

## BLUE WILDRYE

*Elymus glaucus* Buckl.

Plant Symbol = ELGL

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



Photo: D. Skinner, WAPMC

### Uses

Blue wildrye is good for stream bank restoration, meadow and swale seeding. It is also excellent for reseeding burned or disturbed areas in oak woodland or forest. It is very tolerant of fire, burning quickly with little downward transfer of heat. Blue wildrye can also provide excellent wildlife habitat for mammals, birds, and waterfowl. It provides good forage early in the season, but later, may be too coarse and stemmy.

*Ethnobotanic:* Blue wildrye has similar uses as creeping wild rye, primarily as a seral grain. It is less desirable for basketry as the nodes are thick, but this does not exclude its use in some baskets. Similar to creeping wildrye, there may be some ceremonial uses of blue wildrye.

### 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

*General:* Blue wildrye is a large perennial bunchgrass. It is very tall (up to 5 ft) with an upright growth habit and just a few stems per plant. It is similar in stature and

growth habit to slender wheatgrass. The leaf blades are thin and flat, ranging from 4-12mm (.2-.5 in) wide. Leaf color changes from green to blue green, with a white waxy coating. Frosts induce dormancy.

*Distribution:* Blue wildrye is found from California to Alaska and also the Great Plains and northern Mexico. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

*Habitat:* Open areas, native prairie, chaparral, woodland and forest.

### Adaptation

Blue wildrye grows well in both disturbed and undisturbed areas and is a good competitor. It tolerates wide variations in soil and weather conditions, though grows best in good soils. It prefers moisture but tolerates drought and is usually more drought-tolerant than meadow barley (*Hordeum brachyantherum*) and California brome (*Bromus carinatus*). Some ecotypes are adapted to sunny grassland habitats.

### Establishment

Seeds mature in late spring to summer; can be collected for 2-7 weeks depending on ecotype and growing conditions. Seed is up to 8mm long (3/8 in), germinates easily, and has good seedling vigor. There are approximately 134,000 seeds per lb., and if planted at a rate of 1 lb. per acre, there would be approximately 3 seeds per square ft.

### Management

Forage quality can be excellent when cut before the boot stage. It will not survive if grazed too heavily. Likewise, it is generally tolerant of mowing if not cut too short.

### Pests and Potential Problems

Leaf rust can occur and treating the foliage with an approved fungicide might be needed in severe infestations.

### Seeds and Plant Production

Flowering occurs in the late spring typically April to May in California. Further north flowering typically occurs in June and July. Adequate moisture will promote good seed set, but even under adverse conditions of low moisture, seed will be produced in most years. Seed is ripe 6 to 9 weeks after flowering. There are 134,000 seeds per pound. Seed production fields generally require 5-7 pounds pure live seed per acre. Blue wildrye is not recommended to be seeded alone in revegetation plantings and it should not make up more than 50% of the seed mix.

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

'Mariposa' (CA) - Collected from a native stand near Mariposa, California at an elevation of 600 ft (183 m) above sea level. 'Mariposa' has shown a preference for loam to clay loam soils. It can persist on moderately deep road cut slopes. It is best grown for seed on well to moderately well drained, moist, medium textured soils. It does not tolerate poor drainage or prolonged flooding.

'Arlington' (WA)- Collected from a native stand two miles north of the city of Arlington in Snohomish County, Washington at an elevation of 200 ft (61 m) above sea level. 'Arlington' blue wildrye is a native, cool season, perennial bunchgrass. It establishes rapidly from seed but is short-lived. Field evaluations in western Oregon and Washington indicate that Arlington is suitable for erosion control and quick, self-perpetuating cover on logging roads, cut-over timberland, burned areas and steep hillsides. The species may also be less competitive with recently planted forest tree seedlings compared to certain introduced grasses. However, the specific forage value of Arlington and its compatibility with tree plantations is not fully established.

'Elkton' (OR) - Collected from a native stand 11.5 miles northwest of the city of Sutherlin in Douglas County, Oregon at an elevation of 400 ft (121 m) above sea level. 'Elkton' blue wildrye is a native, cool season, perennial bunchgrass. It establishes rapidly from seed but is relatively short-lived. Evaluations in western Oregon and Washington indicate that Elkton is suitable for erosion control and quick, self-perpetuating cover on logging roads, cutover timber and burned areas and steep hillsides. The species may also be less competitive with recently planted forest tree seedlings compared to *certain* introduced grasses. However, the specific forage value of Elkton and its compatibility with tree plantations not fully established.

'Union Flat' Germplasm (WA) – Collected from a native stand in Palouse Hills region of Washington at an elevation of 1,800 ft (549 m) above sea level. 'Union Flat' germplasm is a selected class release and primarily intended for upland wildlife plantings. It was selected for rapid emergence and growth rate, and it is a more profuse seed producer than other cultivars. Union Flat germplasm will be maintained until 2025. After which, it may be re-released as a cultivar if seed demand remains high.

'White Pass' Germplasm (WA) – Collected from a native stand on the east slope of White Pass on the crest of the cascade mountains at an elevation of 4,440 ft (1.4 km) above sea level. 'White Pass' germplasm is a selected class release and primarily intended for critical area stabilization plantings such as vegetating abandoned forest roads.

It was selected for rapid emergence, basal size, and high biomass production. White Pass germplasm will be maintained until 2035. After which, it may be re-released as a cultivar if seed demand remains high.

### **References**

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Published September, 2005

Edited: 11Jul2005 ro; 29Jul2005 rln; 1Aug2005 rln ;  
06jun06 jsp; 1Sept2008 mes; 17June2010 mes

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