

ROUNDHEAD LESPEDEZA

Lespedeza capitata Michx.

Plant symbol = LECA8

Contributed by: USDA, NRCS, Manhattan Plant Materials Center



Kanoka Roundhead Lespedeza

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Alternate Names

roundhead bush clover, bushclover, rabbit foot

Key Web Sites

Extensive information about this species is linked to the PLANTS Web site. To access this information, go to the PLANTS web site, select this plant, and utilize the links at the bottom of the Plant Profile for this species.

Uses

Roundhead lespedeza is a palatable and nutritious native legume that is readily grazed by livestock (Phillips Petroleum Co., 1963). It is a desirable component in warm season grass mixtures, providing nitrogen input and adding protein to the consumed forage. It decreases with continuous heavy grazing (Stubbendieck et al., 1989). Upland game birds consume the seeds. Native Americans made tea from the leaves and burned pieces of moistened stem on the skin as a counter-irritant to treat rheumatism

(Haddock, 2005). Roundhead lespedeza has been reported to lower blood cholesterol levels and remove nitrogenous compounds from the blood and it has been the subject of some pharmaceutical research (Kindscher, 1992). Although roundhead was not generally used in Anglo medicine, it was listed as a diuretic and emetic by B.B. Smythe in his 1901 "Preliminary listing of Medicinal and Economic Kansas Plants" (Smythe, 1901). Its seedheads, which are attractive in wildflower gardens, can also be picked and used in dry flower arrangements and bouquets (Kindscher, 1992).

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description and Adaptation

Bean Family (Fabaceae). This herbaceous, native, perennial plant has stiff, erect stems that are .6-1.5 m tall. Stems are usually unbranched except for short branches at the top that support the inflorescences. Leaves are arranged alternately on the stem. The petioles are 2-5 mm, shorter than the stalk on the terminal leaflet. The compound leaves have three moderately large leaflets (18X45 mm) which are often crowded along the stem. Both leaves and stems are densely covered with appressed hairs, giving the plant a silvery sheen. Flowering occurs in August and September. The flowers are crowded in conspicuous green ball like clusters that are grouped together at the tips of the stems. The pea-like flowers are easy to over look unless the plant is examined closely. The flower petals are white with a purple spot on the banner petal. The flowers are surrounded by the narrow pointed lobes of the calyx. The calyx remains as a part of the cinnamon brown seed heads that persist on the plant after the leaves have dropped. The typical fruits (legume) are indehiscent, and one seeded. Tap roots can grow to a depth of 2.5 meters, but there are also many branched roots near the soils surface that extend up to a meter in all directions from the plant. The roots absorb water mainly from the lower soil depths (Weaver, 1958). Rhizobia, nitrogen fixing bacteria, live in nodules on the plants roots. Roundhead is quite tolerant of drought conditions.

Establishment

Germination of roundhead lespedeza is very low without mechanical scarification (Rock, 1972). Acid

scarification can also be utilized to hasten germination. Smith and Smith (1980) recommended moist stratification for 10 days in addition to scarification. Germination generally occurs within 3 to 10 days. To initiate seedling growth scarify seed, inoculate with rhizobium and plant 6mm in the soil or greenhouse container. Seedlings grow well under greenhouse conditions or can be started in the field. The two dark green cotyledons are thick and elongate, dorsally convex with slightly squared tips. The first true leaf is trifoliate compound and emerges within 2 to 3 weeks of germination.

Management

Roundhead is found in both upland and lowland prairie sites, but it tends to be more common in uplands. Weaver and Fitzpatrick (1934) found it in 55% of the upland prairies and an equal proportion of the lowland prairies that they studied although usually not in great abundance. Shirley (1994) stated that it grows well at a soil pH between 6.5 and 8. Weaver (1954) considered it a decreaser under heavy grazing pressure. Eddy (1992) found it to be much more abundant along none grazed roadsides than in grazed pastures in the Flint Hills of Kansas.

Cultivars, Improved, and Selected Materials (and area of origin) 'Kanoka' roundhead lespedeza was released in 1998 by the USDA, NRCS, Plant Materials Center in Manhattan, Kansas. 'Kanoka' is recommended for use in plantings on critical areas, road right-of-ways, parks, and recreation areas for soil stabilization and beautification, wildlife habitat areas, and for prairie restoration. 'Kanoka' was selected from an assembly of 20 accessions collected in Kansas, Nebraska and Oklahoma. Two collections from Woodson County, Kansas and one collection from Nowata County, Oklahoma were bulked and assigned the Plant Introduction Number (PI-468118). The selected accessions consistently produced seed of higher quality and quantity and were taller and bloomed later than the other materials. The Elsberry, Missouri PMC has also released three source identified Lespedeza lines for Central, Northern, and Southern Iowa.

Control

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA, NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective. Roundhead does not spread aggressively by rhizomes or runners and we have not found it to be an aggressive seeder (Platt and Harder, 1991).

References:

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- Shirley, Shirley. 1994. Restoring The Tallgrass Prairie. University of Iowa Press. Iowa City, Iowa.
- Smith, J.R. and B.S. Smith. 1980. The Prairie Garden. The University of Wisconsin Press. Madison, Wisconsin.

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS <<http://plants.usda.gov>> and Plant Materials Program Web sites <<http://Plant-Materials.nrcs.usda.gov>>.

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Weaver, J.E. 1954. North American Prairie. Johnsen Publishing Co. Lincoln, Nebraska.

Weaver, J.E. and T.J. Fitzpatrick. 1934. The Prairie. Ecological Monographs 4(2): 109-295.

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