

Beef cattle feeding and care have always been a critical aspect of cattle production in the Midwest. Meeting the most basic needs of livestock – adequate feed for efficient production and well-being – represents the major cost to producers.

“That makes hay and forage, the basic cattle feed, more valuable today, whether it is standing in the pasture, rolled into a bale or packed into a bunker,” said Doug Hanson, ProHarvest Seeds forage seed lead and Illinois Forage and Grassland Council director. “As such, it may deserve greater attention in valuing its costs, and maximizing its use and value.”

It is often said that a properly fertilized pasture or hayfield is the cheapest forage you can buy. With current land values and high input costs (seed, fertilizer, diesel fuel) it is important to get the most out of land that has been dedicated to forage production.

Historically, hay and forage have been abundant and inexpensive, but finding 1,200-pound quality round bales for \$25 to \$30 per bale is no

longer an option. With forage values ranging from \$120 to over \$200 per ton it is important to manage forage production with the same intensity as corn and soybeans.

Pastures

Pastures will increase production with added fertility. Hanson recommends using 200 pounds of ammonium sulfate in either spring or fall.

“Mid to late August is the best time to apply ammonium sulfate in Illinois. Spring fertilizing can be done in late February through mid-March, which is around the same time that wheat is being fertilized. This fertilizer will provide around 40 pounds of nitrogen along with some sulfur,” he said. “Legumes will respond to sulfur like grasses respond to nitrogen.”

Ammonium sulfate is often the cheapest source of nitrogen and can be used in the granular or liquid forms depending on availability from your supplier. According to Hanson, encapsulated Urea (ESN) or comparable types of time released products are

types of time released products are another good source of nitrogen. He recommends consulting your supplier if you want sulfur mixed in with your ESN.

To maximize pasture forage performance, try a mixture of legumes and grasses.

“Legumes can make up as much as 35 percent of the pasture, but I caution beef producers if grazing at this level. With legumes, you can increase tonnage, but also the opportunity for bloat,” he said. “I would recommend more in the 20 to 25 percent range with good management.”

If a pasture is in need of a legume, Hanson recommends adding white clover or red clover seed at the same time as spring fertilization.

“Three to five pounds of a good white clover (not dutch white clover) is more than enough. If using red clover I would go with eight to 12 pounds,” he said. “A mix of three pounds white and five pounds red is a good way to hedge your opportunity. I have seen years where one type of clover will do better one year and the other type will do



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- Doug Hanson

better the next. Therefore, this reduces risk and provides more variety in the pasture.”

It’s important to plant early, and provide good weed control and fertility to increase yield potential.

Hay Fields

Two hundred pounds of ammonium sulfate applied to a grass alfalfa mix hay field is an excellent way to increase hay tonnage and create more healthy roots. The alfalfa will respond to the sulfur and it will respond to the nitrogen early in the season before nitrogen fixation takes place. The grasses will also respond to the nitrogen.

If a hayfield is under-performing, it is best to add grasses or red clover in the fall. It will compete against the existing plants better and will have minimal weed pressure.

“If you realize after first cutting that a field suffered a high percentage of winter kill it is going to be too late to help the hay field for the rest of the summer and it will probably be economically wise to terminate the field after the first cutting,” Hanson said. “Terminating the hay field and planting it to a high quality summer annual could yield anywhere from six to 10 tons of good quality feed. If you add

your first cutting tonnage to that number you will see why summer annuals can really help meet a farms forage needs.”

He adds that a normal producing hay field will yield three to six tons of hay depending on management, soil type and Mother nature. Approximately 45 percent to 55 percent of the yield is in the first cutting. Therefore, taking one and one-half to two tons of hay and then using a summer annual and getting another six to 10 tons of feed can be a no brainer.

Hanson adds to consider planting a high yielding summer annual that can be grazed or harvested such as Brown Mid-Rib (BMR) Sorghum Sudan Grass, Sudan hybrids and Hybrid Pearl Millet.

Cover Crops

Cover crops by nature are designed to scavenger nutrients. They can be an excellent tool for doing so, but if you are planning on harvesting a cover crop for forage you may need to add fertility.

Hanson shares an example of a family in 2013 that planted and harvested 100 acres of winter rye. It was on their poorest ground which also has poor drainage. It was treated like most cover crops and did not receive fertilizer. They made baleage from all

100 acres and harvested 420 bales. He admits that this is a lot of feed, but the family was actually hoping for more tonnage and it could have yielded 50 percent to 75 percent more if it had been fertilized. Another family planted 10 acres of winter rye in a field next their cattle barn and this field was popular for spreading manure. Their field yielded 80 bales, which is twice the production of the first family. They did not add fertility in 2013, but all the years of spreading manure is better than any source of synthetic fertilizer and this is where cattle producers have a real advantage. Hanson was able to view both fields the day before they were harvested and it was apparent that added fertility is important in producing quality forage and it also has a direct relationship to tonnage.

“In order to increase our chances at profitability, cattle producers must reduce feed costs and this can be done most effectively through aggressive management of our forages. The best returns from pasture fertilization will depend on effective utilization through well-managed livestock and forage programs,” he said. “Fertilization is important in any efficient, highly productive forage program.”