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## BeefTalk: A Heads-up for a Dry Summer: Plan Forage Production Now



**Take forage quality as well as quantity into account when deciding when to harvest.**

By Kris Ringwall, Beef Specialist

NDSU Extension Service

Cows eat every day of the year, so now is the time to start thinking about hay and how to use land that is not fenced nor has water to help feed the cows because those lands may be the difference between keeping or selling cows.

Haying, especially given the potential for drought, comes quicker than anticipated and quality changes daily. So now is the time to plan forage production.

The weekend rains, where they fell, were good

### Images

Dumont Oat Forage and Crude Protein Yield			
Developmental Stage	Tons/Acre	Protein %	Protein lbs/acre
Heading	1.5	14	420
Milk	2.3	11	508
Soft dough	3	10.5	630
Hard dough	2.8	9	504

Dumont Oat Forage and Crude Protein Yield

### nd state fair



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### columns

**[Spotlight on Economics: Spotlight on Economics: The Importance of Financial Flexibility](#)** (2016-04-14) The current financial stress in agriculture has highlighted the importance of a farm maintaining financial flexibility. [FULL STORY](#)

**[BeefTalk: BeefTalk: A Heads-up for a Dry Summer: Plan Forage Production Now](#)** (2016-04-21) Take forage quality as well as quantity into account when deciding when to harvest. [FULL STORY](#)

**[Prairie Fare: Prairie Fare: Try These 4 Tips for Healthful Spring](#)**

and, with upcoming warm weather, the spring to summer seeding and growing rush will be here. Dryness has not left the forecast. Pasture stocking rates are critical, and so is exploring all options.

One option is dry lot: keeping the cows home longer or bringing the cows home sooner, which requires hay. Grazing is the preferred management option. That's where cows and calves on the range harvest the forage and care for themselves.

But this isn't always the case, so let's talk about hay. Quality vs. quantity always is up for discussion. The longer harvest is delayed, quality goes down as the plant matures, so a producer must decide when to harvest.

In a typical year, June rains will arrive across the northern Plains, creating the usual pattern of wet-vs.-dry checkerboards across the agricultural landscape. As you move from square to square, a common question is: "When should this field of hay be harvested?" That question is becoming complicated as new annual hay crops arrive on the scene and merge with the traditional perennial grasses and legumes.

Oats are a good crop to review the general principles of when to harvest. Pat Carr, former agronomist at the NDSU Dickinson Research Extension Center, has some interesting, relevant data from many of our forage crops and crops in

**Celebrations** (2016-04-21) Make sure to include food from at least three food groups in your celebrations. [FULL STORY](#)

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general.

But let's focus on oats. Awhile back, a three-year study of Dumont oats harvested at four different stages demonstrated the impact of time on quality and quantity. Dumont oats were harvested when the plants started to head, when the kernels were milky ripe, when the kernels were at soft dough and when the kernels were at the hard dough stage with drying leaves.

Producers need to be aware of the obvious changes that occur as the plants mature. Following emergence of early leaves, jointing (the extension of the plant stem) occurs relatively quickly. In fact, the entire life of an oat plant is relatively short, making the need to pay attention all the more important.

Through three years, Dumont oats averaged 1.5 tons per acre when cut at heading, 2.3 tons per acre when cut with full milky kernels, 3 tons per acre when cut with soft, doughy kernels and 2.8 tons per acre when cut with hard, doughy kernels with drying leaves.

But there is more to the story than forage quantity, and it is forage quality. Dumont oats averaged 14 percent protein at heading, 11 percent protein when cut with full milky kernels, 10.5 percent protein when cut with soft, doughy kernels and 9 percent protein when cut with hard, doughy kernels and drying leaves.

In pounds of protein per acre, cutting at heading produced 420 pounds. It increased to 506 pounds at the milk stage and increased again to 630 pounds in the soft dough stage, and decreased to 504 pounds when the kernel was hard and the plant was starting to dry down.

Some, and I certainly don't mean all, producers really only consider two plant stages: growing and baled. Effective forage harvesting means understanding the growth stages of whichever annual or perennial crop that is growing and harvesting it at the best compromise between quality and quantity. Based on this oat study, the optimum harvest time produced an equivalent of more than a dozen 50-pound bags of 20 percent protein cow cake per acre more than the next best alternative.

In reality, for oats, you should hay somewhere between the development of a full, milk-popping kernel and the soft dough stage. Of course, this compromise only occurs on one day of the haying season.

The other issue is the weather at harvest. Well-planned hay production can change from exciting to dismal with the arrival of a week of wet weather at the anticipated harvest date. The forage literally can grow right through the desired maturity for harvest while waiting for dry weather. Staging the planting date by a couple of two-week intervals would be good so the desired stage of production

can be harvested with some good drying weather.

So stay alert, and as the season progresses, make sure the early high-quality hay is stored, ready to offset a dry summer. Plan, plant and harvest timely according to need. Once the peak season is past, just keep on putting up hay because, like it or not, winter is just around the corner.

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](mailto:kris.ringwall@ndsu.edu).

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#### Attachments



[PDF - Dumont Oat Forage and Crude Protein Yield](#)

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[EPS - Dumont Oat Forage and Crude](#)

## Protein Yield

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