

## **Pasture-based Dairying in Missouri**

Ted Probert, MU Extension Regional Dairy Specialist

Dairy farming in south Missouri has undergone a number of changes over the years. Forty to fifty years ago herds were small by today's standards. The tendency in that era was for producers to grow a good deal of their feed needs on the farm. This was particularly true of forage, much of which was harvested by grazing. Another trend as time passed was for herd size, and in turn, feed requirements to increase.

During the decades of the seventies and eighties producers began to rely more heavily on purchased feedstuffs. Concentrate feeds, as well as Kansas alfalfa, were generally reasonably priced and besides that, cows responded to more and better feed. Many producers found it easier to purchase rather than grow a significant proportion of their feed needs. Pasture usage diminished on many farms. More recently increases in hay, grain and fuel prices have made purchasing feed ingredients in large volume less attractive – leading astute producers to search for other feed options.

Meanwhile, during the late eighties and the nineties Jim Gerrish from the University of Missouri, among others, started talking about a new practice called management intensive grazing (MIG). Many of our livestock producers wrote this new concept off as a fad. A few, though, evaluated what the grazing proponents were saying and decided to give managed grazing a try. Some of Missouri's dairymen were included in this crowd.

Dairies that adopted grazing have undergone some significant changes over the past few years. Obviously feeding methods are different. The cows now receive a higher proportion of their nutritional requirements from forage and this forage is primarily grazed rather than stored. This change has resulted in lowered labor requirements and equipment costs associated with forage harvest, handling and storage. Additionally, the utilization of high quality forages in well managed grazing systems has enabled pasture-based producers to reduce reliance on concentrate feeding. These factors combined have led to a dramatic reduction in feed costs for grazers. This is primarily due to substituting grass - which grazers' financial records show costs 2.5 to 3 cents per pound of dry matter to produce, for more expensive feedstuffs. On the basis of nutrients provided, contrast the cost of grazed forage to any other feedstuff available and no other feed - forage or concentrate, can compare.

During the past five years average total expenditures per cow (for all inputs except interest) for south Missouri pasture-based dairy producers has been \$1,150. Average income during the same period was \$2,183 leaving a five-year average operating margin of \$1,033 per cow. Even in the toughest year (2006) the grazers, on average, made \$627 per cow. Margins of this magnitude should be considered good by most any standard. They are possible to achieve due to the economical cost of grazed forages. For a complete financial analysis of south Missouri pasture-based dairies see the following web site: <http://www.agebb.missouri.edu/dairy/grazing/resources/grazingdairy.pdf>

Several aspects of operational management have changed on pasture-based farms. The systematic rotation of cows over the entire grazed acreage has reduced requirements for manure storage facilities as well as the labor and equipment needs for field application. Managed grazing is very efficient in regard to manure nutrient distribution. Getting the nutrients back out on the pastures has resulted in steadily rising soil fertility levels on grazing operations. After several years of managed grazing it has become possible to greatly reduce phosphorus and potash application rates on many farms.

With each year that goes by more of Missouri's pasture-based producers make the switch to seasonal grazing - calving the entire milking herd in late winter and early spring, drying off in December, and taking an eight-week vacation from milking each winter. This practice has a lot to offer in terms of operational efficiency. Time spent on various managerial tasks tends to be concentrated at certain times of the year allowing producers in turn to concentrate efforts on fewer things at once. For example, calving is clustered in late winter and early spring. By some time in April that job is done for the year. Calf care is concentrated during springtime. Also there is a defined breeding season during late spring allowing a more intensified effort toward heat detection and insemination. Many producers prefer managing cows as well as labor in this manner - and the prospect of an annual winter get-away can be very inciting.

Numbers of dairy operations in Missouri have been declining for some time. Pasture-based interest has altered this trend at least to a degree. Operators exiting the business have tended to be the more traditional ones. Very few grazers have left dairying - in fact their ranks are growing. The core of existing pasture-based producers in southern Missouri seems to have served as a magnet to attract new producers from outside the state. These new producers vary in size from small to very large and come to Missouri from a number of other states as well as from overseas. The infusion of ideas and management philosophies from new producers, including several recent New Zealand startups, has been a great benefit to pasture-based producers. The whole industry stands to gain from new producers both large and small because numbers play an important role in maintaining our dairy industry's services and infrastructure. Also, dairy farms are some of the best among agricultural enterprises in terms of creating economic activity in the communities in which they are located.

Pasture-based dairymen, as a whole, are an enthusiastic lot. Generally speaking they are eager learners and progressive managers. They have demonstrated that grazing is a viable alternative for producing milk profitably in Missouri. More and more, the talk and opinions expressed by various industry leaders indicates a belief on their part that grazing will play an increasing role in the future of milk production in our state.