



Title: REGISTRATION OF 'DOUGLAS' CRESTED WHEATGRASS

Authors

- Asay K H,
- Jensen K B,
- Johnson D A,
- Chatterton, N
- Hansen W T,
- Horton W H,
- Young S A, - UTAH STATE UNIVERSITY

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Interpretive Summary: Crested wheatgrass was first successfully introduced into North America from Eurasia in 1906. Since then, this widely adapted cool-season perennial grass has been widely used to improve western rangelands. It is acclaimed for its productivity during the early season, but the rapid decline in the quality of its forage during the late summer and fall has drawn criticism. Crested wheatgrass is actually a complex of diploid, tetraploid and hexaploid species, with 14, 28, and 42 chromosomes, respectively. The new cultivar 'Douglas' is the first hexaploid cultivar to be released in North America. This cultivar, which is characterized by its exceptionally broad leaves, retains its forage quality better than other crested wheatgrasses. Douglas also is noted for its exceptional seedling vigor and forage quality during the spring and early summer. The cultivar has excellent winter hardiness, but it is not as resistant to drought as other cultivars such as sHycrest and Nordan. It is an excellent seed producer and is recommended for semiarid range sites that receive at least 25 cm of precipitation annually.

Technical Abstract: Crested wheatgrass was first successfully introduced into North America from Eurasia in 1906. Since then, this widely adapted cool-season perennial grass has been widely used to improve western rangelands. It is acclaimed for its productivity during the early season, but the rapid decline in the quality of its forage during the late summer and fall has drawn criticism. Crested wheatgrass is actually a complex of diploid, tetraploid and hexaploid species, with 14, 28, and 42 chromosomes, respectively. The new cultivar 'Douglas' is the first hexaploid cultivar to be released in North America. This cultivar, which is characterized by its exceptionally broad leaves, retains its forage quality better than other crested wheatgrasses. Douglas also is noted for its exceptional seedling vigor and forage quality during the spring and early summer. The cultivar has excellent winter hardiness, but it is not as resistant to drought as other cultivars such as sHycrest and Nordan. It is an excellent seed producer and is recommended for semiarid range sites that receive at least 25 cm of precipitation annually. Breeder, Foundation, and Certified seed classes will be recognized. Foundation seed will be produced by the USDA-ARS at Logan and distributed to seed growers by the Utah Crop Improvement Association. Protection has been applied for under the Plant Variety Protection Act of 1970. Conditions of this license specify that seed of the cultivar Douglas can be marketed only as a class of certified seed.

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