PLANTS FOR FOOD FORESTS

Fruit Trees

Apple
Plum
Pear
Cherry
Serviceberry
Chokecherry

Shrubs

Raspberries
Currants
False indigo
Aronia
Elderberry
New Jersey Tea
Highbush cranberry
Hazelnut

Nitrogen-fixing plants

False indigo
Leadplant
Partridge pea
Groundplum milkvetch
Clover
Siberian peashrub
Goumi berry
Beans

Pest repellants

Daffodil
Garlic chives
Onions
Garlic
Marigold
Oregano
Thyme

Beneficial insect attractors

Native flowers
Dill
Fennel
Coriander
Chamomile
Bee balm
Catnip
Nodding onion

Groundcovers

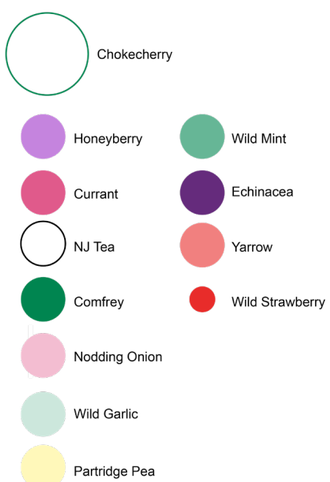
Strawberries
Clover
Mint
Nasturtiums
Squash
Rhubarb
Wild geranium
Sorrel
Thyme

Mulch and nutrient accumulators

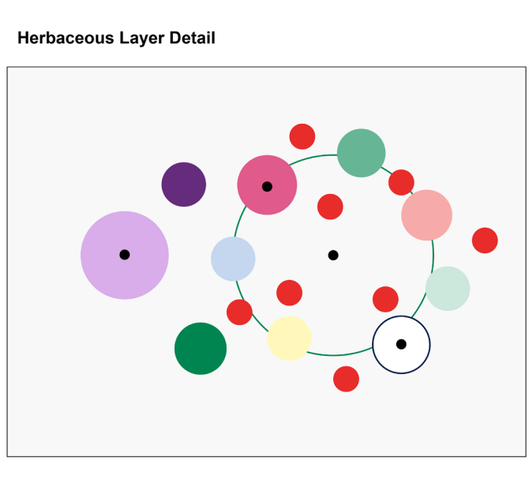
Comfrey
Borage
Chickweed
Yarrow
Stinging nettle
Tansy
Amaranth
Jerusalem artichoke

Tips for Getting Started

- Observe and learn from the local ecosystem about what plants work best.
- Start small, work in phases so you don't get overwhelmed. Begin with one fruit tree guild and expand from there if you have the time and space.



Herbaceous Layer Detail



Designing plant guilds

Guilds are a type of polyculture that includes a tree and other plants grown in layers that help each other in some way.

EDIBLE LANDSCAPING & FOOD FORESTS

Robin Buterbaugh, SDSU Extension Horticulture Field Specialist

What is a food forest?

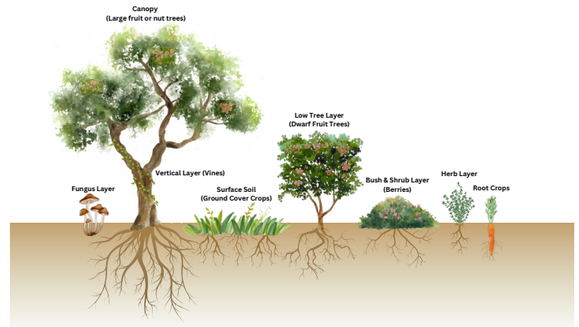
A food forest is a diverse planting of edible and beneficial plants that mimic the layers found in a forest.

Food forests contain plants at multiple levels with specific characteristics that support each other to function as a whole system.

Food forests have been created and managed by people around the world for thousands of years!

- Ancient Amazonian farmers practiced agroforestry by continuously planting crops and edible trees throughout the forest.
- Forest gardens containing fruit trees and berry bushes were deliberately cultivated by First Nations people in the Pacific Northwest.

Johnston, L. J. (2022). Architects of abundance: Indigenous regenerative food and land management systems and the excavation of hidden history (Doctoral dissertation, University of Alaska Fairbanks).



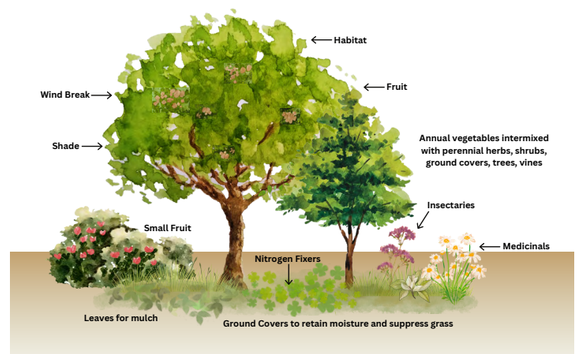
Graphic credit: Kiley Rath

Why should we plant a food forest?

Food forests provide food, fiber, and medicine for people and habitat for animals, insects, and birds. Having a variety of plants growing also creates root systems and microbial communities that cycle nutrients and sequester carbon, and the organic matter and roots in the soil can help with water management.

Important Components of a Food Forest

The plants in the layers all have different functions—some plants are edible, some provide mulch or fertility for the soil, others attract pollinators or repel pests, and these plants all work together to create an ecosystem. This method of planting develops relationships between the plants that support their growth while maximizing productive space. A food forest can be many acres, several acres, or even a single tree in your yard with the supporting plants around it.



Graphic credit: Kiley Rath

South Dakota State University Extension

MC-04302

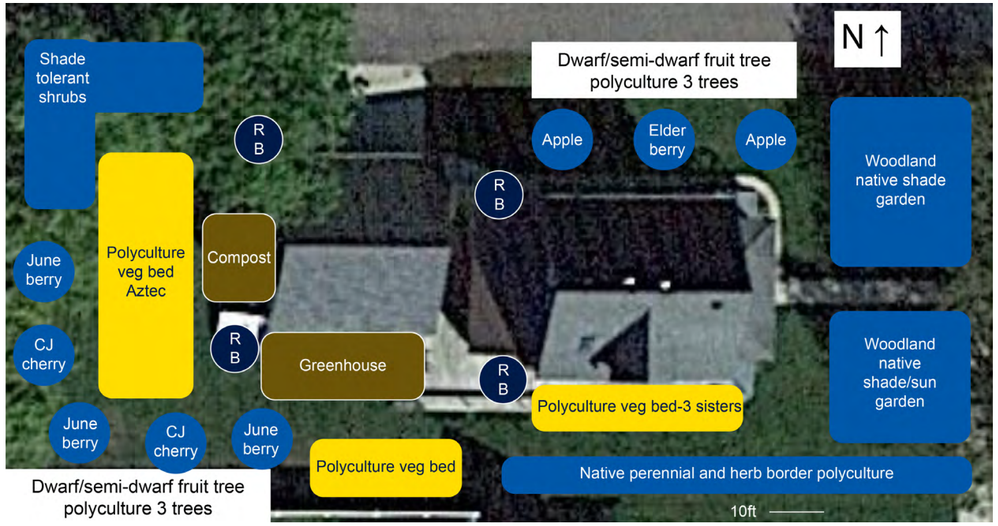
STEP BY STEP GUIDE

1. Site Assessment and Planning

- Assess your site to determine climate, soil type, sunlight, and water sources.
- Determine your goals: What do you want to grow, what is the size of your space?
- Plan the layers, including plants for the canopy (tall trees), understory (smaller trees), shrub layer, herbaceous layer, ground cover, and root layer.
- Draw a layout of your food forest, considering plant spacing and placement.

2. Site Preparation

- Designate the paths and planting areas.
- Prepare the area for planting by sheet mulching with cardboard or newspaper, organic matter, and wood chips or other material.
- Make sure that you have access to water from a hose, drip irrigation, rainwater harvesting, or other method.



CJ Cherry = Carmine Jewel Cherry, RB = Rain Barrel

3. Planting

- Plant the trees first to establish the basic structure and layout of the food forest.
- Layer the shrubs, herbs, and groundcovers around the trees, using a combination of edible and beneficial plants.
- Follow plant spacing recommendations so they have enough room to grow.
- Protect your plants from animals with fencing or other methods.

4. Maintenance

- Monitor the plants and adjust if needed.
- Add mulch as necessary using wood chips, grass clippings, straw, or the mulch plants and keep the area weeded.
- Prune the fruit trees and remove dead or diseased plants to maintain the health of the food forest.
- Water as needed.
- Harvest your food, herbs, and other products from the food forest!

DESIGN YOUR FOOD FOREST

*Every square = 2 ft x 2 ft, or create your own scale.