USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Fact Sheet

PINE LUPINE

Lupinus albicaulis Dougl.ex Hook.

Plant Symbol = LUAL3

Contributed by: USDA NRCS Plant Materials Program & Corvallis Plant Materials Center

USDA NRCS Corvallis Plant Materials Center
Corvallis, Oregon

Alternate Names
sickle-keeled lupine

Uses
Wildlife: Several species of birds use the seed for food and the stemmy growth for cover. Rabbits and other small game also use this plant for cover.

Crops: For nitrogen fixation, pine lupine can be seeded as a winter green manure cover crop or used in reforestation projects. Species toxicity to livestock and wildlife is not known; however the cultivar 'Hederma' did not produce toxic symptoms in sheep or calves in a feeding trial.

Erosion control: Because of pine lupine's rapid growth, it can be used on critical erosion sites, including droughty, steep, low fertility slopes.

Recreation and beautification: The plant's showy floral display and pleasant scent makes it appropriate for landscape uses around residential areas and within parks where a tall, short-lived wildflower is desired.

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
Lupinus albicaulis Dougl. ex Hook., pine lupine, is a native, rapid-developing, deep tap-rooted, multi-stemmed, erect forb, 2½ to 5 feet tall. The plant may be an annual, biennial, or short-lived perennial in various parts of its range. In Oregon, its habit is like a subshrub. The leaves are alternate, palmately compound, with 5 to 9 leaflets that average 1½ inches long. Attractive purple to white banner-type flowers appear in late May and last for about 3 weeks. The seeds are compressed, brown to black in color and mottled with gray. There can be 11,000 to 29,000 seeds per pound.

Adaptation and Distribution
Pine lupine is adapted to dry slopes and openings of western Oregon, Washington, Nevada, and northern California at all elevations below 8,000 feet with a precipitation range of 25 to 80 inches. Persistence is best on disturbed or seasonally changing sites such as sand dunes or dredge spoils where competition is reduced. Best growth and development are achieved when the plant is grown in full sun. It is an excellent pioneer species.

For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment
Pine lupine can be seeded either in early fall or in the spring at 4 to 20 pounds per acre, depending on the site and seed mixture desired, and at a depth of ½ to ¾ inch. Strips for landscaping or wildlife use can be broadcast seeded at about 20 pounds per acre. For all conservation uses pine lupine can be seeded alone at about 10 pounds per acre, or with companion grass-legume mixtures, or into existing grass stands at 4 to 15 pounds per acre, depending upon need.

Management
Because of its rapid growth, pine lupine shades out a majority of weeds and lessens the need for intense weed control after establishment.

For seed production, pine lupine can be produced on most well-drained tillable soils. Fields planted in late summer or early fall at 10 pounds per acre in 24 inch rows produce an excellent seed crop the following year. When harvested, it acts as a biennial and only produces 1 crop of seed. Because of seed shatter, the seed crop should be windrowed several days before harvest and rolled on tarps to dry. Plant material has also been successfully windrowed on 6 foot wide sheets of paper.

Pests and Potential Problems
Insect damage is significant only during seed production and is controlled with normal spray programs. Powdery mildew is common in some years but is not considered a problem for the intended use.

Cultivars, Improved, and Selected Materials (and area of origin)
'Hederma' (Oregon) is a short-lived perennial; in its area of adaptation, it may survive 3 to 4 years, but it tends to act as an annual. It is intended for use in western Oregon, western Washington, and northwestern California only, for sites in the elevation range of 0 to 3,000 feet. While the plant exhibits partial dieback in the winter, it has some evergreen stems and foliage. This material produces about 20,000 seeds per pound. Seeds are available from several commercial seed sources.

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