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ABSTRACT-- Nitrogen concentrations of senescent tall-grass foliage (*Andropogon gerardii*, *A. scoparius*, and *Panicum virgatum*) in a relict tall-grass prairie near Boulder, CO, were measured and compared with a short-grass species, blue grama (*Bouteloua gracilis*), growing in the same area. Tall-grass species averaged less than half of the nitrogen content of blue grama, and averaged less than 0.5 % nitrogen by weight. These values are similar to those found on semihumid grasslands; the Colorado climate did not affect senescent foliage nitrogen levels. These findings suggest that overwintering ungulates, reported as common in this area, probably did not graze the tall-grass vegetation during the non-growing season.

Key words: foliage, nitrogen, tall-grass prairie.