



Ecological Gardens Newsletter

Summer 2004

<http://www.ecologicalgardens.com/>

“Gardening is about cultivating relationships not just plants – relationships between soil and microbes and plants, between berry bushes and birds, between pollinators and fruit trees”. Toby Hemenway, Gaia’s Garden: A Guide to Home-Scale Permaculture.”

Summer is a time for being outdoors and observing the natural world. In the garden it is a time of intense activity as pollinating insects move back and forth drinking nectar and moving pollen between flowering plants to enable reproduction. Bees are among the most important pollinators pollinating over 75% of all crop species. Many of us have little or no knowledge of these critical relationships and can inadvertently break the chain.

In order to support a viable pollinator population in the garden you need a variety of flowering perennials from early June to early September. Native perennials are preferable since they are often higher in nectar and support native pollinator populations. Important plants for bees include daffodils, bergamot, mints, coneflowers, blazingstars, and asters.

Summer is also a good time for planning and designing gardens for fall planting. Take a few minutes to observe activity in your gardens. Is it a place of use? What insects or birds are using it? Are there elements you can add to strengthen existing relationships?

Tips for Conserving Water

Summer is a time of low rainfall when we often turn to municipal water systems or wells to meet the shortfall. You can minimize water use by:

- Covering the soil with mulch or plants to reduce evaporation
- Planting a diversity of plants with different root depths to minimize water competition
- Maintaining healthy soils that can capture and store water

Building Natural Capital

Natural capital is the wealth inherent in our natural ecosystems. In the garden this wealth is embodied in plants, soils and other living organisms. Many forms of energy – light, wind, and water – enter our garden daily. We can increase our natural capital by using these energies to optimize our yields of food, wood, fiber, soil, and wildlife habitat.

An easy way to increase the natural capital on your land is to plant a diverse canopy of trees shrubs, and flowering perennials that produce multiple yields over many years. Perennials are more efficient at capturing and storing sunlight than annuals since they are living on the landscape for longer periods of time.

Water is another energy that can be used to increase natural capital. Water can be captured and stored in many forms – barrels, cisterns, ponds, plants, and soils. Having a variety of strategies for capturing and storing means you have water freely available for times when you need to use it.

Consciously increasing the natural wealth on your land allows you to harvest sustainably while ensuring that wealth will be available for future generations.

Multifunctional plants – Seaberry (*Hippophae rhamnoides*)

Plants perform many important ecological functions in the landscape as well as provide beauty, medicine, and food for humans and wildlife. Sea buckthorn or seaberry, an edible ornamental native to the Russian Far East, is a very useful shrub. It grows 6-8' tall and is hardy to -50F. Both male and female plants are needed for fruiting. Seaberry can be used for:

Food

Seaberries are one of the best natural sources of vitamins A, C, E, carotenes, several B vitamins, and flavonoids. They are often used in fruit juice mixtures because of their health benefits.

Medicine

Seaberry has been known for centuries as a skin care remedy and cosmetic aid with nourishing revitalizing, and restorative action. The oil is used to promote the healing of skin injuries, such as burns, sunburns, wounds, eczema. It is also combined with other cosmetics to combat wrinkles, dryness and symptoms of malnourished or prematurely aging skin.

Natural Dye

The berry is used to produce a yellow dye. The stems, roots and foliage are used to produce a blackish-brown dye.

Wood

Seaberry wood is fine-grained and very durable and can be used for fine carpentry. The branches are often used in floral displays.

Nurse Plant

Seaberry adds nitrogen to the soil and can be used as a pioneer species to help re-establish woodland in difficult areas. Because it is very light demanding it will eventually be out-competed by woodland trees and will not over-stay its welcome.

Erosion Control

Seaberry has an extensive root system and is often used to control erosion in sandy dry soils.

Guilds in the Garden

A plant guild is a collection of plants that work together to perform one or more ecological functions in a plant community. Guilds are designed to function as mini-ecosystems with plant needs being met by other guild members. Guilds increase abundance, eliminate chemicals, conserve water, and reduce labor. In addition they may have wildlife value, aesthetic value or food value.

The black walnut tree is a valuable tree native to woodland swamps. It emits a toxin called jugalone from its roots. People have difficulty finding plants that are tolerant of jugalone so the residential understory of black walnut is often barren and nutrient poor. The following plants are jugalone-tolerant and also provide multiple values for a guild. Guild members may include:

American Plum (Deciduous tree)

American plum has edible fruit that can be used in making pies, jams, jellies, and desert sauces. It protects against erosion and provides wildlife habitat for deer, small mammals and small gamebirds.

Black Raspberry (Native shrub)

Black raspberries are delicious to eat and can be used as a medicinal tea for diarrhea and stomachache.

Black Currant (Native shrub)

Black currants are the mildest of the currants. The fruit is high in pectin and vitamin C. It used to make cassis - a liqueur - and teas. An essential oil extracted from the seed is added to skin preparations and cosmetics. A yellow dye is obtained from the leaves and a blue-violet dye from the fruit.

Daylily (Hardy perennial)

Daylily leaves, young shoots, flowers and flower buds are edible. In general, the brown and red flowered daylilies taste better than the yellow ones. Daylily has a long history of medicinal use. An extract of the flower was used as a blood purifier and juice from the roots was used as an antidote to arsenic poisoning and in the treatment of cancer. The tough, dried foliage can be plaited into cord and used in making footwear. Daylilies are good soil builders and a nurse plant that is easy to establish in areas prone to drought.

Wild Ginger (Native groundcover)

Wild ginger has a long history of herbal use dating back to the time of the ancient Greeks. The plant has a strong peppery taste and smell and when taken as a snuff produces a copious mucous. An essential oil extracted from the root was used in the treatment of digestive tract lesions and silicosis. The leaves are used to produce a vibrant apple-green dye.

Ostrich or Fiddlehead Fern (Native groundcover)

Fiddleheads are edible in early spring when they are 2-3" tall and tightly coiled. Ostrich fern provides a dense groundcover and helps purify water.

Crocus (Bulb)

Crocus flower styles are commonly used as a flavoring and yellow coloring for breads, soups, sauces, rice and puddings. They are an essential ingredient in many traditional dishes such as paella, bouillabaisse, risotto milanese and various other

Italian dishes. The styles are extremely rich in riboflavin. A yellow dye can be obtained from the stigmas and a blue or green dye from the petals.

Daffodils (Bulb)

Daffodil flowers come in a variety of colors and are good for cutting. A yellow dye can be obtained from the flowers. Daffodils have been used traditionally as a pest repellent. Borders of daffodils planted 12 inches deep in double rows have been reported to deter gophers and moles.

Winter or Summer Squash (Annual vine)

Squash blossoms are edible flowers that can be battered and fried in oil. Harvest only the male blossoms unless your goal is to reduce squash production. Squash is a good source of complex carbohydrate and fiber. It has been used traditionally as a pest repellent and is reported to keep raccoons away from other plants.

We can use your ideas for designing additional plant guilds.

Are there problems in your landscape you would like to have a plant guild designed for?

Are there assets in your landscape – particular trees, water features, etc – that you would like to have a plant guild designed for?

Send any suggestions or ideas to: paula@ecologicalgardens.com

Enjoy the summer!!

For information on upcoming events:

http://www.ecologicalgardens.com/upcoming_events.cfm

For information on products and services:

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Creating and Conserving Vibrant Plant Communities