
Dairies Utilizing Tall Grazing in the Northeast

Background

Five dairy farms in the northeast participated in a study designed to describe a technique called “mob grazing.” We have since learned that most dairy farmers call mob grazing “high density” or “tall grazing.” The cattle are grazing pastures higher and leaving higher grass residuals, while the farmers are still striving for high quality forage. Each farm has resource challenges and opportunities that impact their ability to use this practice. Our goal was to try and collect data and later interview the producers to understand their management goals and practices.

Mob Grazing: What Is It?

Motivated by livestock farmers in dry or low quality soil environments, some farmers have been trying to improve soil quality through residue management. They allow pasture grasses to grow taller than the traditional 8-10 inches and allow animals to consume and trample the sward. In the farm press and publications, growers report impacts to animals such as increased weight gain and finishing, less costs to feed animals, and improved soils. Unfortunately, there has been little research-based information to share with farmers and farm advisors regarding this practice.

Given this background, there is some skepticism as to its adaptation to dairy production. Dairy producers are looking for high quality feeds for lactating animals. In this study, we attempted to gather a record of practices that innovative dairy producers were adopting. The study was initiated in 2012 and continued into 2013.

Table 1	Farm 1	Farm 2	Farm 3	Farm 4
Farm description				
Acres of pasture	620	240	260	200
No. milk cows	270	60	235	145
Pasture allotment				
Pasture size, acre	1	2-4	2-2.5	1
Cows/pasture	135	50	245	145
Pasture size/cow/d, acres	0.03	0.06-0.08	0.02	0.01-0.02
Grazing cycle	28-30 d	When rested	18-24 inch	35 d
Forage remaining	30%	30-50%	30-40%	40%
Moves per day	1	2-5	2	2
Hours on pasture	20	20	20	20
Distance to barn, miles	0.19	0.04 – 1.50	0.11 – 0.50	0.04 -0.75
Supplemental feeding				
Stored feeds, if any	Hay	Silage	Hay + Silage	Silage +Baleage
Graze in winter?	If weather permits	Until Dec.	No	No

The Take-Home Messages About This Study

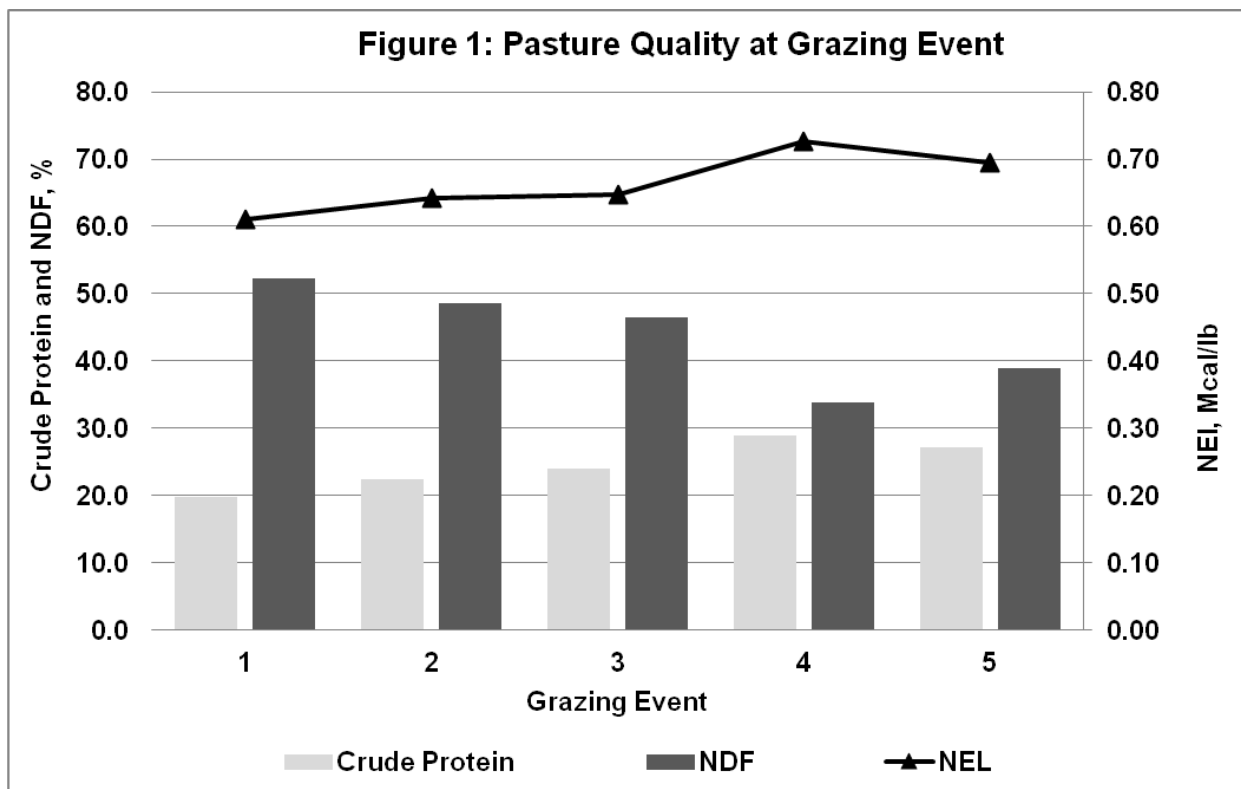
Experience Helps

All participants had been using managed intensive grazing (MIG) before adopting “tall grazing.” They are experienced pasture managers. Several mentioned they adopted grazing over 20 years ago (late 1980’s to the mid-1990’s). They have been trying to use some variation of “tall grazing” for 2-8 years. Their responses for making this change ranged from labor and machinery savings, continuing to provide a forage diet to cows, thought of as “natural” and matching the productivity of the soil to a forage cropping system.

Forage Quality Was Excellent

Does tall grazing give superior results for pastures? We did not find that this was “superior” nutrition. Forage samples were taken in the same paddock at each rotation and sent to the Dairy One Forage Laboratory, Ithaca, New York. All forage sampled was excellent. With time, the forage quality actually improved (see Figure 1).

- Crude protein (CP) of the forage improved through the grazing season, averaging 20% dry matter (DM) at the June /July grazing sessions with a maximum average CAP of 28.5% dry matter (DM) during the Sept.-Nov. grazing event.
- Neutral detergent fiber (NDF) decreased from an average of 52% to 34% from the June-July to the September-November grazing event.
- The Net Energy at Lactation (NEL) ranged from 0.61 to 0.73 Mcal/lb DM between these two grazings, respectively.
- These improvements in forage quality later in the grazing season may have been a result of being grazed at a less mature stage of growth. This may have been due to:
 - The first grazing being over-mature due to rapid early-season growth, or due to the forage plants being less mature during each successive grazing.
 - Summer slump conditions forcing farmers to return to these paddocks a bit sooner than anticipated to maintain minimum pasture dry matter intake requirements as all farms participating in this study were certified organic.



Dry Matter Production is Affected by Drought, Stocking Rate

Are we getting more dry matter (DM) production because these dairy producers are grazing tall? That was difficult to determine in one year due to a summer “mini-drought.” In all cases, producers had to supplement feeding in the summer months. In today’s economic climate, this is very costly for a dairy farm. Some producers are recognizing they must match the dry matter production of the farm to the stocking rate of animals.

Trampling and Stocking Rate

Researchers evaluated the paddock before and following grazing by cows. They found that the forage consumed ranged from 50 to 70% of total forage available. Cows consumed the greatest percentage of the canopy cover in the top layers (averaging 75% consumption in the top 8” of growth), with lower layers (0-8”) having less total consumption (averaging 53%).

Most of the growers are aware that the “popular literature says” to leave a lot of residue to build the soil. Farmers told us they moved cattle more frequently if the forage quality was not ideal, leaving more grass as residue. Some of the comments about practices are as follows:

- Tries to leave some forage standing - goal is 25%/50%/25% (standing, eaten, trampled)
- “Take the leaf and leave half”- goal is to graze 60-70% and leave 30% behind
- Goal is to leave 50% behind, when actual is probably 25-50%

Table 2. Grazing Comparisons, Dairies in the Northeast

High Density Stock Grazing	<i>Producer Applications in NE</i>
250,000 lb. /acre + stocking density.	<i>44,000-337,000 lb./acre</i>
90 days forage rest	<i>40-78 days of forage rest</i>
Moving 2-3 times daily	<i>Moving 2 times, sometimes more per day</i>

Conclusion

The beauty of pasture is that it can be managed in many ways. There are no strict “formulas” as aspired to some of the definitions in the popular literature. It is possible for dairy graziers to manage pasture height “taller” and to stock at a higher rate but one still needs to manage for quality to sustain milk production. Dairy producers that are beginning graziers would be wise to gain experience managing for dry matter and quality as primary goals and then move towards a system incorporating this “hybrid” approach.

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