Successful Grazing Means Measuring Pasture Growth

WELLSBORO (Tioga Co.)-Successful graziers know there is more to grass-based dairy and beef operations than just turning the cows out each morning. Proper pasture management is critical, especially in drought conditions such as much of Pennsylvania has experienced this growing season.

"The key is keeping forage primed so it's ready to respond to moisture," said Tioga County Cooperative Extension Agent Craig Williams. "If you make it go dormant (through overgrazing), it won't respond to rain."

Pasture growth and the resulting fertility and nutrient availability are the focus of an ongoing study Williams and several other extension agents are conducting throughout the state. The idea was to take weekly grass growth measurements, plot the data on graphs, then use the information to study the complex relationships between feed and milk production, pasture rotation schedules and regrowth rates, and the amazing variability, even on adjacent paddocks, of these regrowth rates.

Laneway

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rotational grazing, contact your local conservation district. For more information about Project Grass and Project Grass demonstration farms, contact J.B. Harold, Somerset County Conservation District, 1590 North Center Ave., Suite 103, Somerset, PA, 15501, or phone (814) 445-4652, ext. 119.



Craig Williams noted the importance of Alistair Pasture Gauge.

Using the Alistair Pasture Gauge, an instrument that calculates grass density, height, and pounds-per-dry matter, agents have the benefit of uniformity as they obtain measurements. Everyone agreed the "eyeball" is the best measure, Williams continues, but with seven different agents there was a need for a "common denominator."

In Tioga County, Williams used Russ and Karen Tomlinson's Kick-a-Moo Farm, an intensive, rotational grazing operation, as a study area. During a Pennsylvania Association for Sustainable Agriculture spon-

sored field day at the farm, Williams discussed the study process and, on the pasture walk, explained some of the differences in pasture fertility.

For example, green circles where several there had been round bales showed the cow manure and urine. The green "stripes" were the result of spreading "Hatgrow fertilizer" out of a barrel manure spreader.

Williams said, "The green stripes were not what we wanted, but now we will be able to watch the two areas of different fertility levels, together as the cattle graze across them."

Grazing in a drought year is challenging, he noted. A field that gets grazed all the time will simply shut down. The data gathered so far shows how fast grass will respond to even a little bit of water if it is in the right stage (of growth). Graziers

must therefore be ready to adapt to changing conditions; at Kick-a-Moo Farm that means moving the cows about every 12 hours and keeping a close watch on pasture growth. Those practices, in conjunction with the sporadic, small amounts of rain which have fallen on Tioga County, have been enough to keep the Tomlinson pastures relatively green.

"Some areas of the state have received no rain, and the plants have just gone dormant," Williams said. "That's the struggle with grazing. Keeping track of how the grass is growing is the only way to keep on top of it. It really does make it a week to week management issue."

The pasture gauge is a good tool. A boot and a eye work also, but the most important thing is to measure growth, regardless of what tool is used, he said.



Daily Changes In Alfalfa Quality

Studies conducted in California indicate that both crude protein and acid detergent fiber in alfalfa are lower in the afternoon than early morning. However, total digestible nutrient levels were higher in the afternoon than morning. Further research is being conducted to determine if these daily changes in forage quality are detectable after baling and storage.

> Dan Putnam and others, Univ. of California

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