Growth Characteristics and Development of Perennial Complementary Cool-season Grasses. (C06harmoney221136-Poster)

Authors:

- K.Harmoney Kansas State University
- J.Brethour Kansas State University
- C.Thompson Kansas State University
- S.Johnson Kansas State University

Abstract:

Perennial cool-season grasses adapted to grazing and climatic stress are desirable in the central Great Plains. In 2000-2002, tiller density, dry matter production, and leaf elongation of ten varieties were evaluated following grazing in western Kansas. In 2000, 'Lincoln' smooth bromegrass (Bromus inermis Leyss.) had the greatest leaf elongation of 1.54 cm d-1, followed by 'Bozoisky' Russian wildrye (Psathyrostachys juncea (Fisch.) Nevski). In 2002, 'Alkar' tall wheatgrass (T. ponticum (Podp.) Barkw. and D.R. Dewey), and 'Luna' and 'Manska' pubescent wheatgrasses (Thinopyrum intermedium (Host) Barkw. and D.R. Dewey) had the greatest leaf elongation. 'Jose' tall wheatgrass maintained the greatest tiller densities with >1490 tillers m-2 the first two seasons. 'Slate' and 'Oahe' intermediate wheatgrasses (T. intermedium (Host) Barkw. and D.R. Dewey), and 'Jose' were among the greatest yielding grasses the first two years. In 2000, 54% of the variation in yield was attributed to leaf elongation and tiller density, but only 37% of the variation was accounted for in 2001. Most cultivars were as well adapted to grazing and the climatic stress of western Kansas as native western wheatgrass.

Corresponding Author Information:

Keith Harmoney Kansas State University 1232 240th Ave Hays, KS 67601 phone: 785-625-3425 ext.221 fax: 785-623-4369 e-mail: kharmone@oznet.ksu.edu

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