USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Fact Sheet

NEVADA PEA

Lathyrus lanszwertii Kellogg

Plant Symbol = LALA3

Contributed by: USDA NRCS Great Basin Plant Materials Center

Figure 1. Nevada pea in bloom showing leaf, vine, and flowers.

Alternate Names

Nevada peavine, Nevada sweetpea, Nevada vetchling Lanszwert's vetchling, Lanszwert's pea, Lanszwert's peavine, Lanszwert's wild pea, Lanszwert's sweetpea, mountain pea, thick-leaved pea, thickleaf peavine.

Uses

Nevada pea is a legume that fixes nitrogen to enrich the soil. Nevada pea can be included in a seed mix for revegetation for erosion control on desert lands after severe disturbances such as pipeline construction, mining, or wildfire. Nevada pea can be an attractive addition to a wildflower mix for roadside beautification or pollinator habitat. The bloom period is May through mid-summer and the attractive flowers provide nectar for native pollinating insects. Nevada pea is an important host plant for the larvae of several butterflies. Some insects and other animals eat the leaves and stems, and birds and rodents eat the seeds.

Caution: Nevada pea may be toxic to livestock.

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

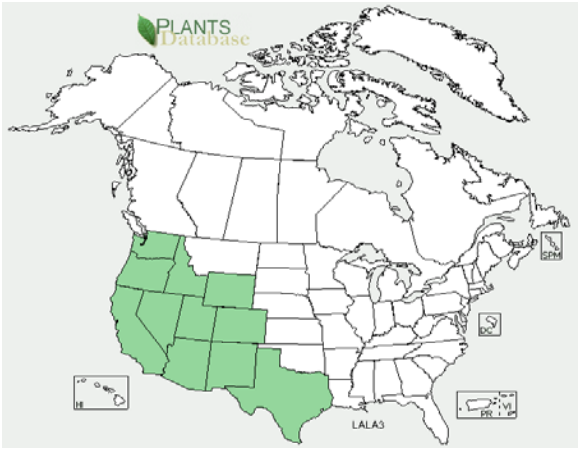
Nevada pea is a native legume found growing in association with grasses, shrubs, other forbs, conifers, and aspen in mountains and foothills from 4,000 feet to timberline.

Nevada pea plants are perennial, sending up new shoots each year from slender rhizomes, the stems 8 to 30 inches long, trailing along the ground, upright, or climbing by means of vining tendrils at the ends of the leaves. Leaves, 1 to 5 inches long (excluding the tendril) are pinnately compound with from 4 to 12 (generally at least 6) pairs of oval to oblong or pointed leaflets, with smooth edges, each leaflet from 1 to 3 inches long by 1/8 to 5/8 inch wide.

Flowers, 3/8 to 1 inch across, range in color from light pink to dark purple, and are in the form of a typical pea flower, with petals forming a banner, wings, and keel, with the keel shorter than the wings. From 2 to 5 flowers are borne on an unbranched pedicel arising from the stem at a leaf axil. The ten stamens are fused together into a group of 9 with the tenth free nearly to its base. The style is flattened and hairy on the bottom side for most of its length.

The seed pods, 1 to 2 inches long, turn yellowish white and after they mature split lengthwise to release 9 to 14 hard round seeds.

From 4 to 6 varieties of Nevada pea are recognized by different authors, and the taxonomy of this species is currently being revised. A white-flowered form lacking tendrils is included in the species by some authors.



Nevada pea distribution from USDA-NRCS PLANTS Database.

For updated distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Establishment
Nevada pea seed must be treated with a compatible *Rhizobium* inoculant before planting to ensure symbiotic nitrogen-fixing nodules form on the roots. Inoculant may be obtained from commercial suppliers. Inoculant should be refrigerated until it is used, or the bacteria may die. Follow the inoculant supplier's instructions for the product.

If no instructions are provided, seed can be coated with a sugar solution to adhere the inoculant before inoculant is added. Solution can be made from a 1 to 10 mix of corn syrup and water (non-chlorinated) or use a soda pop (sugar, not diet) that has been allowed to go flat. Add enough solution to moisten all the seed in a large tub or bucket. A clean cement mixer works well for large batches. Add the inoculant to the moistened seed and mix to coat the seed. An alternative method is to add the inoculant to the sugar solution to make a slurry, and mix the slurry into the seed until each seed is thoroughly coated.

Air-dry the inoculated seed by spreading it on a sheet of paper, cardboard, or a tarp in a cool, shaded place. The seed must be dry to flow through the seeder. Allow time for the seed to dry, but plant the inoculated seed within 24 hours of inoculation.

Seed should be drilled 1/2to 11/2 inch deep into a well-packed seedbed at 15 to 20 pounds PLS per acre, or less if Nevada pea is one component in a mixture of forbs. Seed may be broadcast and pressed into the soil with the tracks of a bulldozer on suitable sites. Hydro-seeding or broadcast seeding without packing the seed into the soil will not provide sufficient soil contact or seeding depth for successful establishment of Nevada pea. Other components of the desired revegetation mix such as grasses, smaller seeded forbs, and shrubs may be drilled at a shallower depth, hydro-seeded, or broadcast seeded.

On non-irrigated sites planting should be done in the fall before winter precipitation. Where irrigation is available planting may be done in early spring.

Management
Weeds should be controlled before planting because most broadleaf herbicides used for weed control in range land would kill Nevada pea. The planting site must be protected from grazing until the plants have become fully established, at least one year. Some seeds of Nevada pea may not emerge until the second year after planting. If mowing is necessary it should be done in late summer or fall after the seeds have been released from most of the pods.

Pests and Potential Problems
Nevada pea is susceptible to some fungal diseases, particularly at emergence or in the seedling stage when damping off may occur. Grazing animals, birds, rodents, or insects such as grasshoppers or crickets may eat part or all of the foliage and stems of Nevada pea plants, especially in the establishment year.

Environmental Concerns
Nevada pea is a widespread native plant in forest and rangeland ecosystems; however, until the taxonomy of the species is better understood it may be best to observe seed transfer zones to avoid moving genetic material into ecosystems where it did not originate. Wild harvested seed from established populations near the revegetation site are most likely to be adapted to the climatic and soil conditions in the area.

Cultivars, Improved, and Selected Materials (and area of origin)
No cultivars or improved selections of Nevada pea are known to be commercially available at this time.

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For more information about this and other plants, please contact your local 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://plant-materials.nrcs.usda.gov>