

BROMEGRASS VARIETY TRIAL

Dickinson Experiment Station – 1984

L. Manske and H. Goetz

A bromegrass variety trial was seeded at the Dickinson Experiment Station in the spring of 1979. The 10x25 foot plots were arranged in a randomized block design with four replications. Eleven varieties of smooth bromegrass (*Bromus inermis*) and one selection of meadow bromegrass (*Bromus biebersteinii*) were included in the trial. The trial was designed to evaluate the performance of the varieties in western North Dakota on the basis of dry weight above ground herbage production.

The annual dry weight above ground herbage production for each variety is shown in Table 1. The four highest producing bromegrass varieties in 1984 were Barton, Lancaster, Meadow brome, and Baylor with 1784, 1765, 1580, and 1541 pounds of herbage production per acre respectively. The four varieties with the greatest five year (1980-1984) mean annual herbage production were Baylor, Lancaster, Meadow brome and Rebound with 2175, 2030, 2018 and 2000 pounds per acre respectively. The two varieties with the lowest five year mean herbage production were Mandan 404 and Manchar with 1569 and 1658 pounds per acre respectively.

The bromegrass varieties in this trial have performed satisfactorily under the environmental conditions of western North Dakota. Ten varieties of smooth bromegrass and the selection of meadow bromegrass have had five year mean annual herbage production of over 1600 lbs/acre, seven varieties have had production of over 1800 lbs/acre and four varieties have had mean annual production of over 2000 lbs/acre. The top producing bromegrass varieties show good potential for use as tamegrass pastures and hayland in western North Dakota.

Table 1. Bromegrass Variety Trial - 1984¹

Annual Herbage Production in Lbs / Acre								
Variety	1980 23 Jun	1981 30 Jun	1982 28 Jun	1983 23 Jun	1984 5 Jul	Mean		
Barton SB	1441 a	2511 ab	2364 bc	1294 ab	1784 a	1879		
Baylor SB	1441 a	2557 ab	3792 a	1546 ab	1541 abc	2175		
Beacon SB	1473 a	2364 ab	1902 c	1172 b	1488 abc	1680		
Blair SB	1443 a	2427 ab	2224 bc	1407 ab	1400 abc	1780		
Fox SB	1372 a	2357 ab	2576 abc	1604 ab	1567 abc	1895		
Lancaster SB	1395 a	2975 a	2752 abc	1264 b	1765 ab	2030		
Lincoln SB	1483 a	2385 ab	2384 bc	1135 b	1334 c	1744		
Lyon SB	1411 a	2692 ab	2342 bc	1314 ab	1360 bc	1824		
Manchar SB	1337 a	2356 ab	1995 bc	1310 ab	1292 c	1658		
Mandan 404 SB	1290 a	2071 b	2105 bc	1134 b	1245 c	1569		
Rebound SB	1557 a	2440 ab	3239 ab	1491 ab	1274 c	2000		
Meadow brome	1275 a	2194 ab	3249 ab	1792 a	1580 abc	2018		

SB - Smooth bromegrass-*Bromus inermis*
Meadow bromegrass-*Bromus biebersteinii*

¹Means within columns followed by the same letter are not significantly different by Duncans multiple range test at P<0.05.