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Produce profitable beef despite high grain prices

By Farm & Ranch Guide staff

With high feed prices becoming the new norm, research is showing cattle producers may be able to feed less grain and still produce profitable beef.

Scott Kronberg, a USDA-ARS Northern Great Plains Research Laboratory range scientist with an animal focus in Mandan, N.D., said ranchers may be skeptical about that.

"My sense is that there are a lot of folks who won't believe we can produce beef with less grain or considerably less grain," he said.

But he said beef experts are finding in the present economy, that will be the new reality.

"This may be a serious trend in the future that we may have to adapt to," Kronberg said.

Chris Hurt, a Purdue University Extension economist, said that the times where cheap feed was readily available is probably gone forever. Corn prices have soared from \$2.05/bushel a few years ago to the present day \$4 bushel. With energy pushing the market, prices will more than likely stay there.

Troy Marshall, a rancher and writer for "Beef Magazine," says the packing industry will have to cut back its capacity as a result. Even so, he said there have been constant battles to keep the capacity at the same level.

"That's been great news for feeders and ranchers thus far, but an adjustment is coming," Marshall said.

Commodity broker Andy Gottschalk, says that cow-calf operators are going to be the most vulnerable to the high corn prices.

"Higher corn and feed grain prices will ultimately limit the price the fed sector will pay for calves and feeders," Gottschalk said. "Each 10 cent advance in corn prices will reduce the value of a calf or feeder \$4-5 per head."

NDSU beef extension expert Greg Lardy says if "we are in a new era for corn prices, we will likely see shorter feeding periods, more emphasis on yearling cattle, backgrounding and stocker programs, and less emphasis on calf-feds. We'll also likely see the value of grass, especially good grass, increase."

Kronberg says there are strategies to help produce beef with less grain:

€ Produce beef with less intramuscular fat, a quality grade of Select rather than Choice or Prime.

He said the U.S. Meat Animal Research Center in Nebraska found that some Americans would buy leaner graded beef as long as it was tender meat.

Further Nebraska research shows that beef from yearlings can be made tender with extended aging.

€ Grow cattle quickly without grain on high quality forage.

In a feedlot, on a high concentrate diet, a weaned steer calf can gain 3 to 4 pounds a day, Kronberg said. A yearling can gain 2 to 3 pounds per day on a high concentrate diet in a feedlot.

On high quality forage in a feedlot, a weaned steer calf can gain 1.5 to 2.5 pounds a day. In pasture, on high quality forage, a yearling can gain 2 to 3 pounds a day.

"The point I want to make is, yes, we'll see some reduction in average daily gain with weaned steer calves, but the reduction in gains is not necessarily great enough so that we can't still keep those animals growing well," Kronberg said.

Another point to consider is the feed conversion efficiency. He said there are things producers can do to reduce the feed conversion efficiency disadvantage for beef versus pork or chicken production.

"Beef is the type of meat that is most likely to be hurt by high grain prices," he said.

The feed conversion ratio for feed dry matter to product dry matter in beef is about 15, pork is about 6 and chicken is even smaller, about 5.

The feed conversion ratio for feed protein fed to these animals to product protein in beef is about 4, in pork about 2.7, and in chicken about 2.4.

Ways to reduce the beef disadvantage:

€ Try to take advantage of beef strengths.

€ Use cattle to harvest forage on land unsuitable for annual crop production or on land that is suitable but crop production can be rotated between annual crops and perennial forages.

€ Use multiple pastures and stock rotation to optimize forage quality of native and or introduced grasses.

€ Use pastures seeded to perennial plants that provide high quality forage during spring, summer and fall.

“The goal is to have cattle gain at least two pounds per day while grazing,” Kronberg said.

Another idea is to reduce the feed conversion efficiency by using cattle as cheap labor and a cheap fertilizer source to improve soil fertility and productivity for future crop productivity.

Ways to do that:

€ Recycling nitrogen and organic matter back to the soil via feces and urine.

€ Recycling plant nutrients back to the soil via tramping plant material to the soil surface and even into the soil while they gain 2 to 3 pounds a day producing high quality forage.

Research at Mandan in 2007 on yearling steers grown and fattened for slaughter on forage with or without supplementation (flax or a corn/soybean) showed the following average daily gains:

€ ADG in May to June were 1.4 to 1.5 pounds a day.

€ ADG in July were 1.3 to 1.9 pounds a day.

€ ADG in August to September were 2.5 to 2.9 pounds per day.

€ ADG in October was 1.2 to 2 pounds per day.

“These gains weren't as high as I'd like to see them,” Kronberg said. “If you want cattle to gain more like 2 to 3 pounds per day in early summer when they should be able to as our forage tends to be higher quality, you don't want to feed them a lot of grain in the winter because then you are not going to see as good of gains in the spring or early summer.”

He said they have had a hard time with research projects finding calves that have not been fed a lot of grain in the winter.

“It's a lot easier to do this with your own calves,” Kronberg said. “I encourage you to give them a high quality forage or maybe a little grain, but don't load them up with grain or you won't see as good of gains as I would like you to see in the spring.”

Beginning in August, when they switched the steers to proso millet, an annual forage the Mandan lab grows on good farmland, gains raised to the higher level, he said.

In the fall, they will combine the millet with a cool season forage.

To produce profitable beef while grain prices are high, become a profit-driven producer and optimize the cost to output ratio, or develop a reputation for cattle with a focus on beef with superior eating quality, Kronberg said.

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