2016 ACORN Homesteader Symposium Marché de Dieppe Market, Dieppe, NB

Workshop Title: Aim Higher: Convert Your Lawn into a Forest Garden

Speaker: Estelle Drisdelle

Executive Summary: Food forest gardening does not mean gardening in a forest, but like a forest. It is an imitation of a woodland ecosystem, focusing medicinal and edible plants that thrive together. Unlike dedicated gardens, they are low maintenance while still offering an abundance of food and medicine. Estelle Drisdelle shares her insight and years of experience on maintaining food forests and guilds.

Detailed Notes:

The plants selected for a specific forest garden are chosen based on their interactions with each other. There needs to be structural diversity, in which no two plants are competing with each other. The 7 layer system is comprised of the canopy, lower tree, shrub tree, herbaceous, rhizosphere, soil surface and the vertical layer. Everything is working towards a common goal.

- The central element is typically a tall tree, but not necessary.
- Dynamic accumulators gather and conserve nutrients like potassium. The organic matter holds the nutrients critical for after winter's washout. Bloodroot is a good example.
- Nitrogen fixers are especially beneficial for sites that have been strictly mowed lawn in the past. The help the system move forward with nutrient accumulation.
- Ground covers will help to suppress grass from growing.
- Rhizobium symbiosis supports the beneficial bacteria that help with soil quality and nutrient density.
- Mycorrhizal is the beneficial relationship between fungus and plants. This helps keep natural systems healthy and resilient.

Habitat

- Consider elements that will help diversify the garden's ecosystem, by attracting wildlife like bees, insects and birds.
- Amphibians like, frogs and toads, can be attracted by including features like a rock pile, tipped over garden pot or brush pile.
- Pollinator supporting plants include crocuses, chives, bee balm, milkweed, wild rose, high bush cranberry, and wild raisin.

Preparing

- When choosing where the food forest or guild is going to go, factor in surrounding characteristics such as lighting (or lack there of) and soil condition. Then consider plants that will thrive in those conditions.
- When prepping the site, once the grass has been removed, the ground tilled and compost added immediately cover the bare soil with mulch. Grass clipping,

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cardboard, and straw are all given examples. Bare soil in a true forest is a rare occurrence.

- Establish walking paths, as the garden is stepping free zone. Walking on the soil robs it of 7 years of established beneficial air pockets and soil structure and it's soil ecosystem.

Apple Tree Guild

- In the first there was lots of open soil and weed maintenance. Annuals are planted to fill in the spaces where mature perennials while eventually take root.
- By year 3 there was significantly less weeding and it only took 8-10 hours a year to maintain.
- In the fourth year, there was a harvest of apples, herbs and berries. No nuts yet.
- The fifth year the lupines continued to spread, while the lemon balm was shaded out and reseeded elsewhere.
- During the sixth year it was noted that apple trees planted outside of the guild at the same at the central guild tree were not thriving as well.
- The following years there was minimal weeding and woodchips are added each year to the paths.
- The apple tree guild continues to thrive and serves for educating other about wild harvesting.

Native Garden

- In the first year, a variety of native plants where planted including elderberries, a butternut tree, bloodroot, asparagus, wild ginger, native grapes, and high bush cranberries.
- Due to the juglone produced by butternut trees, every other plant in the garden needed to be tolerant of it.
- A temporary shelter was built for the shade loving plants like bloodroot and wild ginger. The shelter will remain until the larger plants, which will naturally offer shade, establish. Other plants, like asparagus, thrive in full sun.
- The first year offered a harvest of morel mushrooms. Shiitake mushrooms were harvested in the following years.
- Each year the fiddlehead ferns are heavily mulched, enjoying the moisture and shade. 10 plants we originally planted, and now there are over 50.
- Pruning, primarily the native grapes, is done early spring. Pruning later on in the season would cause the limbs to bleed and drip sap.
- This garden also acts as a place for education, as well as a source of propagation material.

Estelle shares documentation of a food forest established in Sackville, NB that flooded at the end of June the previous year. Despite surrounding gardens failing to thrive after the flood, the food forest still had a substantial harvest that summer, including apples and berries. Over 8 years of establishing synchronicity, the food forest as a whole system was able to quickly overcome the damaged done by flooding.

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Q: What size is the food forest? A: The larger forest is 40' x 40'.

Q: Did you dig up the plants in the wild?

A: No, they were sourced from Corn Hill Nursery and a local nursery in Sackville. She recommended not to dig up whole plants, but if it is thriving to take cuttings instead.

Q: Do guilds have life expectancies?

A: This all depends on what varieties are growing in the guild. Dwarf apple trees have a limited life span whereas plants like Echinacea could be divided and replanted as they mature. Be patient with your design, and take the time to observe the existing habitat and interactions where you plan to build.

Q: Can you design a guild around an existing apple tree? A: Yes

Q: What kind of mulch do you use?

A: You can use straw, seaweed, cardboard (great for covering large areas) and woodchips.

Q: Native grapes grow here normally?

A: Yes, though they are not typically grown for fruit but for rootstock and preserves. They thrive very well in our environment.

Resources/Books for Food Forest Gardening Edible Forest Gardens by Dave Jacke Gaia's Garden by Toby Hemenway

Website Resource

Whole Systems Design www.wholesystemsdesign.com