

CARAGANA (*Caragana arborescens*)

Description: Caragana, also known as Siberian peashrub, is a member of the Fabaceae or pea family. Caragana is a rapid-growing shrub or small tree that can reach 15 to 20 feet in height with a spread of 12 to 18 feet. The bark is smooth with prominent lenticels, green to grayish-brown in color, and somewhat shiny. Leaves are alternate or fascicled, evenly pinnate, petiolate, stipules spiny, and 1 1/2 to 3 inches long. Leaves are composed of 8 to 12 leaflets that are bright green in color, obovate to ellipticoblong shaped, 1/2 to 1 inch long, rounded at the apex, mucronate pubescent when young, and glabrescent as the tree matures. Twigs are green to grayish-brown, armed with weak paired spines at each node, angled to grooved, with buds that are grayish-brown and 1/4 inch long. Flowers are bright yellow in color, single or in clusters, and about 1/2 to 1 inch long. Fruit of the tree is a cylindrical pencil-shaped narrow pod that is 1 1/2 to 2 inches long, yellowish-green to brown in color, with 3 to 5 seeds. Seeds are dark brown, smooth, 1/8 to 1/4 of an inch in length, and 1/8 of an inch wide.



Caragana

Plant Images:



Leaves



Flowers



Fruit

Distribution and Habitat: Caragana is now generally located throughout the north-central part of the United States. The tree occurs on most well drained soils and is able to adapt to poor site conditions. Caragana is tolerant of infertile soils, alkaline soils, de-icing salt, cold winter temperatures, drought conditions and some shade. This species can invade savannas, the edge of woodland environments, disturbed grasslands and waste areas.

Life History/Ecology: Caragana is a medium- to fast-growing tree that can germinate readily through seed production. Seedlings generally germinate after two to three weeks at 68° F. The tree flowers in early to mid-May on previous year's wood, when the leaves are two-thirds to fully developed. Fruits mature from July to August and produce a popping sound as the pod opens. Three to five seeds are disseminated per pod.

History of Introduction: Caragana is native to Siberia and Mongolia and was introduced into the United States during the mid-1700s as an ornamental. The tree has been used in the United States as a single row field shelterbelt for borders, flowering hedges, and as a screen for plantings. Caragana was also recommended as a nitrogen-fixing windbreak species that aids in ground cover and soil stabilization. In North Dakota, Caragana was widely planted in windbreaks. The distribution of invasive populations of the species has yet to be determined.

Effects of Invasion: Caragana can out-compete native shrubs and vegetation for moisture and soil nutrients in savannas and woodland edge environments. The plant can also establish well on disturbed grasslands.

Control: Management objectives for Caragana control include early detection and rapid response once populations are detected. Large, mature stands of Caragana are almost impossible to completely eradicate, but small populations of the species can be adequately controlled. Caragana reproduces by seed production; therefore, control measures that reduce seed production or dispersal should be implemented. Infestations should be monitored for several years to prevent re-establishment.

Mechanical - Hand pulling can be an effective control method for small seedlings. Mowing or cutting in early and late June for several years can reduce stem heights and infestations. Prescribed burning can be variable. After repeated prescribed burns, the stump of the tree may resprout but will eventually become weakened.

Chemical - Glyphosate and triclopyr can be effective in controlling Caragana. Cut-stump methods can be effective if the trunk is cut as close to the ground as possible and herbicides are immediately applied to the cut surface of the tree. A basal bark spray treatment may also be successful.

Contact your local county extension agent for recommended use rates, locations, and timing.

Biological - No biological control agents are available for Caragana control, but the tree is susceptible to stem decay, branch cankers, and Septoria leaf spot. Blister beetles are also commonly found on the tree in mid- to late-summer.

References:

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Caragana and pod-shaped fruit photographs courtesy of Judy Sedbrook, CSU/Denver County Cooperative Extension Master Gardener.

Leaves and flowers photographs courtesy of J. C. Schou, Biopix.dk