



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

'Arriba'

Western Wheatgrass

Pascopyrum smithii Rydb.

A Conservation Plant Release by USDA NRCS Los Lunas Plant Materials Center



'Arriba' western wheatgrass

'Arriba' western wheatgrass (*Pascopyrum smithii* Rydb.) is a variety that has been released by the New Mexico State University Los Lunas Agricultural Science Center, the Colorado State University, the New Mexico Department of Transportation, and the USDA Natural Resources Conservation Service Los Lunas Plant Materials Center.

This cool-season perennial grass is:

- Excellent for revegetating rangeland and stabilizing soil
- Excellent as a forage crop
- Suitably adapted to areas that receive winter-spring precipitation

Description

'Arriba' western wheatgrass is a cool-season, sod forming perennial grass. The plants are blue-green in color, and the stems are 15 to 30 inches (30 to 60 cm) tall.

Source

The original source of 'Arriba' western wheatgrass was seed from plants collected west of Fagler, Colorado.

Conservation Uses

Arriba's aggressive sod-forming habit makes it a valuable conservation plant for soil stabilization. It can also be used to revegetate rangeland following the reduction or destruction of vegetation by surface mining, construction activities, brush control, over-grazing, or fires. It is palatable to all classes of livestock.

Area of Adaptation and Use

The natural range of western wheatgrass includes most of the western two-thirds of the United States. In Colorado and New Mexico, it grows on a wide variety of sod types from the plains to the upper pinion-juniper and ponderosa pine vegetation zones at elevations from 3,000 to 9,000 feet (1,000 to 3,000 m).

Establishment and Management for Conservation Plantings

Drill seed early enough in the fall to allow 2- or 3-inches of leaf growth before winter.

At Los Lunas, this is generally early-to-mid-September. It may be sown on a flat surface or beside shallow furrows with equal success.

The recommended planting rate is 5 pounds per acre (9 kg/ha) of pure live seed. Seed should be planted 0.25 to 0.50 inch (6 to 12 m) deep in rows 30 to 40 inches (80 to 100 cm) apart to allow for cultivation.

Burning stubble after residue from combining the seed has been removed may increase seed production. Three burned plots yielded an average of 87 pounds per acre (97 kg/ha). Two unburned plots averaged 62 pounds per acre (70 kg/ha). These data were not sufficient for statistical analysis, and no specific recommendation can be made.

A soil test is recommended as an aid in determining fertilizer needs. However, experience may be the best guide. In lieu of other guides, annual fertilizer rates of 80 pounds of nitrogen per acre (90 kg/ha) can be used under irrigation.

Ecological Considerations

Arriba is average in tolerance to plant mites and rust infection.

Seed and Plant Production

Arriba was superior in seed production to every western wheatgrass strain with which it was compared at Las Cruces and Los Lunas, New Mexico, and Tucson, Arizona. At Los Lunas, it was equal or superior to 39 other strains in uniformity and rate of emergence, seedling vigor, and forage production. In 34 non-irrigated plantings, its performance was rated superior to all other strains in 21, as good as any in 21, and poorer in two plantings.

The seed normally matures during the latter part of July at Los Lunas and Las Cruces. A small grain combine can be used to harvest the seed.

Irrigated stands for seed production generally remain economically productive for three or four years. The first crop can be harvested during the summer following fall plantings. The four year average seed yield of 'Arriba' in eight plantings at Los Lunas was 125 pounds per acre (140 kg/ha) of pure live seed. At Las Cruces, it produced 123% more pure live seed than the variety Barton.

A seeding rate of 10 pounds per acre (11 kg/ha) pure live seed is recommended for rangeland plantings.

Availability

For conservation use: Limited amounts of foundation 'Arriba' western wheatgrass seed are available through the USDA Natural Resources Conservation Service Upper Colorado Environmental Plant Center located in Meeker, Colorado. 'Arriba' western wheatgrass seed is also available commercially.

For more information, contact:
Upper Colorado Environmental Plant Center
5538 RBC #4
Meeker, CO 81641
Tele: 970-878-5003
FAX: 970-878-5004
<http://plant-materials.nrcs.usda.gov/copmc/>

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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>



This is a joint release among New Mexico State University's Los Lunas Agricultural Science Center, the Colorado State University, the New Mexico Department of Transportation, and the USDA Natural Resources Conservation Service Los Lunas Plant Materials Center.

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