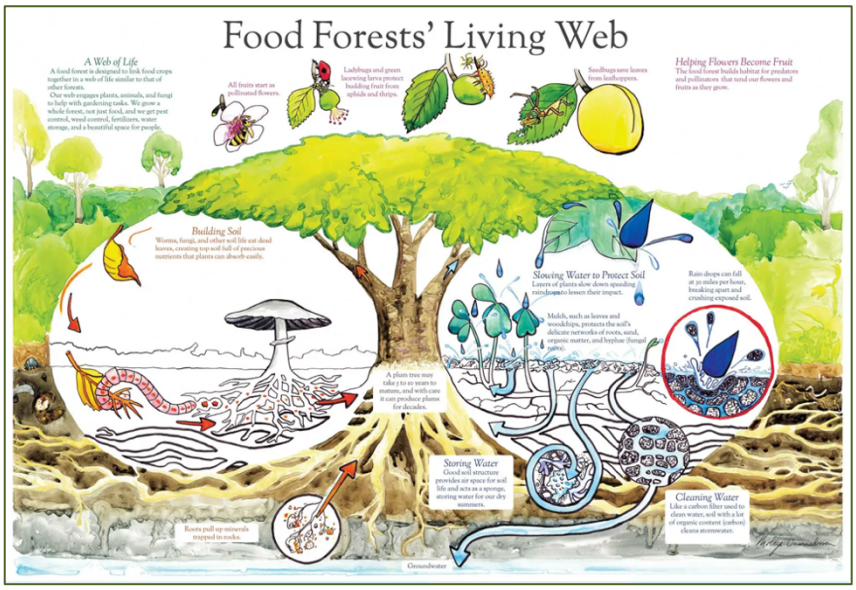
URBAN FOOD FORESTS

Presented by: Jenn Dowell (Aanishinabe)

Food forests, or edible forest gardens, are life-filled places that not only provide food for people, but habitat for wildlife, carbon sequestering, biodiversity, natural soil building, beauty and tranquility, and a host of other benefits — you just need to take a page from Mother Nature's book.

The urban food forest is a closed loop practice, meaning that anything that is in the garden should stay in the garden. Practicing a closed loop system is an ages old practice of no waste. Similar to the forest you might hike through, a food forest is a puzzle of symbiosis.



https://www.chelseagreen.com/product/permaculture-design/

1. The Canopy Layer

This layer is the starting point.

Typically, the canopy layer reaches over 30 feet in height and is used in larger forest gardens. It can include fruit and nut trees as well as those that absorb nitrogen from the environment.

Trees with the capacity to convert the atmospheric gas into usable compounds, such as ammonia, are nitrogen fixing trees (NFTs). A limited number of plants in nature have this rare ability to use atmospheric nitrogen for their own purpose and to add it to the soil. Leguminous plants such as alfalfa and clover (perennials), and beans, peanuts,

and soybeans (annuals) are superior fixers. Black Locust, Mimosa, Alder, Redbud, Golden Chain Tree, Acacia, Mesquite and others are examples of trees that support nitrogen in soil with the help of bacteria. These NFTs pull the element out of the atmosphere and build a storehouse of the gas through their nodule root formation.

2. Sub-Canopy Layer

This layer should tuck in under the canopy layer and is generally the place where you would plant dwarf fruit and nut trees.

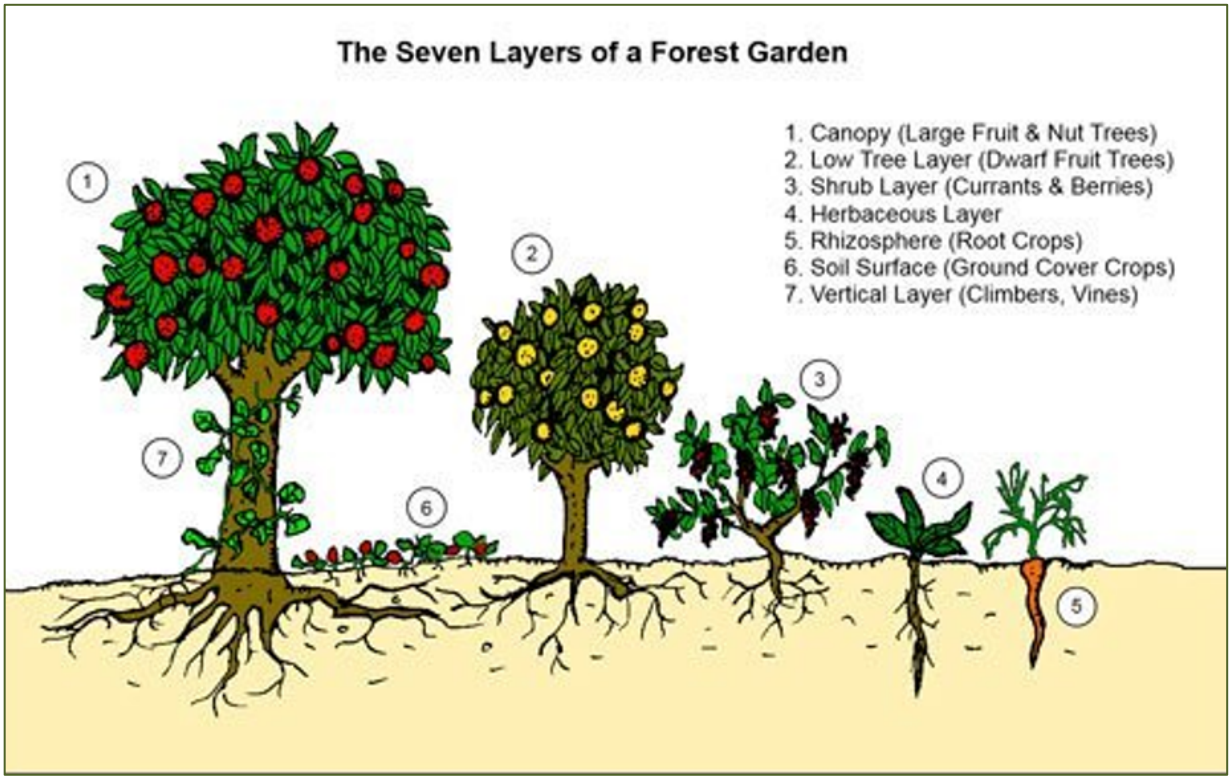
3. Shrub Layer

Up to 10 feet in height, this layer contains fruiting bushes as well as nut, flowering, medicinal and other plants. This is a great place to plant blueberries, raspberries, hazels, elderberry and currants making it an easily managed layer. The shrub layer will generally be able to handle a bit of shade and will offer habitat to backyard birds and beneficial insects.

4. Herbaceous Layer

This is the layer which usually dies back each winter to give back to the environment around it. With careful planning, both annuals and perennials can be grown in an urban food forest scenario for abundant production of resources. Many culinary and medicinal herbs are grown in this layer. Plants like artichoke, lavender, and seasonal perennial pollinators are perfect for this layer.

5. Ground-Cover Layer



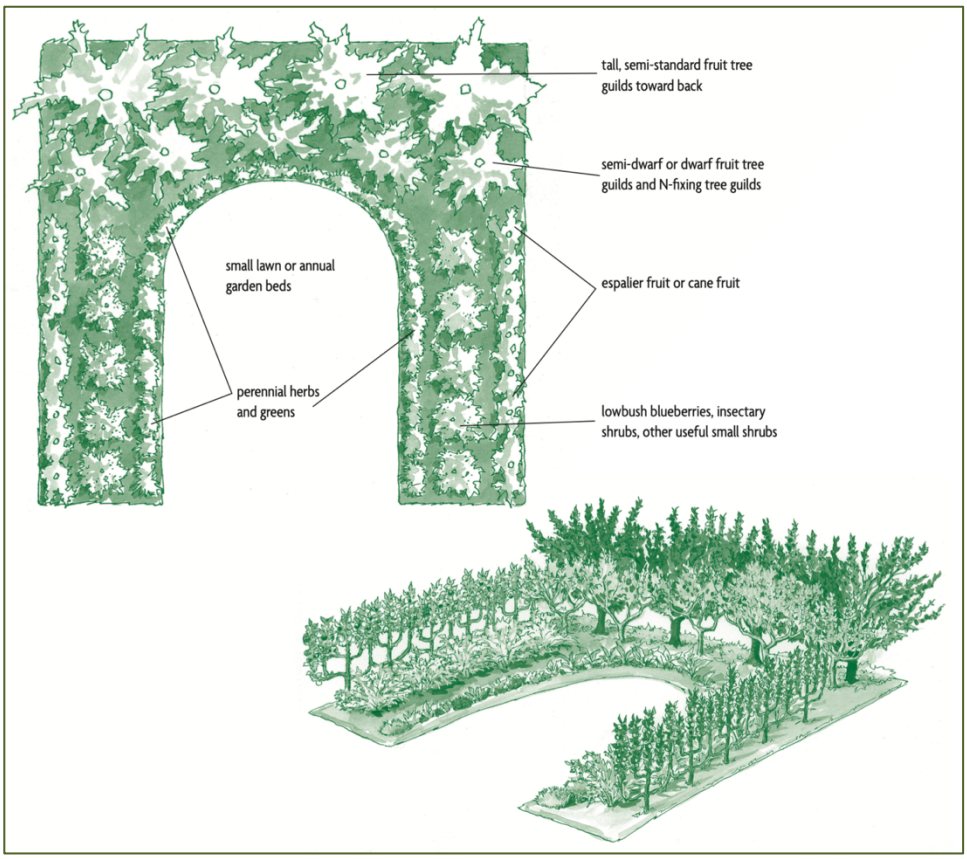
Some overlap does exist between the ground-cover and herbaceous layers. Also called the horizontal layer, plants grown here are often shade tolerant and grow closer to the ground in dense formations. This layer often looks weedy and is often filled with leguminous species which will die off every season. Leguminous is an adjective used to describe plants in the legume family, which includes the plants that produce some beans, peas, and lentils. Leguminous plants are nitrogen fixing and will contribute to the overall health of the soil. After about five years it is good practice to put in perennial species which prevent soil erosion and if possible provide some nutrients to the surrounding area, while of course looking good.

6. Underground Layer

Also called the vertical layer, but known as the rhizosphere. This layer can be an extension of other layers whose vines, trunks or leaves come up out of it or filled with root crops. When filled with biodiversity this layer provides a path for water and air that over time no machine is able to do. This layer breathes life into the soil.

7. Vertical/ Climber Layer

While there are many species that fight for the light of the sun we find that nature has a balance to it. Vines and climbing plants have adapted to use other species for structural support allowing them to climb and find maximum sun exposure. When we are designing this layer we always have food in mind and can find great ways to add more productivity to a small space. This layer can work well with other layers to add to our abundance. Great examples of food producing vines for this area are hardy kiwi, grape, hops, vining berries; and those for wildlife, such as honeysuckle and trumpet-flower.



Note from the author:

This is a heavily copied and pasted document, I have done most of my research like almost every successful gardener I know, through trial and error, and I've found the greatest lessons from the plants that ended up in the compost heap at the end of the year.

I've had my nose in permaculture practices since I was a kid. I was obsessed with all of the wild animals I'd find on my walks and it became a habit to pay attention to the kind of animals that lived in the different plant structures. Then I had to know which plant to find the kind of animal in that habitat…thus my first introduction to the vital web which makes up a food forest community.

Jenn Dowell (Aanishinabe) has been a community food access advocate for years, teaching urban farming in the Delridge corridor with the Little Red Hen Project. She also started the learning garden at Pathfinder Elementary, which has endured for twelve years and has become part of the science curriculum at the school.