# Planting Native

Ontario Ministry of Natural Resources Bancroft Dis-

Bancroft Area Stewardship Council

Haliburton Highlands Stewardship Council

Gardening with native plants is becoming an increasingly popular alternative to traditional flower bed plants. People are looking at the natural landscapes of the woodlands, meadows and wetlands of their communities for inspiration in their gardens. The benefits of using native plants are limitless.

There are approximately 1,930 plants that are native to Ontario. Of course not all of these plants are indigenous to the Bancroft - Haliburton area. The list of plants that does grow in this area is still very extensive. Some of the more common species include:

| | | |
|---|---|---|
| Bedstraw | Daisy Fleabane | Phlox |
| Bergamot | Evening Primrose | Trout Lily |
| Black Eyed Susan | Fireweed | Tansy |
| Bunchberry | Goldenrod | Tall Buttercup |
| Clover | Harebell | Trillium |
| Cow Vetch | Jack In The Pulpit | Wild Columbine |
| Dutchman's - | Milkweed | Wild Strawberry |
| - Breeches | Pearly Everlasting | Yarrow |

## Where to find NATIVE PLANTS for your garden:

Local Nurseries:

Ferguson Forest Centre - Kemptville, 1-888-791-1103
Richardson's Pineneedle Farms - Pontypool, 1-888-621-8980
Somerville Nurseries Inc - Alliston, 1-705-435-6258
Peterborough Ecology Park - Peterborough, 1-705-745-3238
Nature Girl Nursery - Tory Hill, 1-705-448-9143

Criteria for Collecting Native Stock:

- DO NOT dig plants from the wild. Native plants are becoming threatened due to loss of habitat and collection.
- The exception to this rule is salvaging plants from sites that are slated for development.
- When collecting seed, only take 10% of what is available

Looking for more extensive information?

- Field guides such as Peterson's, Audubon, Haliburton Flora by Eleanor and Emerson Skelton, Forest Plants of Central Ontario
- Canadian Wildlife Federation: Wild about Gardening website, www.wildaboutgardening.org
- Peterborough Green-Up, www.greenup.on.ca
- North American Native Plant Society, www.nanps.org

Photographs courtesy of www.wildflowers.reach.net

**Native:** A plant that existed in a particular region prior to European settlement. They are adapted to the environment in which they grow.

Buttercup

Cow Vetch

Milkweed

Black Eyed Susan

Trout Lily

## Why you should consider Native Plants:

1. Increases biodiversity
2. Attracts wildlife species that are dependent on the availability of specific plants
3. Provides habitat to wildlife
4. Conserves water use in the garden
5. Eliminates the need for pesticides and fertilizers, as they are more resistant to disease and pests
6. Incredibly low maintenance
7. More vigorous and hardy, and are able to withstand our cold winters and hot summers
8. Have natural balance checks, that allow them to thrive in their specific growing conditions BUT prevent them from becoming an invasive species
9. Celebrate local and regional identity
10. Teach us about natural processes
11. Connect us with natural and aboriginal history
12. Many have medicinal and other useful properties.

# Tree Selection and Planting

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## Selecting the right tree for your site:

In order to determine which tree species will grow well on your site, you need to examine two site characteristics: **soil type** and **drainage**. These factors will influence species success and survival.

## Soil Type

Soil consists of 4 main ingredients:

- → mineral particles
- → air space between the particles
- → water in varying amounts
- → organic matter (from plants and animals)

The texture of soil refers to the relative proportion of individual mineral particles. The more abrasive a soil feels, the larger the individual particles. If the soil feels smoother, the particles are smaller. The "grittiness, or lack of it, is a measure of 3 main soil particle sizes: sand, silt and clay.

- → Sand: largest particles, feels gritty
- → Silt: medium size particles, feels soft/silky/floury
- → Clay: smallest particles, feels sticky

There are 3 broad texture classes for soils:

- → sandy soils
- → loamy soils (soils with equal parts sand, silt and clay)
- → clay soils

## Drainage

How well your site holds water can have a dramatic impact on the long-term survival of different species. Drainage can be influenced by soil depth, topography, recent precipitation, and depth to the water table. Soil drainage can be classified into 4 different categories:

Well Drained: water drains from the site rapidly; water seldom pools on the site even after a heavy rain

Moderately Drained: water may pool but only for brief periods

Imperfectly Drained: water pools on the site, sometimes for extended periods especially during the spring or in wet years.

Poorly Drained: water drains slowly from the site throughout the year; soil may appear wet below the surface.

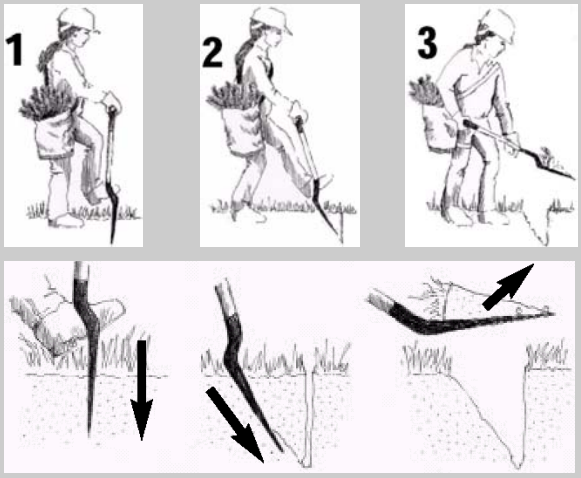
Determining the drainage of your site is easy and usually comes from observing what happens to your site in the spring and fall, as well as during and after a rainfall.

****For more information on how to classify your soil texture, contact the Haliburton Highlands or Bancroft Area Stewardship Council to request a copy of the Choosing the Right Tree guide.****

## Tree Planting

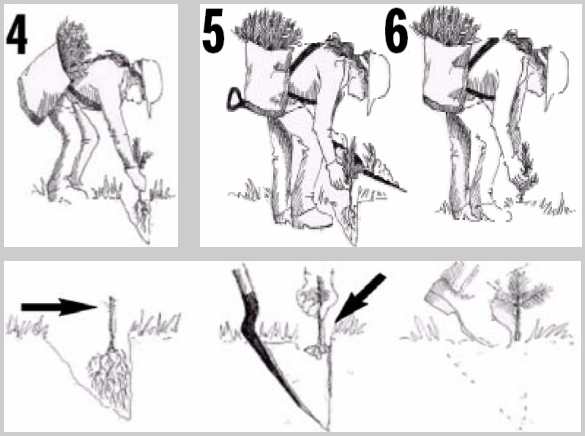
Planting Tips:

- ✶ Plant only one tree per hole
- ✶ DO NOT bunch, spiral, double over, or bend the roots
- ✶ Keep organic matter, stones and twigs, out of the hole - they create air pockets that dry out the roots
- ✶ Plant the seedlings slightly above the root collar swelling
- ✶ Tamp firmly with the toe (not the heel) to remove any air pockets
- ✶ Do not bury live branches or foliage, or leave any roots exposed to the air.



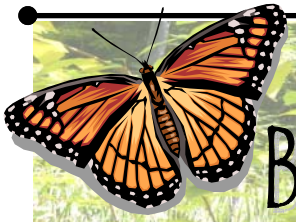

Figures 1-3

Prepare a planting hole by removing a "wedge" of soil. Dig one side of hole straight down.




Figures 4-6

Place roots in planting hole. Spread soil around the roots ensuring good contact. Tamp the soil around the base of the seedling with your toe.



# Butterfly Gardening

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## Attracting Butterflies

To attract Butterflies to your yard, you will need to plant a wide variety of plants that meet their needs during each cycle of their lives. Most butterflies are very specific about the type of plant that they will lay their eggs on, and they are very picky eaters! The monarch butterfly, for example, will only lay eggs on plants in the milkweed family. Don't worry if the butterfly caterpillars are munching on the leaves of your plants, this is their food and they rarely defoliate entire plants. The caterpillar will feed for a few weeks and then wrap itself in a chrysalis, to later emerge as a butterfly. The adult butterfly feeds on the sweet nectar of flowers for energy to live and fly.

## HOST Plants for Butterflies

| Butterfly | Host Plant |
|---|---|
| American Lady: | forget-me-not, pearly everlasting |
| Baltimore: | white ash, turtlehead |
| Black Swallowtail: | dill, parsley, fennel, carrot |
| Comma: | elm, nettles |
| Delaware Skipper: | blue bigstem, switch grass |
| Eastern Tailed Blue: | clover and other legumes |
| Great Spangled Fritillary: | violets |
| Milbert's Tortoiseshell: | nettles |
| Monarch: | milkweeds |
| Morning Cloak: | willow, elm, poplar, hackberry, birch |
| Painted Lady: | thistle, burdock, sunflower, holly-hock, borage, mallow |
| Red Admiral: | nettles |
| Silvery Blue: | everlasting peas, vetch, lupine |
| Spring Azure: | viburnam, blueberry, dogwood, spirea |
| Clouded Sulphur: | clover and other legumes |
| Tiger Swallowtail: | black cherry, poplar, ash, birch, willow |
| Viceroy: | thistle, willow |
| White Admiral: | willow, poplar, hawthorn, birch, juneberry, basswood |
| Wood Nymph: | big bluestem, wild oats |

## Tips for Successful Butterfly Gardening:

- Butterfly gardens need to located in sunny areas. Butterflies are cold blooded and need the warmth from the sun to give them energy to fly.
- Plant flowers in clumps so that butterflies flying past will be attracted to them.
- Butterflies often drink from small puddles. A small tray with pebbles may attract them to stop for a drink.
- Butterflies are very sensitive to pesticides.Use only natural pest control in your yard.

## NECTAR plants for butterflies

Adult butterflies that are searching for nectar are most attracted to orange, purple, yellow or red blossoms that are flat topped or clustered and have short flower tubes that allow the butterfly to reach the nectar with its proboscis.

**Perennials (Spring Blooming):** chives, columbine, comfrey, dandelion, dianthus, creeping phlox, forget-me-not, common lilac, spirea

**Perennials (Summer Blooming):** bergamot, black-eyed susan, blazing star, buttonbush, buttercup, centaurea, clover, purple coneflower, coreopsis, daisy, lavender, milkweed, mints, garden phlox, potentilla, yarrow

**Perennials (Fall Blooming):** butterfly bush, chrysanthemum, goldenrod, joe-pye weed, New England aster

**Annuals:** ageratum, alyssum, aster, bachelor's buttons, cosmos, heliotrope, impatiens, marigold, verbena, zinnia

For More Information: Peterborough Green-Up (www.greenup.on.ca) OR Canadian Wildlife Service (www.wildaboutgardening.org)

# Plantings for Wildlife

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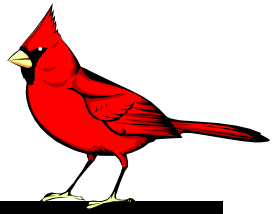
Haliburton Highlands Stewardship Council

**Looking to create a backyard wilderness and attract some furry and feathered friends?**
By naturalizing your yard and creating a healthy environment, you can begin attracting more species of a greater variety. All species have specific preferences but they all have common needs including **food, water, shelter and space**. These 4 factors need to be considered when planning a backyard habitat.

**Planning your backyard Habitat:**
Begin your wildlife oasis by drawing a simple map of your yard. Highlight key features including boundary lines, buildings, driveways, power lines, and existing vegetation.
Using your map answer the following questions:



**Height**
- Do you have a good assortment of plant heights?
- Do you have small trees, tall trees, shrubs, tall herbs, low ground cover

**Species**
- Do you have a mixture of conifers and deciduos?
- Do you have groundcover other than grass?
- Do any of your plants produce food for wildlife?

**Water**
- Is there a dependable source of water nearby? (ponds, streams, rivers)

**Groupings**
- Are the plants in your yard grouped in clumps rather than arranged singly?

**Chemicals**
- Do you avoid using chemicals in your yard? Many chemicals, even organic ones, are toxic to wildlife

**Soil**
- Do you keep bare soil covered with a mulch
- Do you use organic material (compost, leaves, peat moss) in your yard? Healthy soils helps to feed all other life

## Don't Forget.....

If you want to attract wildlife you need to provide all of the elements of HABITAT (food, water, shelter and space), here are some additional ways to make your yard more creature friendly:

- **Stonepiles** provide cover for chipmunks
- **Brushpiles** act as shelter for rabbits, squirrels, mice, voles and birds
- **Old logs and tree stumps** may provide nesting sites for birds and small mammals as well as provide food to species looking for the insects that live here
- **Nesting boxes, bat boxes** and **toad shelters** provide safe homes
- **Bird Baths, water dishes** and **ponds** will attract a diverse array of wildlife

## Trees That Provide Food For Wildlife

**Berries**
Hawthorns, pin cherry, black cherry, mountain ash

**Nuts**
Hickory, beech, black walnut, oaks, pines, cedars

**Seeds**
Maples, birch, ash, spruce

**Edible twigs and buds**
Birch, poplars, aspen

## Shrubs That Provide Food For Wildlife

**Berries**
Serviceberry, dogwood, choke-cherry, raspberries, elderberries, viburnums, wild grape

**Nuts**
Beaked hazel, hazel

**Seeds**
Staghorn sumac, willow

**Edible twigs and buds**
Dogwood, wild grape

# Native Trees and Shrubs

Bancroft Dis-

## Native Conifers *(to the Great Lakes St. Lawrence Forest Region)*

| Species Name | Appearance | Site and Soils | Planting Information |
|---|---|---|---|
| White Pine<br>*Pinus strobus* | • Clusters of 5 soft, long, bluish-green needles<br>• Bark smooth when young, dark and ridged when mature | • Shade tolerant when young<br>• Grows best on well drained to moist, sand and loams | • Plant at 6 feet spacing<br>• Grows 2-3 feet/year once established<br>• Plant under canopy of taller trees to help avoid white pine weevil problems<br>• Grows well with red pine, maple, ash, and beech |
| Red Pine<br>*Pinus resinosa* | • Clusters of 2 brittle, long, shiny dark green needles<br>• Scaly, pinkish-gray bark | • Needs full sunlight<br>• Good on infertile, well-drained, sandy, gravelly soils | • Plant at 8 feet by 8 feet<br>• Grows 2-3 feet/year once established<br>• Periodically thin to maintain health and growth<br>• Grows well with white pine, aspen |
| Black Spruce<br>*Picea mariana* | • Short single needles, appear 4 sided in cross section, dark bluish-green,<br>• Trunk straight and without branches for most of its length, often club-shaped at top | • Grows on dry to moist, rocky to clayey upland sites | • Grows in pure stands or with tamarack, cedar and balsam fir on lowland sites, or with jack pine, red pine and white pine on upland sites |
| White Spruce<br>*Picea glauca* | • Short, whitish or bluish-green nee-dles, wide form | • Grows best on well drained, moist silty soils<br>• Tolerates poorly drained and heavy soils, avoid dry sites<br>• Slow initial growth, then 1-2 feet/year on good sites | • Plant 8 feet by 8 feet<br>• Thin periodically to maintain health and growth<br>• Grows well with many species |
| White Cedar<br>*Thuja occidentalis* | • Yellow to green scale-like leaves, turning bronzy green in winter<br>• Young bark is thin, reddish-brown<br>• Mature bark is in strips of gray-brown | • Shade tolerant<br>• Does well on dry, wet or shallow soils | • Slow Growing<br>• Grows well with white pine. balsam fir, yellow birch, sugar maple |
| Jack Pine<br>*Pinus banksiana* | • Clusters of 2 short, yellow-green needles<br>• Young bark is thin and reddish-gray<br>• Mature bark is dark brown flaky and ridged | • Needs full sunlight<br>• Does well on many sites<br>• Tolerates sandy, gravelly sites | • Grows in pure stands or with birch, aspen, red pine |
| Eastern Hemlock<br>*Tsuga canadensis* | • Flat, blunt, finely toothed needles with shiny green top and whitened underside<br>• Slender twigs<br>• Reddish-purple layers in outer bark | • Grows best on cool, moist, well drained site<br>• Very shade tolerant | • Found in pure stands or mixed with yellow birch, white spruce, white pine, sugar maple and beech<br>• Shade tolerance makes it best suited to under planting or stand conversion |
| Balsam Fir<br>*Abies balsamea* | • Short, dark green needles, arranged along a twig for flat branch effect<br>• Young bark is gray, smooth and has resin blishter<br>• Mature bark is brownish and scaly | • Very shade tolerant<br>• Adapted to a variety of soils | • Grows well in pure stands or with birch, aspen, white spruce or hemlock |
| Tamarack<br>*Larix laricina* | • Tufts of many soft, short, bluish-green needles<br>• Needles turn yellow and fall off in the autumn<br>• Young bark is thin smooth and gray<br>• Mature bark is reddish-brown and scaly | • Needs full sunlight<br>• Tolerate wet, poorly drained sites<br>• Grows best on moist, sandy soils | • Initial growth is fast on good sites<br>• Grows well in pure stands or with birch, aspen and spruce<br>• Sensitive to chemical week control |

# Native Deciduous *(to the Great Lakes St. Lawrence Forest Region)*

| Species Name | Appearance | Site and Soils | Planting Information |
|---|---|---|---|
| Sugar Maple *Acer saccharum* | • Deep yellow-green, lobed leaves<br>• Broad, open grown form<br>• Young bark is smooth<br>• Mature bark is dark and irregularly- ridged | • Grows best on deep, fertile, well drained to moist loams<br>• Tolerates shade when young, responds well to thinning | • Maple sugar orchards<br>• Grows well with white pine, hemlock and other broadleaf trees |
| Silver Maple *Acer saccharinum* | • Light green, deeply cut leaves<br>• Young bark is smooth<br>• Mature bark is shaggy and gray-brown | • Needs full sunlight<br>• Grows best on deep, fertile, moist loams (withstands seasonally wet soils) | • Plantation for pulp and timber<br>• Grows fast |
| Red Maple *Acer rubrum* | • Light green, lobed, toothed leaves<br>• Young bark is smooth<br>• Mature bark is scaly, ridged and gray-brown | • Well adapted to a variety of soils, best on moist sites<br>• Tolerates some shade when young | • Plantations for pulp and timber |
| Red Oak *Quercus rubra* | • Dull green bristle-tipped leaves<br>• Young bark is smooth and lined<br>• Mature bark is grooved and ridged | • Grows best on deep, well drained, sandy loams<br>• Tolerates drier conditions<br>• Avoid heavy wet soils, will tolerate some shade when young | • Timber plantations<br>• Grows well with pines and other broadleaf trees |
| White Oak *Quercus alba* | • Bright green, round, lobed leaves<br>• Young bark is pale gray and scaly<br>• Mature bark is similar with a reddish cast | • Grows well on deep, well-drained loams<br>• Avoid dry or poorly drained conditions<br>• Tolerates some shade when young | • Timber plantations<br>• Grows well with pines, hemlock and other broadleaf trees |
| Bur Oak *Quercus macrocarpa* | • Shiny, green, round lobed leaves, corky twigs and branches<br>• Young bark is rough and furrowed<br>• Mature bark is deeply furrowed | • Tolerates some shade<br>• Adapted to a range of soils – dry to moist, sand or clay | • Timber plantation<br>• Grows well with pines, hemlock and other broadleaf trees |
| White Ash *Fraxinus americana* | • Dark green compound leaves with 5-9 leaflets<br>• Young bark is light gray<br>• Mature bark is finely furrowed | • Tolerates some shade<br>• Deep, well drained upland soils, avoid dry, infertile sites | • Mixed species timber plantations<br>• Grows well with white pine, balsam fir, yellow birch and sugar maple |
| Black Ash *Fraxinus nigra* | • Dark green compound leaves with 7-11 leaflets<br>• Young bark is light gray, soft and corky<br>• Mature bark is scaly | • Adapted to imperfectly drained soils<br>• Tolerates some flooding<br>• Needs full sunlight | • Reforestation<br>• Grows well with cedar, balsam fir, silver and red maple |
| Black Cherry *Prunus serotina* | • Simple, bright shiny green leaves<br>• Young bark is dark with dash-like marks<br>• Mature bark is dark, rough and scaly | • Adapted to a wide range of soils<br>• Needs full sunlight | • Reforestation, timber plantations<br>• Grows well with other broadleaf trees |
| White Birch *Betula papyrifera* | • Simple, dull green, toothed leaves<br>• Young bark is thin, smooth and dark red<br>• Mature bark is white and papery | • Needs full sunlight<br>• Adapted to a wide range of sites | • Reforestation<br>• Grows well with pines, spruce, poplar, balsam fir, yellow birch and sugar maple |

# Native Deciduous *(to the Great Lakes St. Lawrence Forest Region)*

| Species Name | Appearance | Site and Soils | Planting Information |
|---|---|---|---|
| Yellow Birch *Betula alleghaniensis* | • Alternate, simple, oval, gradually tapering to a sharp, pointed tip<br>• Young bark is dark reddish and shiny to yellowish or bronze<br>• Mature bark is darker and breaks into large, raggedy pieces | • Moist to fresh upland sites<br>• Wet organic sites, all soil textures | • Grows with sugar maple, red maple, basswood and hemlock in upland sites<br>• Grows well with cedar and red maple on lowland sites |
| Balsam Poplar *Populus balsamifera* | • Leaves are alternate, stalked, simple and egg-shaped. The upper surface is shiny dark green<br>• Young bark is smooth, greenish brown and mature bark is grayish, furrowed with irregular v-shaped crevices | • Moist clayey to sandy uplands to wet organic sites | • Grows with White Cedar, black ash, and trembling aspen. |
| Ironwood *Ostrya virginiana* | • Leaves are stalked and tapered at both ends<br>• Young bark is reddish brown and hairy, mature bark is light brown, shredding in long loose strips | • Dry to moist, sandy to fine loamy upland sites | • Grows well with sugar maple and other hardwoods. Is a component of white pine and red oak stands |
| Beech *Fagus grandifolia* | • Leaves are short stalked, dark bluish, turn golden bronze and often remain on the tree into winter<br>• Bark is thin, smooth and grey | • Moist to fresh, sandy to loamy upland sites | • Typically associated with sugar maple, hemlock and other hardwoods |
| Basswood *Tilia americana* | • Large heart-shaped leaves<br>• Bark is dark grayish-brown in long flat ridges | • Dry to moist, sandy to clayey upland sites | • An associate of sugar maple, hemlock, yellow birch and other hardwoods |

# Native Shrubs and Small Trees *(to the Great Lakes St. Lawrence Forest Region)*

| Species Name | Appearance | Site and Soils | Planting Information |
|---|---|---|---|
| Juneberry Amelanchier species | • Small tree<br>• Simple green leaves<br>• Young bark is smooth and gray, marked by vertical lines<br>• Mature bark is rough and scaly | • Tolerates some shade, but grows best in full sunlight<br>• Grows best in moist to dry sites | • Reforestation<br>• Wildlife food source |
| Red Elderberry Sambucus pubens | • Large shrub or shrubby tree<br>• Compound leaves with 5-7 leaflets, plump red buds<br>• Mature bark is warty and gray-brown | • Best in full sunlight and moist soils | • Reforestation<br>• Wildlife food source |
| Black Elderberry Sambucus canadensis | • Large shrub or shrubby tree<br>• Compound leaves with 5-11 leaflets<br>• Mature bark is warty and gray-brown | • Best in full sunlight but will tolerate some shade<br>• Adapted to low ground sites | • Reforestation<br>• Wildlife food source |

# Native Shrubs and Small Trees *(to the Great Lakes St. Lawrence Forest Region)*

| Species Name | Appearance | Site and Soils | Planting Information |
|---|---|---|---|
| Pin Cherry<br>Prun*us pensylvanica* | • Small tree, simple leaf with a tapered tip<br>• Young bark is smooth and reddish<br>• Mature bark has horizontal papery strips | • Needs full sunlight<br>• Adapted to many sites | • Reforestation<br>• Wildlife food source |
| Willow<br>*Salix species* | • Large shrub to large tree<br>• Simple leaf with a tapered tip, simple green leaves<br>• Young bark is smooth and gray<br>• Mature bark is rough and furrowed | • Needs full sunlight<br>• Tolerates flooded conditions | • Site Restoration<br>• Wildlife cover |
| Nannyberry<br>*Viburnum lentago* | • Large shrub or small tree<br>• Yellow-green leaves<br>• Blue-black autumn berries<br>• Mature bark is gray-brown and scaly | • Best in full sunlight but will tolerate some shade<br>• Best in moist soils | • Site Restoration<br>• Wildlife food source |
| Highbush Cranberry<br>*Viburnum tri-lobum* | • Large shrub<br>• Lobed, maple-like leaves<br>• Smooth wiry branches and rougher mature bark | • Needs full sunlight<br>• Likes damp lowland sites | • Site Restoration<br>• Wildlife food source |
| Red Osier Dogwood<br>*Cornus stolonifera* | • Low shrub<br>• Simple leaf<br>• Bluish-white autumn berries<br>• Smooth red bark | • Needs full sunlight<br>• Likes damp lowland sites | • Site Restoration<br>• Wildlife food source |
| *Alternate Leaved Dogwood*<br>*Cornus alternifolia* | • Large shrub or small tree<br>• Simple leaf<br>• Bluish-black berries with wax powered coating<br>• Smooth greenish-red bark | • Best in full sunlight but will tolerate some shade<br>• Best in moist soils | • Site Restoration<br>• Wildlife food source |

**Sources:**

Forest Plants of Central Ontario. Chambers, Legasy, and Bentley, Lone Pine Publishing. 1996
Choosing the Right Tree, A Landowner's Guide to Putting Down Roots. Eastern Ontario Model Forest.