



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

Property Value Comparison (overall benefits in dollars per year)

Species	5"	10"	15"	20"	25"
Red oak	\$15	\$36	\$56	\$80	\$103
Swamp white oak	\$24	\$51	\$67	\$74	\$76
Red maple	\$18	\$49	\$83	\$109	\$127
Dogwood, flowering	\$5	\$9	\$13	\$18	\$18
Yoshino cherry	\$12	\$18	\$21	\$21	\$19
Crape myrtle	\$4	\$11	\$18	\$27	\$28

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)

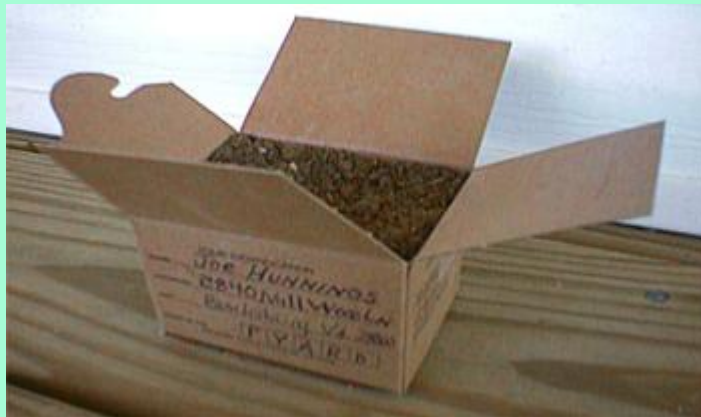
How Much Space for Tree Growth?

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



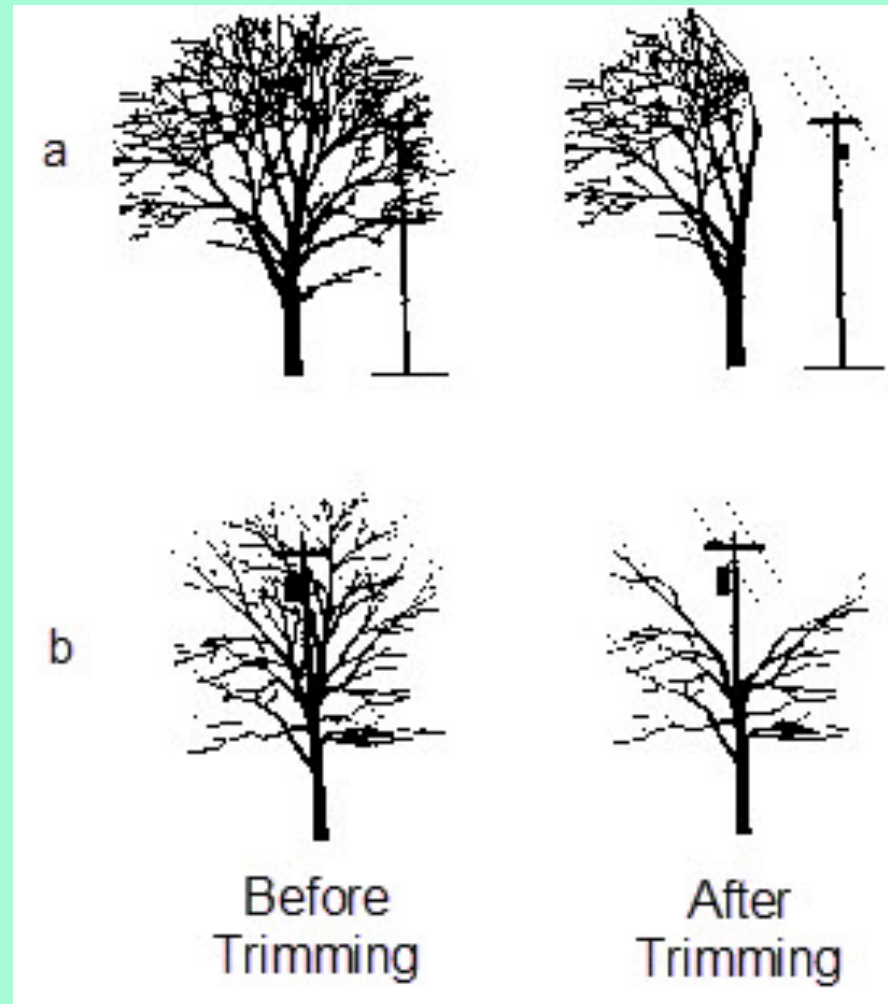
Observations of 2015 Species Available



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

A large, dense, green Eastern Redcedar tree with a pyramidal shape, growing in a wooded area. The tree is covered in fine, needle-like foliage and has a thick, dark brown trunk. It is surrounded by other trees and vegetation, creating a lush, green environment.

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



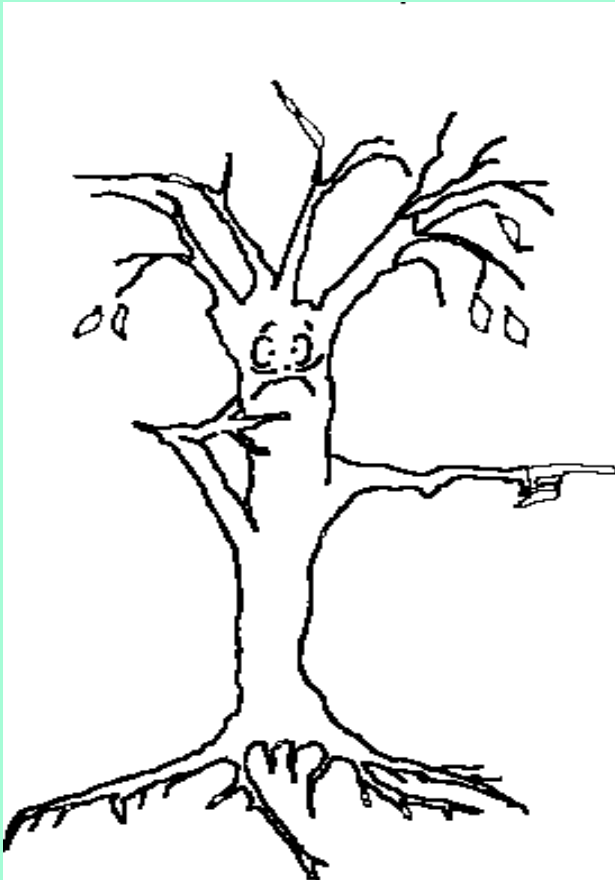
Water first 3 years: Test with screwdriver. If dry when removed from soil, water. Growth depends on regular watering



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.