Agent In-Service Training
14 August 2020

Right Tree, Right Place
Nursery Stock Quality

I. Appropriate / Inappropriate Trees for Kentucky Landscapes can be found at:
   A. **www.ky-isa.org** and click on:
      1. Guide to Landscape Appraisal of Trees in Kentucky Landscapes
      2. Valuation by Botanical Name
      3. Valuation by Percent Group

   B. Percent rating of value based on:
      1. Climate Adaptability:
         • cold hardiness
         • frost tolerance
         • drought tolerance
         • storm (ice, snow, wind)
      2. Growth Characteristics: • tolerance to different sites
         • vigor
         • structural strength
         • aesthetics
         • life expectancy
         • pruning requirements
         • potential to be invasive
      3. Soil Adaptability: • structure & texture
         • drainage
         • moisture requirements
         • acid/alkaline
         • mineral element limitations
      4. Resistance/Tolerance to Biotic and Abiotic Challenges:
         • disease
         • insect
         • air pollution

   C. Cautions:
      1. Ratings below 60% are going to be problematic in most landscapes but may be appropriate for riparian landscapes.
      2. Practice species diversity. Try to avoid using more than 5% of any one species, 10% of any single genus.
      3. No plant on this list is suitable for all sites

II. Site evaluation

A. Client wishes (flowers, fall color, very fast growth, no insects or diseases)

B. Purpose of the tree/shrub
   1. Shade
   2. Screening (visual)
   3. Accent
   4. Space definition
   5. Focal Point, etc.

C. Space – height & spread for plant at maturity
   1. Buildings
   2. Overhead utility lines
   3. Sidewalk, driveway, street

D. Space – below ground (soil volume)
   1. Genetically large trees (50+ feet at maturity) require 1,200 cubic feet of good soil (20 feet by 20 feet by 3 feet deep)
   2. Soil Quality
      - pH, buffer pH
      - drainage (Do a percolation test see: ID-237)
      - can you water the site?
      - soil compaction
      - concrete, etc. in backfill
   3. Microclimate
      - wind (desiccation)
      - winter sun (desiccation of broadleaf evergreens)
      - reflected light & heat (parking lots, windows, reflective walls)
      - water runoff (downspouts)
      - deicing salt splashing

III. Nursery Stock Quality

A. Florida Grades and Standards for Nursery Stock (Google this for more info) or https://www.fdacs.gov/Divisions-Offices/Plant-Industry/Business-Services/Florida-Grades-and-Standards-for-Nursery-Plants-2015

B. Other info at: http://hort.ufl.edu/woody/planting

   1. Fancy
   2. #1
   3. #2
   4. Cull

C. Forms for plant material and issues
    1. Balled & Burlapped (B&B)
        - Soilball should be appropriate for size of the tree (see: American Standard for Nursery Stock ANSI Z60.1)
        - roots should not be too deep in the soil ball (1st order roots should be 1-2 inches below surface)
        - no fresh wounds (pruning wounds should be closed)
        - tree should be limbed up (lowest permanent branch may not exist)
        - no codominant leaders on trees
        - no tight branch angles
        - trees should not be sheered (rounded over)
        - synthetic and natural burlap should be removed at installation
        - all twine should be removed at installation
        - If wire baskets cannot be removed, cut off the upper 2 rings

    2. Container grown
        - roots should be developed but plant should not be pot-bound
        - roots should not be too deep in container
        - no circling roots that cannot be removed
        - trees should be limbed up (lowest permanent branch may not exist)
        - no codominant leaders on trees
        - no tight branch angles
        - trees should not be sheered (rounded over)
        - substrate (artificial soil, bark) should be removed at planting to allow roots to contact backfill

    3. Bareroot
        - root volume should be appropriate for size of above ground parts
        - no kinked, circling, or broken roots
        - no circling roots that cannot be straightened at planting time
        - no desiccated or decayed roots
        - roots must have been kept cool (above freezing) and moist

Planting Balled and Burlapped Trees and Shrubs in Your landscape HO-91

Planting Container-Grown Trees and Shrubs in Your Landscape HO-114

Planting Bareroot Trees and Shrubs in Your Landscape HO-113

Mulch Myths HO-106