

Adding Sustainability to Your Landscape Goals Part I

As part of our ongoing effort to continue looking into Green, this article has been contributed by Dr. Barry Troutman, a leading authority on the subject of landscaping, maintenance, fertilization and pest control. We will be seeing more of him in this space in the future. We take great pride in working with our valued vendor partners such as Dr. Troutman and his company, ValleyCrest.

For many years now we have judged the quality of landscapes almost totally on their aesthetics. Clearly curb appeal and the message landscapes send to your employees and customers has justified investment in green, colorful and meticulously maintained landscapes. As a byproduct of their beauty, landscapes also produce environmental benefits that often go unnoticed. After all, "The Green Movement" took its name from the peaceful and healthy green spaces that seemed threatened by uncontrolled growth of our communities. The questions being asked today is "Are our landscapes sustainable?" Can we make Green, greener?

Sustainability is the responsible use and conservation of natural resources in all processes necessary to provide quality landscapes. That simple statement is extraordinarily complex to apply. Landscape design and maintenance is an almost infinitely complex set of interrelated activities where changing one practice or plant can create the need for added inputs somewhere else. We have seen this where control of problem insects has damaged beneficial insects or where merely moving a plant to a better location has drastically reduced the inputs required to maintain that plant.

Sustainability of landscape maintenance is not so much a destination as a goal. As we achieve one level, we are challenged to do better. While innovations help us leap forward, it's the consistent management of sound agronomic principles that drive most of our achievements.

I believe there are five agronomic principles that drive our success and move us ever closer to sustainability.

1. We must grow adapted plant material. This may include native plant material but also takes advantage of plant breeding and plant selection from two centuries of horticultural science.
2. We have to create healthy soils to support the growth of plants. This includes the fertility and physical health of the soil. If we don't create healthy soils we won't get healthy plant growth.
3. The judicious use and conservation of water is critically important as our water needs grow and supplies of suitable drinking water are challenged. On the positive side we must also look at landscapes as the final filtering step for reuse of processed sewage effluent waters (reclaimed water).
4. Mowing and pruning are critical to maintain the size, shape and health of plant material. They can require large energy inputs if not properly managed.
5. Finally we must control problems pests including insects, diseases and weeds. The fact is that if we do a great job on the first four principles, pest control is a much smaller and easier job. It is also a fact that no matter how hard we work we are going to have to deal with some problem pests and tolerate limited levels of their activity.

This week we will focus on the importance of selecting adapted plant material for your landscape.

Why are adapted plants so important? The plants we choose to grow determine the challenges we will face. The science is selecting plants that are perfectly adapted and resistant to common insects and diseases. These plants must be adapted to the climate in your region of the county and also to the microenvironment of a particular spot in your landscape.

Climate is the major determining factor for adaptation. Plants must be able to tolerate the high and low temperatures and rainfall patterns of your community. Southern California and Florida share similar maximum and minimum temperatures but one is a desert climate and the other is a rainy humid climate. The Mediterranean look with 60 foot tall Italian cypress is great for L.A. where these plants appear to grow wild. Heavy summer rains of Florida prevent the cypress trees from rooting and growing much over 15 feet before they are blown over by wind or fall victim to stem disease.

Plants must be adapted to the specific conditions at the exact spot where they are used in your landscape. Exposure to sun and shade, soil type and fertility as well as irrigation and drainage must be factored into the decision. More confounding is that these conditions change as a landscape grows. Plants which were perfect for the site when installed can become shaded by other plants or outgrow their location, blocking windows walks or vehicular traffic.

Finally plants should be selected based on the amount of maintenance they will require. While it might be a lot of fun to have a real putting green near the community swimming pool, the inputs required are probably not sustainable anywhere but at the golf course. Native plants have a place in the landscape but giving them carte blanche approval assumes that the soil, sun and drainage conditions in your landscape are the same as they were in the native environment for which these plants are adapted.

Landscape maintenance professionals should have a strong sense of what plants will and will not work in your landscape. Here are some ideas that will help you navigate the complexity of selecting plant material:

1. Look around and see what plants are working well in your landscape as well as neighboring landscapes. Well adapted plants stand out because they look good.
2. Plants in your landscape that always seem to have problems are probably not adapted. It may cost less to make some changes than to maintain the status quo.
 - a. Can plants be moved to a better location?
 - b. Can other plants be moved or added to create better conditions for growth of these problem plants?
 - c. Is it time to replace problems with better adapted plants?
3. When selecting new plants be aware of the space they will need to grow to maturity. Trees don't belong on small parking lot islands or close to buildings or power lines.
4. Lawn grasses require sunlight to reach full density and beauty. Perhaps it's time to thin trees or down size lawns in favor of more shade tolerant plants.

Your State Land Grant University offers a wealth of information on plant selection through your local County Extension Service Office