The Cow Has Changed, *Has Her Diet?*

Cow herd nutrition affects productivity, profitability

by Miranda Reiman, senior associate editor

In the last 20 years, U.S. cattlemen have added 120 pounds (lb.) of carcass weight, increased the genetic trend for milk expected progeny difference by 47% and doubled the percentage of Prime carcasses — but for all that improvement, overall weaning weights at video auction have remained somewhat flat.

What gives?

Wesley Moore, technical services specialist for Cargill Animal Nutrition, says the genetics are there, but those cows just "need more groceries."

He admits his bias, working for a feed company, but the question remains: "What do our highly productive cows today truly require? Are we keeping nutrition where it needs to be?"

If meeting minimums and avoiding deficiencies were the cow herd nutrition goals of the past decades, optimizing performance is the next wave, Moore says.

"Costs are continuing to go up, but revenue isn't always continuing to go up in every operation," he notes. "In some situations, our cow is actually outpacing our nutrient environment that we're putting her in, and thus we're not getting her full or optimal performance."

The cow has changed, and the proof is in the offspring. Carcass weights have increased an average of 6 lb. per year since the 1970s, and the number of cattle reaching Choice and Prime has grown in the last decade to 80% of all fed cattle.

"If we live in the day-to-day of genetic selection, we don't always realize in 10 years what kind of progress we've made," he says.

It's been a boon to consumer demand and meeting customer needs, but that progress on the final beef product affects the inputs.

"In most places in a commercial setting, our cows are grazing the same pastures and grass that they were grazing in the 1970s," Moore says. "Our cow — that we perhaps have increased protein requirements on by 40% and increased energy requirements on by 80% — is grazing that same forage."

Amping up Grandpa's grass

That blanket statement is not the case for everyone, and it's not the case in Scott Cherne's pastures near Guttenberg, Iowa. There, the Angus breeder and crop farmer has spent more than a decade improving the pasture ground his grandfather purchased in 1946.

Cherne plants clovers, fertilizes his pasture, forage tests periodically and works closely with a nutritionist to fine-tune.

"To get the calf that we're expecting, we've got to provide more for the calves now," he says. "Every year, we've got to make sure that we're stepping up and making sure the forage is available for better-performing cattle."

Since 2005 he's used a premade mineral package and then supplemented with a total mixed ration (TMR) from calving through spring turnout.

"We're blessed with high-protein hay almost every year, and then we're obviously in corn country, which makes it pretty easy to balance a ration with the grain," he says.

Cherne raises what feedstuffs he can, and then he sources whatever is the most economical and still fits his needs. That includes anything from soyhulls and ethanol byproducts to high-moisture forage.

"It all depends on pricing, and that gives us flexibility," he says.

Recently, Cherne began using the Performance Beef[™] software program to help him make and track feeding decisions, collecting data from his bale processor scale and then returning real-time instructions back to his screen.

"We tell the program how many cows are in this pasture, if we want to put a grain mix in and it'll basically tell us what we need to deliver," Cherne says. "It keeps us mindful of overfeeding or underfeeding." That's helpful during busy seasons like calving, he says. "When I have extra help coming in it's very intuitive, very easy to let them feed the right amount of feed per group and it's very repeatable day after day."

Even with technology, though, it's not as simple as making one plan and sticking to it long-term. It's

about adapting to resources and with the ever-improving cow herd.

"To maximize genetic expression, I think we'd run terribly inefficiently from a financial standpoint," he says.

To hit the cow's absolute peak performance, it would likely mean underutilizing forage. That's not a spot he wants to be either.

"I don't think we get the maximum out of our calves, but we're working on it."

What you put in = what you get out

As a line item on the budget, feed costs show up as just that: a cost. Yet what if it was viewed as more of an investment?

"If we've got a cow consuming more forage, more pasture, requiring more acres and production for same pounds of weaned calf, we really need to challenge that train of thought as we look at our business planning, genetic selection and nutrient requirements going forward," Moore says.

There's got to be a payoff for the increase, but it's not as simple as just giving her more feed.

"She's bigger, she's capable of eating more — but don't let that fool you," he says. "I think our highly productive cows today aren't capable of eating through whatever mess we throw at them."

Moore points out if they physically can't eat enough of it, the ration isn't doing her any good.

"We need to do a better job of knowing our situation, and it starts with knowing our performance numbers," Moore says.

To match resources to your herd, you need to know:



That includes measuring cow size, weaning weight and pounds produced per cow exposed.

Beyond the ration

On his lowa farm, Cherne says getting the most out of his ground involves more than just a balanced ration. It includes developing water to encourage

efficient grazing, rotating pastures often and, his current project, working on more shade for his cow herd.

A few years ago, Cherne had what he now considers the most powerful reminder to stay ahead of nutrition. Competing interests for his time left his cows on free-choice hay for a season, and it's one he'll always remember.

"In that instance, we learned a pretty important lesson," he says. "There are huge differences in the ability for cattle to convert

less feed into what is usable pounds."

Only about a third of the cattle looked really good from that "roughing it" group, Cherne says. "There were probably another third that won't make a usable cow."

That's the kind of thing that pays for a nutritionist or a management program pretty quickly, he says. Yet, providing a good, balanced ration is more than insurance.

"It should be looked at as an investment," Moore says, "an investment that provides a return."

Editor's note: Moore spoke as part of the Angus University webinar, "Evolution of the Cow, Evolution of Nutrition." Watch the entire recording at www.angus.org/University/Webinars.

