

The Impact of Grazing Schools in Southwest Missouri

Grazing Schools have been conducted in Southwest Missouri since 1991 for livestock producers to learn the art and science of grazing cattle on farms. The goal of these programs is to raise the awareness and adoption rate of these practices so that Missouri producers become more profitable and improve the environmental quality of the land they manage. The schools are organized by Natural Resource Conservation Service (NRCS) personnel in cooperation with University of Missouri Specialists. Teachers for the schools consist of personnel from both agencies.

The schools consist of nearly ten hours of instruction spread out over three days or multiple evenings. They normally include at least two farm visits where participants do field exercises that compliment the classroom instruction. The classes intensely cover areas of economics of the system, evaluation of farm resources, the basics of plant growth and quality, the soil resource, meeting nutritional needs of animals, matching livestock needs with pasture resources, grazing calculations used in the system and understanding the layout and design of MiG systems.

Missouri research has found that a continuous pasture system is only 30% efficient. When the farm is converted to an eight- to twelve-paddock rotation, the utilization of grass on the farm moves to the 50-65% efficiency range, nearly doubling the productivity of land available for grazing. The quality of grass-legume pastures is enhanced and their persistence is increased as a result of more rest periods for regrowth in the system. A result of this change is less dependence of feed supplements necessary for proper livestock nutrition.

The Management-intensive Grazing (MiG) system also improves water quality due to an increased density of forages which slows soil loss. It also leads to a more even distribution of animal manure around the farm. Research has shown that the fertility level of the farm improves, requiring less use of applied fertilizer.

With hundreds of livestock managers who have gone through the program over the years it was decided to survey a random group of participants to determine what impact the program has had on farms around Southwest Missouri. In December, 2005, Extension Specialists Gordon Carriker, Jay Chism, Eldon Cole, Dona Funk, John Hobbs, Wesley Tucker, David Whitson, Gary Naylor and Tim Schnakenberg designed and distributed a survey instrument to use in the process.

With the help of NRCS personnel, a random selection of people who participated between 3 and 5 years prior was compiled. Eighty-two surveys were sent out and 31 completed surveys were returned and compiled. These surveys came from Polk, McDonald, Newton, Christian, Stone, Greene, Webster, Shannon, Ozark, LaClede and Cedar Counties in Missouri.

There were 68% of the respondents who reported owning beef cattle, 61% reported using backgrounded calves in their MiG system and 16% had horses. Only two reported having dairy cattle and one reported having meat goats.

When the survey was tallied, we found that 89% of the respondents reported that their farm income had increased by 10-30% since adopting a MiG system on their farm. One respondent reported a

farm income increase of 50%. Ninety-six percent reported that their adoption of a grazing system was a result of information they received at the grazing school.

The survey revealed that the average number of beef cows on farms before attending the grazing school and the present had increased by 16 cows (56.7 pre-school vs. 72.8 currently). The number of home-raised calves backgrounded more than doubled (16.5 pre-school vs. 34.4 currently) and the number of purchased calves for backgrounding increased as well (55.0 pre-school vs. 80.2 currently).

Although the number of acres these producers farmed changed very little, the number of pastures or paddocks in their rotation changed dramatically before and after their attendance at the grazing school. The number of paddocks jumped from 4.5 before attending the grazing school to 14.6 currently. The acres in a managed grazing system also increased dramatically from 89.3 acres to 212.4 acres (1.4 times).

When asked what has been their greatest benefit from attending a grazing school, producers reported a variety of benefits. They primarily focused on:

- Increased carrying capacity (more grazing days)
- Less feed and hay used
- Improved quality of grass
- Less time and labor
- Increased soil fertility
- Increased health and conception rates of cattle
- Ease in handling cattle

These reported benefits directly reflect on the instruction of what MiG will do for farms when adopted. A Shannon County producer commented, “Primary gain has been extending the grazing season even during periods of reduced rainfall. Secondary benefit has been reduced fertilizer purchased.” A McDonald County producer reported, “The fencing and drinkers has allowed the acres to carry the 80+ cows very well considering the dry year.” A Christian County producer remarked, “Changing the way I look at the forage that is produced on this farm and gaining knowledge to make it the number one crop. All else comes number two.”

When asked how often do you rotate paddocks on your farm during the growing season, the respondents reported a range of between $\frac{1}{2}$ to 20 days (average of 5.9 days).

Ninety-six percent reported that they had developed a MiG system since the grazing school. The respondents also reported on their adoption rate of various components of their MiG system: 83% adopted electric fencing in their pastures; 86% adopted water sources in every pasture; 76% adopted the practice of stockpiling fescue; and, 87% adopted the practice of interseeding legumes into pastures. Only 40% reported the adoption of using warm-season grasses in their system.

One Christian County producer commented, “I have seen a huge difference in wildlife – to the good” indicating that these practices can improve the environmental components of farms as well as the profitability.