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DAY 11

Challenge level: GREENEST

One of the best books I have read about plants and soil is "Restoration Agriculture: Real-World Permaculture for Farmers" by Mark Shepard. In his book, Shepard describes the most productive ecosystem on the planet: the savanna. A savanna is characterized by multiple layers of vegetation where the herbaceous layer is not shaded out by the trees because of sufficient tree spacing. Such a system is very productive because many varieties of plants can proliferate there, creating guilds or polycultures that work well with each other. Large grazing animals usually prevent such a system from becoming a forest, while also adding a lot of organic matter to the soil and enriching it.

In a small backyard, the gardener starts to fulfill the role of the grazing animals in this scenario – pulling out tree and shrub seedling where they shouldn't grow, mowing the grass, and importing organic matter (preferably from the compost bin). But we as backyard gardeners still try to recreate the multilayered nature of a savanna with plants that can grow well in our specific area. I first focus on where the trees will go, and then place the rest of the elements accordingly: shrubs, herbs, tubers, ground covers and vines. They can all support the system by serving a purpose.

There is another valuable idea I use from permaculture, creating an "edge" – for example, the edge where shade and sun meet. Those edges are usually very productive.

As you can see in my garden plan, I try to locate everything logically according to those two ideas when I decide where to plant anything. So far I have several hundred plants growing all around my small 1/8 acre urban plot, including fruiting and shade trees, native shrubs, lots of native flowers, medicinal herbs, cultivated vegetables, groundcovers and vines.

This year, I lost many plants due to a hard frost in winter and then a severe heat wave and a drought in the summer. Because of that, I am planning to replant the following:

- A **burr oak** tree in my pedestrian strip. It is very important to shade the concrete of the street to mitigate the heat island effect and to provide shade for people walking in the neighborhood. (I already lost 2 tree seedlings in that spot because of 2 extremely hot summers, but I will keep planting a new one each year until I succeed).

- **Persimmon** trees. I lost a couple that I planted in the spring, mostly due to grasshopper damage which were particularly bad this year, plus the drought. This year I will make sure to plant a more resilient native variety in addition to an Asian one. Growing our own fruit, especially exotic, is so important in order to reduce carbon emissions from transporting it from far away.
- **Apricots**. Same as above, I lost 2 apricot trees. However, the older ones in the neighborhood have survived the drought. So I will replant new ones with the hope of having a milder summer next year and fewer grasshoppers.
- Plums. One plum that I planted 2 years ago did great, but the young seedling from this year didn't make it. I will be planting more.
- **Feijoa**. The fruit is absolutely delicious and very exotic! One tree that I planted in February survived the summer, but the one I planted a month later didn't make it. I will be replanting that one.
- Lots of native flowers and **medicinal herbs**! I have an amazing neighbor who's also into native plants. Her and I always share lots of seeds with each other. This year, I have already sowed lots **of blue curls** I got from her. I'll also make sure to get **milkweed** and **goldenrod** seeds for pollinators. Milkweed in particular is very important because it is the larval food host for Monarch butterflies.
- Lots of **vegetables** too many to recount here!



