

\*Long-Rhng Field Planting Program for

*Elymus cinereus* Species

submitted

Species: *Elymus cinereus*  
Common Name: Basin wildrye  
Accession Numbers: M-27 P-15590 T-05356

Origin: P-15590 was collected by Sterle Dale in 1959 from a subirrigated site near an intermittent stream near Roundup, Montana (Musselshell County). Elevation 3600 feet.

Method of Selection: This accession was increased immediately, because 3½ pounds of seed were available from the original collection. M-27 was used as a standard of comparison and repeated every fifth row in an initial evaluation of 125 accessions. In this study, the top performers were M-27 (P-15590), WY-107 (P-15591), and WY-813 (P-15592); all of which were increased. P-15590 was chosen over the other two accessions based on seed production and disease resistance.

Description: P-15590 is a very leafy, dark green accession with good resistance to powdery mildew and stem rusts. Early spring forage production is excellent, but regrowth after harvest is nil, even under irrigation. Leaves are broad, semi-lax, and well accepted by cattle. Seed production averaged 175 lbs/acre average over a 16-year period.

Anticipated Conservation Use: Spring growth on this accession is reported to be earlier than crested wheatgrass. However, it does not tolerate grazing or mowing when actively growing. Basin wildrye has been used for hay, but must be harvested after seed begins to ripen. P-15590 is adapted to water-spreading systems. The tall growth form makes it a good species for protective winter calving pastures, providing forage and shelter in open areas. This species has also shown good adaptation to harsh, droughty sites associated with strip mines, and road cuts.

Potential Soil Adaptation: This accession is adapted to a wide range of soils from saline-alkaline, Humic Gley soils to loamy-textured, well drained soils. Generally adapted to clayey soils with some supplemental moisture.

Where Seed will be Maintained: Bridger PMC

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Field Planting Information

- Seeding Rate: Six pounds PLS/acre in pure stands; 1 to 2 pounds, if included in a mixture, depending on the percent of basin desired.
- Duration: 4 to 5 years.
- Standard of Comparison: 'Magnar' basin wildrye (Aberdeen PMC).
- Field Planting Size: Minimum - 5 acres.
- Time of Seeding: Can be seeded in either late fall (dormant) or spring. If in a mixture, timing is more dependent on companion species.
- Seedbed Preparation: In accordance with the applicable standards and specifications as stated in Section IV of the Technical Guide.
- Planting Method: Drill planting with uniform depth control and packer wheels. Broadcast planting only if seed can be covered and good soil moisture maintained throughout germination and early establishment.
- Planting Depth: One-quarter to one-half inch in loamy to clayey textured soils.
- Weed Control: Care must be taken to avoid close cropping of this species because of elevated growth region. However, weeds should be sprayed or cut, as they become competitive with seedling establishment.
- Management: The planting will be protected from grazing for 2 years and thereafter should maintain a 10- to 12-inch stubble. Plants should not be grazed until their seed begins to mature.
- Evaluation: As requested. by PMS. on PM-11.
- Summary of Results: Results will be summarized when trials are completed.