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Fairway Crested Wheatgrass (*Agropyron cristatum*)

Plant Species

From Montana Interagency Plant Materials Handbook *

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Fairway crested wheatgrass was introduced from Russian, Siberia and Turkey as early as 1898; however, the most important introductions were made about 1934 or later.

Fairway crested wheatgrass has been confused with standard crested wheatgrass. A further explanation of the two types of crested wheatgrass is as follows. The diploid ($2n = 14$), or fairway type, has smaller seeds, grows shorter and has finer leaves and stems than the tetraploid ($2n = 28$), standard types, on higher organic matter soils. But the tetraploid types remain greener than the diploid types under severe drought. The two species will not cross with each other.

Description

Fairway crested wheatgrass is a very hardy, long-lived, perennial bunchgrass that has a deep root system. Though generally characterized as a bunchgrass, it has weakly-rhizomatous, sod-forming, root growth.

Fairway crested wheatgrass is a finer-stemmed, leafier, lower-growing grass and is more uniform in growth form than is standard crested wheatgrass. It provides more complete ground cover than standard crested wheatgrass. Its altitudinal limitations are unknown, but are probably similar to standard crested wheatgrass. The upper surfaces of the leaves of fairway crested wheatgrass are covered with fine hairs and the plants are usually bright green in color. The heads or spikes of standard crested wheatgrass are variable in size and shape, while those of fairway crested wheatgrass are broad at the base and taper towards the tip. Fairway crested wheatgrass seeds carry more and longer awns than standard crested wheatgrass.

Adaptation

Fairway crested wheatgrass has good seedling vigor and drought-tolerance. It has moderate salt tolerance. It is not adapted to poorly-drained soils or very heavy, clay soils. Best performance is on well-drained loam soils in areas that receive 10 inches or more precipitation each year. It is used mainly in erosion control seedings of critical areas and in the revegetation of denuded areas such as reservoir berms, debris basin embankment and pool areas, highway rights-of-way, airports, golf courses, non-irrigated play areas and other similar uses in areas of low rainfall in Montana.

During hot, dry periods, the grass has the ability to become dormant and protects itself from injury by this characteristic.

Limitations

Seedlings are weaker, smaller and develop more slowly than those of standard crested wheatgrass. They are more resistant to root rot. Growth habits and palatability are similar to those of standard crested wheatgrass, but production is lower. Fairway crested wheatgrass tolerates only a short period of spring flooding, and cannot tolerate high water tables. It has only a fair tolerance to alkali salts and acidity.

Use for Hay

If fairway crested wheatgrass is to furnish a good quality of hay, it is advisable to cut it shortly after it comes into head or before blooming time. As the grass matures, it becomes harsh, and the protein content decreases rapidly. The hay cures

readily, and with favorable weather can be stacked or stored soon after being mowed. For higher hay production, include legumes with fairway crested wheatgrass. Regrowth after hay cutting is very poor. Occasional application of nitrogen fertilizer will be needed to maintain stand and plant vigor.

Use for Pasture

Growth starts about the same time as standard crested wheatgrass in the spring, but fairway crested wheatgrass will cure earlier and produces less vegetative growth. Fairway crested wheatgrass is better suited for pasture than hayland. Although it yields less than standard crested wheatgrass, it does yield well and is very palatable early in the spring. Although fairway crested wheatgrass is quite tolerant of grazing, about 2 inches of growth should be left ungrazed at the end of the season. Fairway crested wheatgrass pastures grow best and are the most nutritious in the early, cool part of the growing season.

Fairway crested wheatgrass goes dormant and is less palatable in the heat of summer, with some growth occurring again in the fall if moisture conditions are good. Occasional applications of nitrogen fertilizer will be needed to maintain stand and plant vigor.

Seed Production

Fairway crested wheatgrass is a good seed producer, usually producing about 100 to 200 pounds on dryland and 500+ pounds on irrigated. The seed is easy to harvest as it holds well and can be combined.

* [The Montana Interagency Plant Materials Handbook \(EB69\)](#) is no longer in print, but is available for viewing in Montana County Extension Service and National Resource Conservation Service Offices.