

Plant Diversity in the Landscape

It is often said that having a variety of things add spice to our lives. This saying is even true in the landscape. Can you imagine yourself having just pine trees growing in your landscape? No colors, just down right boring. As an Extension agent, I have made many site visits to subdivisions in our area, or even observing trees that line our streets, I quickly realized that many developers/landscapers focus on only one species of plant. This practice may be because that's what was available or they are just trying to cut costs. The use of a single species is called a monoculture.

The problem with having only one species is that diseases are species specific; meaning that plants that are from the same species are susceptible to the same diseases and insects. Therefore, an entire landscape established with a single species can be wiped out with a single outbreak. In addition, certain insects will prefer to feed on certain plant species, a single infestation, can wipe out a monoculture landscape. Here are some examples of pests that are specific to certain plants; azalea lace bugs feed on azaleas, an avocado lace bug feeds on avocados, and crepe myrtle scales feed on crepe myrtles. It is also important to note that there are some insects that will feed on a variety of landscape plants. Insects have their preferred plants but will also feed on others if their favorites are not available.

To successfully create diversity in the landscape, these plants must have some growing requirements in common. Some of the requirements are; sunlight, soil moisture, soil pH (the acidity or alkalinity of the soil,) and soil fertility. For instance, azalea requires a soil pH of 4.5 while roses grow best at about 6.5 pH. Although azalea's red blooms and the rose's white bloom will complement each other in the landscape, the difference in the pH will hinder one of them from maximizing its growth potential. Always remember to group plants based on growing requirements; sun-loving plants together and plants that require the same amount of moisture in the same section of the landscape. When thinking about landscape diversity always keep the 5:10:5 rule in mind. The rule states that never establish a landscape with more than 5% from the same species, no more than 10% from the same genus and no more than 15% from the same family.

The overall benefits of having a diversified landscape are many. In a diverse landscape, an outbreak of any one pest will not destroy the entire landscape. For trees to absorb and store carbon from the air, foliage is required. A diverse landscape should include both evergreen and deciduous trees in order to provide continuous green foliage year round. Having evergreen trees will allow carbon removal year round. Deciduous trees will have green foliage in the spring and summer months. During fall, deciduous trees offer exquisite colors, and provide leaves for mulch. When the leaves fall and decompose they add organic matter, additional nutrients and improve the health of the soil. Mulch also conserves water in the soil and blocks out weeds. Diverse landscapes also attract pollinators and other beneficial wildlife. Different plant species may bloom in a different months or season of the year. This means that there will be plants blooming in the landscape throughout the year.

For more information on growing plants contact Grantly Ricketts at UF/IFAS Extension in Osceola at 321-697-3000 or email gricketts@ufl.edu.