

## On-farm Bison Feeding Trials Yield Practical Information

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**T**hree on-farm bison feeding trials were conducted using a 4 x 4 Latin Square design with 80 d feeding periods and 20 bison bulls per cell. Objectives of the respective trials were to evaluate palatability of alternative feeds, compare effects of energy level and grain processing, and study feed delivery methods for bison bulls fed for meat. Effects of season were also evaluated. In trial 1, bison bulls (n=78, avg initial wt 470 lb) consumed equal ( $P>.10$ ) amounts of concentrate diets (69% of DMI) formulated with wheat midds, wheat screenings, crambe meal or a proprietary commercial formulation. Grass hay was offered free choice to all bulls. Daily gains from screenings diets (1.72 lb) were greater ( $P<.10$ ) than crambe meal (1.52 lb) with the other diets intermediate (1.61 lb). DM intake as a percent of body wt was not affected by season ( $P>.10$ ) but daily gains were reduced ( $P<.10$ ) during winter (.37 lb) compared to the other three seasons (1.63 lb). In trial 2, treatment diets were wheat screenings, rolled corn, rolled waxy corn, or whole waxy corn with grass hay offered free choice. Bison bulls (n=80, avg initial wt 602 lb kg) gained faster ( $P<.10$ ) on the rolled corn diets (1.65 lb), followed by the whole corn diet (1.46 lb), and wheat screenings (1.46 lb). DM intake was similar ( $P>.10$ ) for all treatments (69% concentrate). Daily gains during the winter (0.99) were less ( $P<.10$ ) than the other three seasons (1.72). In trial 3, four feed delivery systems were compared using 78 bison bulls (avg initial wt 653 lb). Concentrate (wheat screenings pellets) was fed in a self-feeder; fenceline bunk; or programmable feeder (63% of DMI) with grass hay free choice. The fourth treatment was chopped hay and concentrate fed as a TMR in a fenceline bunk. Concentrate and dry matter intake was greater ( $P<.10$ ) for the TMR diet. Hay intake was greater and concentrate less ( $P<.10$ ) for the self-feeder. No differences ( $P>.10$ ) in gain or feed efficiency were observed. Bison gains were modest throughout these trials but appear to be influenced by diet or feed delivery system.