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Bulbous Bluegrass

Poa bulbosa L.

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Figure 1.—Bulbous bluegrass.

Bulbous bluegrass is another example of an introduced European plant that escaped to become weedy. The first reports of its growth in the United States were experimental plantings at Arlington, Virginia, in 1907, and one at Pullman, Washington, at about the same time. It was produced commercially in southern Oregon soon after this and was planted with alfalfa, where its presence tended to reduce invasion by weeds. By 1919, it had spread over much of southern Oregon.

Bulbous bluegrass now is weedy in pastures, grain fields, and roadsides. It has spread over much of the Pacific Northwest, across the northern United States from Alaska to New York, and south to California, Utah, and Colorado. Bulbous bluegrass also is an excellent example of how our transportation system speeds the spread of weeds. One may see this plant frequently while traveling highways across the Pacific Northwest.

Bulbous bluegrass also has been called winter bluegrass because of its tendency to grow during mild winter weather. When temperatures do not permit growth during the winter, this grass starts its growth much earlier in the spring than most other grasses.

When it is adapted, it completes its growth cycle in the spring and matures ahead of other grasses. It often is the first invading species on shallow soils that are moist only during the winter and early spring. The movement of bulbous bluegrass from marginal sites to nearby deep productive soils then becomes a matter of time.

Bulbous bluegrass is quite tolerant to drought and is not without merit. On shallow soils, it stabilizes the site and helps prevent soil erosion early in the season, but the leaves and stems dry up and blow away by August. It completes its annual cycle so quickly that it does not provide much forage to wildlife or livestock.

The bulbils (small, bulb-like bodies or fleshy, detachable buds, borne usually on the stem), which are produced instead of seeds, add to the palatability of the dry forage when they are retained on the plant, as they contain appreciable amounts of starch and some fat. This makes them attractive to rodents and birds.

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Identification

Bulbous bluegrass is unique because it fails to produce true seeds. This perennial grass reproduces vegetatively in two ways.

It grows from basal bulbs to form closely clustered bunches of stems up to 2 feet tall. The bulbs multiply by sending new bulbs out laterally.

In addition, the flowers produce bulbils rather than seed. The dark purple bulbils contain a rudimentary plant that does not develop until after an extended dormant period. Fields of mature bulbous bluegrass have a dark purplish cast. The heads droop over with their heavy load of bulbils.

The leaf blades are narrow, hairless, flat or loosely rolled, with membranous ligules about ⅛ inch long. A thick stand of bulbous bluegrass has a bright, light green appearance in the spring. The inflorescence is a moderately dense panicle of awnless spikelets.

Bulbous bluegrass and bulbil

Control

Prevent infestations. Use crop seed, hay, and straw that is free of bulbous bluegrass bulbils. Clean equipment before moving from a site infested with bulbous bluegrass.

Bulbous bluegrass frequently moves into fields from adjacent road shoulders, fence lines, and other poorly vegetated areas. Controlling this and most other weeds in these areas is the best method of preventing weeds from infesting cropland.

Bulbous bluegrass is not an aggressive competitor in good stands of perennial crops such as pastures and alfalfa. Establishment of a competitive perennial grass in uncropped land or rotation from annual crops to permanent pasture or alfalfa will help prevent spread and is a good management strategy for an existing population.

In areas where the weed has already become established, it is important to stop production of new bulbs and bulbils. Heavy grazing, tillage, and selective herbicides are effective control methods. Seed new crops in the spring when possible to allow destruction of the bulbous bluegrass plants that start in the fall and winter.

For chemical control recommendations, refer to the *Pacific Northwest Weed Control Handbook*, an annually revised Extension publication available from the Extension bulletin offices of Oregon State University, Washington State University, and the University of Idaho.

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