

Caragana or Siberian Peashrub



Caragana or Siberian Peashrub (*Caragana arborescens*)

General Description

Drought tolerant legume, long-lived, alkaline-tolerant, tall shrub native to Siberia. Ability to withstand extreme cold and dryness. Major windbreak species.

Leaves and Buds

Bud Arrangement - Alternate.

Bud Color - Light brown, chaffy in nature.

Bud Size - 1/8 inch, weakly imbricate.

Leaf Type and Shape - Pinnately-compound, 8 to 12 leaflets per leaf.

Leaf Margins - Entire.

Leaf Surface - Pubescent in early spring, later glabrescent.

Leaf Length - 1½ to 3 inches; leaflets 1/2 to 1 inch.

Leaf Width - 1 to 2 inches; leaflets 1/3 to 2/3 inch.

Leaf Color - Light-green, become dark green in summer; yellow fall color.

Flowers and Fruits

Flower Type - Small, pea-like.

Flower Color - Showy yellow in spring.

Fruit Type - Pod, with multiple seeds. Pods open with a popping sound when ripe.

Fruit Color - Brown when mature.

Form

Growth Habit - Erect, oval shrub with sparse branches.

Texture - Medium-fine, summer; medium-coarse, winter.

Crown Height - 6 to 14 feet.

Crown Width - 6 to 12 feet.

Bark Color - Olive-green in color, angled from the nodes, with pale, horizontal lenticels.

Root System - Dense, spreading.

Environmental Requirements

Soils

Soil Texture - Adapted to a wide range of soils.

Soil pH - 5.0 to 8.0.

Windbreak Suitability Group - 1, 1K, 3, 4, 4C, 5, 6D, 6G, 8, 9C, 9L.

Cold Hardiness

USDA Zone 2.

Water

Drought tolerant. Does not perform well on very wet or very dry sandy soils.

Light

Full sun.

Uses

Conservation/Windbreaks

Medium to tall shrub for farmstead and field windbreaks and highway beautification.

Wildlife

Used for nesting by several species of songbirds. Food source for hummingbirds.

Agroforestry Products

No known products.

Urban/Recreational

Screening and border, ornamental flowers in spring.

Cultivated Varieties

Dwarf Siberian Peashrub (*Caragana arborescens* 'Nana')

Sutherland Peashrub (*C. arborescens* 'Sutherland') - Narrowly-upright in form.

Walker Peashrub (*C. arborescens* 'Walker') - Extremely fine-textured.

Weeping Siberian Peashrub (*C. arborescens* 'Pendula')

Related Species

Pygmy Peashrub (*Caragana pygmaea*)

Russian Peashrub (*C. frutex*)

Pests

Common diseases include stem decay, Septoria leaf spot and branch cankers. Common insect pests include blister beetles in mid to late summer.

SIBERIAN PEASHRUB

Caragana arborescens Lam.

Plant Symbol = CAAR18

Contributed By: USDA NRCS National Plant Data Center



Conservation Trees & Shrubs for Montana
USDA, NRCS, Montana State Office

Alternative Names

Ross caragana, Siberian pea tree, pea-tree

Uses

Medicinal: The plant is used for cancer of the breast, the orifice to the womb, and other gynecological problems (Kiangsu 1977).

Wildlife: During World War II, the Siberian peasants reportedly carried their chicken flocks through the winter by feeding them *Caragana arborescens* seeds (Snell 1983). The seeds serve as valuable food for wild life. It also provides cover for upland game.

Agroforestry: *Caragana arborescens* has been recommended as a nitrogen-fixing windbreaker and groundcover plant that binds the soil and produce fiber and dye. It is often used as a single row field shelterbelt for borders, screen plantings, or flowering hedges.

Other uses: Some ethnic groups have used young pods for vegetables. The bark provides a fiber and the leaves yield an azure dye. The wood is used for woodturning.

Status

Introduced into the U.S. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

Description

General: Pea Family (Fabaceae). Siberian peashrub is an introduced, deciduous shrub or small tree ranging between ten to fifteen feet tall. The leaves are alternate, three to five inches long, with each leaf composed of eight to twelve oval leaflets. The flowers are yellow and appear early in the season forming pods in late June or early July. As the pods ripen, they crack and burst, spreading the seeds. The young bark is smooth and olive green and becomes less vivid in color as the bark ages.

Distribution: Siberian peashrub is native to Siberia and Manchuria. In the United States, its growth is stunted south of Nebraska. For current distribution, please consult the Plant profile page for this species on the PLANTS Web site.

Adaptation

Siberian peashrub succeeds in most well drained soils. It prefers full sun but can tolerate some shade. This species is very tolerant of infertile soils, cold winter temperatures, and drought conditions. It tolerates alkaline soils and deicing salt. This plant's chief value is its ability to adapt to poor sites. It also requires little maintenance.

Establishment

Propagation by Seed: Seed is best sown as soon as it is ripe in a cold frame. Stored seeds should be pre-soaked twenty-four hours in warm water and then sown in a cold frame. If the seeds do not swell, then stratify them and re-soak for another twelve hours before sowing. Germination should occur in two to three weeks at 20°C. Certain pesticides can increase germination possibly by inhibiting disease.

Propagation by cuttings: Layering should be done in the spring. Cuttings should consist of half ripe wood, three to four inches with a heel, and should be done between July and August. Grafting the cultivars,

Plant Materials <<http://plant-materials.nrcs.usda.gov/>>

Plant Fact Sheet/Guide Coordination Page <<http://plant-materials.nrcs.usda.gov/intranet/pfs.html>>

National Plant Data Center <<http://npdc.usda.gov>>

especially 'Pendula', 'Lorbergii', and 'Walker', are top worked at four to six inches height on Caragana arborescens seedlings (Dirr & Heuser 1987). *Root cuttings, layering or grafting can also propagate Caragana arborescens.*

Management

General: Siberian peashrub is susceptible to leaf spot diseases, red spider mites, blister beetles, grasshoppers, and aphids, which leads to poor foliage quality in mid to late summer.

Cultivars, Improved and Selected Materials (and area of origin)

'Sutherland', 'Lorbergii', 'Pendula', 'Walker', and 'Nana' are cultivars of Siberian peashrub. 'Sutherland' has a narrow, upright form. 'Lorbergii' has a graceful form with fine textured leaves. 'Pendula' has a stiffly weeping form with arching branches. 'Walker' is much like 'Lorbergii' in leaf character but strongly weeping (Dirr 1990). 'Nana' has a dwarf form with somewhat contorted branches.

Consult your local nurseries to choose the right cultivar for your specific landscape. Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

References

Agriculture Handbook. 450. 1974. *Seeds of woody plants in the U.S.* Forest Service, USDA. Washington DC.

Bruggen, T.V. 1976. *The vascular plants of South Dakota.* The Iowa State University Press, Ames, Iowa.

Bush-Brown, J. 1963. *Shrubs and trees for the home landscape.* Chilton Company, Philadelphia, Pennsylvania.

Great Plains Flora Association. 1986. *Flora of the Great Plains.* University Press of Kansas, Lawrence, Kansas.

Dirr, M.A. 1990. *Manual of woody landscape plants: their identification, ornamental characteristics, culture, propagation, and uses.* 4th ed. Stipes Publishing Company, Champaign, Illinois.

Dirr, M.A. & C.W. Heuser, Jr. 1987. *The reference manual of woody plant propagation: from seed to tissue culture.* Varsity Press, Athens, Georgia.

Kiangsu-Institute of Modern Medicine. 1977. *Encyclopedia of Chinese drugs.* 2 vols. Shanghai, China.

Preston, R.J. Jr. 1948. *North American trees.* 2nd ed. The Iowa State College Press, Ames, Iowa.

Rosendahl, C.O. 1955. *Trees and shrubs of the upper Midwest.* University of Minnesota Press, Minneapolis, Minnesota.

Rehder, A. 1940. *Manual of cultivated trees and shrubs: hardy in North America.* 2nd ed. The Macmillan Company, New York, New York.

Snell, T. 1983. Caragana: *The pea shrubs.* In: The International Permaculture Seed Yearbook. Orange, Massachusetts.

Taylor, N. 1965. *The guide to garden shrubs and trees.* Houghton Mifflin Company, Boston Massachusetts.

USDA, NRCS 2000. *Conservation trees and shrubs for Montana.* Custer County Soil Conservation District. Accessed: 11jan02.
<<http://www.mt.nrcs.usda.gov/pas/forestry/caragana.html>>

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