navigation

Links

- News Home
- Columns
- Archives

Feeds

- All News RSS
- BeefTalk RSS
- Dairy Focus RSS
- Prairie Fare RSS
- Economics RSS
- Renewable Accounts RSS
- Small-business Savvy RSS

Twitter

BeefTalk: A Beef Cow is What She Eats

Kochia and Russian thistle can be used as an alternative livestock feed if more desirable pasture or feed is limited.

By Kris Ringwall, Beef Specialist

NDSU Extension Service

Droughts are not new.

I remember Dad recounting the 1930s and the experiences Grandpa had. Hay, or any feed, was scarce, and cows survived eating thistle (I expect Russian thistle) mixed with a fair bit of kochia. Dad's only comment was to be sure to jump away when

Images

Russian Thistle and Kochia Can Be Fed to Cattle If Necessary

columns

BeefTalk: BeefTalk: A Beef Cow is What She Eats (2017-07-13) Kochia and Russian thistle can be used as an alternative livestock feed if more desirable pasture or feed is limited. FULL STORY

Prairie Fare: Prairie Fare: July is National Watermelon Month (2017-07-13) Watermelon packs a lot of nutritional benefits. FULL STORY

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the cows lifted their tails.

Most cows at that time were stanchioned, and a walk behind the cows meant one was in firing range. A direct hit meant a smelly trip to the house, and modern showers and water were not available until the next rain.

Just like grass, weeds have been around for a long time, so I thought I would ask NDSU Extension Service weed specialist Richard Zollinger for some thoughts.

Russian Thistle and Kochia Can Be Fed to Cattle If Necessary

"Kochia and Russian thistle can be used as an alternative livestock feed if more desirable pasture or feed is limited," Zollinger notes. "Although the nutritional quality of these plants is less than alfalfa, they can be used to supplement feed rations. Livestock do not grow as well when fed these plants as they do when fed other forage crops.

"Kochia and Russian thistle should be used as feed only when quality forages are not available," he adds. "Russian thistle and kochia are most palatable if harvested prior to flowering. Russian thistle is best utilized by grazing or as hay. It does not make good silage because of a high water content and disagreeable odor.

"Kochia makes good pasture, hay or silage," he says. "Russian thistle and kochia may have laxative and other adverse effects if fed exclusively, and thus should be fed in combination with other feeds such as straw or grass hay."

Zollinger also provides this warning: "As with most plants, kochia and Russian thistle may accumulate high nitrate levels during hot, dry conditions. A nitrate test should be conducted prior to using the feed."

I guess Dad was right on the laxative. As a rule of thumb, always contact a nutritionist when contemplating a ration change.

Karl Hoppe, NDSU Extension area livestock specialist at the Carrington Research Extension Center, notes that high levels of kochia can have issues with oxalates, and the need to blend or limit feedstuffs that are "off the beaten path."

As a ruminant animal, the beef cow never was intended to lead a pampered life. Instead, it converts cellulose and other low-quality plantlike materials into products edible for humans. In fact, nothing is wrong with a mixed-forage diet composed of a multitude of different types of plants.

The quality of feed materials can vary widely, but cows can exist on low-quality roughage. A basic understanding of the cow's requirements is all that is needed. For most beef cows, grass hay will meet their nutritional requirements during mid to late gestation.

After calving, energy and protein requirements increase, which alfalfa or another high-quality forage can provide if added to the ration or diet. A cow should have roughage that is at least 7 percent protein because lower protein will start resulting in some digestibility issues.

One pound of barley and 4 pounds of high-quality straw or weedy hay (again, the mix of forages is good) can substitute for half of the roughage, provided the other half is good-quality hay. The increase in protein before calving can be met with a 20 to 30 percent protein cake daily, depending on the analysis of the ration.

After calving, average to above-average milking cows would need an additional burst of protein, but we hope next spring will bring fresh grass. During severe roughage shortages, using barley as an example, barley can substitute for hay at a rate of 1 pound of barley for 1.6 pounds of hay to a preferred maximum of 50 percent of the daily intake.

Other grains or feedstuffs could be used, each with its own substitution value. Better-quality grass/legume hay should make up the remaining 50 percent of the ration of a cow before calving.

Vitamin A and phosphorus deficiencies are likely when feeding low-quality roughages. These requirements are best met with a free-choice mineral-vitamin mix. Any time a nontraditional feed is used, a nutritional analysis to determine feed quality or unusual mineral

composition or imbalances is a good idea.

Grandpa and Dad survived the ’30s and several additional droughts since then. Eventually, other forces will weigh in on the long-term future of any operation. Planning and implementing a drought management program will guide the operation through the dry periods.

Keep in mind, the long-term effects, including reproductive failures, can be traced back to poor nutrition, which can be mitigated. The producer knowledge base is greater than what Dad had access to in the ’30s, but beef producers still need to implement that knowledge through a planned drought management plan that uses nutritional inputs wisely with limited expenditures.

Also keep in mind that moving through this depressing dryness leads to the next bountiful production season.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (https://www.ag.ndsu.edu/extension/directory) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or kris.ringwall@ndsu.edu.

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Attachments

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EPS - Color - Russian Thistle and Kochia Can Be Fed to Cattle If Necessary
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