Monitoring and Planning

By Troy Bishopp

In Francis Thicke's new book, *A New Vision for Iowa Food and Agriculture,* he described how we are moving away from an industrial age based on cheap energy and reductionist thinking to a holistic model driven by soil biology, animal power and knowledge intensive systems. "We need foresight, planning and design or be forced to change by default", he said. With this goal in mind, Francis and Susan Thicke have designed their grass-based dairy operation to mimic nature's ecology and rebuild the soil's ecological capital.

This vision correlates nicely with a new NESARE funded Professional Development Project aptly named *"Utilizing Holistic Planned Grazing as a Regenerative Engine for Sustainable Agriculture*", administered by the Central New York RC&D Council Inc. This comprehensive grazing training program for conservation planning agency professionals, extension educators, grassland advocates and farmer mentors throughout Vermont, New York and Pennsylvania also seeks to teach practical intensive knowledge to folks who help farmers in their community. To learn more go to: http://mysare.sare.org/mySARE/ProjectReport.aspx?do=viewProj&pn=ENE10-115

This passion to learn more about the dynamics of farmstead decision-making, grass-based profit strategies, natural systems and grazing planning has led to a record amount (45) of participants who want to build local grazing programs and be a leader in "meeting farmers where they are" and in the relationship business. They are acquiring intensive knowledge in helping initiate farm family goal setting, grazing management and planning, grazing infrastructure design, effective communication skills, animal behavior, and reading the biology of the land.

The "reading of the land" sessions are now underway with many puzzled neighbors wondering why a bunch of grown-ups are throwing and chasing darts. Like forage and soil testing, biological monitoring of your pastures is a yearly tool to help you make decisions towards what you want for your land. Generally you do this baseline measurement of biological activity and plant species composition during the growing season (June thru September) by monitoring fields you want to change.

You're probably thinking why should I do this? I had similar questions especially as a veteran grazier. It took a dynamic group of holistic management educators to show me how much practical knowledge I was overlooking regarding my pasture. This activity forced me down on my hands and knees to really get intimate with the soil surface. We used a chart adapted from Holistic Management International that measured observations around the dart strike. We recorded soil surface and biological activity

items such as: Amount of bare soil, how much and kind of litter, earthworm, insect and hoof signs, plant species, age and condition, soil capping and manure distribution.

I also took a picture of the sward and wrote down how it was managed and the date so I wouldn't forget the information on next year's throw. After 3 years of monitoring my specific grazing management with longer rest periods, I have increased my earthworm numbers to 96%, decreased bare soil (10% down to 4%) and added more plant and litter cover, broadened my plant species composition (grass 44%, legume 32%, forbs 24%) and have a manure pat within 3 feet of the dart, on 53% of the samples.

What does it all mean? Well it indicates I'm moving forward towards my goals of increasing diversity and biological life. My new goal is to expand this annual monitoring to include all my fields and see how this matches up with the soil and forage test readings. Basically, this gives me practical farmer knowledge to improve the viability of my grass-based operation and help with decision-making without needing a GPS unit, although it would be useful to add these dynamics into the computer tool.

To accomplish my own grassland management goals, help local grazing customers and teach agency professionals, I also needed to plan and monitor grazing systems much better. With mentoring from some forward-thinking, very successful farmers and ranchers, the daily grazing chart has become another important tool in managing nature's ecology with ruminants. To say grazing planning is now a state of mind would be an understatement.

I enjoy the 12 month grazing planning and monitoring chart as much as a good game of chess. You have to think about the moves (paddock shifts), measure pasture dry matter, monitor recovery periods and rainfall while adjusting the animal's ration in hopes of winning Mother Nature's respect. This relatively simple piece of paper hanging in the barn with complimentary farm map is a great visual that almost calls you over to think about making adjustments to the plan. Many are using this tool as a diary but I prefer to use it to plan out a month or twos' worth of grazing activity.

It does take practice and a little mentoring to get in the planning groove but I find it to be a profitable management strategy. It also compliments the organic pasture rule requirements by allowing the certifier to "at a glance" see how the pasture system and animals are functioning. Another caveat of the visual plan is it provides an educational opportunity to your customers in learning how you manage your ecological system and provide great nutrition straight off grass.

As Mr. Thicke said, "Agriculture is moving into a knowledge intensive era". The sharing of practical experience, new and old ideas with the appropriate research will help us work with nature and manifest the understanding of our soil's ecological capital. This is the new vision for success. See ya in Cooperstown.

For more info on accessing the grazing tools mentioned, go to http://www.cnyrcd.org/planned-grazing-participants/. To order grazing charts call Brian Reaser (607) 687-3553 or (570)716-4061 at the Tioga County Soil and Water Conservation District. *Published in Sept. 2011 NODPA news*