

Managed Rotational Grazing in Wetland Area
Farmer/Grower Grant Final Report
FNE01-389

Re-state goal of grant project:

The goal of this project was to incorporate a seasonal wetland into a pasture rotation.

Farm Update:

Our farm still consists of 132 acres, approximately 30 of which is wetland. Currently one of us is farming full-time, and one part-time. Our herd of dairy goats is up to 46, and as of September 2002 we no longer have sheep. We do have an important addition to Blue Ledge Farm--a daughter born September 2, 2002. We have also begun producing cheese on the farm, selling a fresh chevre and semi-aged crottin locally in stores and restaurants.

Role of Project Cooperators:

Patti Wilson at the local Natural Resources and Conservation Service office served as a grazing and soil quality advisor. Carol Delaney at the Small Ruminant Dairy Project also offered support with the fundamentals of grazing, specific to small ruminants.

Project Practices:

We strung a six-strand high-tensile wire fence around the boundary of open pasture. Within this fence we strung a three-strand poly-wire fence to divide paddocks. This fence was also used to encase the wooded and wetland paddocks. In some places we gradually replaced this fence with Premier's Electronet fence, as we found the poly wire was not rigid enough for sheep.

The objective was to rotational graze within the boundary fence as well as outside in wetland and wooded areas.

The 2002 growing season proved to be overly active for June and most of July. We were grazing 70 does and 32 sheep, and still it was a challenge to keep up with the grass growth on the 40 acres of open pasture within the high-tensile fence. Beginning in August we began incorporating the wetland and wooded areas; two days per week the goats were led out to the wetland, three days into the wooded area. In the past it had proved challenging to move the goats long distances (wetland area is approximately 800'

from barn). During this project the goats became accustomed to following us upon voice command, which was very convenient. The goats grazed in both areas throughout the months of August and September and in the wooded area into October and November.

Findings:

We measure our results by recording the number of days that the wetland area is grazed and multiplying this by the estimated dry matter consumed. This figure is considered "income" as it is feed that we did not have to feed out or purchase. We compare this "income" figure with an "expenditure" figure. By expenditure we mean cost of fence, labor cost for fence installation and livestock moving, any health problems incurred in area, and random costs.

Income:

Assuming that average 150 lb. goat consumes 6% of body weight (9 lb. total) in dry matter daily: Lactating goat in middle of lactation gets 3.5 lb. grain concentrate (at 90% dry matter=3.15 lb. dry matter) daily. That leaves 5.85 lb. daily dry matter that will come from grazing. Seventy goats, therefore, should consume 409.5 lbs. dry matter daily. At a value of 90% dry matter, a 900 lb. round bale of dry first cut hay contains 810 lbs. of dry matter. This 900 lb. bale has a value of \$35, if we need to purchase outright (as we did over the winter of 2001-02). Based on these figures, 70 goats consumed the equivalent of one 900 lb first cut bale in two days of wetland grazing. Therefore, every two days of wetland grazing created an "income" of \$35. For four weeks of August, four weeks of September and two weeks of October (10 weeks total), the wetland area was grazed twice weekly.

This means an "income" of \$350 for the season.

Expenditure:

Fencing: 25 posts @ 1.30 each=\$32.50

800' fence @ .06 /ft=\$48.00

Labor (fence set-up and daily herding of animals): 30 hours labor at \$10/hr=\$300

There were no health problems associated with wetland grazing.

One unexpected expense was accrued when the goats escaped and destroyed the neighbors small orchard. Fortunately we have farm liability coverage, and so the cost to us was nothing.

I also have not included the cost of the boundary fence, as this is used for other grazing areas as well.

Total expenditure for wetland area for 2002 grazing season: \$380.50

It should be noted that a portion of the expenditure budget is depreciable: we will have the fence supplies for many seasons to come. Also, this growing season was generally a moist one; we weren't able to move out to exterior pastures on a regular basis until early August because the grass within the boundary fence was growing so rapidly. Utilizing the wetland for grazing increases our ability to graze through seasons that are much drier. In a year that is dry the income from wetland grazing could be twice that of 2002 because we would be grazing there twice as long. Lastly, a factor that would tip the financial scales is that now that I see that wetland grazing is possible, I am planning to convert part of our open pasture area into hay fields, to rely more heavily on both wetland and wooded grazing and browsing. Hay from these fields could be considered indirect income from the wetland pasture.

Conclusions

Despite the fact that the expenditures slightly outweigh the income for the season, we believe this practice to be worthwhile. There were no direct foot problems due to the moist ground, and animal transportation is no longer a problem, as the goats will merely follow behind us on voice command. The only concern I am left with is the liability involved with grazing animals far from the barn and sometimes out of sight. As Robert Frost said, and as the saying goes, "good fences make good neighbors"; we learned from the orchard experience this summer that grazing animals outside of our sturdy boundary fence is a risk to the neighborhood (and to our insurance premiums). We feel that escape is preventable, however, if we insure that there is sufficient forage available in each paddock, and if we religiously check the charge on the fence to be sure it is not shorted somewhere. We also might consider stringing up dense Electronet fence where the field borders a neighboring property.

We plan to continue working with our wetland area. From a natural resources perspective, grazing seems to be the least obtrusive means of getting value out of an area with a very delicate eco-system. From the farm's perspective, grazing continues to be a very cost-effective way of production. We produced milk all summer and into the fall, relying solely on grass and forage until the first week of November when we began supplementing with dry hay.

Outreach:

Blue Ledge Farm hosted a pasture walk at the end of June. The walk was sponsored by the Vermont Grass Growers and the UVM Office for Small Ruminants, and outlined the fundamentals of grazing as well as introduced the specifics of our SARE-funded wetland project. Please see enclosed article.

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Respectfully Submitted,

Hannah Sessions
Blue Ledge Farm
2002 Old Jerusalem Road
Salisbury, VT 05769