Plant Introductions: The Foundation of North American Forage Legume Cultivar Development

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Forage legumes are essential for efficient animal-based agriculture (Barnes et al., 1985). They provide high yields of forage of exceptional nutritional value whether consumed directly as pasturage, green-chop, conserved as hay or silage, or incorporated into pellets or other feedstuffs. Legumes fix more than 20 million tonnes of atmospheric N₂ annually in the USA alone (Evans, 1975). Forage legumes improve soil structure and tilth, and are important for soil conservation and reclamation. Some species are major honey crops and many have aesthetically pleasing appearances. These attributes were recognized by the earliest immigrants who brought seeds of familiar species with them to North America. Legumes may have increasingly larger roles in low-input sustainable agriculture and for specialized, nonforage purposes, such as enhancing the biological control of deleterious insects (Bugg and Dutcher, 1989).

FORAGE LEGUME USAGE IN NORTH AMERICA

For many years, alfalfa (*Medicago sativa* L.) has been the most important forage legume cultivated in North America. More than 10 million ha of alfalfa hay are harvested annually in the USA (U.S. Department of Agriculture, 1988), approximately 2 million ha for the same purpose in Canada (Goplen et al., 1982), and a lesser amount in Mexico (Michaud et al., 1988). Including pastures of alfalfa or grass plus alfalfa mixtures would significantly increase these estimates. Taylor (1985) cited estimates of the use of 11 true clover species (*Trifolium* spp.) in North America. The total seeded area exceeded 9 million ha with at least an additional