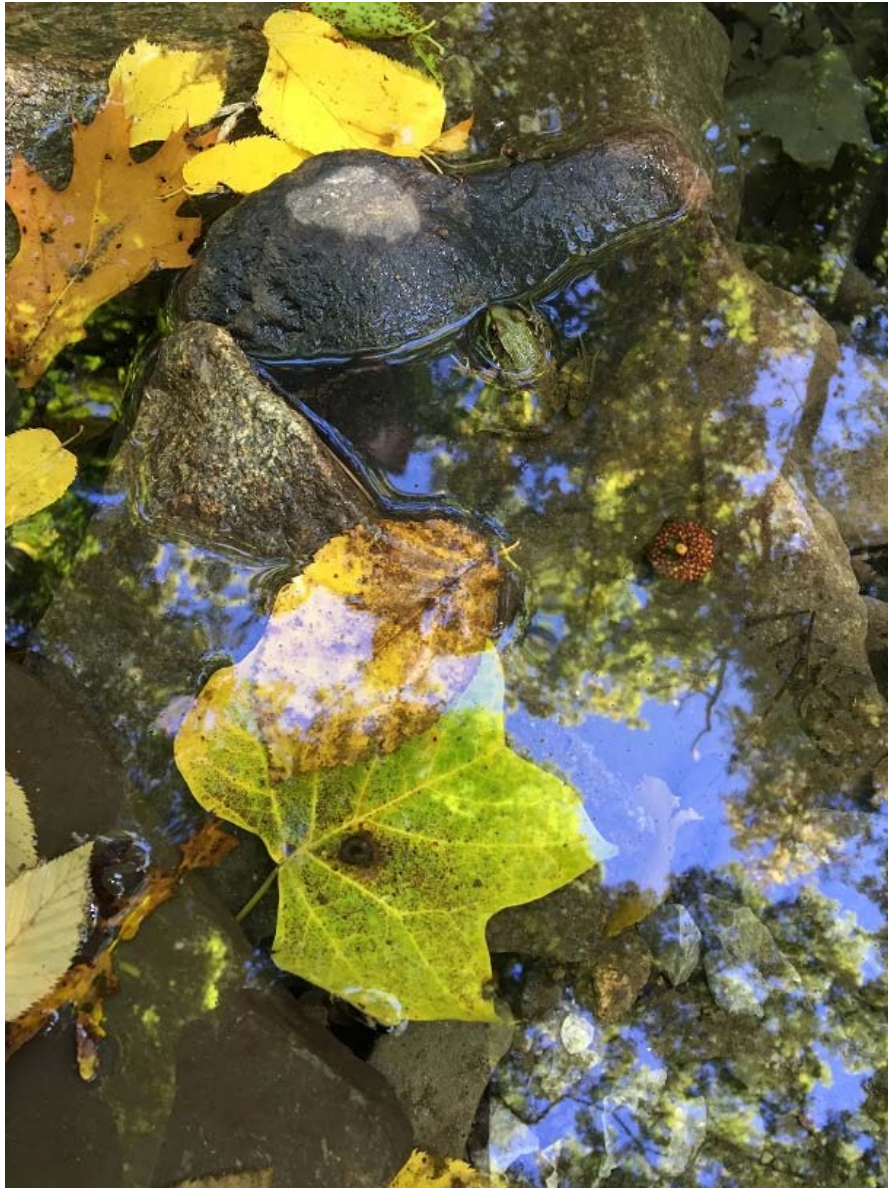


**Protecting  
the  
Descendants  
of Our  
Ancient  
Deciduous  
Hardwood  
Forest  
System**



Presented by:  
Donna Sharrett  
CCE Master Gardener Volunteer  
Green Ossining representative

**Why trees fail:** *“Applied stress exceeds the structural capacity of the tree”*

**Stress Factors:**

- **Climate Change** – Unpredictable, more frequent and more extreme weather
- **Deer overabundance due to loss of predators and habitat = loss of future tree generations**
  - Westchester deer populations: up to 120 per sq. mile
  - Sustainable deer populations: < 20 per sq. mile
- **Invasive Species – Plants, Insects & Disease**
- **Improper Maintenance & Neglect**
- **Light pollution – Interrupted Circadian Rhythms**
- **Loss of tree species due to removal without species specific replacement**
  - ex: removed deciduous trees are replaced with evergreens
- **Us – responsible for all of the above**

## **What to do: Reduce stress! Make trees happy & SAFE!!**

- **Keep trees properly watered & maintained**
- **Have your trees routinely inspected for decay, structural defects & soil lifting**
- Plant hardy native trees
- Right plant/right place  
(sun/shade, moist or dry soils, proximity to power lines, exposure to road salt, etc.)
- Reduce deer pressure
- Turn off outside lights at night whenever possible

Find an Licensed Arborist in Westchester (Section 3):

<https://nysarborists.com/for-everyone/find-an-arborist>

## Use locally sourced firewood!

Worcester, MA: > 35,000 trees lost to ALB

Cost to municipality: > \$146 million

**Don't let that happen here!!!!!!!!!!**



**62 Invasive Insect Species are known to be present in NYS**

## Oak Wilt

Can kill Oaks in 3 months

**ONLY Prune October – February**

So tree wounds can heal  
before insect host  
becomes active





## **Invasive vines kill trees!**

Cut vines 2x: at base and 12" up

Repeat on any regrowth  
for at least 2 years

Don't pull vines off trees



## **Beware of native Poison Ivy!**



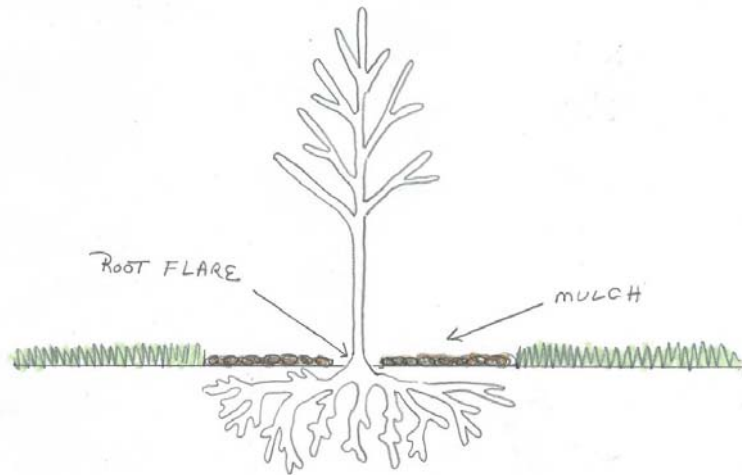
### **Poison Ivy removal: HIRE A PROFESSIONAL!**

Poison Ivy – Native Plant  
with high eco-service:  
Nutritional seeds  
for migrating birds

Good plant for:  
forests & open spaces

Difficult plant for:  
residential properties

**Do not burn Poison Ivy**



### Reduce competition for rainwater

- Remove grass away from tree trunk
- Place < 3 inches of natural (non-dyed) mulch over root zone to control weeds
- Do not use synthetic landscape fabric

### Do not suffocate trees

- Keep mulch away from tree trunk
- Make sure tree flare is above soil level



### Do not strangle trees

- Don't damage sapwood



- Don't Weed Wack trees
- Don't tie things around trees - including permanent strings of decorative lights!

"How to plant a tree" videos: [www.urbanforestrytoday.org](http://www.urbanforestrytoday.org)



## Tree Abuse



Impacts: Increased Disease and Insect Pressures and Early Death

## Why Plant Native Plants?

Native plants provide habitat and food for native insects, birds & mammals

**Recommended Native Plants for Landscaping in Westchester County**  
Source: Revised Checklist of New York State Plants; Richard S. Mitchell, Gordon C. Tucker

Trees		Bloom Period	Wildlife Value	Bloom Color	Light Preference Sun Shade	Soil Moisture Preference Wet Moist Dry	Height in feet	Notes
Common Name	Scientific Name							
Red Maple	<i>Acer rubrum</i>	March-April	high	red	☀️ 🌿	💧 🌧️	40-60	First to flower in spring; fall color
Sugar Maple	<i>Acer saccharum</i>	April-May	very high	yellow	☀️ 🌿	💧 🌧️	60-75	Yellow flowers in spring; fall color; maple syrup
Shagbark Hickory	<i>Carya ovata</i>	May-June	very high	green	☀️ 🌿	💧 🌧️	60-90	Tasty nuts; attractive bark
Hackberry	<i>Celtis occidentalis</i>	May	high	white	☀️ 🌿	💧 🌧️	30-50	Attracts butterflies; blue berries
American Beech	<i>Fagus grandifolia</i>	April-May	very high	green	☀️ 🌿	💧 🌧️	50-70	Edible nuts; attractive bark
American Holly	<i>Ilex opaca</i>	June	very high	white	☀️ 🌿	💧 🌧️	30-50	Evergreen; provides habitat; fragrant flowers; red berries
Eastern Red Cedar	<i>Juniperus virginiana</i>	May	very high	green	☀️ 🌿	💧 🌧️	40-50	Evergreen; blue berries; provides cover
Tulip Tree	<i>Liriodendron tulipifera</i>	May-June	intermediate	green	☀️ 🌿	💧 🌧️	75-100	Straight trunk; fast growth
Black Tupelo	<i>Nyssa sylvatica</i>	June	very high	green	☀️ 🌿	💧 🌧️	30-50	Blue berries; fall color
White Pine	<i>Pinus strobus</i>	very high	low	green	☀️ 🌿	💧 🌧️	50-80	Evergreen conifer; prunes well
American Sycamore	<i>Platanus occidentalis</i>	April-May	low	white	☀️ 🌿	💧 🌧️	75-100	Shiny bark; drops fruits and leaves in summer
Black Cherry	<i>Prunus serotina</i>	May-June	very high	white	☀️ 🌿	💧 🌧️	30-50	Edible berries; fall color
White Oak	<i>Quercus alba</i>	May	very high	green	☀️ 🌿	💧 🌧️	50-80	Majestic form; keeps leaves in winter
Northern Red Oak	<i>Quercus rubra</i>	April-May	very high	green	☀️ 🌿	💧 🌧️	60-80	Hardy; long-lived tree; fall color
American Basswood	<i>Tilia americana</i>	May-June	high	green	☀️ 🌿	💧 🌧️	60-80	Flowers aromatic
Eastern Hemlock	<i>Tsuga canadensis</i>	high	low	green	☀️ 🌿	💧 🌧️	40-70	Evergreen conifer; check for pest problems

Recommended Native Plants for Westchester: <http://www.sunywcc.edu/cms/wp-content/uploads/2012/09/Plants-forWestchester-Go-Native-Brochure.pdf>

**Do not plant** (native plants under attack by invasive insects):

**Eastern Hemlock** (*Tsuga canadensis*)

**Maple-leaved Viburnum** (*Viburnum acerifolium*)

**Arrowwood Viburnum** (*Viburnum dentatum*)

**Highbush Viburnum** (*Viburnum trilobum*, AKA *Viburnum opulus* var. *americana*)

Check Native Species Status: "New York Flora Atlas": <http://newyork.plantatlas.usf.edu/>



*Tilia Americana* (American Basswood)



Photo: Chris Evan

*Amelanchier canadensis* (Shadblow)



Photo: Dow Gardens

Small trees and shrubs with tolerance to road salt are good choices for under utility lines and close to the road

*Physocarpus opulifolius*  
(Ninebark)



*Clethra*  
'Ruby Spice'



*Hamamelis virginiana*  
(Witch Hazel)





Plants need 1 inch of water per week

preferably rainwater - but if not, water deeply once a week rather than several shallow waterings



TABLE 2. FREQUENCY OF WATERING DURING EXTENDED DRY PERIODS

	1 <sup>st</sup> Year After Planting			2 <sup>nd</sup> Year After Planting			3 <sup>rd</sup> Year After Planting		
Water Needed Once Every WEEK	Spring	Summer	Autumn	Spring	Summer	Autumn	Spring	Summer	Autumn
2 Weeks									
3 Weeks									
4 Weeks									
5 Weeks									
6 Weeks									
7 Weeks									
8 Weeks									

“Death of Newly Planted Trees” (with watering chart):

[https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/29037/Death\\_of\\_Newly\\_Planted\\_Tr\\_and\\_Sh\\_2009.pdf?1519846438](https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/29037/Death_of_Newly_Planted_Tr_and_Sh_2009.pdf?1519846438)



Have questions? Contact:

**Westchester Cornell Cooperative Extension**

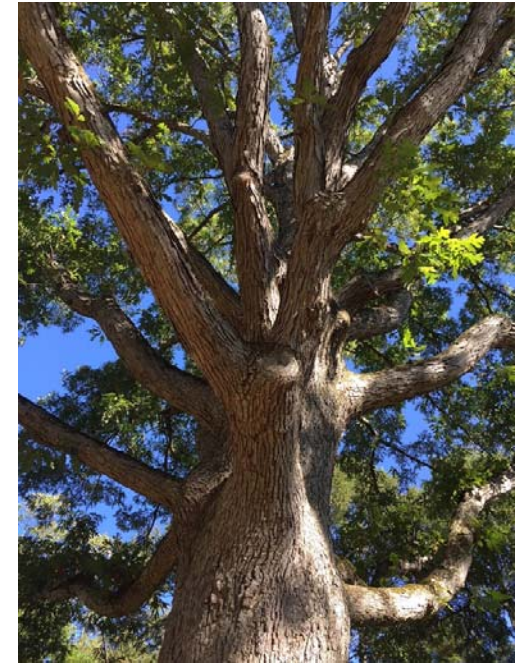
3 West Main St, Suite 112, Elmsford, NY 10523

914-285-4620

[westchester@cornell.edu](mailto:westchester@cornell.edu)

<http://westchester.cce.cornell.edu/horticulture-environment>

\$\$\$ saving tip: Have your soil tested before buying/using fertilizers!



Unless otherwise noted:  
photos & illustrations: Donna Sharrett