

Priority Tree & Tall Shrub Species for Planting, Replacement & Reforestation in Central NJ

(Middlesex, Somerset, Hunterdon, Union,
Mercer, Monmouth)

UPLANDS or ROCKY SLOPES

White oak - *Quercus alba*
Chestnut oak - *Quercus montana*
Pignut hickory - *Carya glabra*St
Mockernut hickory - *Carya tomentosa*
Red hickory - *Carya ovalis*St
Shagbark hickory - *Carya ovata*St
White pine - *Pinus strobus*^{E, F}
Pitch pine - *Pinus rigida*^{E, F}
American holly - *Ilex opaca*^E
Black birch - *Betula lenta*^{AS}
Persimmon - *Diospyros virginiana*
Basswood - *Tilia americana*St
Black cherry - *Prunus serotina*St
Sassafras - *Sassafras albidum*
Bigtooth aspen - *Populus grandidentata*^F
Common Hackberry - *Celtis occidentalis*St
Downy serviceberry - *Amelanchier arborea*^{U, AS}
Flowering dogwood - *Cornus florida*^{U, AS}
Hop hornbeam - *Ostrya virginiana*^{U, AS}
Witch hazel - *Hamamelis virginiana*^{S, AS}
Blackhaw viburnum - *Viburnum prunifolium*^{S, AS}
Winged Sumac - *Rhus copallinum*^F
American hazelnut - *Corylus americana*^{S, AS}

Trees in Bold
are highest
priority to
plant

Trees
from
← either list →
can be planted
in sites with
moist soil,
not too
wet or dry

VALLEYS or LOWLANDS

White oak - *Quercus alba*
Swamp white oak - *Quercus bicolor*St
Shagbark hickory - *Carya ovata*St
Bitternut hickory - *Carya cordiformis*St
Black gum - *Nyssa sylvatica*St
Red maple - *Acer rubrum*St
American elm - *Ulmus americana*
Basswood - *Tilia americana*St
Tulip tree - *Liriodendron tulipifera*St
Sycamore - *Platanus occidentalis*St
River birch - *Betula nigra* (single stem)
Grey birch - *Betula populifolia*St
American hornbeam - *Carpinus caroliniana*^{U, AS}
Pagoda dogwood - *Cornus alternifolia*^{U, AS}
American bladdernut - *Staphylea trifolia*^{U, AS}
Sweetbay magnolia - *Magnolia virginiana*^F
Highbush blueberry - *Vaccinium corymbosum*^{S, AS}
Black elderberry - *Sambucus nigra*^S
Possumhaw - *Viburnum nudum* var. *nudum*^{S, AS}
Winterberry holly - *Ilex verticillata*^{S, AS}
Inkberry holly - *Ilex glabra*^{S, AS, E}
Silky Dogwood - *Cornus amomum*^{S, AS}
Pussy Willow - *Salix discolor*^{S, F}
Groundsel bush - *Baccharis halimifolia*^{S, F}

KEY

E = Evergreen
F = Full Sun
AS = Requires
Afternoon Shade
U = Understory Tree
S = Shrub
St = Street Tolerant

Ask your local
nursery/garden center to
carry these species!
And in small stock
too!

Optimal Tree Attributes & Planting Considerations

For: Suburban Yards, Shade Tree Replacement Ordinances,
Windbreaks, Woodlots, & Forests

We must plant the right trees in the right way to ensure we have a future forest¹

1. SELECT MULTIPLE SPECIES FROM THE ATTACHED LIST to:

- Plant in open areas to reforest (remove/reduce lawn)
- Replace removed or fallen trees
- Reforest in canopy gaps, under declining trees, or as part of a forest restoration

2. LOCAL ECOTYPE - progeny from NJ or better yet, your county or ecoregion are best suited for your local landscapes.

3. SMALLER SIZES include tubelings, 1 gal - 7 gal size

- container grown stock is preferred! (not rootbound)
- Greater chance of survival and success vs. larger stock^{2,3}
- Grows faster than larger stock (e.g. B&B >2" caliper size)
- Suffer less from transplant shock = fewer disease issues
- Grows healthier, short term & long term
- Most environmentally sustainable option
- Most economic option

4. RESTORE DEGRADED SOILS before planting by mixing in composted leaf litter and/or organic garden soil.

5. PLANT DENSE STANDS of many saplings, not just one or two trees; use 3-10 ft spacing and 10-20 per each large tree lost.

- This planting style is natural as trees live in communities
- Their root systems interlock and protect from windthrow

6. PREVENT DEER DAMAGE - use physical barriers to stop buck rub and deer browse.

- Best options allow air passage, are rigid, require infrequent upkeep, and 6 ft. tall

7. LEAVE THE LEAVES - The best type of mulch! Fallen leaves have evolved with trees and ecosystems⁴ to:

- Nourish soil life
- Provide plant health naturally
- Improve plant & climate resiliency
- Support native biodiversity

Never volcano mulch!



← 1 YR. OLD
PIGNUT
HICKORY
SEEDLING IN
A TREE TUBE
(OR
TUBELING)
WHICH
ALLOWS DEEP
TAPROOT
GROWTH.
THIS IS THE
IDEAL
PLANTING
SIZE & STOCK
FOR
HICKORIES

6FT. CAGE,
PVC-COATED
WIRE MESH,
PROTECTING
A BITTERNUT
HICKORY
SAPLING

EPIPHAN 2023

1. Epiphan, J.N., S.N. Handel., and S.S. Mangiafico. 2025. Disturbance in the Forest of Morristown National Historical Park: Influence of Gap Size on Tree Regeneration. Natural Resource Report NPS/MORR/NRR-2025. National Park Service, Fort Collins, Colorado.
2. Harris, J.R. and Bassuk, N.L., 1993. Tree planting fundamentals. *Journal of Arboriculture*, 19, p.67
3. Tallamy, D.W., 2021. *The Nature of Oaks: the rich ecology of our most essential native trees*. Timber Press.
4. Epiphan, J. 2025. Why Leave the Leaves and How to Do it. Rutgers Fact Sheet FS1369: Why Leave the Leaves and How to Do it (Rutgers NJAES)