



SUSTAINABLE LANDSCAPE MANAGEMENT

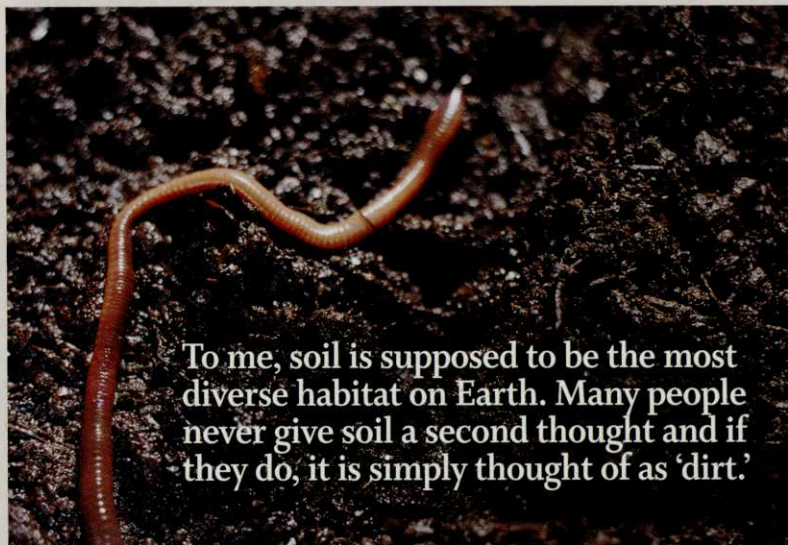
One aspect of sustainability as it relates to golf courses is to develop and implement a sustainable landscape management approach and program. This means a comprehensive approach, that is “top heavy” on turfgrass management, but that looks at the entire landscape, beginning with the health of the soil that serves as the foundation for a sustainable landscape.

I will admit straight away that I am not an agronomist, I am a biologist. Therefore, this training has shaped me to think about things from a “food, shelter, water, adequate space” view point. These topics represent the necessities of life. To me, soil is supposed to be the most diverse habitat on Earth. Many people never give soil a second thought and if they do, it is simply thought of as “dirt.”

What follows are seven topics I believe are important considerations for a sustainable landscape management program.

BUILDING HEALTHY SOILS. Healthy soils are essential in urban landscapes. Organic matter additions (compost or humus) can transform poor soils into a fertile growth medium that supports healthy plant growth while reducing water and fertilization requirements. Healthy disease- and pest-resistant plants improve landscape appearance and increase property values.

USING FERTILIZER EFFICIENTLY. Applying precise amounts in a timely manner will reduce growth, diminish the potential for pollution, and promote healthy disease- and pest-resistant plants. Fertilize according to the needs of the species planted. Use slow-release or organic-based formulas based on nutrient needs as verified by soil testing. This will reduce growth spurts that



increase the need for pruning and mowing.

USING MULCH. Use shredded or chipped plant materials with an appropriately high wood content as a cover in planting beds and other bare areas in the landscape. Mulch will insulate plant roots, reduce weeds, minimize water loss, and control erosion, dust, and mud problems. Decomposition of mulch helps condition the soil and adds nutrients.

IRRIGATING EFFICIENTLY. Overwatering aids rapid plant growth and runoff adds to groundwater pollution. Use water-efficient irrigation systems, such as drip or low-output sprinkler heads, which deliver a precise volume of water to plant root zones. Develop watering schedules based on historical or actual weather data. Use soil probes to monitor soil moisture before watering.

PRUNING SELECTIVELY. Excessive and haphazard pruning of shrubs and trees is wasteful and unhealthy. Pruning should be limited to maintain natural growth patterns. Hedging, topping, and shearing of landscape plants into formal

shapes only encourage excessive new growth. Using natural pruning techniques at the proper season will promote healthier plants and also reduce “suckering” and stabilize growth.

PRACTICING POLLUTION PREVENTION. Landscape managers are encouraged to use Integrated Pest Management (IPM) to reduce use of chemical pesticides and herbicides. These chemicals can eventually make their way off-site and contribute to nonpoint source (NPS) pollution (pollution not traceable to a single location). Increased use of non-motorized equipment also reduces emissions and noise pollution.

RETROFITTING INEFFICIENT LANDSCAPES. As established landscape sites age or grow beyond their intended use, they must be redesigned to integrate resource efficiency, site function, and aesthetics. Reduce turf areas and establish new landscape plantings with more low-maintenance and drought-tolerant plants. Likewise, irrigation systems must undergo retrofits and depleted soils enriched to conserve water and promote healthy plant growth. **GCI**