

## Additions, Deletions and Modifications to Approved Species List in ND

<b>Site Specific Additionally Approved Species for Conservation Planting in North Dakota</b>					
<b>Species</b>	<b>Added to MLRA 55, 56</b>	<b>Added to MLRA 53, 54, 58</b>	<b>By variance request <u>only</u> in MLRA 55, 56</b>	<b>By variance request <u>only</u> in MLRA 53, 54, 58</b>	<b>Notes and Plant Characteristics</b>
Meyers Spruce <i>Picea meyeri</i>			WSG 1,3		Very slow growing, denser foliage than Colorado blue spruce. Limited availability. Native to outer Mongolia. Adapted to prairie precipitation patterns. Blue to blue green foliage. Soft needles. Slow growing (up to 10" per year) 30-40' max height.
Black Cherry <i>Prunus serotina</i>	WSG 1,3,4,4 C	WSG 1,3			Native to eastern US and the Midwest. Single stem tree. Does not sucker, but birds can spread seed. Could get 30-45' tall on the best sites in eastern ND. Fruit is less bitter than chokecherry. Similar fruit cluster. Lumber highly prized by cabinet makers, but unlikely to get of sufficient size in ND, except for a few eastern sites.
Pin Cherry <i>Prunus pensylvanica</i>			WSG 1,3,4,4C, 5	WSG 1,3,4,4C	Native to Northern US, Canada, and scattered pockets around ND. On the very best sites could grow tree like. On most sites will be multi-stem shrub. Can root sprout. Does not like high pH. Fruits are umbels as opposed to racemes on choke and black cherry.
American Black Currant <i>Ribes americanum</i>	WSG 1,3	WSG 1,3			Native across entire state. Can grow to 6' on best sites. Moderate spread from root suckers. Thornless. Fruit is valued for high vitamin C content.
Ninebark <i>Physocarpus opulifolius</i>			WSG 1,3,5	WSG 1,3,5	Short statured, multi-stemmed shrub native to the eastern 2/3 of the US. 6-10' tall. Does not spread by suckering. Prefers moist sites with adequate rainfall. Prefers acidic to neutral soils. Red fall leaf color. Large clusters of red fruit. Has proven very tough in urban settings.
Wayfaring bush <i>Viburnum lantana</i>			WSG 1,3,4,4C		Native to Europe and western Asia. Multi-stemmed shrub growing 8-12 feet. Fruit is in clusters changing from red to black with maturity. Fruit persists into winter, providing food source to birds. Does not spread from root suckers on most sites. Usually, does not have the leaf problems of nannyberry.

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Wafer Ash (Hop Tree) <i>Ptelea trifoliata</i>			WSG 1,3,4,4C, 5		Native to MN and most of US south and east of ND. Single stem. Heights to 20'. No root sprouts. Prefers upland sites. Aromatic (stinky) flowers are attractive to giant swallowtail butterflies. Occasional dieback. Can suffer from drought stress
Ironwood <i>Ostrya virginiana</i>			WSG 1,3,4,4C		Small, slow growing tree native to eastern ND. Found along streams. Up to 25' tall. Native. Difficult to propagate in nurseries. Seed sources can be an issue. Currently no stock available, but LON willing to try.
Winterberry Euonymous <i>Euonymous bungeanus</i>			WSG 1,3,5	WSG 1,3,5	Native to China and Manchuria. Large rounded shrub up to 10' tall. Showy pink seed capsules. Does not sucker. Some literature hints that the plant may be invasive in some areas. Be sure to use seed sources selected by Dale Herman as those are the hardiest. To date, little browse damage.
Gray Dogwood <i>Cornus racemosa</i>	WSG 1,3				Native to ND and much of upper Midwest. Shade tolerant. 6-10' tall. Often forms dense thickets in open. Less dense and taller in shade. Native to ND but slower growing than redtwig.
Silky Dogwood <i>Cornus obliqua</i>	WSG 1,2,2H, 3,4,4C				Native to MN, MI, and points east and south. Characteristics and site requirements are very similar to redosier. An entirely separate species from redosier, though they look similar.
Ohio Buckeye <i>Aesculus glabra</i>	WSG 1,3,4,4 C				Native to eastern MN, NE and points south and east. Medium sized tree up to 40' tall on better sites. Palmate shaped leaves. Generally shows little damage from deer browsing. May be affected by leaf scorch.
Pekin Lilac <i>Syringa pekinensis</i>	WSG 1,1K, 3 4,4C,5, 6,6G,8	WSG 1,1K 3,4,4C, 5			Native to northern China. Tall shrub or short tree. Multi-stemmed and non-suckering. 18-24' tall. Has been around for decades. Looks good in many locations, even with no maintenance.
American Hazel <i>Corylus americana</i>	WSG 1,3				Native to ND. Thicket forming shrub 3-10' tall. Grows best on moist rich soils. Shade tolerant. Its shading and aggressive growth restricts establishment and vigor of other trees. Resistant to most diseases.

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<b>Species Evaluated But Not Yet Suitable for Conservation Plantings</b>	
Lodgepole Pine <i>Pinus contorta</i>	Naturally occurring across much of the western US. Seed sources have a big impact on the success of Great Plains plantings. Not ready yet. Will continue PMC trials. Will work with Towner Nursery to evaluate success of plants sold by nursery.
Jack Pine <i>Pinus banksiana</i>	Similar growth form to lodgepole. Native to US and Canada in the Great Lakes area. Not enough data to determine suitability. Has performed poorly in previous testing. Foresters will work with Towner Nursery to evaluate success of plants sold by nursery.
Swamp White Oak <i>Quercus bicolor</i>	Used in a few communities. No evidence that it would work in a conservation planting.
Kentucky Coffee Tree <i>Gymnocladus dioicus</i>	No evidence that it would work in a conservation planting. Tall leguminous tree with doubly pinnate compound leaf.
Paper Birch <i>Betula papyrifera</i>	No evidence that it would work in a conservation planting. (Require high organic matter, good internal soil drainage, moisture.)
Gray Birch <i>Betula populifolia</i>	No evidence that it would work in a conservation planting. (Require high organic matter, good internal soil drainage.)
River Birch <i>Betula occidentalis</i>	No evidence that it would work in a conservation planting. (Require high organic matter, good internal soil drainage.)
Silverscape® <i>Eleagnus x 'Silverscape'</i>	Expensive, conservation grade not available. Patented.
Amur Cork Tree <i>Phellodendron amurense</i>	Still being evaluated in some locations. Has the potential to become invasive in forested locations based on eastern US experience.
Missouri Gooseberry <i>Ribes missouriense</i>	Native to central Midwestern US. Very difficult to handle.
Speckled Alder <i>Alnus incana</i>	May be added to PMC test plots. Requires soils similar to birch, therefore only a few sites suitable in ND.
Elderberry <i>Sambucus Canadensis</i>	Serious invasive risk. No future plans for this.
Tatarian Honeysuckle <i>Lonicera tatarica</i>	Currently in the tech guide. Considered invasive in some states. Susceptible to honeysuckle aphid damage. Easily spread by birds and mammals.
Douglas Fir <i>Pseudotsuga menziesii</i>	Currently not able to propagate a saleable seedling. Very widely planted. Towner Nursery will check provenance studies and seed sources that might affect success, track down seed sources from Denbigh planting and check Hal Hunter's studies in Bozeman.

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<b>Approved Species    Some are under-used,    Some are over-used.</b>	
<p>Black Chokeberry <i>Aronia melanocarpa</i></p>	<p>In the FOTG. Native to Minnesota and points east. 'McKenzie' released by PMC. 3-6' multi-stem shrub. Some root sprouts. Red fall leaf color. Fruit persists into winter. Dark blue/purple fruit. <a href="#">Need to promote this plant more.</a></p>
<p>McDermond (Harbin) Pear <i>Pyrus ussuriensis</i></p>	<p>'McDermond' Native to China. 'McDermond' developed and released by Bismarck Plant Materials Center. Fairly resistant to fire blight. Tolerates wide range of soils. Showy white flowers. 25 to 40' tall. <a href="#">Potentially good replacement for green ash.</a> Fairly resistant to fire blight.</p>
<p>Siberian Larch <i>Larix sibirica</i></p>	<p>Native to northern Europe and Asia. About 30' tall at maturity. Deciduous conifer. Wood is very rot resistant. <a href="#">Very effective for conservation planting.</a> Fall planting appears to be more successful than spring planting but few districts ready to plant in fall. Proper stock handling is essential for success.</p>
<p>White Poplar <i>Populus alba</i></p>	<p>Native to central Europe and Asia. 35-50' tall on good sites. Glossy green leaf top with white underneath. Grows fast. Can send up many root sprouts, especially in wetter climates and if roots are damaged. <a href="#">Appears to do better in the western part of ND.</a> Need to find sites with established species and study health, vigor soil and water relationship at each tree.</p>
<p>Green Ash <i>Fraxinus pennsylvanica</i></p>	<p>Native to ND. Easy to establish. Resilient. Used extensively (perhaps too often) in conservation and urban plantings. At serious risk from Emerald Ash Borer (EAB). Still able to be planted, but DIVERSIFY. Ensure that landowners are aware of EAB risk.</p>

<b>Species Restricted or Removed from Tech Guide</b>	
<p>Quaking Aspen <i>Populus tremuloides</i></p>	<p>Native. FOTG changed to show only on WSG 1 soils. Not suited for windbreaks but rather riparian or block plantings on very specific sites. (Require high organic matter, good internal soil drainage.)</p>
<p>Amur Honeysuckle <i>Lonicera maackii</i></p>	<p>Serious invasive risk. Removed from the FOTG.</p>
<p>Manchurian Ash <i>Fraxinus mandshurica</i></p>	<p>Removed from the FOTG. Disease and insect issues. Low availability. Little used.</p>
<p>Black Ash <i>Fraxinus nigra</i></p>	<p>Removed from the FOTG. Disease and insect issues. Low availability. Little used.</p>
<p>Russian Olive <i>Ealeagnus angustifolia</i></p>	<p>Has spread offsite in many locations in ND. As per State Tech Committee recommendations, Russian olive has been restricted to WSG 6D,6G,7,8,9C,9L,9W soils only.</p>