Leaflets News and Information for the Arborists of Michigan

The Plant Doctor's LANDSCAPE TIPS

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Photo 1: Properly designed landscapes with proper inputs can result in very appealing and effective landscapes for their intended purpose.

Photo 2: Frequent and excess irrigation to this lawn resulted in serious fungal disease development on this juniper hedge at this corporate site.

Photo 3: Broadleaf weed herbicide applications to this lawn are resulting in the decline of this river birch. Note cupped and deformed foliage (Inset) typical of the persistent herbicide dicamba, frequently used in mixtures to control broadleaf weeds in lawns.

LAWNS VS. TREES

INTRODUCTION:

Landscapes provide aesthetic appeal and other benefits that are difficult to measure (Photo 1). Landscapes may increase property value, provide habitat for wildlife, reduce pollutants from human activity, and can assist to ameliorate problems contributing to global warming; for example, carbon dioxide usage by plants can potentially slow or reduce the increasing carbon component of Earth's atmosphere. Landscapes can be quite diverse and complex but are generally comprised of several major components: turf grasses, herbaceous annuals and perennials, and woody trees and shrubs. As a result of natural competitiveness and inappropriate human inputs, these landscape components sometime encounter problems that compromise their health and intended purpose.

COMPETITION:

All plants compete with one another for space, nutrients, water, light and atmospheric gases. Trees, in particular, because of their size and reach, have the potential to crowd out turf and other plants, however, trees and shrubs may also be harmed from competition from lawns as well. In lawns, trees can be quite competitive for nutrients and moisture. Lawns are often thin and weak in areas where shading is excessive from dense tree canopies. Landscape designs can exacerbate or minimize plant competition.

HUMAN INPUTS:

In an attempt to manage plant health, we often support nature's contribution with supplements; these supplements include water, fertilizer nutrients, organic materials such as mulch, and herbicides to control weeds. Frequently, we mismanage our landscapes by excessive inputs of fertilizers and water (Photo 2). Herbicides that are frequently used to control broadleaf weeds in lawns can represent a serious threat to other plants; trees, shrubs and many herbaceous plants are viewed as broadleaf weeds by broadleaf weed killers used to control dandelions and other weeds in lawns (Photo 3). Unfortunately, we also design landscapes that result in problems; we place the wrong plant in an inappropriate location or do not prepare the site properly (Photo 4).

OPTIMIZING LANDSCAPE HEALTH:

To optimize plant health, whether considering lawns or trees and other landscape plants, we can minimize competition through better landscape design (Photo 5). We also need to provide the proper inputs at the right time to lessen landscape problems. Rather than routinely applying fertilizers to lawns, we should be applying fertilizers to turf based upon absolute need, as measured by soil tests; the same is true for trees and other landscape plants. Fertilizing lawns does not necessarily fertilize trees and other landscape plants. Herbicides can be applied to landscapes as needed, through spot-treating or through other minimal application techniques, rather than on a regular schedule, regardless of the situation. Many of these alternative management practices depend on clients who are interested in reducing unnecessary inputs into our landscapes and who are willing to adequately compensate our industry for knowledge that results in lower inputs that lead to healthier landscapes and environments. If designed and managed properly, landscapes can be healthy and appealing, and can also mitigate environmental issues that have become of concern during recent years.

Photo 4: These spruces and firs are beginning to decline as the result of site conditions. This steep berm was created from rubble and compacted clay that prohibits water penetration to the roots of these trees, which frequently lose their needles during the winter as the result of water stress and desiccation.

Photo 5: Demarcating lawns from trees and other landscape plants can help minimize competition and other landscape issues.