

Beneficial Garden Results Come From the Beneficial Relationships of Guilds

By Dr. Bob Randall

Gardens with lots of plants often appear intimidating to beginning gardeners. “How do you keep up with all the work they ask?” Actually however, the amount of work in a landscape is much less the result of complexity, than it is the result of design-- or lack of it.

A large lawn has relatively little plant diversity, but nevertheless requires hours of lawn mowing several times a month. Even homeowners, who hire someone to do this, need to work to pay for the service. By contrast, a similar lot populated by fruit trees and other bird and butterfly attracting features can require much less physical labor, money and fossil fuel. But this is only true if the landscape is designed with energy efficiency in mind.

This general topic is a core part of permaculture design. You can get a better idea of how this works by taking the Sustainable Living Through Permaculture classes taught in January, March, and September every year (see www.urbanharvest.org). One core part of permaculture is to study the way nature organizes plants in a forest or prairie, and then try to design these ideas into our landscapes, our homes, communities, and our organizations.

Gardeners are familiar with the idea of “companion planting” where one type of plant benefits another. For example, cilantro goes to flower in March, attracts beneficial non-stinging wasps, and these parasitize caterpillars that otherwise would bother the tomatoes.

In nature, “a guild” is any group of plant, animal, and insect species that use the same resources and work well together. But if one observes closely, we can see that all pairs of elements in nature or in a landscape or even a community can have a positive effect (+), a negative effect (-), or a neutral effect (o) on each other. So any two elements can be mutually beneficial (++), mutually antagonistic (--), mutually inconsequential (oo), or have some less symmetric relationship.

For example, a sun-loving plant like orange butterfly weed does poorly in the shade of a magnolia because it doesn't get enough light. By contrast, the magnolia probably gets no benefit or harm from the relationship. So it is a negative/neutral relationship (-o). In nature, it is easy to find examples of (--), (-o) as well as (+o), but there most relationships are mutually beneficial.

To get the most out of your garden design (and also your household, neighborhood, and organization), permaculturists think you should try to maximize the number of ++ and +o relationships, and minimize the rest. And you should do this not just among the plants and animals, but also in the relationships between them and built structures (like your house) and between you and even your community. The more you can do this, the better your plants, your house and its inhabitants will do, and the less your work and costs will be.

To see how this happens, consider a constructed guild I have in my garden. The design benefits our family, our friends, some citrus trees, bees, birds, and a number of tropical fruits. Flowers like shrimp plant, antique roses, and salvias attract bees over many months and the bees are plentiful to pollinate the citrus, pears and other fruit every March.

The flowers and fruit also make the garden enjoyable for the people. The grapefruit trees also provide habitat for many birds, and they eat insects and seeds, and deposit their high quality manure, thus benefiting the plants including the grapefruit.

The grapefruit too provides shade on the west wall of our house, thus reducing energy costs, adding a privacy screen to the street, and even blocking hurricane force winds in summer and cold north winds in the winter. Our house in turn, provides a windbreak from those north winds that benefits the grapefruit as well as guavas and lemons.

Careful guild design makes your efforts beneficial!