Magic From the Manual: Plant Identification and Selection

Plant Identification

Plant identification begins with careful observation. Although visual observations of the morphological characteristics of stems, buds, leaves, flowers, and fruits may be the most useful, all human senses should be used in plant identification. See the white, exfoliating bark of the paper birch (Betula papyrifera), the horseshoe-shaped leaf scar of the amur cork tree (Phellodendron amurense), or the large, round, purple buds of the scarlet elder (Sambucus pubens). Feel the prickly foliage of the Chinese juniper (Juniperus chinensis), the soft, fuzzy or pubescent twigs of the staghorn sumac (Rhus typhina), or the sharp ridged thorns of the rugosa rose (Rosa rugosa). Smell the pleasantly scented foliage of the savin juniper (Juniperus sabina), the acrid aroma of the fragrant sumac (Rhus aromatica), or the spicy scented blossoms of the clove currant (Ribes odoratum). Hear the distinctive rustle of quaking aspen (Populus tremuloides) leaves. Chew the twigs of the sweet birch (Betula lenta) to discern their distinct wintergreen taste. Many excellent references are available to learn the important identifying characteristics of plants, but also, strive to discover new characteristics, which help personalize the identification. Once familiar with the common plants available in the industry, continue to search for and learn about new plants.

The process of learning plant identification and culture should be an ongoing process. Become excited about plant materials, always observing where particular plants are growing well and where they are not, and under what conditions. Whenever possible, observe native, undisturbed plant communities to discern site requirements and understand natural plant associations. Always be on the lookout for new introductions or unfamiliar plant materials.

Plant Selection

Selection of plant materials should never be conducted in sheer nescience, but rather on a working understanding of site and cultural requirements. When selecting plant material, consider native plants which are adapted to existing environmental conditions. Then consider materials which are found in similar environments from other regions and have been tested locally. However, most urban landscapes, in fact most landscapes in general, have been disturbed and may no longer be appropriate for previously indigenous species. Several factors must be considered when selecting plant materials for specific sites: winter temperature or cold hardiness, summer temperature or heat tolerance, humidity, wind, exposure to sun or shade, air drainage, precipitation or drought and moisture tolerance, soil type, drainage, pH tolerance, disease and insect resistance, pollution tolerance, longevity, salt tolerance, fertility requirements, growth habit including height, form, plus aesthetic characteristics such as foliage color and texture, flowers, fruits, and fall color.

In addition to knowing plant names, it is also important to know the environmental requirements of each plant. It is also vital to be knowledgeable of the

cultural requirements of plant materials so this information can be passed on to customers and so plants can be matched with site conditions. Knowledgeable landscape designers and architects are better equipped to create naturally aesthetic, functional design concepts that become successful landscapes and that are sustained for years with minimal maintenance. Educated customers are also more likely to have success with the plants they purchase.

Diversity should be an important component in the selection of landscape plants. Diversity is, however, lacking in most landscapes today. Many native plants or introduced species can no longer be recommended or planted because of potential disease problems, large size and perceived characteristics such as being structurally weak or "messy". In fact, some city ordinances prohibit the planting of certain species even though they are ubiquitous in native stands and many existing landscapes. Some plant species are unavailable for landscape use because they are relatively unknown, resulting in low demand, or because their production and cultural requirements are poorly understood which limits their availability. Familiarity and production problems associated with plants that should be incorporated into landscape designs and production schedules can be addressed through education and research. Attitudes regarding particular plant characteristics and the appropriateness of using certain plants in the landscape are more difficult to address. Although new plants become available to growers, to landscape architects and designers, and to the public each year through plant selection and breeding programs, the variety of plant material actually grown and used is quite limited. This lack of diversity leads to "standard" landscape designs that lack uniqueness, and production becomes limited to easily produced species. This results in the exclusion of the more interesting species, and the planting of near monocultures that increase the potential for serious insect or disease problems such as Dutch Elm Disease. These concerns should be addressed by increasing plant diversity rather than by limiting it. Yes, cottonwood does produce annoying seeds or “cotton”, and it drops twigs and branches. On the other hand, cottonwood is a native species that is well adapted to the Minnesota environment and is tolerant of tough sites. It has a valuable place in the landscape, perhaps not in the front yard of every home, but a valuable place just the same. Nearly every plant that exists has some characteristic that might be considered undesirable. Even the revered oak produces "messy" acorns and drops leaves late in the season after the raking should be done. The extremes of this trend include the desire for fruitless selections and more recent concerns about pollen production and allergies. Fruitlessness involves the selection of sterile plants or males forms of deciduous species. Avoidance of pollen favors the selection of female plants. In the absence of sterile forms, this selection process could eliminate some excellent species from landscape use. Rather than excluding plants from landscape use, diversity should be promoted through continued selection and production of new varieties and potentially valuable species not currently grown. Plants should be matched with site conditions and design requirements. Just because a plant is easy to grow, or has attractive flowers, or doesn't produce seeds, does not make it the best plant, or even a good plant, for every site.

Questions:

T/F All 5 senses can and should be used to help in plant Identification

Which of the following are not Important considerations when considering a plant for a specific site

A) Cold Hardiness
B) Ph Tolerance
C) Fall Color
D) Longevity
E) How well the plant is known or used in your neighborhood

T/F A plant that is easy to grow and has attractive flowers automatically make it the best plant for the site

Answers T,E,F