United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

'Centennial' cotoneaster

Cotoneaster integerrima

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

'Centennial ' cotoneaster, *Cotoneaster integerrimus* Medik, is a large shrub native to Europe, western Asia, and Siberia. Centennial was released in 1987 by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) in cooperation with the State Agriculture Experiment Stations of North Dakota, South Dakota,and Minnesota; and the North Dakota and South Dakota Associations of Soil Conservation Districts.

Description

Centennial cotoneaster grows to a mature height of 8 to 12 feet in 15 years. Crown width is 12 to 15 feet. This shrub is larger with more open branching than hedge cotoneaster, *Cotoneaster fucida*. The underside of its dark, blue-green leaves is whitish to light gray. The leaves of the Centennial plant are lustrous, although not as glossy as the leaves of the hedge cotoneaster. The large quantities of bright rosey-red berries mature in early August and contrast strikingly with the deep-colored foliage. Centennial is less susceptible to the bacterial disease fireblight, which is fatal to Peking and hedge cotoneaster. Observations at test locations have shown slight symptoms of the disease, but they were not severe enough to weaken the plant. Its height and form make it a good alternative to red tatarian honeysuckle, often infested with honeysuckle aphid and caragana which is often defoliated by blister beetle.

Source

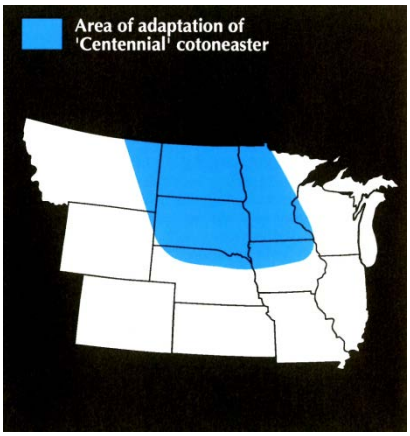
Centennial originated in 1957 as seed from the Agricultural Experiment Station, Cheyenne, Wyoming. An import from China, it was received by the station as PI-113095. The Soil Conservation Service has evaluated the adaptation and performance of Centennial at the Plant Materials Center at Bismarck, North Dakota, and has evaluated other plantings in cooperation with State and Federal agencies in North Dakota, South Dakota, and Minnesota.

Conservation Uses

It is recommended for use in multiple-row farmstead and single-row field windbreaks, wildlife habitat, recreational development, and plantings along transportation and transmission corridors. The abundant fruit of Centennial provides an excellent source of food for many species of wildlife.

Area of Adaptation and Use

Centennial performs well on a variety of soils. It is adapted to deep and moderately deep loamy and silty soils that are well to poorly drained with a high water table to deep loamy and sandy soils that are well to moderately well drained and have a moderate water-holding capacity. Sites with soils that are coarse textured, extremely saline, droughty, or subject to ponding should be avoided. Centennial is winter hardy where average annual minimum temperature ranges from -40 to -20 degrees F. The primary area of adaptation is shown on the map below. The average annual precipitation of this area ranges from 10 to 30 inches. The average rate of survival for Centennial cotoneaster ranges from 70 to 95 percent under field conditions. Establishment and rate of growth are negatively affected by weed competition, shade, drought, and adverse soil conditions.



Establishment and Management for Conservation Plantings

Fallow (chemical, tillage, mulch, etc) the planting site for at least one year before planting Centennial seedlings in order to kill all perennial vegetation. Plant the seedlings in the spring as soon as the ground thaws and soil moisture is adequate. The recommended within the-row spacing is 4 to 5 feet. Plant 1-year-old or 2-year-old seedlings that are 12 to 24 inches in height and have a stem diameter of 3/16 to 1/2 inch just above the root collar. Plant the bare root seedling to the root collar, being sure the roots are well dispersed within the hole. Control weeds by mechanical cultivation, recommended herbicides, or natural or synthetic mulches for a minimum of 5 years. Centennial forms a solid stand and begins producing fruit in 3 to 4 years.

Ecological Considerations

Cotoneaster can be spread by birds or washed offsite by water. Sparse stands of cotoneaster may form along forest margins. Though spread offsite by birds they do not colonize as quickly as do honeysuckle or buckthorn which are spread the same way. Offsite spread rates are similar to chokecherry (*Prunus*). Midspring flowering is attractive to pollinators and fruit is readily consumed by birds.

Seed and Plant Production

Centennial is propagated by seed. Mature fruit can be collected in August and processed by wet maceration. Germination requires seed scarification that is followed by warm, then cold stratification. Seedling production can be accomplished by one of three methods:

1. Midsummer planting: scarify the seed by soaking in concentrated sulfuric acid for 2 hours before planting in June. Germination will take place the following spring.

2. Fall planting: acid treat the seed for 2 hours in concentrated sulfuric acid; follow with warm stratification for 90 days at 70 degrees F. Plant just before freezeup. Seed will germinate the following spring.

3. Spring planting: acid treat seed for 2 hours in concentrated sulfuric acid; follow with 90 days of warm stratification at 70 degrees F and 120 days of cold stratification at 41degrees F. Stratified seed should be planted as soon as possible and closely monitored for germination while in cold stratification.

Recommendations for nursery production are to plant 30 to 40 viable seeds per linear foot, ⅛ inch deep, and cover with ½ to ¾ inch of soil. Mulching protects the plants and keeps the soil moist. Mulch should be removed as soon as seedlings emerge.

Availability

For conservation use: For more information on the availability and use of Centennial cotoneaster, contact you local NRCS or conservation district office.

For seed or plant increase: Breeder seed and foundation stock of Centennial cotoneaster are maintained by the NRCS Plant materials Center, Bismarck, ND. Standards for all classes of seed are published in the North Dakota Tree and Shrub Certification Standards.

For more information, contact:
USDA-NRCS Plant Materials Center
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Bismarck, ND 58504
Phone: (701) 250-4330
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http://Plant-Materials.nrcs.usda.gov

Citation

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