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BeefTalk: Crested Wheatgrass Needs Grazing Management

A good stand of crested wheatgrass has the capacity to meet cows' and calves' nutritional requirements.

By Kris Ringwall, Beef Specialist

NDSU Extension Service

The spring is a bit cooler than normal, and grazing vigorous and productive cool-season grasses is still on the menu.

Cool-season grasses, such as crested wheat in the northern Plains, are a top priority for many cattle operations. Cattle producers are grass producers, so appropriate grass management determines the success of the overall grazing season. Moisture and temperature impact grass production, but managerial tweaks keep grass at its best.

Let's take a closer look at crested wheatgrass. Crested wheat, an introduced grass, generally is ready to graze around May 1, one month earlier than native rangeland grasses. Those 30 days of grazing in May are welcomed by cattle producers, who are anxious to give up the feed wagon and turn cattle out on grass.

What happens when weather slows crested wheatgrass growth? From the grass perspective, the delay means more time will be needed to meet grazing expectations. Generally, a cow needs to meet her nutritional requirements every month. That's 2.5 to 3 percent of her body weight during lactation. Typical 1,200- to 1500-pound cows eat 30 to 40 pounds of dry matter per day.

We know moisture and temperature impact the discussion. However, a good stand of crested wheat has the capacity to meet the cows' and calves' nutritional requirements, provided temperatures reach 50 F and the stand has adequate moisture.

Lee Manske, Dickinson Research Extension Center range scientist, took weekly total forage production from crested wheat pastures that were grazed every other week and recorded 300 pounds of crested wheat forage produced per acre per day during May. Obviously, such heavy growth has a very high moisture content, so a producer needs to maintain old growth with the new growth to slow the rate of the forage's passage through the digestive tract.

But the forage production from a good stand of crested wheat offers a lot of potential. Essentially, cattle will consume a greater percentage of old growth in early May and more new growth in later May. Thus, crested wheatgrass must be managed across years and not just within a year.

Images



Grass Management Determines Success



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If one makes the assumption that 6 inches of standing crested wheatgrass equals 1,000 pounds of dry forage, then leaving 3-plus inches for next spring is a good idea. So, stocking at one animal unit month per acre, or 1,000 pounds of cow per acre, would mean the previous year's growth and new growth has to contribute at least 25 pounds of dry-matter forage per grazing day per acre per 1,000 pounds of cow.

That works if old growth is available from last year and the stocking rate is adjusted properly for cow weight. Because of the need for a mixture of old growth and new growth, resist the temptation to graze crested wheat too long or let the cows have a walk through in the fall.

Crested wheatgrass can be used beneficially one time per year without detrimental effects as a spring (May) pasture or as an early cut at the boot stage hay field. Rotate pasture and hay field use every three to five years.

Unfortunately, crested wheatgrass cannot have double use during the same growing season. Crested wheatgrass plants are hardy, but they do not fully recover from two heavy uses. Why? Manske notes on the center's grazing site (<https://www.ag.ndsu.edu/DickinsonREC/grassland-research>) that perennial grass produces tillers, and the management of these tillers is essential for the survival of our grasslands.

Perennial grass tillers live for two growing seasons and are the heart of the cattle and grass operation. Remember, for the first growing season, the tillers remain in a vegetative growth stage, only producing leaves.

Keeping the leaves growing is critical for the plant's well-being and the utilization of the leaves for grazing. Manske indicates all native and introduced grasses produce six to eight leaves per growing season, for a total of 12 to 16 leaves for each tiller that the plant produces.

The vigor of the grass stand is in keeping bountiful grass tillers on each plant. Effective producer grazing systems are very important in stimulating tiller production. Grass producers need to understand how to establish and utilize these tillers effectively.

Balancing harvest and plant needs is critical. Manske notes that during the winter, between the first and second growing seasons, three or four of the previous season's leaves remain alive and "re-green" with chlorophyll in the spring. These green carryover leaves show up soon after the snow melts and provide most of the carbohydrate used to produce the set of new leaves.

Crested wheatgrass leaves are too small to start grazing in April, thus the delay to early May. Cattle producers need to monitor pasture growth and determine appropriate grass turnout to assure enough grass growth to sustain a cow and calf. But turning out early is not a proper option.

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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