

Needle Mt Food Forest

Annie Lake Road- Mt Lorne
Southern Lakes area zone 2

Against all odds 😊

Food forest, Edible forest garden, Forest garden
Agroforestry

An edible forest is a **gardening technique** that emulates a healthy woodland ecosystem closer to natural development with high biodiversity - through a **perennial polyculture** with **multipurpose** plants

- **Perennial** most plants regrow themselves every year (25 year)
- **Polyculture** wide variety of plants- more than companion
- **Multipurpose** from feeding others to producing, attracting, protecting , medicine , materials and more

Benefits/goals

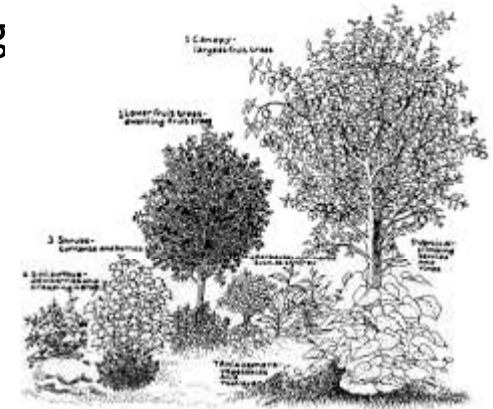
(Rehabilitation of land - not so much in North)

Looking for small and slow solutions

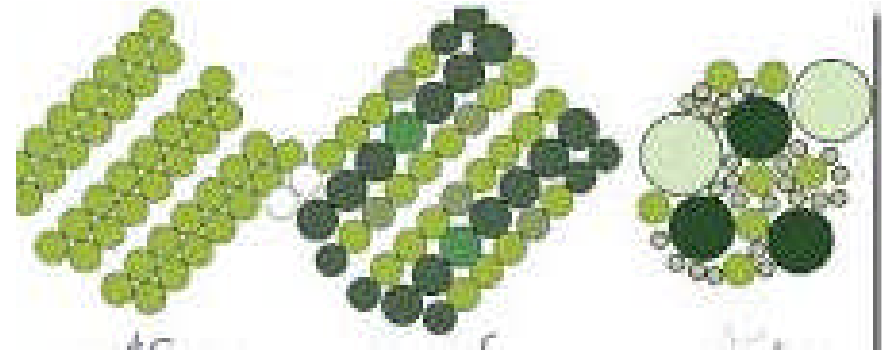
- Low maintenance – low outside input- self maintaining
- Good yields, high biodiversity
- Resilience and stability
- Food ,medicine, materials, beauty
- Soil fertility- protection, building of soil
- Water management- humidity and rain catchment
- Habitat and pest management
- Efficient harvest
- Climate change mitigation

By creating community - of plants including human gardener and a community of gardeners (sharing, education etc..)

Work intensive part is developing it !



How



copying one of the most bio diverse habitats- young woodlands, where open land meets forest - by :

OBSERVE and Research – adapt and adjust-

Design and create- everything planted together in a specific system design – based on perennials !!

Based on :

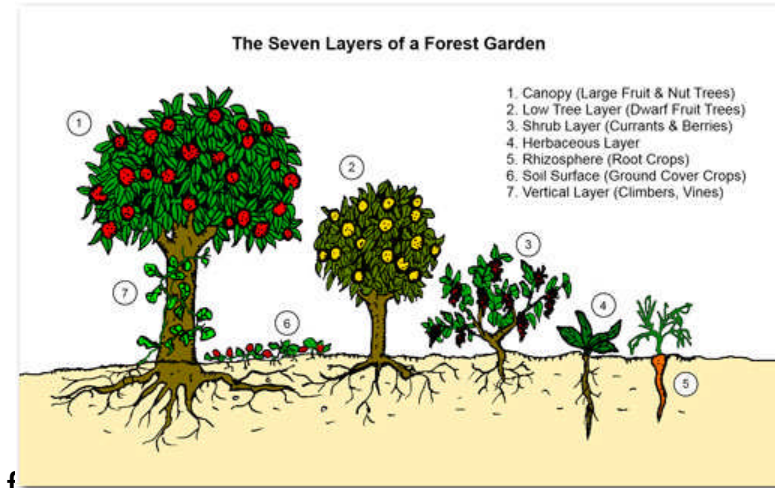
- **working with nature , keylines, with wild edibles, natural patterns in your garden**
- **Use of 7 layers principles**
- **planting in a System of guilds-plant communities**

(after a few years) a very much self maintaining, nutrient recycling and highly productive system/community can develop that eliminates need for insecticides, fertilizers, high fossil fuel use -

.. (that s the idea :))

Seven layers

make best/maximum use of space
by growing in layers and with
succession (sun season)

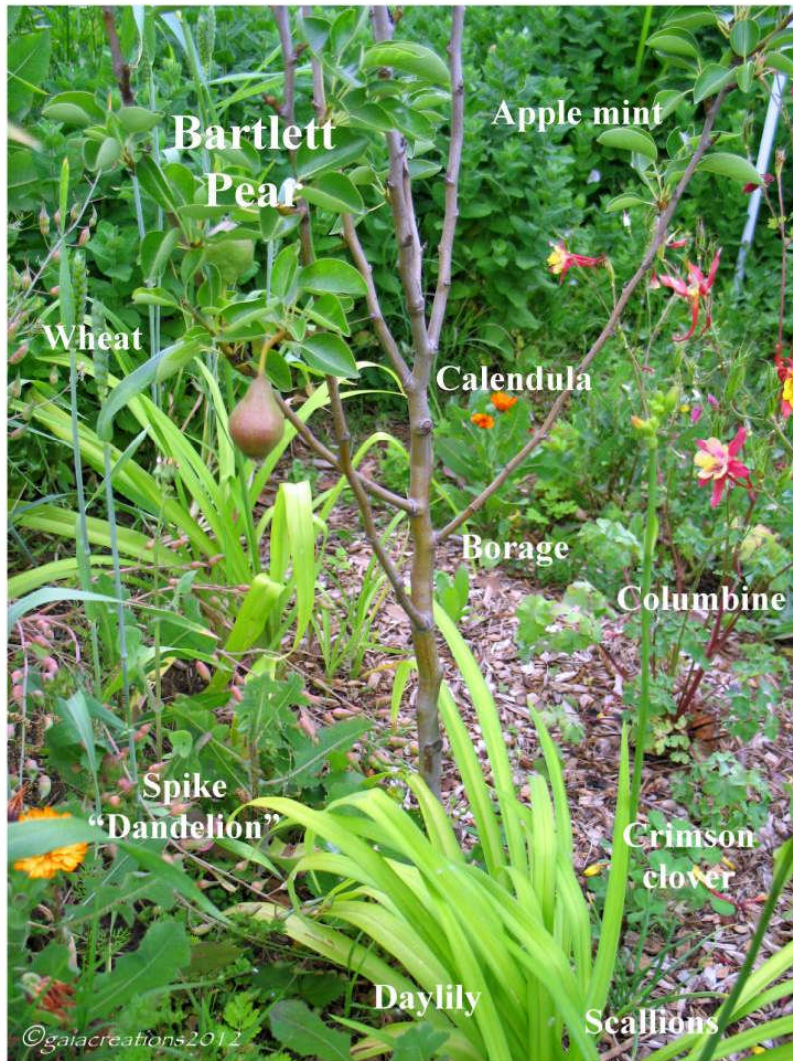


1. '**Canopy layer**' consisting of mature f
2. Understory '**Low-tree layer**' of smaller nut and fruit trees on dwarfing root stocks.
3. '**Shrub layer**' of fruit bushes such as currants and berries.
4. '**Herbaceous layer**' of perennial vegetables and herbs.
5. '**Ground cover layer**' of edible plants that spread horizontally.
6. '**Rhizosphere**' or 'underground' dimension of plants grown for their roots and tubers.
7. '**Vertical layer**' of vines and climbers.

- 8th layer: The **Mycelium** Layer, a network of connection that transports information and nutrients between the elements.

-In between annual vegetables can be added

One - guild example



- ✓ support each other, feed each other- nitrogenfixers 25 %
- ✓ plants use different root space, different sun requirement
- ✓ attract pollinators and predators against **"pests"**
- ✓ use of mineral -accumulators and dynamic accumulators to support healthy plants
- ✓ groundcover plants protect soil
- ✓ include Plants for materials from soap to basket materials, medicine, fibre
- ✓ Soil building materials - mulch

Guild functions

In an ideal guild you have various plants performing these functions : (some/ most plants have multiple purposes)

- **nitrogen fixing plants** to fertilize (25 %)
- **mineral accumulators** to help supply other nutrients
- **bee plants** -wild and honey- for pollination
- **beneficial insect plants** to minimise pest problems
- **aromatic plants** to confuse pests
- **plants with different root systems** to maximise space use
- **ground cover** to protect soil
- **soil building** -mulch

Plant set up is designed to minimise competition, placement is important and different for each location (harvest, rain, sunlight, wind) - size depends on what and where..from backyard to acres..

Northern Food Forest- cold climate zone 2

- **challenges : adapt to Northern climate**

lots of books out in last couple years - cold climate food forest - still talking zone 4-5..we are (depending on US or CA guidelines zone 0- 2 maybe 3.. temp related

our challenge was / is exploration of **boreal edible forest** possibilities

- find plants that survive our winters - **zone 2-3 perennials**, specific stock - everythign that says Siberian or Mongolia or Russia is worth a second look..
- Develop **northern guilds** with these plants in mind
- **Create/ build soil** up front and along the way
chop and drop, cut and carry, compost

Northern guild example

Northern guild design- observe- adjust when maturing.. APPLE GUILD

- apple tree zone 2-3 (2 !) height, dwarf, stock - Apple Johnny Dawson
- canopy - further out korean pine, swiss pine
- berry bushes side currant, gooseberry, raspberry
- accumulator comfrey 1-2, camomile (self seeding)
- nitrogen fixer Carragana, lupins
- groundcover alfalfa, soapwort, clover, thyme, chives, garlic ,strawberries
- climber s hops, peas, beans, flowers
- attractants flowers edible, viola, calendula , herbs
- Roots radish, tillage radish, burdock, sun chokes
- weeds ?! beginning ...yarrow, chickweed, dandelion, fireweed, lungworth...
= mulch, food, compost starters...

Currently our test plot has about 90 different plants – plus annuals in between

summary

Forest Gardening represents the most sustainable form of food production through

- utilizing perennial crops
- with multiple purposes for each one
- on multiple layers

by applying forest ecology principles we can also achieve :

- - resilience, - abundance - and diversity

Annual industrial agriculture -as done today i- s an incredibly unsustainable pursuit; industrial, fossil fuel and capital intensive monocultures use up to 10 times the calories produced in their creation. Ironic as nature is powered on sunlight. Perennial, community based growing helps us develop future forms of localized, decentralized human scale production (backyard and smallholder) for **greater food resilience.**

A food forest provides its own fertilization, weed suppression, pest control and habitat for more than humans. Each organism is tied to many others. Connectedness and multifunctional is key in a healthy ecosystem. Self-renewal is key to self-maintaining. Plants acting in mutual support can withstand extremes and onslaughts better than an isolated species.

Gardens are dynamic systems, ever growing and changing. Basic guidelines are :

- Perennials start the process. They renew themselves plus recycle and capture nutrients.
- The more diverse the system is, the healthier the foundation and less competition for resources.
- Build on Basics of a guild: (groups of species that create networks of mutual support)
- Create community on all levels – plants- gardeners- relationships