

## Forage Research Updates

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### **SOUTH DAKOTA - Cool-Season Bunch Grasses Show Promise**

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Orchardgrass (OG), timothy (TIM), tall fescue (TF), and meadow brome (MB) haven't been grown in the eastern Northern Great Plains, fearing winter injury and susceptibility to drought. However, interest in these grasses is increasing as producers better understand their production and profit potential when properly managed. Long-term suitability and persistence of several cultivars compared to intermediate wheatgrass (IW), a commonly grown grass well adapted to the region, are being evaluated. The experiment was seeded at Brookings, SD, in August 1998, fertilized with 75 lb N/ac each spring, and harvested twice in 1999 and once annually from 2000-2004. Results:

- Production ranged from a high of 4.7 ton/ac for Montebello TF in 1999 to a low of 1.1 ton/ac for Warrior OG in 2003.
- Yields fluctuated from year to year as spring moisture and winter severity varied.
- Averaged across years, 'Oahe' IW, 3 of 4 TF cultivars, 'Colt' TIM, 'Fleet' MB, and 'Haymate' OG were the highest yielding entries.
- The 6-yr average yield of Oahe IW was higher than 12 of 13 OG, 1 of 2 TIM, 1 of 4 TF, and 2 of 3 MB cultivars, but production of all species was satisfactory for the region, ranging 1.5-2.2 ton/acre.
- Chinook, an early-maturing OG, had the lowest 6-yr average yield.
- In early spring 2003, OG appeared to be severely winter-damaged. Stands appeared to recover by late May, but few reproductive tillers were produced. Despite the injury to OG in particular, there were no yield differences among cultivars or species in 2003.
- Given the potential quality and marketing advantages of OG and TIM, producers in the eastern Northern Great Plains should consider growing these species.