



Developing a Grass-Based Finishing System for Wisconsin



WISCONSIN GRAZING LANDS CONSERVATION INITIATIVE GRANT PROGRAM

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Research Brief

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Researchers Gary Onan and Dennis Cosgrove researched what type of growth performance, carcass merit, and economic outcomes might be expected from finishing beef cattle on pasture in Wisconsin utilizing a well-managed intensive rotational grazing system.

A total of 37 steers (20 BlueLingo, four Polled Hereford, and 13 Angus/Hereford cross) were chosen for this trial. All steers were weaned in November 2008, and on March 31, 2009 were weighed and assigned to either of two treatment groups, feedlot-fed or pasture-fed. The pasture group was maintained on alfalfa haylage until pasture was available. The pasture-fed steers were rotationally grazed throughout the summer, feeding on mixed grass/legume pastures.

The feedlot-fed steers had a significantly higher daily weight gain during their finishing period than did the pasture-fed steers. Feedlot-fed steers were growing at a rate of 2.89 pounds per day compared to 2.07 pounds per day for pasture-fed. Thus, the feedlot-fed steers had a significantly shorter time to slaughter (about 18 months). However, all pasture-fed steers reached market at 20 months of age or younger.

The results for carcass performance differed between the treatments. Pasture-fed steers had a significantly lower amount of backfat. This resulted in a significantly higher yield grade for the pasture-fed steers, meaning that they had a higher percent of boneless, closely trimmed retail cuts from the high-value parts of the carcass. The marbling degree and percent of carcasses reaching low choice was not statistically different between treatments.

Shear force (tenderness) and percent cook loss were not statistically different between treatments. Juiciness scores were almost identical. In trained taste panel testing, feedlot-fed beef had significantly higher flavor intensity and a significantly lower amount of detectable off flavors.

The pasture-fed beef was a more cost effective production method. Even with the added cost of finishing the steers on haylage due to seasonal constraints on pasture growth, costs were significantly lower for the pasture-fed treatment (\$0.612-\$0.756/lb) compared to the feedlot-fed treatment (\$0.921/lb).

In summary, finishing beef steers on pasture is an effective method of production. Even though growth rates were slower than for the feedlot group, the pasture group reached market within a very desirable age range with a considerably lower cost per pound of gain.

The Grazing Lands Conservation Initiative Grant Program is a partnership between the private sector GLCI Steering Committee, the USDA Natural Resources Conservation Service and the WI Department of Agriculture, Trade, and Consumer Protection. This series of research briefs summarizes projects funded by this program. Our mission is to expand the use of profitable, grazing-based livestock production systems that foster environmental stewardship. This is accomplished through high quality technical assistance to owners and operators of private land, university and producer coordinated research, and educational programs. For more information on the program or on the research in this Brief, contact: Laura Paine, Grazing and Organic Agriculture Specialist, WI Department of Agriculture, Trade, and Consumer Protection, (608) 224-5120, laura.paine@wi.gov; or Rhonda Gildersleeve, Extension Grazing Specialist, University of Wisconsin-Extension, (608) 723-6243, rhonda.gildersleeve@ces.uwex.edu. This summary was written by Ken Barnett with University of Wisconsin-Extension.