



AC Saltlander green wheatgrass

Increasing productivity of saline soils

Saline soils are those that contain sufficient soluble salts to impair growth of plants. Most forage plants cannot persist in these areas leaving opportunity for invasion by weedy species. These saline areas are often ignored and unmanaged, with low productivity because rehabilitation is difficult and costly. A perennial grass species that can establish, persist, provide competition to weeds and provide good quality forage for grazing is an ideal tool for reclamation of saline soils.

AC Saltlander green wheatgrass (*Elymus hoffmannii* Jensen & Asay), is an introduced perennial forage grass that demonstrates exceptional salinity tolerance. Its extensive, creeping root system can dewater saline areas and spread out, covering the ground to compete with unwanted, unproductive or unpalatable plants. In addition, AC Saltlander is productive, palatable, and has good nutritional qualities, making it an ideal selection when seeding saline soils.



Development

Green wheatgrass (*Elymus hoffmannii*) is believed to originate from a naturally occurring hybrid between blue bunch wheatgrass (*Pseudoregneria* spp.) of Eurasian origin, and quack grass (*Elymus repens*). Initial selections in the USA, from seed collected in Turkey, focused on enhancing bunch grass growth form, plant vigour, leafiness, seed production and pest resistance. Further selection for salinity tolerance, winter hardiness, erect growth form, leafiness, and green plant colour occurred at the Swift Current Research and Development Centre (SCRDC) at Swift Current SK. This program led to the development of AC Saltlander in 2004.

Forage yield and quality

AC Saltlander is able to produce excellent dry matter (DM) biomass yields. Yields are similar to that of tall wheatgrass in non-saline & saline conditions and superior to Altai wild rye, Russian wild rye and smooth brome (Carlton variety) in non-saline conditions.

AC Saltlander has good palatability and forage quality. Grazing studies at SCRDC have indicated that digestibility, crude protein and neutral detergent fibre (NDF) of AC Saltlander are comparable to smooth brome when grazed at the boot to flag leaf stage. Average quality was found to be 15-19% crude protein, 45-57% NDF and 63-65% digestibility. Green wheatgrass begins growth early in the spring and remains palatable into late summer.



