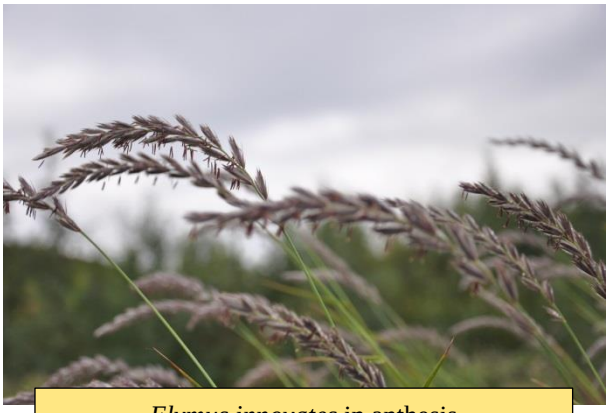
Scientific Name: *Leymus innovatus* (Beal.) Plig. **Family:** *Poaceae*

Common Names: hairy wildrye, fuzzyspike wildrye, boreal wildrye



Elymus innovates in anthesis

Plant Description

Tufted, perennial grass forming slender creeping rhizomes. Culms are mostly 40 to 100 cm tall. Leaves firm, flat, 2 to 5 mm wide, glabrous beneath, scabrous above, often glaucous; ligule truncate, 0.5 mm long or less, auricles long, prominent and claw-like. Spike 4 to 10 cm long, rather dense, purplish or grey villose. Glumes narrow, densely villose; Lemmas broader and coarsely villose; awns mostly 1 to 4 mm long (Moss 1983).
Seed: Approximately 1 cm long and 0.2 cm wide, pale, lenticular (Burton and Burton 2003).

Habitat and Distribution

Open woodlands in deciduous and coniferous forests or in montane grasslands (Tannas 1997).
Seral Stage: Early to mid seral.
Soil: Associated with sandy soils under open *Populus* and *Pinus* stands. Grows on nutrient poor soils with a tolerance to shade and mildly saline soils (Hardy BBT 1989).
Distribution: Throughout Alberta. Alaska, Yukon, southern District of Mackenzie to James Bay south to British Columbia, Montana, Wyoming, South Dakota (Moss 1983).

Phenology

Greens up in March and April (Alberta), flowers in June to July also into September in Montana (Williams 1990).

Pollination

Wind pollinated.

Seed Dispersal

Mostly by gravity with help from the wind and occasionally by animals (Williams 1990).

Genetics

2n=28, 56 (Moss 1983).

Symbiosis

No literature found.

Seed Processing

Collection: Seed heads can be harvested by hand and dried in the sun (Burton and Burton 2003).
Seed Weight: 18 g/1,000 seeds (Burton and Burton 2003). 392 PLS/g (Hammermeister 1998).
Harvest Dates: Late July to early August.
Cleaning: Use a fanning mill (prescreen 2.5 x 19 mm slot; top screen 4 x 19 slot; bottom blank) followed by a vacuum separator to remove dust and chaff (Burton and Burton 2003).
Storage: Store cool and dry in airtight containers.
Longevity: No literature found.

Propagation

Natural Regeneration: Regenerates from rhizomes.
Germination: Germinates well with no pre-treatment (Burton and Burton 2003).
Pre-treatment: No pre-treatment required (Burton and Burton 2003).
Vegetative Propagation: Potential for root cutting success (Tannas 1997).

Wildlife/Forage Usage

Wildlife: Stone sheep, elk and bison graze hairy wild rye (Williams 1990).

Livestock: Poor palatability but fair to excellent forage value when alternatives are absent (Burton and Burton 2003, Hardy BBT 1989).

Grazing Response: An increaser, spreading readily by rhizomes, decreasing under forest canopy (Tannas 1997).

Reclamation Potential

Excellent choice for revegetation; rhizomes provide erosion control and allow for rapid colonization of disturbed areas.

Is relatively tolerant of acid and salt resulting from disturbance (Tannas 1997).

In lab tests, *Leymus innovatus* grew well on sandy soils saturated with various levels of oil, so has potential for rehabilitation of hydrocarbon-contaminated sites (Hardy BBT 1989).

Commercial Resources

Availability: Seeds and plants are commercially available in Alberta (ANPC 2010). However, to ensure material is properly adapted, local collection is preferred.

Notes

Synonym *Elymus innovatus* (Williams 1990).

Hybridizes with *Agropyron dasystachyum*, *A. smithii* and *A. trachycaulum* (Moss 1984).

Leymus innovatus is listed as 99% intact (less occurrences than expected) in the Alberta oil sands region (Alberta Biodiversity Monitoring Institute 2014).

Photo Credits

Photo: Wild Rose Consulting, 2013.

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