Increasing Value Captured from Grassland and Forages Boosts Beef Production Profit Margins

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Increasing the value captured from grassland pastures and harvested forages is the key to improving profit margins for the beef production industry, says a North Dakota State University range scientist.

"Some production costs for the beef industry in the Northern Plains are unnecessarily high because livestock producers tend to rely on traditional pasture-forage management practices that inefficiently capture the nutrients produced on a land base," notes Lee Manske, a range scientist at NDSU's Dickinson Research Extension Center. "These practices result in higher costs for the nutrients ingested by the animals, increased annual production costs per animal, and low profit margins. Just as the value added to a commodity at each stage of production provides economic benefit, increasing the value captured from the land base reduces costs and strengthens profit margins."

Livestock production enterprises such as backgrounding, retained ownership, regional feedlots, and regional packing plants add value to beef commodities and should improve the economic status of the entrepreneur and the region. Historically, raw commodities like wheat and weaned calves have been shipped from the Northern Plains to other regions, which gained the economic benefit of the market value added to the commodities at the successive stages of production. The value added to raw commodities from the Northern Plains built much of Minneapolis and Chicago, Manske says.

Agricultural producers and the Northern Plains region can gain economic benefit by adding value to regionally produced raw commodities through the development and operation of enterprises that continue the progression of production stages. Beef producers and the region can also benefit economically from an increase in the value captured from the land resource, Manske observes.

Value captured is the market value of a resource's potential that would otherwise be lost, but instead is developed and converted into a saleable commodity. The improved efficiency of biologically effective pasture-forage management strategies results in increased value captured from resources on a land base, Manske states. Traditional pasture-forage management practices make the conversion inefficiently. The quantity of forage nutrients produced but lost because they are not converted into a saleable commodity raises livestock production costs.

Implementation of biologically effective pasture-forage management strategies increases the quantity of forage nutrients produced and improves the efficiency of forage nutrient capture and conversion of forage nutrients into saleable commodities, Manske explains. An increased quantity of forage nutrients produced and captured as a commodity reduces livestock production costs and improves profit margins.

"Pasture-forage management strategies that increase value captured place the biological requirements of the plants and the ecosystem processes as the highest priority," Manske says. "Those systems coordinate grazing and harvest periods with plant growth stages. The grazing and harvest periods are timed to remove greater amounts of nutrients rather than greater amounts of dry matter and to provide adequate nutrients throughout the cows' 12-month production cycle. The most successful systems combine pasture and forage types in a 12-month sequence so that the herbage production and nutritional quality curves are coordinated with the 12-month dietary quantity and quality requirement curves of cow production periods," Manske states.

Beef production is the last meat industry to increase the efficiency of feed management systems, Manske notes. He emphasizes that the future profitability of the beef industry depends on its ability to reduce production costs by implementing improved, efficient 12-month pasture-forage management strategies that increase the value captured from the land base.