



## PONDEROSA PINE

*Pinus ponderosa var. scopulorum*

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### **Native Range**

Ponderosa pine, or western yellow pine, is native west of the western fringes of the Great Plains. It is not native in Kansas.

### **Mature Size**

It is the toughest pine introduced to Kansas with the greatest drought and alkaline tolerance. In Kansas, ponderosa pine reaches a height of 40 to 50 feet and a spread of 20 to 25 feet.

### **Growth Rate**

Its growth rate is usually 12 to 24 inches per year.

### **Leaves, Stems and Fruit**

It is an upright, somewhat pyramidal and open tree with dark or yellowish green foliage. The needles are stiff, 5 to 11 inches long and in groups of 2 or three on the same tree. Needles persist about 3 years. Flowers are inconspicuous. The fruit is a 3 to 6 inch long cone. The cone scales terminate with a stout recurved prickle. Bark and young stems have a vanilla odor when bruised. On young trees the bark is nearly black and deeply furrowed. Older (trunk larger than about 18 inches) tree bark becomes yellowish-brown to orange-yellow and has a plate-like appearance.

### **Use**

#### Windbreaks

It may be used in windward or central rows of windbreaks or living snow fences, and will also perform well as a single row windbreak.

#### Wildlife Habitat

Ponderosa pine provides some nesting, loafing and roosting cover for a variety of birds, and offers winter protection for many wildlife species.

### **Adaptation**

Statewide.

### **Soil**

Ponderosa pine grows on a variety of soils and is somewhat more tolerant of droughty and alkaline soils than other pines. It is intolerant of wet soils.

**Spacing**

Ponderosa pines are spaced 8 to 12 feet within a row and 12 to 18 feet between rows.

**Culture**

Two-year-old, bare-root and container grown seedlings are used in plantings. Both bare-root and container grown seedlings are 8 to 12 inches tall. Typically the seedlings grow very little in height until the third year. During this establishment period, supplemental watering and control of competing vegetation will aid survival and early growth. Large, fast growing deciduous trees should be spaced far enough (20 to 24 feet) between rows to prevent shading the pines.

**Pests**

Nantucket pine tip moth is a serious pest to most sources of ponderosa pine in their early years. Selected seed sources, however, have proven to be tolerant of this pest. Trees grown from seed collected from north central Nebraska or south central South Dakota may be attacked by tip moth, but continue to develop at a rapid rate and eventually become resistant. Ponderosa pines offered through the Conservation Tree Planting Program are grown only from seed collected from these sources. This tough tree should be planted more extensively. Tip moth should not be considered a major pest.

Other insect pests include spider mites, pine needle scales and grasshoppers. Common diseases include Sphaeropsis tip blight, Dothistroma needle blight and brown spot. Although often infected by various pests, ponderosa pine tends to tolerate them better than most pines. Pine seedlings may be injured or killed by rabbits.