

## Managed Intensive Grazing: Promises and Realities

*Laura Paine, Columbia County Crops and Soils Agent*

November, 1999

With the adoption of Management Intensive Grazing (MIG) come certain expectations: reduced milk production but increased profitability because of reductions in infrastructure and production costs. We assume that the more we lower production costs, the more profitable we'll be. But many graziers have found that this doesn't hold true--that the ultra low-input New Zealand model doesn't make money for them. We've gradually increased grain and silage supplementation, many graziers have made investments in infrastructure and we've continued to emphasize milk production per cow as a benchmark for success.

I've been wondering whether the really low input systems that we originally envisioned will ever become commonplace in Wisconsin. Perhaps climate, economics, and politics won't allow it. On the other hand, there are those who have made it work for them and when it works, it is a thing of beauty.

One such system is the Karen and Bob Breneman dairy farm near Rio in southcentral Wisconsin. Karen and Bob converted to MIG in 1992. Their impetus to change came when their son left for college, leaving them faced with hiring help to milk their 60 cows and raise crops to feed them. Today, Bob and Karen milk 100 cows on grass and are making more money than they ever did with their conventional system. They've captured the benefits promised by MIG by adopting not only the techniques but a low-input philosophy as well. Their guiding principle is simple: Question Everything. Bob and Karen emphasize cost-effectiveness and flexibility, doing nothing without first questioning whether it will improve profitability.

Let's look at some of the promises and realities of MIG and compare state averages with the Breneman's low input system.

1. Reduced production costs. Bob and Karen estimate their production costs at about \$831/cow/year, down from \$1426 pre-MIG. In a recent survey, Tom Kriegl of the UW Center for Dairy Profitability found that grazer production costs ranged from \$608 to over \$2800/cow/year. In their 1995 Grazing in Dairyland survey, Doug Jackson-Smith and his colleagues at the U.W. Program on Agricultural Technology Studies (PATS) found that the average cost per cow for graziers statewide was about \$1143, with an average for all dairy farmers in the survey of over \$1800/cow.

The lowest cost operations tend to have a minimum of capital investment. Bob and Karen milk in a 1970s era milking parlor and have chosen to make do with their original buildings. They are semi-seasonal and the entire herd, including lactating animals, is outwintered. Some milk production is lost, but animal health is good and the cost of updating housing would wipe out any production gains they might achieve. In addition, they've saved bedding and labor costs.

2. Reduced milk production per cow, but increased profitability. The Brenemans have gone from a 19,000 lb herd average to around 15,000 lb today, closely mirroring statewide averages reported by Jackson-Smith's team. Bob could return his rolling herd average to the upper teens or higher by increasing supplementation as many graziers are doing, but instead, he feeds about 12 pounds of grain/day and focuses on maximizing the quality of his lowest cost feed source: his pasture. Bob likes to work with orchardgrass and red and ladino clover, with a little reed canarygrass and smooth brome. Pastures are fertilized with 100 lbs of urea once or

twice during the growing season and are clipped as needed. Paddocks are about 2 acres in size and the milking herd gets a new paddock after each milking. Heifers do clean up duty after the cows have grazed. The grazing season is extended by stockpiling pasture.

With well-managed pastures, Bob and Karen have reduced purchased feed and forage costs and increased the carrying capacity of their land. In 6 years, they've expanded by over 50% from within their herd (avoiding purchasing any cows). While rolling herd averages have declined, total milk production has increased from 4749 lb of milk/acre in 1992 to 6125 lb in 1998. Gross milk sales have climbed from \$141,500 in 1992 to \$182,574 today (calculated at a constant \$12.42/cwt).

3. Elimination of crop production (and attending equipment). In their 1995 survey, PATS found that an average grass dairy farm has 73 acres of pasture with 141 acres still in crop production. That means we're either keeping a lot of equipment or hiring out a lot of work—both expensive propositions. The 240 acre Breneman farm is one of the few grass dairies I know of that has no crop land. It's taken a few years to get there. Starting with only 3 acres of pasture, Bob has gradually seeded down the rest of the farm over the last 7 years. Today, Bob and Karen purchase grain, sweet corn silage, and some hay for winter feeding. All field operations, except pasture clipping and improvement, are hired. Bob has gone from a full set of equipment—including 7 tractors, to a fleet consisting of 1 tractor, a mower, and a manure spreader!

4. Improved quality of life. The PATS survey indicates that grass dairy farmers are working an average of 69 hours per week, compared to 75 for their conventional compatriots. Hired labor has declined among graziers, but that's still a lot of 'overtime'! Bob and Karen currently manage their farm without hired labor other than hiring custom work done and an occasional relief milker. Bob takes care of the pastures, and they milk and manage the herd together. Bob's work load has decreased dramatically. The work is more pleasant and he even has time to indulge in his hobby of wood working. Karen spends her spare time maintaining extensive flower and vegetable gardens around their home.

5. Improved animal health. There isn't a lot of data on animal health comparisons between conventional and MIG systems, but the perception is that MIG promotes lower cull rates and veterinary bills. The Brenemans feel that their cows are healthier under MIG and they have numbers to prove it. In 1992, the Breneman's 60 cows cost them \$6050 in veterinary bills (\$100/cow). Last year, their 90 cows cost them just \$5070 or \$56/cow, including breeding. Their cull rate has declined from 35 to 25%.

6. Environmental benefits. We've assumed from the start that managed grazing results in environmental benefits such as reduced soil erosion and reduced need for agricultural chemicals. The Brenemans provide us with further evidence. They've reduced their fuel use from 8000 to 3200 gallons per year (including fuel used for hired custom work on the farm). Looking at it a different way, they've increasing their milk production from 16.5 gallons of milk per gallon of fuel in 1992 to 46 gal. milk for each gallon of fuel today. That's both an environmental benefit and a significant cost savings.

The Brenemans have made a very low input system work for them by adopting not only techniques and practices, but an attending management philosophy. Like Bob and Karen, every producer must develop a system that works for their unique circumstances, landbase, and infrastructure. The most important factors in their success are patience, flexibility and creativity, and of course, questioning everything. With these tools, we can hone our grazing systems to capture more of the benefits that should come with grass farming.