caterpillar food plant: **Red Admiral**, **Peacock**, **Small Tortoiseshell**

A really good book for more recipes like this: Biodynamic Gardening – Grow Healthy Plants and Amazing Produce with the help of the moon and nature's cycles by Monty Waldin.

Further support / Signposting

- Permaculture Resource Sheet from Transition Farming Programme
- [All Ireland Permaculture Website](#)
- [Kinsale Permaculture Course](#)
- Forest Gardening; A Beginners Guide, Graham Burnett, www.spiralseed.co.uk
- [How to make your garden a multilayer food forest - Irish Examiner Article](#)
- [Top 10 Forest Garden Books](#) as recommended by the Permaculture Association (UK)
- [Learn more about Permaculture here](#) - Permaculture Association (UK)
- [Irish Seed Savers Association](#)
- [The Organic Centre](#), Co. Leitrim
- [An t-Ionad Glas – The Organic College](#), Dromcollogher, Co. Limerick
- [Caherhurley Nursery](#), Co. Clare
- [Future Forests](#), Co. Cork
- [Wild Oaks Nursery](#), Co. Clare
- [Food Tree](#), Co. Clare

What
FUTURE
Do We Want?

