

EXTENSION SERVICE
NORTH DAKOTA STATE UNIVERSITY
OF AGRICULTURE AND APPLIED SCIENCE

EVERGREENS with their various shades of green add year-round color to the landscape and the home. Many kinds can be and are grown in North Dakota but only five are native. They are ponderosa and limber pine, Rocky Mountain, bush and creeping juniper.

Five different groups of evergreens are used for planting in the state. The groups are easily identified.

- Pines Leaves are needle-like, in clusters of 2 to 5 leaves.
- Spruces Leaves are needle-like, each leaf individually attached to the stem. These leaves are quite stiff and generally shorter than those of pine.
- Arborvitae (Northern white cedar) Leaves are scale-like, flat and round edged. The fruiting body is a cone.
- Junipers (commonly called Redcedars) Leaves are scale-like, and sharp pointed. One variety, the bush juniper, has awl-like leaves, borne in whorls of 3. The fruit is a berry, green at first, bluish-black when ripe.
- Larch This is the only evergreen that loses its leaves in the fall.
 Leaves can be either in clumps of 10 or more or singly.

THE PINES

Ponderosa pine - (Pinus ponderosa) Native to southeastern North Dakota. Used extensively in shelterbelt, wildlife and ornamental plantings. It grows rapidly after the first few years following planting. Cottonwood, willow and perhaps Siberian elm are the only trees exceeding it in growth rate. It can be recognized by its long needles (up to 8 inches) in clusters of 2 and 3 and its cones have the scales tipped with sharp thorns. The buds are tan in color.



Pine

Austrian pine - (Pinus nigra) Introduced from Europe. A 2-needle pine that resembles Ponderosa pine, except its buds are white in color. The few found in North Dakota appear hardy; however, Austrian pine should be considered for trial only.

Scotch pine - (Pinus sylvestris) Is a short needled pine from Europe. The needles are 1-1/2 to 3 inches long and 2 in a cluster. Cones are small and the scale tips are stubby. Bark on the upper trunk of larger trees is orange in color, and flaky. Ornamentally, its use is limited, but it is number 1 as a plantation Christmas tree.

Jack pine — (Pinus banksiana) Is native to Minnesota and points east. There are two short, twisted, curved needles, 1 to 1-1/2 inches long, to a cluster. Knobby, curved cones about 2 inches long hang on the tree for years. It does well on sandy soils having a high water table. Some windbreaks in Oliver county have excellent Jack pine plantings. It is one of the least attractive pines.

Mugho pine - (Pinus mugho) A shrubby species rarely exceeding 15 feet in height that may have possibilities as a low windbreak evergreen. The species is seldom seen but the variety, <u>Pinus mugho compacta</u>, a low dense shrub usually less than 3 feet in height, is a choice evergreen for the foundation planting. Needles are 2 to 3 inches in length.

Limber pine - (Pinus flexilis) A 5-needle pine with needles 2 to 3 inches in length. It is native to a small area in northwestern Slope county and has not been generally planted over the state. Although this is a member of a group known as "white pine", it is not to be confused with the White pine (P. strobus) native to Minnesota. The latter with slender, very flexible needles is not recommended for North Dakota.

THE SPRUCES

Blue spruce, Colorado spruce - (Picea pungens) Native to the Rocky Mountains. It is used extensively in shelterbelt, wildlife and ornamental plantings. Color varies from green to bright silvery-blue. Needles are 3/4 to 1-1/4 inch in length.

Because of its large size at maturity, it should not be planted in foundation plantings. It is excellent as a background tree, or as used in specimen clumps.

Black Hills spruce - (Picea glauca densata) A fast growing tree native to the Black Hills of South Dakota and is a compact variety of white spruce which occurs from Alaska across Canada through Minnesota to the east coast.

In North Dakota it grows to a height of 40 feet and is used extensively in shelterbelt, wildlife and ornamental plantings. It has no place in foundation plantings because of its size. Although it grows statewide, it does best



Blue spruce



in the valley areas having a sandy loam soil and high water table. Generally Black Hills spruce and Blue spruce are used in the same ways.

White spruce can be differentiated from Colorado spruce in that its needles are soft, blunt and only up to 3/4 inch long.

Norway spruce — (Picea excelsa) Native of Europe but widely planted over the northern 2/3 of the United States, except for the high plains section. Only a few trees can be seen in North Dakota although some of these are of good size. Older trees can be recognized by the numerous long slender branchlets that grow as if suspended from the main branches. Needles are 1/2 to 3/4 inch in length and cones are 4 to 7 inches long.

THE JUNIPERS (Redcedars)

Rocky Mountain juniper - (Juniperus scopulorum) A medium sized tree, native to the southwestern North Dakota. Under favorable conditions, it grows to a height of 20 feet. Used extensively in shelterbelts, wildlife and ornamental plantings. Foliage is green throughout the year. Berries take 2 years to mature.

There are several excellent landscaping varieties that can be used in foundation plantings, where they are generally restricted in growth to keep them 5 to 8 feet in height. Some of the better varieties include:

Moffeti — A bluish variety of reasonably compact growth.

Pathfinder — Blue, green and exceptionally slender.

Welchi — Very blue, more compact than Moffeti but less
slender than Pathfinder.



Redcedar

Eastern redcedar — (Juniperus virginiana) Not native to North Dakota but is used very extensively in shelterbelt, wildlife and ornamental plantings. It resembles Rocky Mountain juniper in appearance. It grows about 30 feet tall, its foliage turns a rusty red color in the fall and remains so over winter. Berries are ripened in one year. Branching is generally somewhat less dense than in the Rocky Mountain juniper resulting in a tree of more irregular outline; less usable as shrub substitutes than the above juniper varieties.

Some of the horticultural varieties available are:

- Hills Dundee A reasonably compact variety with a distinctly purplish, winter color.
- Silver redcedar An exceptionally silver-blue variety, irregular in outline except when sheared.
- Canaerti A rich green variety that without training may develop a very irregular shape.

Bush juniper - (Juniperus communis depressa) Low, prickly native of southwest North Dakota with needle-like leaves in whorls of three. Usually not above 18 inches high, but on river bottom land may exceed 3 feet with 10-foot crown spread. Exceptionally shade tolerant. Occasionally used ornamentally in foundation plantings and generally best grown in partial shade.

Creeping or Prostrate juniper — (Juniperus horizontalis) Rarely over 6 inches in height, is classified as "ground hugging". It forms an attractive blanket on many exposed buttes in southwest counties and is native to southeastern Cavalier county. The soft, scale-like foliage is green to blue-green, and turns purpoish brance in winter. An ornamental commercial variety is Andorra juniper (Juniperus norizontalis var. plumosa), used as a ground cover or in foundation plantings. May attain a height of 12 inches.

Pfitzer juniper - (Juniperus chinensis pfitzeriana) A spreading, shrub-like juniper of irregular outline. Although it may rarely grow to 5 feet in height, it is generally seen at heights of less than 3 feet. Used only as an ornamental, it is generally used in foundation plantings or in mass plantings. Branches tend to form nearly horizontal layers. Produces no berries.

Golden juniper - (Juniperus chinensis pfitzerian aurea). Similar to the above but with distinctly golden tips giving the actively growing plant a yellowish cast. Not generally popular.

Savin juniper - (Juniperus sabina) Similar in size to Pfitzer juniper but generally darker green and with upright arching branches. Older specimens may produce berries. Although this and Pfitzer juniper are used in the same ways in landscape plantings, they should not be indiscriminately mixed.

ARBORVITAE

Northern White cedar - (Thuya occidentalis) Has two distinct types - pyramidal and globe - that are used ornamentally. Both do well in partial shade. They require more moisture than other evergreens. The branch tips and leaves are flat with round-edged scales; branchlets give the appearance of having been pressed. They give off a tansy-like odor.



White cedar

THE LARCHES

Larch or Tamarack - (Larix species) The only conifer growing in the northern states that drops its needles in the fall. Several varieties are promising as landscape trees although lacking the evergreen advantage. All varieties prefer extra moisture, especially in dry seasons.

Siberian Larch - (Larix sibirica) A native of Asia, and deserves widespread trials.

European Larch - (Laric decidua) A European variety hardy throughout eastern North Dakota.

Eastern Larch - (Larix larcina) Native to western Minnesota and points east. Hardy to low temperatures, but high moisture requirements limit its use to eastern North Dakota.



Larch



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