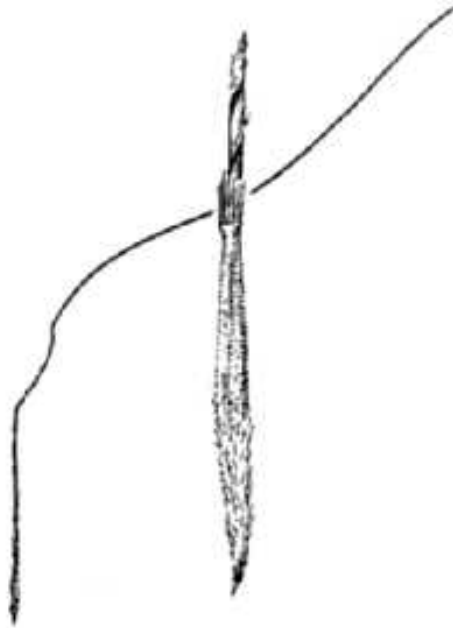


## NODDING NEEDLEGRASS

*Nasella cernua* (Stebbins &  
R.M. Love) Barkworth  
Plant Symbol = NACE

Contributed by: USDA NRCS California State Office  
and Lockeford Plant Materials Center, California



From Hitchcock (1950)  
@ plants.usda.gov

### Alternate Names

*Stipa cernua*, nodding stipa

### Uses

Nodding needlegrass is used for restoration, critical area planting, cover crop, and wildlife habitat. It is probably one of the best grasses available for use in harsh conditions, such as subsoils, low fertility soils, hot and dry meadows, roadcuts, and roadsides. It also provides good early forage for grazing animals.

### 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

Grass Family (Poaceae). Nodding needlegrass is a native, long-lived, cool season tufted perennial bunchgrass. It is very similar to *Nasella pulchra* (purple needlegrass), but is generally smaller, with finer leaf blades, and the terminal segment of the awn flexuous. It also produces more flower spikes. The basal leaf blades are numerous, narrow, and glaucous.

### Distribution

Nodding needlegrass is found in the southwestern United States in lower elevations with a coastal influence. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

### Adaptation

In California, this grass is especially adapted to sandy, well-drained, loamy soils, but will tolerate rocky soil. It is native to chaparral and dry slopes in lower elevations. It thrives in full sun, and also grows in partial shade. It will tolerate heat and wind.

### Establishment

Nodding needlegrass does well in disturbed sites and is valuable for erosion control, because of its strong root system. However, it does not tolerate disturbance after planting. It will go dormant after flowering without additional water (facultatively dormant), and does best with no summer water after the first year in the ground. Small amounts of routine watering may keep it green all year, but may also kill it. It is very drought tolerant, and intolerant of flooding. In dense stands, it can completely inhibit certain weeds, such as yellow starthistle. Abundant seed production is usually what helps maintain natural stands in non-grazed or lightly grazed areas. Plants need some protection from grazing during flowering to ensure seed formation and food storage in the crown. Once established, it is generally fire tolerant, but not fire resistant. The season of a burn is the most important factor in determining the severity of the effects on the plants. It will re-sprout after spring or fall burns, but summer burns can be damaging. Smaller plants are often less damaged by fire than larger plants because they burn less intensely and don't smolder for long periods of time.

### Management

Nodding needlegrass will withstand mowing, especially after seed set and some traffic. It also

requires some protection from grazing during the flowering period (late May-April).

### **Seeds and Plant Production**

Abundant seed matures in mid to late spring, with collection possible for 2 - 3 weeks. There are between 118,000 and 250,000 seeds/lb., and if planted at a rate of 1 lb./acre, there will be approximately 4.3 seeds/square feet. Sharp points on the seeds are augured into the soil by the twisting action of the awns. Also, seed can be harvested using a flow-vac or combine.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

'LK415f' Germplasm: Collected from San Luis Obispo County, California; Trusedale and Shells Roads. Township 27S and Range 15E Section 10. Elevation is approximately 1200 feet. Mean annual precipitation is 12-20 inches. Mean annual temperature is 60 degrees F.

### **References**

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Wrysinski, Jeanette. 2000. *Know Your Natives: A Pictorial Guide to California Native Grasses*. Yolo County Resource Conservation District, Woodland, California.

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

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