

Economic and Environmental Benefits of Grazing
Reported by Pasture for Profit School Attendees in Ohio
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Introduction

Improved grazing systems provide economically profitable and environmentally sustainable alternatives to livestock producers in Ohio. The Ohio Integrated Forage Management (IFM) team consisting of state specialists, Extension agents and NRCS personnel was formed in 1994 to focus educational programs on improving profitability of Ohio farmers while enhancing the environment through efficient utilization of forages. One of the IFM team's goals was to develop an expanded curriculum on Management intensive Grazing (MiG) and offer "Pasture for Profit" schools on a regional basis.

The objectives of the "Pasture for Profit" schools are to increase participant's knowledge about forages and grazing in order to increase net profits, improve environmental quality and the quality of life for farm families.

The schools are set up in many different ways depending on the host county preference. Usually the schools consist of two or three sessions for a total of 5-12 hours of instruction and/or field tours. The basic topics covered in the school are: MiG, soils, plant physiology, forage species, animal nutrition, economics, paddock layout, water system design, evaluating resources and goal setting. Teaching materials, handout material, and a list of potential speakers are available to each hosting agency.

These schools have been offered every year since 1994 and cover the basics of MiG. Over 85 schools have been taught across Ohio, with more than 1000 participants completing the 2-3 day course.

A pre-test/post-test has been used to evaluate each school (Bennett et.al., 1997). One question participants were asked was the top three reasons for considering MiG prior to the school and after the school. The reasons for considering MiG prior to the Ohio "Pasture for Profit" Schools were to increase herd size (58%), extend the grazing season (71%), increase productivity (84%), and better utilize resources (68%). After the school, the top three reasons listed higher profit (82%) better land and soil management (71%), and improved herd health (67%). The tests indicated that 94% of the participants intended to implement MiG on their own farm (Bennett, et al, 1997).

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In 1999, the IFM team decided that a more comprehensive post program evaluation was needed to determine if producers had actually made a change in practices. A statewide survey of school participants was conducted to determine if the school objectives had been accomplished and to determine what benefits producers were realizing as a result of their participation.

Methods

Integrated Forage Management team members determined the information to be requested in the survey based on content of the schools. Many of the questions were open ended allowing the respondents to fill in blanks while others would measure change since attending the school. Formatted surveys were sent to the Ohio State University Extension Program Development and Evaluation and local producers for feedback.

Requests were sent out to Extension Agents for address lists of Pasture for Profit School participants. Eleven schools, located in each geographic region of the state, were used in this survey. Participants surveyed attended schools in 1994, 1995, 1997, 1998, 1999, and 2000. Surveys were sent to the 192 school participants in the fall of 2000. Seven surveys were returned as undeliverable. Non-respondents were sent post card reminders and surveys as follow-up.

Results

From the 187 participants 87 usable surveys were returned, for a response rate of 47%. A minimum of three participants from each school returned a survey. T-test were run using SPSS 10.0 for Windows comparing early versus late respondents with no significant differences found ($p=0.05$). T-test were run for comparisons in year of attendance and school of attendance with no significant differences found ($p=0.05$). Respondents reported grazing beef; cow/calf, purebred and stockers; dairy, lactating cows and replacement heifers; sheep, commercial and purebred; goats, dairy and meat; and poultry, layers and broilers.

In response to questions about adoption over 80% ($n = 72$) of the respondents reported changing the way they manage grazing after attending a school. Ninety three percent ($n = 80$) reported that they practice MiG.

Economic Benefits

To determine the economic benefits of adoption producers were asked several questions focusing on decreasing cost. Around 82% of the respondents reported reducing operating cost (Figure 1.) and 93% reported reducing feed cost (Figure 2.).

One aspect of reducing feed cost is extending the grazing season. One of the observed benefits of adopting MiG has been a longer grazing season. Survey recipients were asked if they have been able to extend the grazing season. 74% reported that adopting MiG has extended the grazing season (Figure 3.)

Another way to improve profitability is increase productivity. Sixty percent of the respondents reported increasing the number of animals per acre (Figure 4).

Since attending the school respondents reported increasing their acres managed for grazing by 1,670 total acres. Average acreage managed for grazing by respondents was 122 acres. They also reported increasing the number of animals grazed by 1,260 animal units.

Although not a majority, definite improvement has been made in correcting environmental issues. Twenty five percent indicated they now fence livestock out of streams, 47% have added water sources, and 37% are controlling access to ponds.

Discussion

Since there is flexibility in how each school is set up the lack of significant differences between years and schools was encouraging.

The responses indicate at least two of the objectives of the Pasture for Profit Schools are being met. If producers are applying the principles taught at the school and increasing production while decreasing cost then net profit should be improving.

The response to the question on extending the grazing season gives us a better picture. The average reported days of extra grazing is 63 between spring and fall. Taking the ten year average cost of hay in Ohio this translates into a feed savings of \$66.15 per beef cow.

The written responses to the other benefits participants have noticed indicate an improvement in their quality of life.

References

Bennett, M., Penrose, C., and Bartholomew, H. (1997). Ohio pasture for profit schools: designing a successful format for grazing courses. [On-Line], Journal of Extension, 35(2). Available: <http://www.joe.org/joe/1997april/iw3.html>.

Figure 1

After participating in the grazing school I reduced the operating cost of my farming operation.

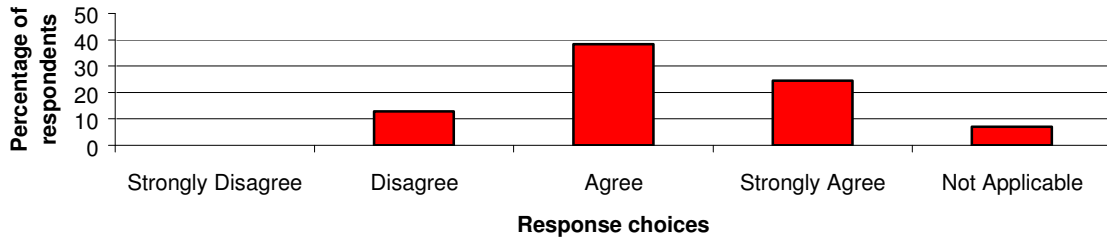


Figure 2

By adopting managed grazing practices taught at the grazing school, I have decreased feed cost.

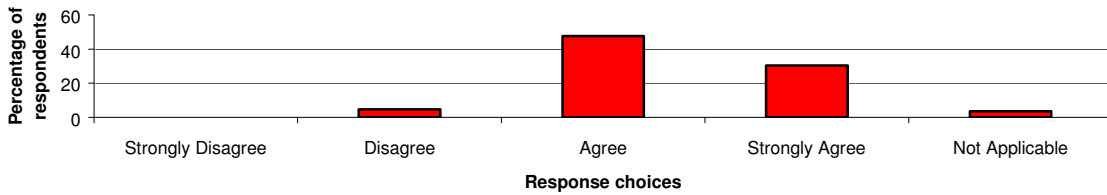


Figure 3

As a result of adopting the grazing practices taught at the grazing school have you been able to extend the grazing season?

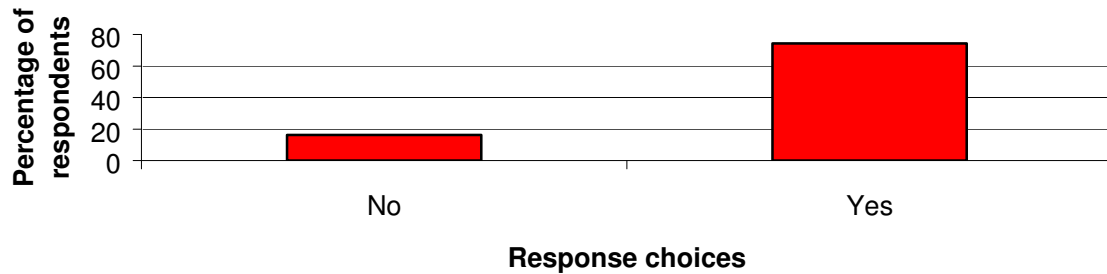


Table 1. Days respondents were able to extend the grazing season.

	Mean Response	Standard Deviation
Days earlier in spring	23	7
Days later in winter	40	19

Figure 4

By adopting managed grazing practices taught at the grazing school, I have increased the number of animals per acre.

