

Seed and Forage Production of *Strophostyles leiosperma* and *S. helvula* Harvested at Three Heights. (C06-muir114022-Poster)

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Abstract:

Trailing wild bean (*Strophostyles helvula*) and smooth-seeded wild bean (*S. leiosperma*) were evaluated for forage and seed yield as well as herbage quality in north, central, and west Texas. Trailing wild bean yielded up to 7 Mg forage, out-producing smooth-seeded wild bean by a factor of 1.8 to 3.4, depending on location and soil moisture conditions. In contrast to trailing wild bean that produced most of its seed in the autumn (213 kg/ha/yr at the best site), smooth-seeded wild bean responded to light defoliation by increasing seed yields during the growing season (from 85 to 228 kg/ha/yr). Forage of trailing wild bean defoliated throughout the growing season at a 10-cm height had ADF concentrations as low as 220 g/kg but AD-lignin concentrations in undefoliated plants of up to 85 g/kg. Crude protein values tended to be higher in the finer-stemmed smooth-seeded trailing bean, reaching over 220 g/kg in plants defoliated throughout the season. Both trailing beans showed marked decline in CP concentrations (down to 80 g/kg) when no defoliation occurred during the growing season. Wild beans have potential in pastures, wildlife plots and North American prairie restoration.

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