

Grazing Gazette



PENNSSTATE
College of Agricultural Sciences
in cooperation with USDA/ARS

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Feeding cows with intensive grazing is much like managing any other type of feeding system. The animals will perform in response to what they eat and how they eat it.

One of the many challenges with grazing high producing animals such as milking cows is keeping the diet and routine consistent. We expect high production in confinement barns when feed quality and quantity vary little from day to day and when feed quality is high. Grazing is no different.

The best grazers are able to keep high quality pasture in front of the cows every day. They do this by manipulating the harvest schedule of the crop and by the way it is presented to the animals. For example, the dairy producer with a TMR feeds more frequently to keep feed fresh whereas the top grazers move the wires one or more times per day to accomplish the same goal. A successful grazer must keep ahead of the plant maturity (even if he has to mow the fields throughout the season) so the cows never have to graze poor quality forage.

Pasture Analysis

Forage lab analysis of grazed forages can be nearly as valuable as for stored forages. In conventional dairy ration programming, we use lab analyses to measure the nutrients in forage and estimate what is being consumed by the

animals. This allows our diets to be as consistent as the person doing the feeding. We cannot formulate rations with the same accuracy in a grazing situation, but we can come close on well-managed farms. We have access to a vast body of knowledge on diet formulation which we can not accurately utilize without lab analysis of our feeds. Visual assessment of pasture does not discern changes in nutrient and mineral components that are important nutritionally. Most dairy producers will lose 10 or more times the cost of a forage analysis each time a change in forage is missed, whether they are grazing or not. In addition to ration balancing, grazed forage analysis also provides feedback for the manager to know how changes in grazing affect the quality of the forage.

Sample Collection

To be useful forage samples must be properly collected. There is not an accepted "correct" way to sample pastures and other grazed crops, but common sense will lead you in the right direction. In early spring we do not encourage grazers to collect pasture samples until the cows have been through the rotation at least once. If you take samples during the first grazing cycle, you will often get some astounding results. It is not uncommon to find some grasses with crude protein contents over 30 percent and energy levels similar to some concentrates. What do you do with numbers like that? Common sense tells us two things here: first, the cow will not be able to utilize all these nutrients during

this time of year. Second, the plants are developing very quickly at this time and may be quite different in just a few days.

You will get meaningful information when sampling several times per year between May and October. The first sample should be taken after the first grazing cycle in spring. You can expect a decrease in quality during mid to late summer depending on the weather. We recommend sampling pastures at least 3 to 4 times per year, once in the spring, once or twice during the summer, and then in the fall when quality often improves. Climate (heat and moisture) affects pasture quality, and the type of grass or grass-legume mixture influence quality. Additionally, the quality may change between years. More frequent sampling may be needed the first couple years with a grazing system.

Any good forage sample must represent what the cows are eating. One handful of grass will not do it! The first step in sampling a pasture is observing how the cows grazed yesterday's paddock. For example, do not sample grass growing through manure if the cows are not eating it. Note how close to the ground cows are grazing. To obtain a representative sample, walk through a couple paddocks scheduled for grazing and take samples from 20 to 30 locations. You may pull samples by hand or cut with a shears as long as they represent the grazing pattern of the animals.

Samples will mix better if chopped with shears into one inch lengths. Mix the bucket full of forage and place about one pound into a zip lock bag or other sealed container. Keep this cold if possible before mailing it to the laboratory. Mail samples early in the week to avoid delays over a weekend. It may be necessary to dry samples in a microwave before shipping because some wet samples may heat and begin to ferment by the time they are received

at the lab.

Nutrient Analysis

Wet chemistry analysis versus NIR analysis is a somewhat controversial issue. NIR is fast and accurate for fiber and protein if calibrations are good. Wet chemistry can be the most accurate (especially for minerals), but it is more expensive and takes longer. That choice is between you and your nutrition advisor.

NIR labs do have calibrations to run samples of fresh grasses and legumes. If you have forages such as chicory or brassicas, we would recommend sending samples to a lab that can do wet chemistry analysis. Besides the usual protein and fiber analyses, we recommend a soluble protein analysis since the soluble protein is often high in pastures. We also recommend some mineral analysis. Minerals may vary 20-30 percent during a grazing season and will be influenced by the amount of legumes in that pasture.

Summary

Intensive grazing helps many farms reduce feed costs and labor needs for at least six months each year. However, there is no magic involved. The animals will respond based on the nutrients they consume, along with their comfort and health.

A good grazing program can provide the necessary quality forages and environment for good milk production, but the grazing must be very well managed if good results are expected. Proper forage sampling and analyses is a management tool that allows you to formulate rations and maximize the return from each dollar spent on feed.

GRAZING CALENDAR

August 24 - Franklin County Pasture Walk - (717-352-8676)
August 25 - Columbia County Pasture Walk (717-784-6660)
August 31 - PFGC Grazing Field Day in Juniata County (717-734-3745)

College Has New Title

COLLEGE PARK, Md. — The College of Agriculture of the University of Maryland at College Park (UMCP) has a long history behind it. With its new title, College of Agriculture and Natural Resources, a bright future is just over the horizon. The name change was official on July 1.

In 1856, the Maryland Agricultural College was chartered. Charles Benedict Calvert's original goal in founding the school was to provide special scientific training to farmers so they could better earn a living. By opening day and the formal dedication on October 6, 1859, the College's new mission was to train students for leadership. Today, prepping students for leadership roles in agriculture is still one of the college's main goals.

As the size of the college grew from a handful of graduates in 1861 to 157 graduates last academic year, so did the breadth of agriculture. Farming although important, is no longer the only industry in agriculture. The broad range of industries includes tradi-

tional fields such as animal sciences, agronomy, horticulture and nutrition and food sciences, as well as newer fields such as natural resources management and biological resources engineering.

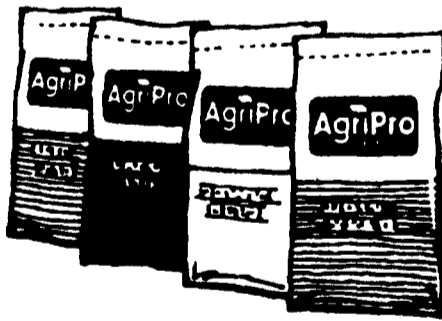
The significant amount of time and funds invested in natural resources and environmental programs by College of Agriculture faculty and staff needed to be officially recognized, according to Dean Thomas A. Fretz. "Changing the name to the College of Agriculture and Natural Resources," Fretz said, "better reflects these programs as well as the research and outreach efforts resulting from the college's 1993 merger with the Cooperative Extension Service and the Maryland Agricultural Experiment Station.

"As the college continues to grow, this name change models the kind of foresight and leadership its faculty is attempting to impart on its students. The College of Agriculture and Natural Resources is taking a crucial step into its future as an institution on the cutting edge of information and technology."

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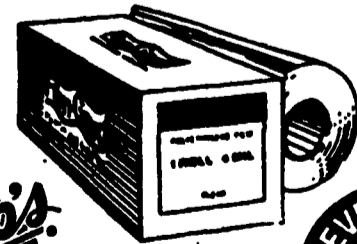
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