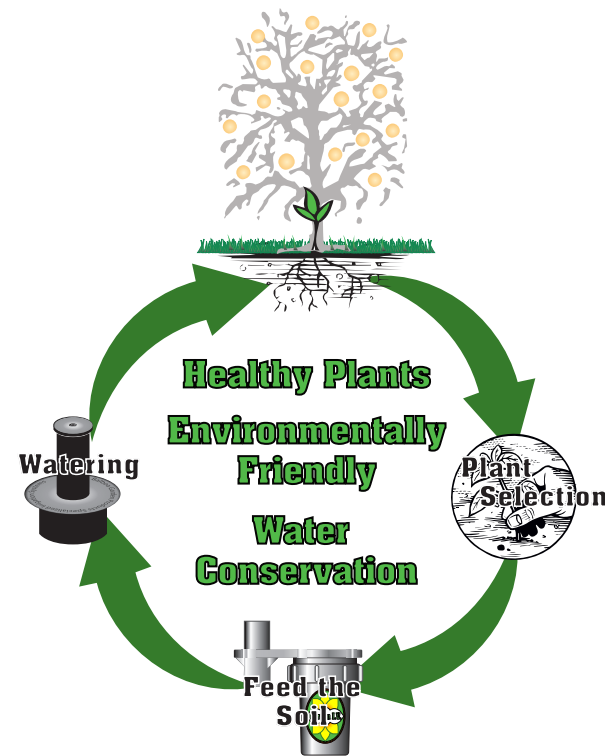


## What is a **SMART** Landscape?

All plants need varying quantities of water, light, nutrients, and temperature in order to survive. The SMARTLandscaping approach is to use new technology to apply an optimal amount of these basic needs to the plants. The result is a landscape that conserves water, needs fewer pesticides, and minimizes run-off into our water ways.



## What is the **SMART** Landscaping Exchange?

The SMARTLandscaping Exchange connects you to a local landscape professional with specialized training in water efficient and environmentally friendly products for your garden. A homeowner can order a standardized, professional installation and be assured that a trained professional will come to their home.



**We Specialize in Improving  
the Efficiency of  
Your Current Landscape Irrigation System.**

**SAVE Water...  
REDUCE Runoff...  
HEALTHY Plants!**

**Contact us today  
to schedule your in-home installation**

Your Local SMART Landscape Partner is:

[smartlandscaping.com](http://smartlandscaping.com)

or

call 877-301-Garden



**Save Water  
Reduce Runoff  
Healthy Plants**



**An average homeowner spends 68% of their total water bill to maintain their landscape. More efficient watering, fertilizing, and soil amending techniques can lower your water bill and help your plants look their best.**

# Common Landscaping Practices...

## How do plants receive their basic needs from nature?

All plants need sunlight, water, nutrients, and temperature. In nature, plants get direct sunlight or varying levels of shade provided by larger surrounding plants. Water comes in the form of rain, snow, lakes and rivers. Finally, microbes in the soil breakdown other living matter into usable nutrients for the plants to uptake through their root system.

### BASIC GARDEN PITFALLS/MISTAKES

#### Shallow watering and Sunlight mismatch

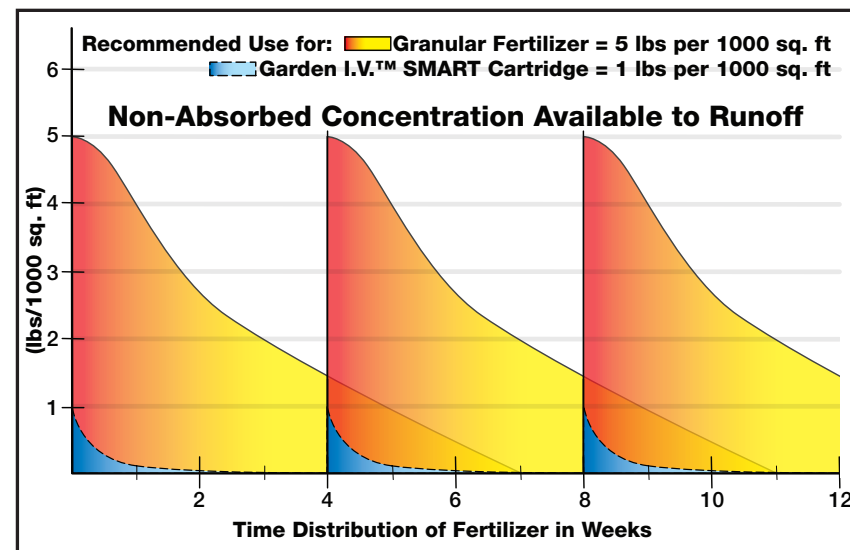
Plants are often selected without careful consideration of the plant's basic needs. It is common to find large trees placed in the middle of lawns. This mismatch of water and sunlight requirement creates problems for both the lawn and the tree. The frequent watering tells the tree to put out shallow roots, rather than the deep roots necessary to become stable and extract deeper sources of water. As the tree grows it creates shade, which in turn blocks the lawn from receiving enough sunlight.

#### Misting Sprinkler Heads

Most sprinkler systems are installed without considering the effects of excess water pressure in the system. This excess pressure puts wear and tear on the system and causes a major source of wasted water.



susceptible to being blown away, washed away, or sucked up by a lawn mower. Also, too much fertilizer will kill the microbes in the soil and reduce the efficiency of soils to convert the organic matter into usable form.



# The SMART Landscape...

The SMART Landscaping approach is to consider the complete landscape design starting with plant selection, irrigation design, and plant nutrient requirements.

### SMART Plant Selection Basics:

SMART Landscaping starts with picking the correct plants and locating them in the garden with considerations for water and sunlight needs. Plants with similar watering needs should be grouped and watered together. These plants will also have similar nutrient requirements.



### SMART Irrigation Components Provide Unmatched Control

#### 1. Garden I.V. SMART Feeders

Provide a path to inject liquids fertilizers and soil amendments on a zone-by-zone basis.



#### 2. Garden I.V. SMART Fertilizers

A rotation of cartridges has been developed to treat lawns, shrubs and flowers, roses, tropical plants, and even fruits and vegetables.

#### 3. Toro Precision® Series Rotating Nozzles

Based off the design of the world's leading gear-driven rotor for golf applications, the Precision® Series Rotating Nozzle is powered by a proven gear drive and delivers wind resistant, multi-stream, multi-trajectory patterns.



#### 4. Toro CLIMATE LOGIC

CLIMATE LOGIC™ system, a wireless weather sensor and receiver module, allows most Toro or Irritrol controllers to save water by automatically adjusting irrigation to weather conditions



# Sustainable...

Creating a long term healthy landscape requires tending to the chemical, physical, and biological needs of both the plant and the soil.

### Chemical

Plants are living organisms and they need nutrients to survive and thrive. There are thirteen main nutrients (N,P,K,S,Mg,Ca,Fe,Mn,Zn,Cu,Mo,B,Cl) and three others (C,H,O). The amount of each of these nutrients changes by plant type and by time



of year. Too much or too little of a given nutrient can have devastating effects. The three tomato plants on the right were provided a 1/4 teaspoon of AgSciTech Green's Green liquid fertilizer once per week for a full month. The three control plants on the left received exactly the same amount of water.

### Physical

Soils are composed of sand, silt, and clay based on particle size. The percentage of each particle is used to classify the soil structure, loam, sandy loam. The soil structure helps predict how well water enters, holds, and drains through the soil. Also, the soil structure influences the amount of nutrients a soil can hold. Over time and use soil becomes compacted, reducing its ability to drain and making it difficult for plant root to get air. Mechanical aeration is used to de-compact soils.

### Biological

Even if a soil has plenty of nutrients, these still may not be available for the plant to metabolize. Microbes (Fungi, Bacteria, Protozoa, Actinomycetes, Algae) are nature's decomposers of organic material and nutrients. These microscopic organisms are essential to breaking down nutrients into usable plant form.

### Sustainable Lawns and Home Gardens

Sustainable Turf Science (STS) and its team of fertilizer manufacturers have created fertility plans that use the Garden I.V. Fertilization System. A complete SMART System is in place at Mt. San Antonio College and the fertility program is undergoing trial on ten turf plots.



This treatment is proving that a highly efficient sprinkler system, a weather-based controller, and targeted turf nutrition program can help grass become more water efficient. The blends include many unique additives not found in conventional granular products. The program is designed to provide seasonally adjusted nutrients (Chemical), natural water moving penetrants (Physical), and bio-stimulants to promote microbial activity (Biological). On top of all that, a proprietary additive is included that is showing promise to help teach grass to increase its root depth and mass.



### Sustainable Process

The SMART Landscaping System teams up the latest in irrigation efficiency technology with a latest in plant nutrition technology. As a system, this comprehensive approach will take plant health, water efficiency, and environmental responsibility to a whole new level.