

TRENDS IN BISON MANAGEMENT: WHAT IT MEANS FOR THE SPECIES ^{TWS}

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We have observed several common trends in recent literature and conferences on commercial bison production. These include: artificial seeding of native range, pest/parasite treatment, feedlot "finishing", dehorning, small herd sizes, highly skewed sex ratios, and culling or other selection based on subjective characteristics. The rationale for these activities is rarely articulated, and appears to be a carry over from the livestock industry. However, these techniques add unnecessary expense and labor when applied to bison. We argue that they are biologically and ecologically counterproductive as well. The history of ungulate domestication and management suggests that producers are forcing a native ungulate adapted to North American grassland ecosystems, with few pests/parasites/diseases, high reproductive

capability and low natural mortality into an artificial, expensive, labor intensive management system. We recommend producers adapt specific management strategies and activities to bison ecology and behavior, rather than vice versa. These strategies include: large herds on adequate acreages of native range, natural sex ratio , maintaining older age classes, exchange of yearlings between herds, random harvest strategies, and minimizing disease treatments. Strong artificial selection will likely result in another poorly adapted, less successful ungulate. Managers of public bison herds are in a unique position to preserve bison as a wild ungulate because they are not under the economic constraints of private producers. However, a review of public herd management shows there is a need to apply knowledge of conservation biology to bison management on public lands.