Small burnet produced more seed each year than any other species tested at both row widths. Tall fescue produced more seed than the remaining species tested each year and at both row widths. Orchardgrass and Indian ricegrass had good seed production under San Juan Basin growing conditions. Western wheatgrass produced 276 kg ha⁻¹ the first year at the 0.76-m row width, but declined to 64 kg ha⁻¹ the second year, and did not produce enough seed to effectively evaluate the third year. Basin wildrye was consistently the poorest seed producer, though it had lush vegetative growth.

Generally, seed production was higher in the 0.76-m than the 1.52-m row width during 1983 and 1985. However, in 1984, only small burnet produced higher seed yield in the 0.76-m row width, while tall fescue and orchardgrass produced higher seed yields in the 1.52-m row width. These results suggest that the environment interacts with species to determine optimum row spacing. Based on this information, it appears that small burnet, tall fescue, and Indian ricegrass would produce more seed in the first 3 yr of seed production when planted in the 0.76-m row width under San Juan Basin conditions. Furthermore, orchardgrass would produce more seed at the 1.52-m row width. No conclusions were made regarding western wheatgrass and basin wildrye due to poor seedling establishment. Seed increase from all species and seed production could be due to inadequacy of supplemental fertilizer, since supplemental fertilizer was not applied before or during the experiment. Further research is needed to evaluate seed yields of these cultivars with the addition of supplemental fertilizer.

References

REGISTRATION OF 'COMMANDOR' ALFALFA

‘COMMANDOR’ alfalfa (Medicago sativa L.) (Reg. no. 147) (PI 509067) was developed by Northrup King Company and released in January 1986. The experimental designation was 82503.

Commandor was developed by intercrossing 500 plants that were selected from two Northrup King experimental multiple-pest-resistant lines. The lines had been selected for resistance to one or more of the following: Phytophthora root rot [caused by Phytophthora megasperma Drechs. f. sp. medicaginis Kuan and Erwin], spotted alfalfa aphid [Theroioaphis maculata (Buckton)], Verticillium wilt [caused by Verticillium albo-atrum Reinke and Berth.], or anthracnose [caused by Colletotrichum trifolii Bain] at Eden Prairie, MN or Woodland, CA. The populations trace to ‘Drummor’, ‘Preserve’, and two European Verticillium wilt resistant cultivars. The approximate percentages of germplasm sources are: M. falcata (8%), Ladak (11%), M. varia (29%), Flemish (50%), and Chilean (2%).

500 plants transplanted to an isolated field near Othello, WA. Leafcutter bees [Megachile rotundata (F.)] were used for pollination. Seed increase is limited to one, two, and one generation of breeder, foundation, and certified seed classes, respectively. Certified seed may be grown from breeder or foundation seed. A maximum of 2, 3, and 5 harvest yr are permitted on breeder, foundation, and certified seed fields, respectively. There is no limitation on area of seed production.

Commandor was favorably reviewed by the National Certified Alfalfa Variety Review Board in January 1986. Application for variety protection certificate will be made.

C. C. Fox and W. J. Knipe (1)

REGISTRATION OF ‘5432’ ALFALFA

‘5432’ alfalfa (Medicago sativa L.) (Reg. no. 148) (PI 509534) was developed by Pioneer Hi-Bred International, Inc., and tested experimentally as XAR32, YAR32, 80W-1, and UW-1. The cultivar was released 19 Feb. 1986.

Published November, 1987

Reference and Notes
1. Scientist and director of forage research, respectively, NT and Stanton, MN 55081. Registration by the Crop Sci. Soc. of Amer.