

'Regal' Russian Almond

Prunus tenella

A Conservation Plant Release by USDA NRCS Plant Materials Center, Bismarck, North Dakota



'Regal' Russian almond (*Prunus tenella* Batsch.) is a seed propagated cultivar cooperatively released in 1997 by the USDA, Natural Resources Conservation Service (NRCS) and the State Agricultural Experiment Stations of North Dakota, South Dakota and Minnesota.

Description

Russian almond, also known as dwarf almond, is a densely suckering shrub which may reach a height of 6 feet (180 cm). It is an upright shrub with smooth twigs and lustrous green, narrow leaves which are 1½ to 2¾ inches in length. The leaves are simple and have a saw-toothed margin. The pink flowers are grouped in one to three blossoms, about ¾ inch across, and appear in early May at Bismarck, ND. The fruit is an ovoid nut with a hard, hairy shell, which usually ripens by the end of August. An average to good seed crop can be expected each year. Russian almond survives in Plant Hardiness Zone 2.

Source

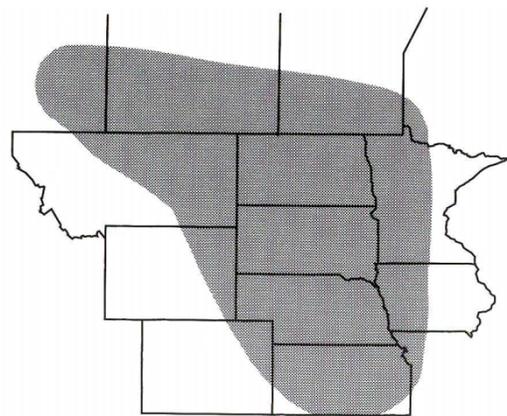
Russian almond's native range extends from the steppes of eastern Europe eastward to Mongolia. Originating from plants obtained from North Dakota Game and Fish Department, Regal was tested as accession ND-283 (PI 540442). These were most likely grown from seed collected in the early 1950's from the Agriculture Canada, Research Station, Morden, Manitoba, Canada. Since that time, Russian almond has been raised by conservation nurseries in the Northern Great Plains.

Conservation Uses

Regal Russian almond is recommended for use in multi-row farmstead and field windbreaks, wildlife habitat, and plantings associated with revegetation of transportation and transmission corridors and recreation development.

Area of Adaptation and Use

The USDA Natural Resources Conservation Service has evaluated the adaptation and performance of Regal Russian almond at their Plant Materials Centers at Bismarck, ND; Bridger, MT; Manhattan, KS; East Lansing, MI and Quicksand, KY. Forty-five field evaluation plantings in actual use situations were conducted cooperatively with state and federal agencies and district cooperators. Regal has performed well on most soil types including loam, silt loam, and silty clay loam (NRCS Conservation Tree and Shrub Group 1,3,4). It does especially well on heavy clay soils compared to other shrubs. It will perform satisfactorily on sandy loam soils (NRCS Conservation Tree and Shrub Group 5); however, annual growth and vigor will be reduced. A weed free environment will ensure good survival and growth. The results of these studies and others conducted in adjacent states indicate that Regal is adapted to North Dakota, South Dakota, Montana, Wyoming, Minnesota, Nebraska and Kansas. The map below shows the projected area of adaptation. However, Regal is not adapted to areas of high rainfall and humidity. These conditions will result in a lack of vigor, which will make the seedlings susceptible to foliar and stem diseases such as black knot *Apiosporina orbosa*.





Establishment and Management for Conservation Plantings

Eliminate all competing vegetation by cultivating the planting site and keeping it fallow for at least one year prior to planting. Plant seedlings in the spring as soon as the ground thaws and soil moisture is high. The recommended within-the-row spacing is 3 to 4 feet. Weeds should be controlled for 4 to 5 years. Once suckering has started, chemical weed control would be preferred. The plants will eventually form a solid row. Irrigation may be needed to ensure early survival on drier sites. Plant width will generally exceed plant height in about 10 years, due to aggressive suckering habit. Regal is long-lived and may live 15 years or more. Late winter coppicing (removal of all top growth leaving 2 to 4-inch stumps) can rejuvenate older, broken down plantings. Plants will grow back to half the mature height during the first growing season.



Seed and Plant Production

Regal is propagated by seed. The mature fruit can be collected from late August to early September. As the husks of the fruit mature and dry, the seed drops to the ground. These husks can be removed by wet maceration, and then dried. Three pounds of fruit will yield a pound of clean seed, with an average of 600 seeds per pound. The seed requires a minimum of 90 days cold stratification to overcome seed dormancy. Untreated seed should be planted in early fall (September), or stratified seed may be planted in the spring. If spring planted, the seed should be stratified in damp sand or peat moss for 90 days at 35-40 degrees F. Germination of 90 percent can be obtained using this treatment. The stratified seed should be planted as early as possible, at a rate of 15 to 20 seeds per linear foot, and covered by 1/2 to 1 inch of soil. Two-year-old seedlings can be field planted. Field planting stock should have a height of 1 to 2 feet and a caliper of 3/16 to 1/2 inch at 1 inch above the root collar.

Availability

For conservation use: Regal Russian almond seedlings are available from conservation nurseries in the Upper Midwest. For more information on availability and use of Regal Russian almond, contact your local NRCS field office or Bismarck Plant Materials Center.

For seed or plant increase: For the purpose of establishing a seed orchard, limited quantities of seed may be available from the NRCS Plant Materials Center.

For more information, contact:
USDA-NRCS Plant Materials Center
3308 University Drive
Bismarck, ND 58504
Phone: (701) 250-4330
Fax: (701) 250-4334
<http://Plant-Materials.nrcs.usda.gov>

Citation

Release brochure for Regal Russian almond (*Prunus tenella*). USDA Natural Resources Conservation Service, Plant Materials Center. Bismarck, North Dakota 58504. Published August 1997, revised June 2013.

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>

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