

Woody Plants and Ornamentals

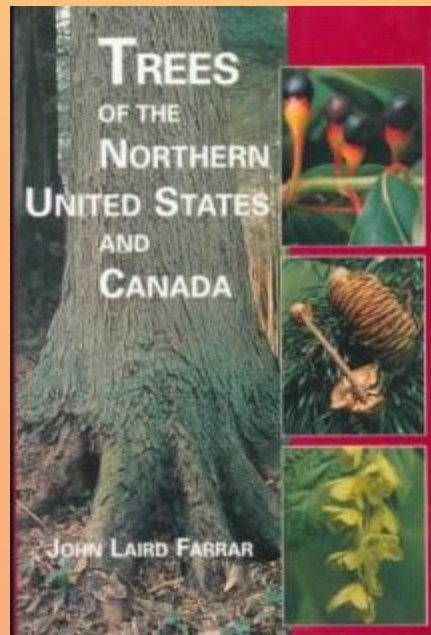
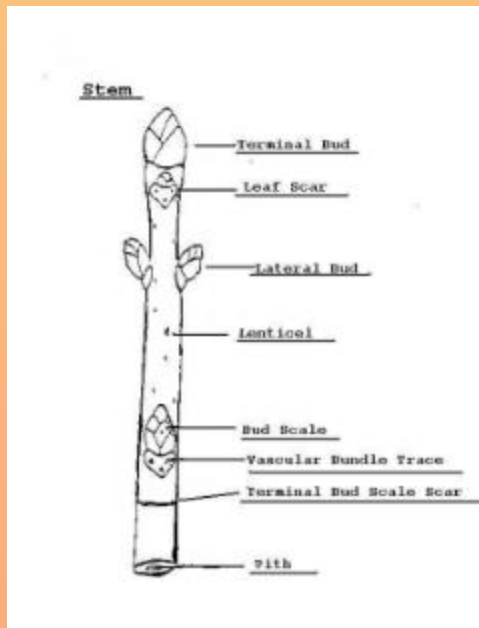


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Plant Identification

References

Plant Uses



Native vs Non-Native

Environmental Aesthetic Memories

- Match Conditions
- Risk



Plant Identification

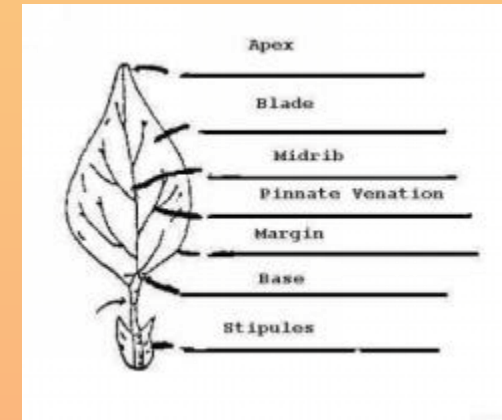
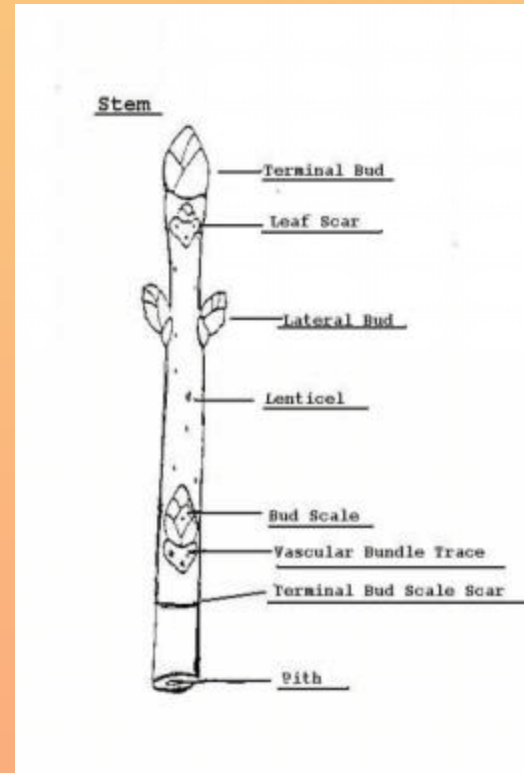
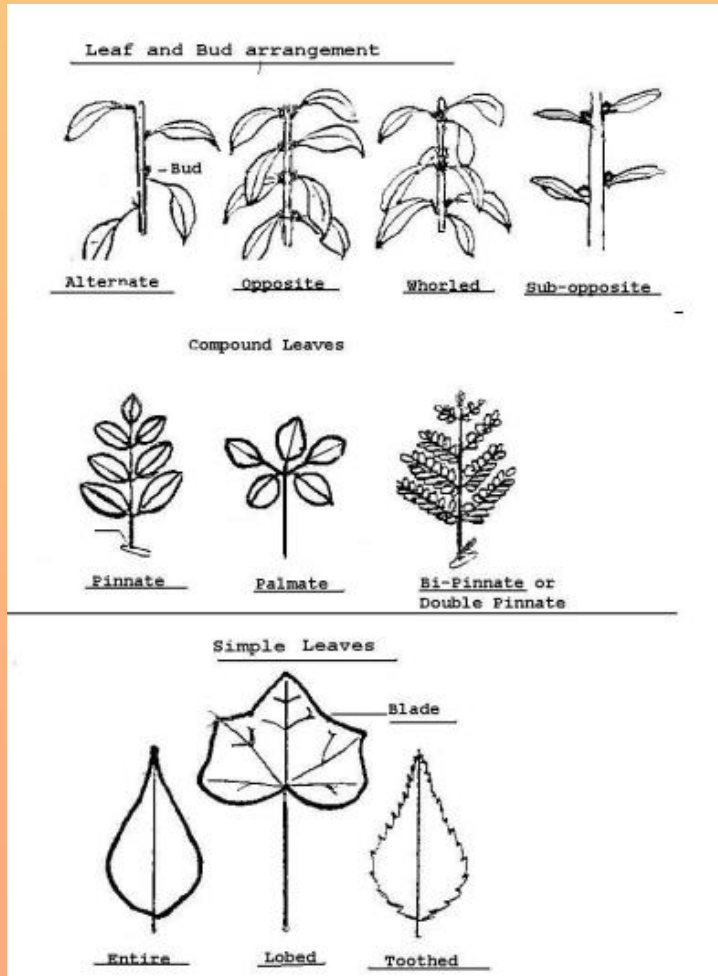
- Terminology

- Leaves
- Stems
- Fruit
- Bark
- Flowers



Leaf and Twig Terminology

- Leaf and Bud Arrangement

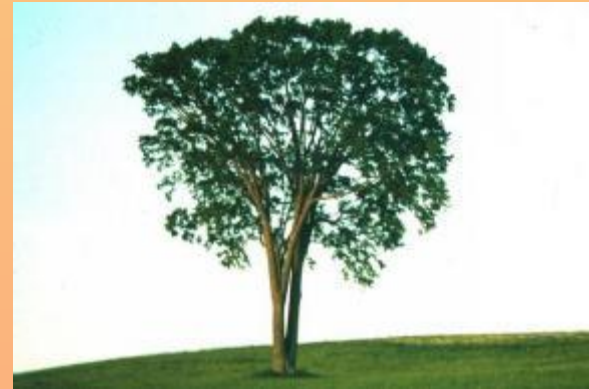


How to Identify

- Collect facts
- Leaves
- Buds
- Fruits
- Flower
- Bark



- Observe Form and Structure and Color of the Plant



Physical Identification versus Digital (Picture Identification)

- Physical
- Use all senses
- Touch, smell, taste
- Visual evaluate in 3D
- Ability to collect and process objects
- Personal Experience

- Digital Picture
- Fast to capture
- Ability to capture many objects
- Ability to magnify
- Delay with processing and accurately labeling
- Lack of sensory experience

Flash Cards: Fun and Easy

- Add Plant Name and Information on the back.
- When you collect leaves a ball point pen will write on the back of the leaves.



Option:

<https://handbookofnaturestudy.com/2009/10/making-leaf-prints-with-ink.html/>

- Index Cards
- Large ink Pad

I found this website with easy to follow instructions.

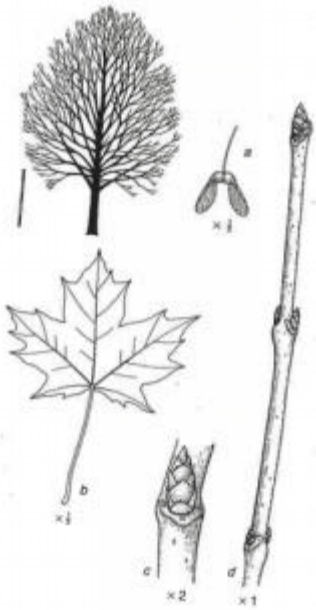
[Naturalist's Apprentice: Making Leaf Prints](#)



Process of Indentification

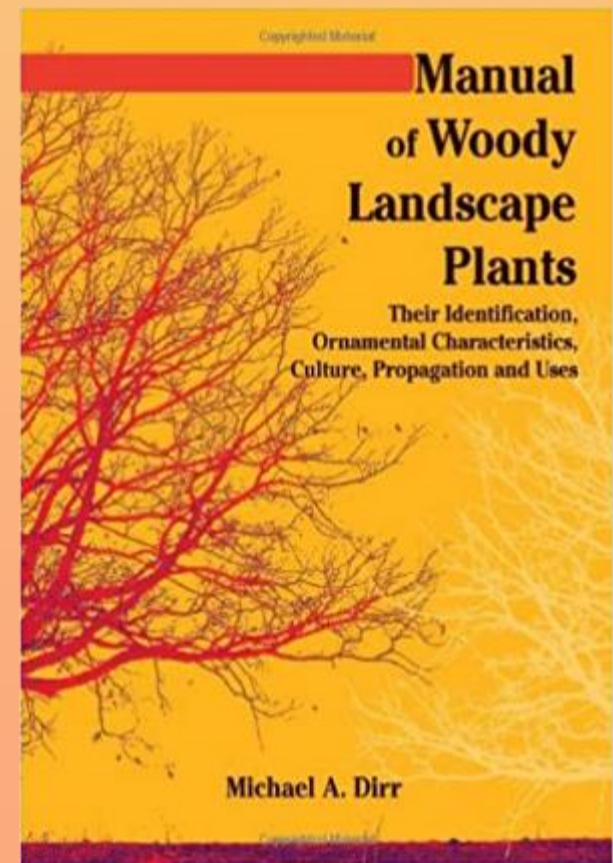
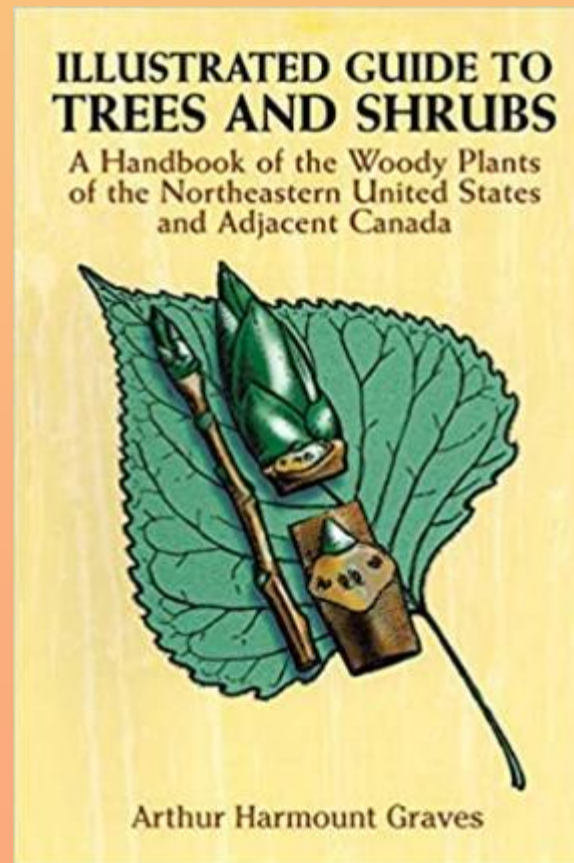
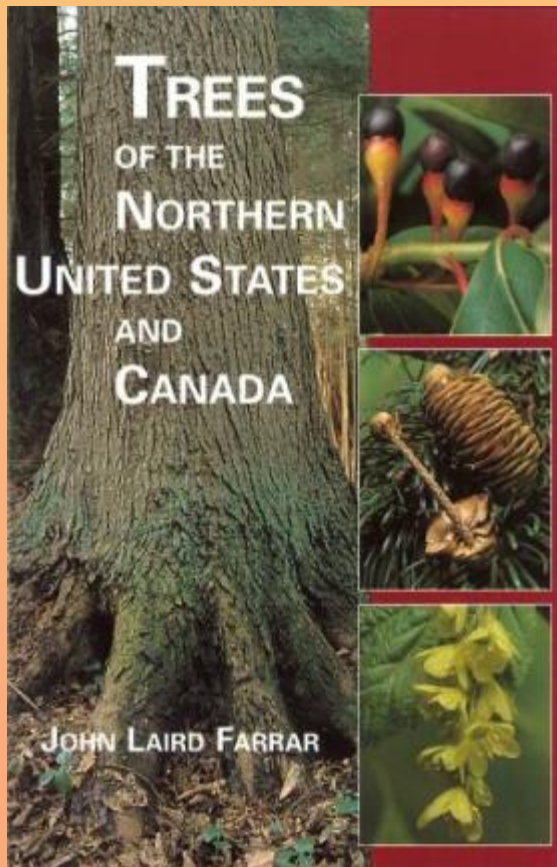
- Collect samples
- Make observations

- Ask Someone
- Browse Pictures
- Color Pictures
- Drawings (B&W)
- Match leaves, buds, flowers bark, color, location



References:

- Books



Woody Plants in Winter

CORE and AMMONS

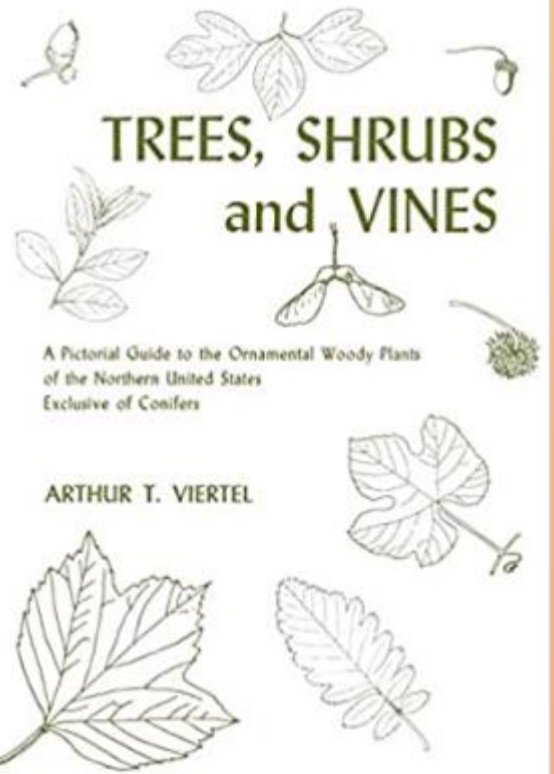


THE **SIBLEY**
GUIDE TO TREES

"A beautiful, masterful, and much-needed work that will henceforth be our guide to North American trees."
—Edward G. Wilson



WRITTEN AND ILLUSTRATED BY
DAVID ALLEN SIBLEY



[Woody Plants In Winter](#)

ALTERNATE
SIMPLE
LOBED



211. *Quercus bicolor*



212. *Quercus alba*



214. *Quercus macrocarpa*



216. *Comptania peregrina*



213. *Quercus robur*



215. *Quercus stellata*



217. *Ficus carica*

see also #385-387



PLATE XV. Elms.

1. *Ulmus americana*, Amer. E. Lf. and brt. nat. size; a, uppermost lat. bud with remains of terminus of year's growth, below, at left $\times 5$; b, lat. bud showing characteristic one-sided position above lf. scar $\times 5$; c, fr. about nat. size.
2. *U. rubra*, Slippery E. Lf. and brt. nat. size; brt. and lat. bud $\times 5$; fr. nat. size.
3. *U. thomasi*, Rock E. Lf. and fr. nat. size.
4. *U. pumila*, Siberian E. Lf. and fr. nat. size.

TREES OF THE NORTHERN UNITED STATES AND CANADA

JOHN LAIRD FARRAR



1



Group 1.

Short needles or scales, evergreen; closely spaced in opposite pairs or whorls of 3, often overlapping and obscuring the stem; seeds in cones, some cones berry-like

2

3

Group 2.

Introduced species hardy in south-western British Columbia; leaves various shapes; seeds in cones



4

5

Group 3.

Needles evergreen, in bundles of 2, 3, or 5; seeds in cones

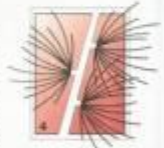


6

7

Group 4.

Needles deciduous (or evergreen), in tufts of 10 or more on dwarf shoots, also single on long shoots; seeds in cones



8

9

Group 5.

Needles evergreen, single, flat or 4-sided; seeds in cones



10

11

Group 6.

Needles evergreen, single, flat; twigs and buds green; single seed in a fleshy cup



12

Red Maple

Swamp maple, soft maple

Acer rubrum L.

Érable rouge

A common species of the forests of eastern North America, ranging as far south as Florida. Widely planted as a shade tree (Zones C3, NA3). The twigs, buds, flowers, immature fruits, leaf stalks, and autumn leaves are usually bright red.

Leaves 5–15 cm long, about as wide; 3–5 lobes with sharp irregular teeth; central lobe with its 2 sides almost parallel to the midvein, separated from lateral lobes by wide, shallow, angular notches; upper surface light green, whitened beneath; bright red in autumn. Stalk 5–10 cm long.

Buds Terminal bud 3–4 mm long, blunt, almost twice as long as wide, shiny, reddish, smooth, usually with 4 pairs of scales. Flower buds stout; become larger during the winter.

Twigs Shiny red to grayish-brown, hairless. Dwarf shoots occur on most branchlets, often bearing clusters of flower buds; flower buds also occur side by side at some leaf scars.

Flowers Noticeably red, with 5 very small petals and sepals, in tassel-like clusters, on slender stalks. Pollen flowers and seed flowers usually on different branches of the same tree. Young trees may bear only one type of flower. Appear in late winter, long before the leaves; one of the first maple species to flower in the spring.

Fruits Wings 12–25 mm long, angle between them about 60°. Seedcase swollen. Keys mature and are shed individually in early summer.

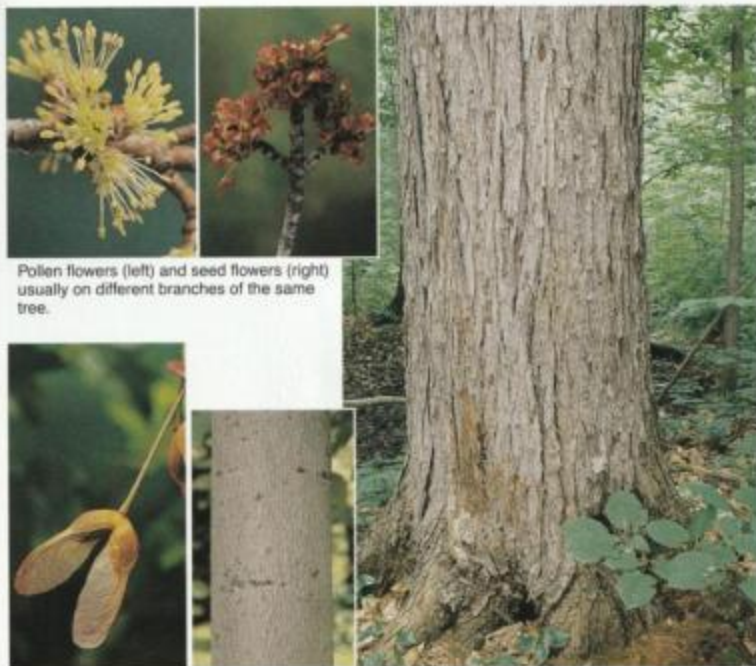
Vegetative Reproduction Dormant buds at the base of most trees sprout vigorously if the tree is cut down or damaged.

Bark Smooth, light gray when young; becoming dark grayish-brown, with scaly ridges fastened at the center and loose at the ends.

Wood Moderately heavy, hard, and strong; light brown. Rays scarcely visible on a tangential face. Turns blue when a solution of ferric salts is applied (compare with sugar maple).



a. Fruit. b. Leaf. c. Clustered flower buds on dwarf shoots. d. Lateral bud and leaf scar. e. Winter twig.



Pollen flowers (left) and seed flowers (right) usually on different branches of the same tree.



Angle between wings about 60°.



Young bark (inset) light gray. On forest-grown trees, trunk straight and branch-free.

Size and Form Medium-sized trees, up to 25 m high, 60 cm in diameter, and 100 years old. In the forest, trunk usually branch-free for half its length; crown short, narrow. In the open, trunk divides near the ground into a few ascending limbs that bear widely diverging and ascending branches; crown rather long, dense. Root system shallow, wide-spreading.

Habitat Often occurs in swamps and on other moist soils, but thrives on a great variety of soils and sites. Moderately shade-tolerant.

Notes Highly variable, with several named varieties. Hybridizes readily with silver maple; intermediate forms often occur.

A source of browse for wildlife.

Quick Recognition [See silver maple for contrasting features.] Leaves with 3 or 5 shallow lobes with parallel sides or tapered toward the tip, irregularly toothed. Flowers red; appear before the leaves. Wings small, angle between them about 60°.

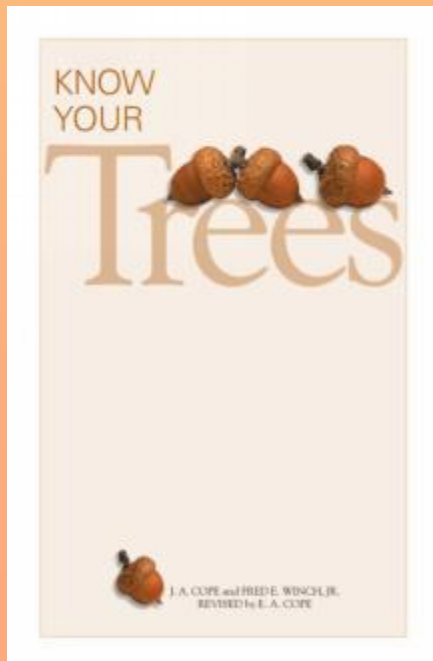
Online References

[Know Your Trees](http://cortland.cce.cornell.edu/resources/known-your-trees)

<http://cortland.cce.cornell.edu/resources/known-your-trees>

[Go Botany](https://gobotany.nativeplanttrust.org/simple/)

<https://gobotany.nativeplanttrust.org/simple/>



The screenshot shows the "GO BOTANY" website interface. At the top, there's a navigation bar with links for Home, Simple Key, PlantShare, Full Key, Dichotomous Key, Teaching, and Help. The main content area is titled "New England Distribution" and "North America Distribution", both with maps showing distribution in purple. The plant name "Chaenomeles japonica" is prominently displayed, along with its common name "Japanese flowering-quince". There are three photographs: a close-up of a red flower, a dense shrub, and a branch with red fruit. The page includes sections for "Facts", "Habitat", and "Characteristics". The "Characteristics" section lists "Habitat" as terrestrial, "New England state" as Vermont, and "Growth form" as a shrub. A copyright notice is visible at the bottom of the image gallery.



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Parent Guide

Apps



LeafSnap - Plant Identifier
Appixi

★★★★★



PlantNet Plant Identifier
plantnet-project.org

★★★★★



PictureThis: Identify
Glory LLC

★★★★★



PlantSnap - FREE plant
PlantSnap, Inc.

★★★★★



Plant Identification
Tran Thi Thien Thanh

★★★☆☆



FindPlant - Plant Identifier
Minh Studio JSC

★★★★★



NatureID: Identify plants
AIBY Inc

★★★★★



Plant Identification
AppBox, Inc

★★★★★



iNaturalist
iNaturalist



plant finder: plant identifier
yeadone



FREE Plant Identifier
Coderiz LLC



Flora Incognita - auf
Technische Universität

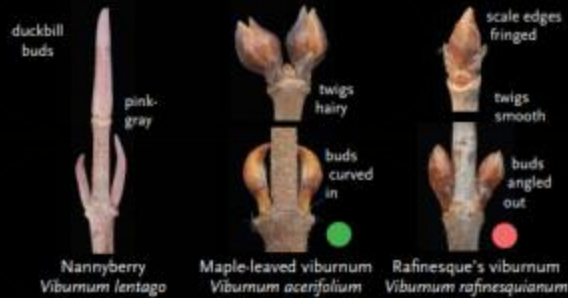
Northern Forest Atlas

CHAMPLAIN HILLS BUDS 1: VIBURNUMS TO LOCUST

● = A COMMON SPECIES ● = A DRY-RICH INDICATOR

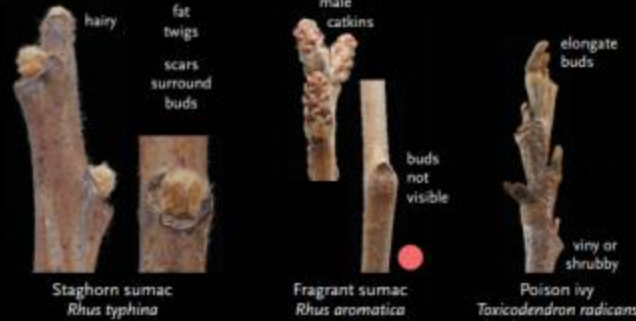
ADOXACEAE, MOSCHATIL FAMILY

Viburnums, *Viburnum*



ANACARDIACEAE, SUMAC FAMILY

Sumacs, *Rhus*



Berberidaceae, BARBERRY FAMILY



BETULACEAE, BIRCH FAMILY



CAPRIFOLIACEAE, HONEYSUCKLE FAMILY

Honeysuckles & relatives, *Lonicera*, *Diervilla*, *Symphoricarpos*



CELASTRACEAE, BITTERSWEET FAMILY



CORNACEAE, DOGWOOD FAMILY



ELAEGNACEAE, OLEASTER FAMILY



ERICACEAE, HEATH FAMILY



Nursery Catalogs 'Proven Winners'



Spring Meadow Nurseries Catalog



Clematis - Clematis

Family: Ranunculaceae (Latin name; ancient Greek name for climbing vine)



1 'Diamond Ball' (C. 'pp04.048', cv#1558)
The cool, icy-violet flowers reach 4-5" in diameter. Semi-spherical blooms are produced prolifically on old and new wood all summer. Awards: Plantarium Press Award 2013; Gold Medal Flowers 2013, Moscow.
USDA 4-9, 5-6', gr 1, summer rebloomer 🌞🌧️🌱
Item #: 15442 - 2 1/2" - 15444 - 4" - 15445 - Quick Turn

2 'HAPPY JACK' Purple (C. 'Zapper', pp#95.343)
This improved 'Jackmanii' blooms from mid-summer into fall, and is noted for its intense purple flower color and large (3-5") blooms. An easy to grow clematis from Wim Snoeijer of the Netherlands. It flowers on new wood and old wood - simply prune it back to 2" each spring.
USDA 5-9, 6-8', gr 1, summer rebloomer 🌞🌧️🌱
Item #: 15432 - 2 1/2" - 15434 - 4" - 15435 - Quick Turn

3 'JOLLY GOOD' (C. 'Zapper')
Abundant light purple flowers cover this new-wood-blooming clematis all summer long, each crowned with a white and red center. This 'Jackmanii' hybrid is a vigorous grower, yet maintains a nice compact size that is perfect for training on fences or trellises. Pruning is as simple as cutting it back to 2" each spring. Developed by Wim Snoeijer of the Netherlands.
USDA 4-9, 6-7', gr 1, summer rebloomer 🌞🌧️🌱
Item #: 15432 - 2 1/2" - 15434 - 4" - 15435 - Quick Turn



4 'PINK MINK' (C. 'Yakovlev', pp#04.574, cv#1559)
Easy to grow and lots of flowers, that's the hallmark of Szczepan Marczyński's breeding. Pink Mink® clematis fits the mark head-on with an abundance of bright pink-on-pink blooms from early summer until early fall. Prune hard to 18" in early spring. Awards: Silver Medal at Plantarium, Gold Medal at Green is Life and the Silver Medal at Flowers 2011, Moscow.
USDA 4-9, 9-10' tall and 6-6.5' wide, gr 1, summer rebloomer 🌞🌧️🌱
Item #: 15562 - 2 1/2" - 15564 - 4" - 15565 - Quick Turn

SPARKY® Series

The Dutch breeding team of Jan van Zoest and Wim Snoeijer have developed some of the best clematis on the market, including Happy Jack® Purple, Princess Kate, and Jolly Good™. Now, the legendary duo bring us the Sparky series with wild and crazy blooms that look more like octopi or fireworks than clematis flowers. These are spring blooming vines (Atragene group) that bloom on old wood in April-June and often on young shoots through summer. They do especially well on sheltered north and east exposures. Flowering branches work well in floral arrangements.



5 'SPARKY' Blue (C. 'Zapper')
A lovely explosion of spiky, sapphire-blue flowers.
USDA 5-8, 6-8' tall and 2' wide, gr 1, spring bloom 🌞🌧️🌱
Item #: 15592 - 2 1/2" - 15594 - 4" - 15595 - Quick Turn

6 'SPARKY' Pink (C. 'Zapper', pp#04.624)
A free-flowering, spring blooming clematis that resembles a ballerina's pink

Plant Names

- Common Name – Red Maple
- Scientific Name – *Acer rubrum*



Scientific Name

- Genus
- Species
- Variety
- Cultivar
- Trademark

- *Acer*
- *Acer rubrum*
- *Acer rubrum vibrans*
- *Acer rubrum 'Red Sentinel'*
- Bright Point[©] Maple



Hybrid

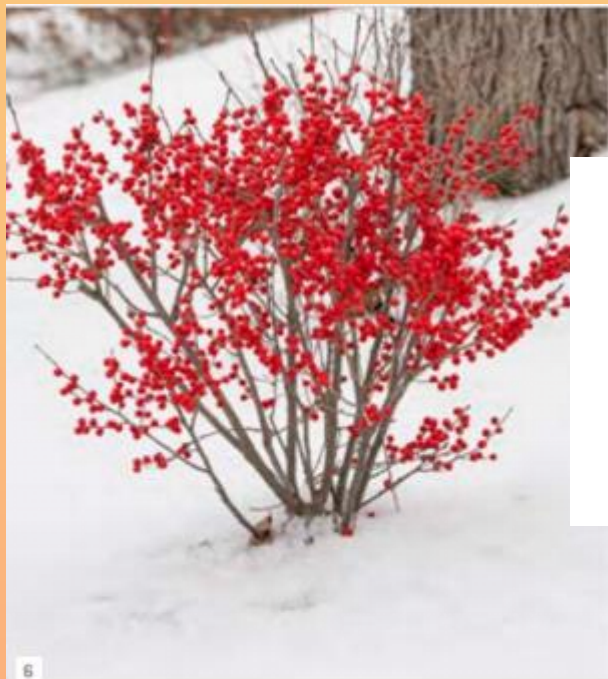
- Cross between two unlike plants results in a plant different from parent plants.
-

- Acer rubrum x Acer saccharinum : Acer x freemani
- Red Maple x Silver Maple : Freeman's Maple



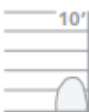
- **Hybrid Cultivar:** Acer x freemanii 'Jeffersred' :
 - Autumn Blaze© Freeman's Maple

Ilex verticillata – Winterberry Holly



6 BERRY POPPINS® (*I. v.* 'FARROWBPOP' pp#25,835, cbr#5286)

An excellent, heavy fruiting dwarf winterberry, Berry Poppins® *Ilex* is ideal for gardeners who want bright winter color and fruit but don't have the space for conventional *I. verticillata*. It is heavier fruiting than 'Red Sprite.' Use Mr. Poppins® *Ilex* as pollinator. Native.



USDA 3-9, 3-4', gr 1.5, winter interest ☀️ 🌤️ ✂️ ♀

Item #: 48152 - 2 1/4" • 48154 - 4" • 48155 - Quick Turn



5 BERRY HEAVY® Gold (*I. v.* 'Roberta Case')

Strike it rich with Berry Heavy® Gold *Ilex*, the winterberry with the biggest, brightest gold fruit yet. You will treasure this plant for gardens, mass plantings, or as a cut. Selected by the late, great plantsman and conservationist Fred Case of Saginaw, Michigan. Use Mr. Poppins® *Ilex* as pollinator. Native.



USDA 3-9, 6-8', gr 1.5, winter interest ☀️ 🌤️ ✂️ ♀

Item #: 48352 - 2 1/4" • 48354 - 4" • 48355 - Quick Turn



6 BERRY POPPINS® (*I. v.* 'FARROWBPOP' pp#25,835, cbr#5286)

An excellent, heavy fruiting dwarf winterberry, Berry Poppins® *Ilex* is ideal for gardeners who want bright winter color and fruit but don't have the space for conventional *I. verticillata*. It is heavier fruiting than 'Red Sprite.' Use Mr. Poppins® *Ilex* as pollinator. Native.



USDA 3-9, 3-4', gr 1.5, winter interest ☀️ 🌤️ ✂️ ♀

Item #: 48152 - 2 1/4" • 48154 - 4" • 48155 - Quick Turn

Plant Communities

Occur together in the landscape
due to shared environmental
requirements

Climate & Soils

Climate:

Temperature: Average High & Low : Extremes

Wind: Northwest: cold and dry / East: moderate and moist

Sun: Southwest: Summer vs Winter

Moisture: Amount / frequency / Snow cover

Soils:

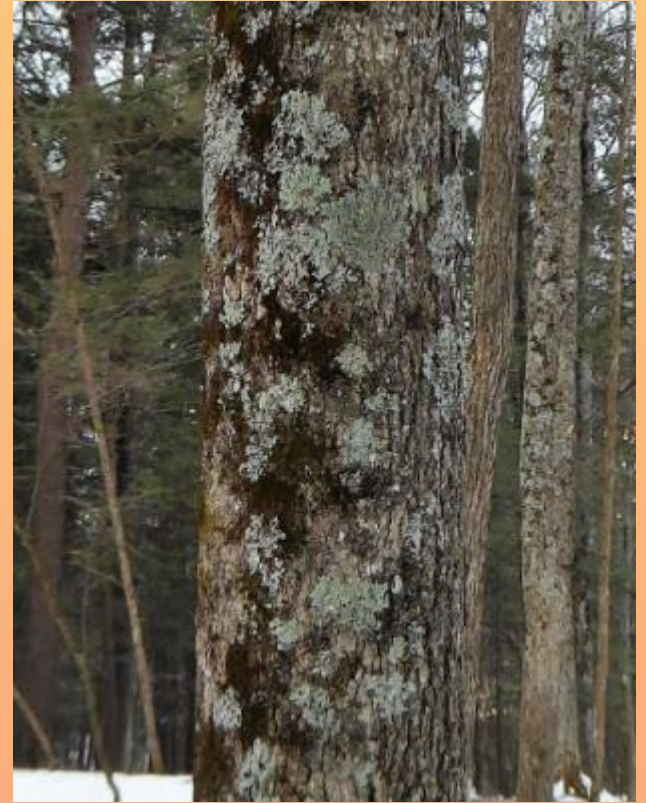
pH

Soil Type

Depth

Drainage

Hmmm...



Communities Evalaution

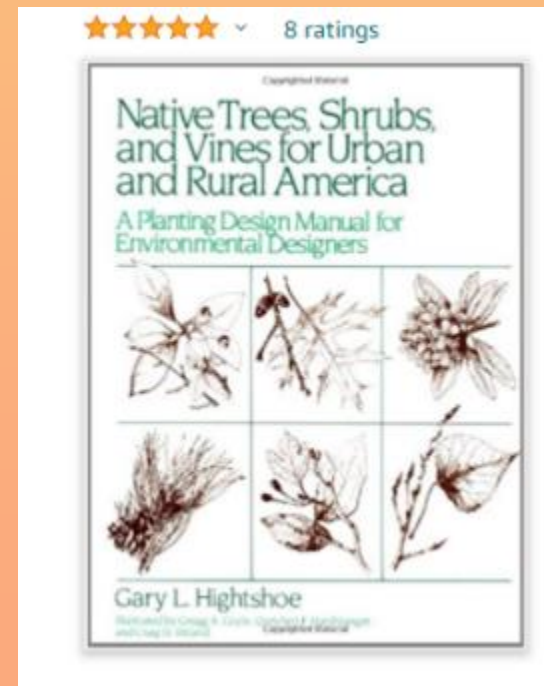
Information Collection

Inventory Native and Non-Native plants

Native Meadow.... succession... Forest
Inventory / Observe successful landscape plants

Identify Climate

Identify Soils



Transition: Meadow to Forest

Aggressive Plants, Full Sun, Temporary



Match Plants of Communities

Beech, Sugar Maple,
Viburnum,
Apple, (Oak), Red-
Twig Dogwood, Lilac,
Deciduous Holly

Cold Northern Zones:
Basic Soils
Dense Soils

Oak, Pine, Flowering
Dogwood,
Rhododendron,
Blueberry,
Boxwood, Evergreen
Holly

Warmer, Sunny Zone
Acid Soils
Well drained /moist soils

Climate Soils

Hemlock Woodlot



Climate
Soils

Birch Woodlot



White Pine, Hemlock, Birch

North exposure vs South Exposure



Climate
Soils

Red-Twig Dogwood



Climate
Soils

Flowering and Kousa
Dogwood



Shadblow Serviceberry



Work With Nature:







