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High cost, high risk, but corn a perfect cold-weather grazing crop

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Cattle grazing corn in winter can reduce or even eliminate the need for supplemental feed. *Photo: Thinkstock*

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When the weather outside is frightful, cattle can get all of their energy and protein requirements by grazing corn

One of the “best-kept secrets” of Manitoba cow-calf producers could soon make its way west — as long as producers have access to better genetics.

“The low-heat-unit corn varieties certainly have some potential to move into a cow or a calf backgrounding program,” Dr. Bart Lardner from the Western Beef Development Centre said at the recent Farming Smarter Conference in Medicine Hat.

“This is really new territory for us in Western Canada as beef producers.”

Corn has typically been grown for grain and silage in the Prairies, but now there’s “tremendous interest in grazing the whole plant for beef cattle in field paddocks,” said Lardner.

“We know that in Western Canada, the issue facing the cow-calf producer is that very long winter and very short summer. We know we do have cold stress,” he said.

In extensive grazing systems, cows need supplementation during extreme cold, but corn could reduce that need.

“All of a sudden we have a crop that potentially can have all of those energy and protein requirements met,” he said, adding corn is very high in nutritive value.

“We know it’s going to meet or exceed beef cow requirements. Energy is not an issue, but protein might be an issue for a very pregnant beef cow coming into calving.”

To gain the most nutrition out of corn, producers should look for varieties that are “100 or 200 heat units more than the area that you live in” and graze the corn before it hits full maturity.

“We don’t want it to go to black hair because then we’re grazing whole-plant corn,” he said. “We want those crops to be at about half-milk, so then we have an equivalent level of starch and fibre in those plants.”

Since starch is a “major portion of the plant,” it can cause acidosis if it’s not balanced with some roughage.

“Cows are very preferential,” he said. “They are going to find the ‘ice-cream’ part of that plant. They are going to go for the cobs first, and we need to control that.”

Lardner suggests using a three- to four-day cycle.

“They will go out there and find the cobs, and then on day two and three, we’re going to ask them to eat the high-fibre husks, stalk, and leaf part of that plant.”

It may take “naive cows” a couple of days to figure out how to graze corn plants in the field.

“You’ll see one or two animals figure it out and start to taste test the plants, and once those cows take off and consume that whole plant, the rest of them follow,” said Lardner.

“They really do catch on quite readily.”

Corn agronomy

But will this feeding method catch on with Alberta producers?

While corn heat units are important, the agronomics of growing corn here is also key, said Lardner.

He said recommended seeding rates are between 28,000 and 35,000 per acre and “the biggest thing” is soil temperature.

“You might be told you want to get it in the ground by May 15, but the soil is really too cold. You want that soil to be warmed up (to at least 10 C, but optimally 20 C).”

A seeding depth of one inch is recommended, as is seeding with a corn planter with 30-inch row spacing.

“If you go with the air drill, you’re going to probably suffer yield losses of 10 to 15 per cent compared to precision with the corn planter and the row spacing,” said Lardner.

Corn is also a high-fertility crop, so “pay attention to your nitrogen and phosphorus,” he said. A Western Beef Development Centre study pegged input costs at between \$208 and \$226 per acre.

It needs babying, too.

“It does not compete very well with weed pressure up to about knee-high, so you have to come in between the three- and eight-leaf stage and hit it with Roundup.”

Corn is “a high-risk, high-input crop,” said Lardner.

“But hopefully (it’s a) high-reward crop at the end of the day,” he said, adding grazing costs in one study were between 70 cents and \$1.40.

“If you’re looking at this crop, you need to start small, and if you’re not comfortable with it, don’t even go down this road.”

About the author

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