

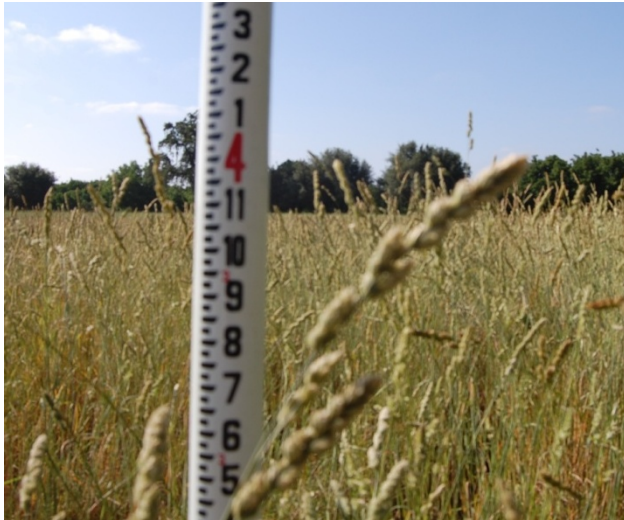


United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

'Berber' orchardgrass

Dactylis glomerata L.

A Conservation Plant Release by USDA NRCS Lockeford Plant Materials Center, Lockeford, CA



'Berber' orchardgrass (*Dactylis glomerata* L.) is a cultivar released in 1981 in cooperation with the California Agricultural Experiment Station. Maturing plant height shown in feet.
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Description

'Berber' orchardgrass is an introduced, dryland, cool season perennial bunch grass. It grows from 15 to 40 inches in height, with leaves that are mainly basal and distinctly folded with compressed leaf sheaths. The cocksfoot seed head is 4 -6 inches long with spikelets in dense, compact one-sided clusters at the end of its branches. Seed matures in June to July at the Lockeford PMC. 'Berber' is long-lived and drought tolerant.

Source

Orchardgrass is native to Europe, North Africa and Asia. However, the source of 'Berber' orchardgrass was seed supplied to the University of California from the Waite Institute, South Australia in 1971. It was originally grown and tested in South Australia and then dropped from commercial production. It has been tested in the Mediterranean climate of California for erosion control on natural and man-made disturbed areas and for dryland range use. 'Berber' showed superior seedling vigor and establishment in California compared to other orchard grasses. In secondary testing in 1975 on several range and problem sites it was compared to 'Palestine' orchard grass and several perennials such as Hardinggrass and wheatgrasses. In some cases it was equal to Palestine in

initial germination, but was superior in establishment on droughty soils and during the drier years.

Conservation Uses

It was originally recommended for critical area stabilization and for dryland range forage production in the Mediterranean climate areas of California. As 'Berber' will stay green throughout the summer with small amounts of water it was recommended for fire control use around urban development and other sites. It is effective for erosion control because of its dense network of non-rhizomatous roots. The grass greens up rapidly in the fall, growing rapidly over the winter and spring. Once established it is effective in out-competing weeds including annual grasses. In the absence of summer water it will go dormant and can survive long periods of drought. Biomass production of between 2,500 and 5,000 lb per acre for a single cutting were reported for California. With up to three harvests possible each season depending upon levels of irrigation. Orchardgrass is effective in grass-legume mixes for forage and for hay production. Palatability is highest when the plant is actively growing in the fall and spring, as it matures forage quality declines. Wildlife, including elk and deer find orchardgrass highly palatable and will utilize it most of the year.

Area of Adaptation and Use

'Berber' is suited to well drained, coarse to fine textured soils, shallow to deep and medium to slightly alkaline/saline. It does not perform well on wet or poorly drained soils. It is drought tolerant and will persist and provide good erosion cover with an annual precipitation of 14 to 16 inches or in areas with supplemental irrigation. In California it is adapted to Major land Resource Areas 4, 14, 15, 16, 17,18, 19, and 20. The species of orchardgrass is found from Maine to the Gulf Coast states and from the Atlantic Coast to the Pacific Coast. It is common throughout the Appalachian Mountains and is especially well adapted to Maryland, Pennsylvania, West Virginia, Virginia, Kentucky, and Tennessee. It is also found in the western mountains and the western United States,

Establishment and Management for Conservation Plantings

The recommended seeding rate for 'Berber' orchardgrass is 6-8 lb pure live seed (PLS) per acre drilled and 8-12 lb broadcasted. Adjustments in seeding rate should be made when seeding in mixtures. Seeding depth should be 1/4 to 1/2 inch. Plantings into a clean, firm, weed-free seedbed is recommended. Dryland and erosion control seedings should be made in the late fall or very early spring.

Irrigated seeding should be made in early to mid spring. Do not seed after the spring moisture period is well advanced or a failure may occur because of dry seedbed conditions and hot summer temperatures before the grass is well established. Weed control is important during establishment.



Field with rows of 'Berber' orchard grass at the Lockeford Plant Materials Center . ©Lockeford Plant Materials Center.

Under dryland conditions new plantings should not be grazed until late summer or fall of the second growing season. The plants may be severely damaged by overgrazing especially in the seedling year. Under irrigated conditions the new planting should not be grazed until late summer or fall of the first growing season. The plants may be severely damaged by grazing too soon. Use no more than 60% of the annual growth during the winter season or 50% during the growing season. Close grazing in the fall is consistently associated with winterkill. This plant responds well to rotation-deferred grazing systems. Periodically the grass should be allowed to mature and produce seed for continuation of the stand. Orchardgrass responds very well to good fertility management. It is one of the most responsive pasture grasses to nitrogen applications. One strategy to even out the forage production is to fertilize the stand after the first and second cutting or grazing period to boost late spring and summer production.

Ecological Considerations

There are no diseases reported as a problem on 'Berber', although orchardgrass is susceptible to the fungal diseases brown stripe, scald, rust and leaf spot. Resistance to these varies among cultivars.

The species is considered as being of low risk for weediness and invasiveness in California.

Seed and Plant Production

When planting for seed increase; recommended row spacing is 28 to 40 inches. Seeding rate is 1.5 to 2 pounds PLS per acre to seed 25 to 30 PLS per linear foot of row. Irrigated seed yields are commonly 250 to 300 pounds per acre. Seed matures evenly and is ready for harvest in mid-July. Windrowing followed by combining is the preferred method of harvest. When direct combining the seed should be dried to 12 percent moisture in bins, and if stored in sacks 15 percent moisture before storing.

Availability

For conservation use: 'Berber' orchardgrass is available from seed companies in California, Oregon, and Washington in both small and large quantities.

For seed or plant increase: Foundation seed is maintained by the USDA-NRCS Plant Material Center in Lockeford, California and available to interested parties for increase purposes. Long-term preservation of seed is stored at the National Plant Germplasm System (NPGS).

For more information, contact:

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<http://plant-materials.nrcs.usda.gov/capmc>

Citation

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For additional information about this and other plants, please contact your local USDA Service Center, 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://www.plant-materials.nrcs.usda.gov>>

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