Selecting the Right Tree for the Right Place

Tree Canopy Fund

Tree Selection Guide 2015
It’s All About the Canopy

| CO2 Comparison (pounds of atmospheric carbon reduced per year) |
|---------------------|-------|-------|-------|-------|-------|
| Species             | 5”    | 10”   | 15”   | 20”   | 25”   |
| Red oak             | 87    | 280   | 491   | 747   | 990   |
| Swamp white oak     | 118   | 319   | 499   | 652   | 788   |
| Red maple           | 79    | 244   | 478   | 777   | 1124  |
| Dogwood, flowering  | 78    | 205   | 358   | 505   | 238   |
| Yoshino cherry      | 39    | 120   | 231   | 344   | 462   |
| Crape myrtle        | 34    | 109   | 203   | 299   | 173   |

<table>
<thead>
<tr>
<th>Property Value Comparison (overall benefits in dollars per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
</tr>
<tr>
<td>Red oak</td>
</tr>
<tr>
<td>Swamp white oak</td>
</tr>
<tr>
<td>Red maple</td>
</tr>
<tr>
<td>Dogwood, flowering</td>
</tr>
<tr>
<td>Yoshino cherry</td>
</tr>
<tr>
<td>Crape myrtle</td>
</tr>
</tbody>
</table>

National Tree Benefits Calculator, Casey Trees & Davey Tree Expert Co.  
http://www.treebenefits.com/calculator/
Which tree is best for you?

Have flowers and impress neighbors
Attract birds & squirrels
Cheerful in winter and beautiful in fall
Shade my patio grill
Screen from street
Remind me of childhood
Grow fast
Fill a Bare Spot
Not messy
Growth depends on care and species

- Slow Growing – 12” or less in a year
- Medium Growing – 13 – 24” a year
- Fast Growing – 25” or more

Trees need watering to grow!
Considerations

1. Size of tree and obstacles – wires, buildings
2. Soil of site – moisture, pH, type, drainage
3. Sun and Shade of site
4. Uses of site – kids’ space, dogs, gardens
Plan Properly
(or you’ll pay forever more)

• Map Your Site
  – All physical features – boundaries, buildings, drives, walks, terraces, pools, existing trees/vegetation, overhead wires, underground pipes, high and low points, wet and dry areas, windy, sunny, shady places
  – Indicate direction (N, S, E, W)

How Much Space for Tree Growth?
Tree Heights & Spacing

Follow guide on Page 2

- >10’ from a building
- >10’ from small trees
- >20’ from large trees
- > 3’ from sidewalks, driveways, etc.
- Plant S/SW to lower cooling costs
Soil

• A general rule of thumb: it’s best to choose trees tolerant of and suited to your soil, rather than trying to amend soil on the large scale that trees require!

• Testing
  – It’s right here: Virginia Cooperative Extension
  – Master Gardener Hotline 703-228-6414
Soil Testing/Type & Drainage

- Dig a hole a foot deep and fill water.
- Wait 24 hours, then fill hole to the top again and note the time.
- If all water not drained within 12 hours, is a soil-type or compaction problem.
- If the water drains very quickly, you have a porous, sandy soil (not likely).
Wet, Compacted Selections

- Bald Cypress
- Red Maple
- Common Hackberry
- Sweetgum
- River Birch
- Sycamore many others can tolerate
Soil Acidity

• Soils in our region are generally acidic (below pH 7.0) – around 6.5 or less.
• Again, it’s better to choose a tree suitable to existing soil pH than to try to change the soil to suit a given species.
• Hollies and Pin Oaks require pH below 6.0.
Other Site Factors

• Sun/Shade
  – Most trees give shade, but don’t tolerate it.
  – Ornamental trees want without full sun.
  – Full sun remains unshaded throughout the day.
  – Fall color diminished by shade.

• Wind
  – Severe winds desiccate trees.
  – Evergreens very vulnerable to cold winter winds; hot summer winds can also badly damage evergreens and deciduous plants with vulnerable summer foliage.
Tree species available generally accept clay soils

Weather
Observations of 2015 Species Available
Tall Guys: Spread Under 40’

>10 feet’ from wires

The closer tree is, the more damage will be done to side limbs
American Holly

Sun to partial shade
Slow – Medium Growth

Moist well drained soil

Avoid dry, **windy**, and wet site
Holly Berries: Food for the eyes & the birds in winter
Eastern Redcedar

Dense pyramid shape, as well as tree form

Excellent for screens, windbreaks

Full sun; tolerant of most soils

Medium Growth
Birds love berries

Shaggy, peeling bark
good for tinder; wood
used in furniture

BUT: You don’t want to
plant them near Rose
family members, like
Serviceberry, Hawthorn
Eastern Hop Hornbeam

Smaller tree at time of planting, but will grow quickly

Same size as others within 5 years

Choice to diversify
Pin Oak

Narrower oak
Fast Growth
Sun

Handles clay & loamy

Accepts wet, moist dry conditions
Thornless Locust

Sun

Fast Growth

Handles all soils

Drought resistant

Lacey leaves
Ginko

Sun

Slow – Medium Growth

Range of soils

Drought tolerant
Tall Guys: Spread > 40’

At least 15 feet
From wires
River Birch

Sun/Partial Shade
Medium – Fast Growth
Multistemmed
Handles clay and loamy soil, prefers acidic Moist, tolerates dry – Heat tolerant
Common Hackberry

Sun – Partial Shade
Medium – Fast Growth

Wet, moist, & dry conditions

Handles sandy, clay, loamy, sandy
Hackberry flowers
American Sycamore

Large tree, Med – Fast Growth
Sun to Part Shade

Handles clay, loam, sand

Accepts Wet, Moist & Dry conditions

Winter interest
American Linden
Sun to shade

Medium Growth

Handles loamy & sandy soils

Prefers moist conditions
Native Leaf & fruit
YOU mark location
Leave in place all Fall

Markers should be visible and have tree species marked

Use orange pennants, wooden stakes, broomsticks

Condos use WHITE paint to avoid mischief moving
YOU furnish water

Hose

5 gallons of water
Arlington TCF plants your tree
Shade trees
6 - 7 ft,
1-2” caliper
YOU Maintain

Water, Water, Water

At least weekly up until ground freeze for first 1-2 years
Long, deep waterings (25 gals/week or 1-1.5” rainfall)

Mulch

Shredded bark or compost applied using 3-3-3 rule: 3" of mulch in a 3' ring with a 3" space around the tree trunk
Avoid volcano mulching

Prune Only If Necessary  first 2 years
Mulching protects trees

Mass Murderer kept away

Holds in moisture – not next to trunk
Water first 3 years: Test with screwdriver. If dry when removed from soil, water. Growth depends on regular watering.
Ooze Tube
Top Causes of Young Tree Failure

TCF Responsibility
• Poor Care in Nursery and in Shipping/Handling
• Planting Too Deep

YOUR Responsibility
• Improper Species Selection
• Poor Site Preparation and Drainage
• Lack of Watering
• Death by lawnmower
• Mulch
Top Solutions: Mostly Human

- Plant trees NOW.
- Plant the right trees in the right places.
- Maintain our own trees as best we can.
- Take care of the trees all around us, even those in public places.
- Educate others.