

## Bulbous bluegrass (*Poa bulbosa*)

**Identification** Bulbous bluegrass is a relatively small, shallow-rooted, cool season perennial bunchgrass native to Eurasia and northern Africa. Because it grows new roots each season and has a relatively short life span, it is sometimes described as an annual with “perennial tendencies.” The name of this grass arises from bulblets that form on the panicle; the bulblets have a dark purple base. In addition, stems are thickened and bulblike at the base. Leaves are mostly basal and have a membranous ligule. Bulbous bluegrass ranges in height from 8-24”. Bulbous bluegrass was accidentally introduced to North America, but once discovered in Oregon in the early 1900s, its potential for a pasture and turf grass has been repeatedly researched.

**Impacts** Bulbous bluegrass produces very little biomass for grazing, and its palatability is confined to early to mid-spring before the grass dries out. The bulblets, however, contain high levels of starch and fat that are sought after by a variety of birds and small mammals. Bulbous bluegrass competes with more desirable vegetation in range sites. It can also invade crop and hay fields.

**Habitat** Bulbous bluegrass tolerates a wide range of environmental conditions, but is best adapted to disturbed, shallow soils that are moist during winter and early spring. It has been reported in nearly every state in the U.S., but is most common in the West.

**Spread** Bulblets provide the primary means of reproduction (asexual). Bulblets can germinate immediately without a period of dormancy; viability is believed to be relatively short (2 years). Bulblets can be moved via livestock, wildlife, infested hay, vehicles, and caching by small mammals. Interestingly, in its native range bulbous bluegrass primarily reproduces sexually by seed.



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**Management:** Disturbance promotes bulbous bluegrass, so prevention and containment activities should focus on maintaining desirable competitive vegetation and avoiding overgrazing and other disturbances. Hand pulling and digging will work, but it is difficult to remove all of the basal bulbs. Mowing is not considered to be effective and may even proliferate the problem by scattering bulblets. Intensive early season grazing for several growing seasons can reduce bulbous bluegrass infestations. The effects of fire on bulbous bluegrass are not well known, but the plant can be top-killed by fire and the survival of bulblets will depend on their location at the time of the fire (i.e., on the plant, at the soil surface, or buried) and fire intensity. Several herbicides are labeled for bulbous bluegrass control in range and pasture. They include herbicides that contain the active ingredient glyphosate, rimsulfuron, sulfometuron methyl, or sulfosulfuron. In general, glyphosate should be applied early spring, and the other active ingredients can be applied post-emergent from fall to early spring. See table of herbicides from DiTomaso and Kyser (2013) for a list of herbicides that may be effective based on reports by researchers and land managers. [http://wric.ucdavis.edu/information/natural%20areas/wr\\_P/Poa\\_bulbosa.pdf](http://wric.ucdavis.edu/information/natural%20areas/wr_P/Poa_bulbosa.pdf). Consult labels for more detailed information and always follow label directions. Need help identifying grasses? Check out the “Montana Grasses” app at [www.highcountryapps.com](http://www.highcountryapps.com) and for help with terminology, check out the MSU MontGuide “Grass Identification Basics” at <http://msuextension.org/publications/AgandNaturalResources/MT201402AG.pdf>

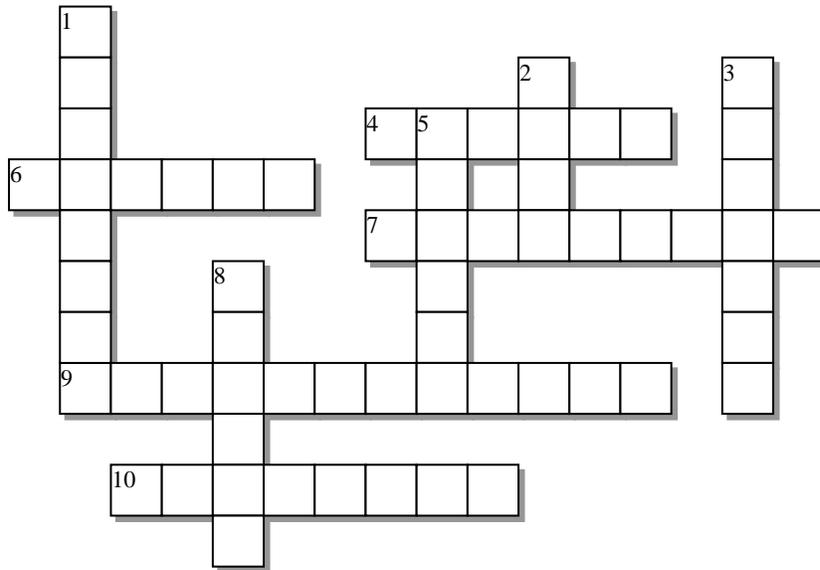


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## Test your knowledge of bulbous bluegrass



### Across:

- 4 - This is not considered an effective method of control for bulbous bluegrass  
 6 - For some grasses it's absent, for others it's hairy, for bulbous bluegrass it's membranous.  
 7 - Although an annual, bulbous bluegrass is sometimes described as having these tendencies  
 9 - For the most part, bulbous bluegrass is not very palatable, but bulblets have high levels of these (3 words)  
 10 - Unlike its promiscuous brethren in its native range, these provide the primary means of reproduction in North America

### Down:

- 1 - These are described as overlapping, rounded/lobed, or absent, and for bulbous bluegrass, they're absent\*  
 2 - Depending on its characteristics, this management practice could result in bulbous bluegrass mortality  
 3 - These are typically described as closed, open/overlapping, and for bulbous bluegrass, they're open/overlapping\*  
 5 - Bulbous bluegrass was first reported in this state in 1901  
 8 - Look for this color on the panicle when trying to identify bulbous bluegrass

\*Refer to "Grass Identification Basics" for answers to these clues.

Solutions are posted to the MSU Extension Invasive Rangeland Weed website:

<http://www.msuextension.org/invasiveplantsMangold/extensionsub.html>

