Part I: Woody Trees, Shrubs and Vines For a Changing Minnesota: Cold Hardy Zones 2 & 3 Gary Johnson, UMN Department of Forest Resources March, 2019

This list should by no means be considered exhaustive. If there are cultivated varieties or species that are known to perform well in northern Minnesota, consider them as you put together your plant palette.

Plant names followed by an * represent plants native to the upper Midwest.

Deciduous Trees

Scientific Name	Common Name	Size
Acer negundo*	Boxelder Maple	Medium
Acer rubrum*	Red Maple	Large
Acer saccharinum*	Silver Maple	Large
Acer saccharum*	Sugar Maple	Large
Acer triflorum	3-Flowered Maple	Small-Med
Aesculus glabra	Ohio Buckeye	Medium
Amelanchier x grandiflora	'Autumn Brilliance' Serviceberry	Small
Betula lenta*	Sweet Birch	Medium
Betula nigra*	River Birch	Medium
Betula papyrifera*	Paper Birch	Medium
Betula pendula	Weeping Cutleaf Birch	Medium
Betula platyphylla	'Dakota Pinnacle' Birch	Medium and narrow
Carpinus caroliniana*	Blue Beech	Small
Celtis occidentalis*	Hackberry	Large
Cornus alternifolia*	Pagoda Dogwood	Small
Crataegus species	'Snowbird' Hawthorn	Small
Fraxinus mandshurica	Manchurian Ash	Medium
Larix laricina*	American Larch	Large
Macckia amurense	Amur Maackia	Small-Med
Malus species	Flowering Crabapples	Small-Med
Ostrya virginiana*	Ironwood	Medium
Phellodendron amurense	Amur Corktreeonly purchase and plant male varieties	Medium
Populus balsamifera*	Balsam Poplar	Medium
Populus grandidentata*	Big-toothed Aspen	Large
Populus deltoides*	Eastern Cottonwoodonly plant male	Large
	trees to avoid seed	Luige
Prunus maackii	Amur Chokecherry	Small
Prunus pennsylvanica*	Pin Cherry	Small-Med
Prunus serotina*	Black Cherry	Large
Quercus alba*	White Oak	Large
Quercus ellipsoidalis*	Northern Pin Oak	Large

Quercus macrocarpa*	Bur OakNOT Burr Oak	Large
Quercus rubra*	Northern Red Oak	Large
Quercus x bimundorum	'Prairie Stature' Oak	Large
Salix species	'Prairie Cascade' Willow	Med-Large
Salix pentandra*	Laurel Willow	Med-Large
Sorbus aucuparia	European Mountain-ash	Small
Sorbus decora*	Showy Mountain-ash	Small
Syringa reticulata	Japanese Tree Lilac	Small
Tilia americana*	Basswood – 'Redmond' and 'Boulevard'	Large
	are good urban varieties	
Tilia x mongolica	'Harvest Gold' Basswood	Large
Ulmus americana*	'Prairie Expedition' American Elm	Large
Ulmus japonica	'Discovery' Elm	Medium

Most deciduous trees perform best in well-drained soils, organic, neutral to acidic, not compacted, full sun to moderate levels of shade. Therefore, just because a tree is cold-hardy to an area doesn't mean it will perform well. Assess the planting site thoroughly and select the best plants for the site carefully.

Evergreen Trees

Scientific Name	Common Name	Size
Abies balsamea*	Balsam Fir	Large
Juniperus virginiana*	Eastern Red Cedar	Small-Med
Picea abies	Norway Spruce	Large
Picea glauca*	White Spruce	Large
Picea mariana*	Black Spruce	Medium
Picea pungens*	Colorado Spruce	Large
Pinus banksiana*	Jack Pine	Medium
Pinus cembra	Swiss Stone Pine	Small
Pinus ponderosa	Ponderosa Pine	Large
Pinus resinosa*	Red/Norway Pine	Large
Pinus strobus*	Eastern White Pine	Large
Thuja occidentalis	Northern White Cedar	Small-Medium
Tsuga canadensis	Hemlock	Medium

Evergreen trees are generally much slower growing than deciduous trees, require regular watering through late autumn to help them establish after planting, and are usually purchased as containerized trees or balled-andburlapped, which often makes them more expensive than deciduous trees. With the exception of Hemlock, Northern White Cedar, White Pine and Balsam Fir, evergreen trees perform poorly in shaded landscapes.

Small, Medium, Large? It's all relative.

A small tree is one that usually doesn't grow any taller than around 30 feet. A medium tree matures up to 50 feet. A large tree reliably grows up to more than 50 feet.

A small shrub stays less than 3 feet in height. A medium shrub can grow up to around 6 feet in height. A large shrub reliably matures at 6 or more feet in height.

Shrubs (deciduous unless noted)

Scientific Name	Common Name	Size
Amelanchier alnifolia*	Serviceberry	Medium
Aronia melanocarpa*	Black Chokeberry	Small-Med
Cornus sericea *(aka stolonifera)	Red-twig Dogwood	Small-Med depending on varieties
Dirca palustris*	Leatherwood	Small
Diervilla lonicera*	Dwarf Bush Honeysuckle	Small
Forsythia species	'Meadowlark' and 'Northern Gold'	Medium-Large
Hydrangea arborescens	Wild Hydrangea	Medium
Hydrangea paniculata	'P.G. Hydrangea'	Large
llex verticillata*	Winterberry Holly	Medium
Juniperus communis*	Common Juniper	Small-Medium Evergreen
Physocarpus opulifolius*	Common Ninebark	Large
Pinus mugo	Mugo Pine	Medium-Large Evergreen
Prunus tomentosa*	Nanking Cherry	Medium
Rhus glabra*	Smooth Sumac	Large
Rhus typhina*	Staghorn Sumac	Large
Salix discolor*	Pussy Willow	Medium-Large
Syringa patula	'Miss Kim' Lilac	Medium-Large
Syringa vulgaris*	Common Lilac	Large
Syringa x prestoniae	'James Macfarlane' and 'Nocturne'	Large
Syringa x meyerii	'Tinkerbelle'	Small-Medium
Viburnum lantana*	Wayfaring Tree	Large
Viburnum lentago*	Nannyberry Viburnum	Large
Viburnum trilobum*	American Cranberrybush	Large
Viburnum prunifolium*	Blackhaw Viburnum	Large
Viburnum opulus	European Cranberrybush	Medium-Large
Viburnum dentatum*	Arrowwood Viburnum	Medium

Woody Deciduous Vines

Scientific Name	Common Name	Growth Rate
Celastrus scandens*	American Bittersweet	Moderate. Make sure you get
		American bittersweet, not Oriental
		Bittersweet which is very invasive.
Clematis virginiana	Virgins Bower Clematis	Moderate-Fast
Humulus lupulus	Common Hop Vine	Fast-Moderate
Lonicera x brownie	Dropmore Scarlet Honeysuckle	Moderate
Parthenocissus inserta*	Woodbine	Fast
Vitis riparia	Riverbank Grape	Too Fastbe careful where you
		plant this very aggressive vine.

Part II: Woody Trees, Shrubs and Vines For Minnesota's Cold Hardy Zones 4 and 5

Deciduous Trees Common Name Scientific Name Size Acer campestre Hedge Maple Small Acer x freemanii 'Sienna Glen' Freeman Maple Med to large Acer rubrum* **Red Maple** Med to Large Acer saccharinum* Silver Maple Large Acer truncatum Shangtung Maple Medium Aesculus glabra* **Ohio Buckeye** Small to Medium Amelanchier species Serviceberry Small Betula nigra* 'Dura Heat' Medium **River Birch** Carpinus caroliniana* **Blue Beech** Small Carya ovata* Shagbark Hickory Medium Celtis occidentalis* Hackberry Large Cercidiphyllum japonicum Katsura Tree Medium Cercis Canadensis* **Redbud MN strain** Small Cladrastis kentukia Yellowwood Medium Pagoda Dogwood Small Cornus alternifolia* Crataegus crus-galli* **Cockspur Hawthorn** Small Fraxinus mandshurica Manchurian Ash Medium Fraxinus quadrangulata* Blue Ash Medium Ginkgo biloba Medium to Large Ginkgo Gleditsia triacanthos var inermis* Honeylocust variety Northern Medium Acclaim Gymnocladus dioicus* **Kentucky Coffeetree** Large Juglans nigra* **Black Walnut** Large Koelreuteria paniculata Golden Raintree Small to medium Larix siberica Siberian Larch Large Liriodendron tulipifera **Tulip Poplar** Large Small to Medium Maackia amurensis Amur Maackia Maclura pomifera* Osage-Orange Small Small Malus species* Crabapples Metasequoia glyptostroboides Dawn Redwood Med-Large Nyssa sylvatica **Black Tupelo** Medium Ostrya virginiana* Ironwood Small to Medium Phellodendron amurense Amur Corktree (only males) Medium Platanus occidentalis* Sycamore Large Populus deltoides* Cottonwood Large Populus grandidentata* **Big-toothed Aspen** Large Prunus americana* American Plum Small Prunus armeniaca var mandshurica Manchurian Apricot Small Prunus maackii Amur Chokecherry Small Prunus serotina* Black Cherry Large

Ptelea trifoliate	Wafer-ash	Small
Quercus alba	White Oak	Large
Quercus coccinea*	Scarlet Oak	Large
Quercus ellipsoidalis*	Northern Pin Oak	Large
Quercus imbricaria	Shingle Oak	Medium
Quercus macrocarpa*	Bur Oak	Large
Quercus mongolica	Mongolian Oak	Medium
Sophora japonica	Japanese Pagoda-tree	Medium
Sorbus alnifolia	Korean Mountain-ash	Medium
Syringa pekinensis	Peking Tree Lilac	Small
Taxodium distichum	Bald Cypress	Large
Tilia americana*	Basswood	large
Tilia tomentosa	Silver Linden	Large
Ulmus americana*	'Prairie Expedition' 'Jeffereson'	Large
Ulmus hybrids	'Accolade' 'Triumph' 'Danada	Medium to Large
	Charm'	
	'Frontier'	
Zelkova serrata	Zelkova	Medium

Evergreen Trees

Scientific Name	Common Name	Size
Abies concolor	White Fir	Large
Juniperus scopulorum	Rocky Mountain Juniper	Small-Med
Juniperus virginiana*	Eastern Red Cedar	Small-Med
Picea abies	Norway Spruce	Large
Picea glauca*	White Spruce	Large
Picea pungens*	Colorado Spruce	Large
Pinus banksiana*	Jack Pine	Medium
Pinus cembra	Swiss Stone Pine	Small
Picea omorika	Serbian Spruce	Large
Pinus ponderosa	Ponderosa Pine	Large
Pinus resinosa*	Red/Norway Pine	Large
Pinus strobus*	Eastern White Pine	Large
Pinus sylvestris	Scot's Pine	Medium
Thuja occidentalis	Northern White Cedar	Small-Medium
Tsuga canadensis	Hemlock	Medium

Shrubs (deciduous unless noted)

Scientific Name	Common Name	Size
Amelanchier alnifolia*	Serviceberry	Medium
Aronia melanocarpa*	Black Chokeberry	Small-Med
Cornus sericea *(aka stolonifera)	Red-twig Dogwood	Small-Med depending on varieties
Dirca palustris*	Leatherwood	Small
Diervilla lonicera*	Dwarf Bush Honeysuckle	Small

Forsythia species	'Meadowlark' and 'Northern	Medium-Large
	Gold'	
Hydrangea arborescens	Wild Hydrangea	Medium
Hydrangea paniculata	'P.G. Hydrangea'	Large
Hydrangea quercifolia	Oak Leaf Hydrangea	Medium-Large
llex verticillata*	Winterberry Holly	Medium
Juniperus communis*	Common Juniper	Small-Medium Evergreen
Kolkwitzia amabilis	Beauty Bush	Large
Kerria japonica	Japanese Kerria	Medium
Physocarpus opulifolius*	Common Ninebark	Large
Pinus mugo	Mugo Pine	Medium-Large Evergreen
Prunus tomentosa*	Nanking Cherry	Medium
Rhodotypos scandens	Jet Bead	Medium
Rhus glabra*	Smooth Sumac	Large
Rhus typhina*	Staghorn Sumac	Large
Salix discolor*	Pussy Willow	Medium-Large
Syringa patula	'Miss Kim' Lilac	Medium-Large
Syringa vulgaris*	Common Lilac	Large
Syringa x prestoniae	'James Macfarlane' and	Large
	'Nocturne'	
Syringa x meyerii	'Tinkerbelle'	Small-Medium
Viburnum lantana*	Wayfaring Tree	Large
Viburnum lentago*	Nannyberry Viburnum	Large
Viburnum trilobum*	American Cranberrybush	Large
Viburnum prunifolium*	Blackhaw Viburnum	Large
Viburnum opulus	European Cranberrybush	Medium-Large
Viburnum dentatum*	Arrowwood Viburnum	Medium

Woody Deciduous Vines

Scientific Name	Common Name Gro	owth Rate
Campsis radicans	Trumpet Vine	Fast
Celastrus scandens*	American Bittersweet	Moderate. Make sure you get
		American bittersweet, not
		Oriental Bittersweet which is very
		invasive.
Clematis virginiana	Virgins Bower Clematis	s Moderate-Fast
Humulus lupulus	Common Hop Vine	Fast-Moderate
Hydrangea anomala petiolaris	Climbing Hydrangea	Moderate to Fast
Lonicera x brownie	Dropmore Scarlet Hon	eysuckle Moderate
Parthenocissus inserta*	Woodbine	Fast
Vitis riparia	Riverbank Grape	Too Fastbe careful where you
		plant this very aggressive vine.
Wisteria frutescens	American Wisteria	Moderate to Fast

This plant list was prepared by Gary Johnson, Urban Forestry Outreach Research and Extension (UFore) Lab, University of Minnesota, Department of Forest Resources Johns054@umn.edu