When it comes to managing a grazing program, we often are our own worst enemies.

Whether the topic is animal health, forage production, profitability or quality of life for us and our families, we seem determined to create problems for ourselves.

One source of problems comes from the never-ending stream of recommendations on how to increase production. By adopting all the latest techniques and practices without understanding the total and long-term effects of these changes — we have greatly increased the amount of meat produced per animal, but the cost has been reduced profitability. This is true whether profits are measured as per dollar invested, per acre, per hour of labor or as sustainability of the program.

I have caught flack over the years for being anti-academia; this is not so. I am mid-course; the experiment must be carried through to completion if it is to have scientific validity. The research project is normally short term; a three-year study is considered long term for most projects. That means effects which are slow to develop, such as changes in soil health or plant species shifts, may be discounted or missed entirely.

The research project looks at one or at most a few factors. If more than a few factors are varied, it becomes impossible to determine if the experiment or to analyze its results. The results of projects carried out under these restraints are seldom directly applicable to production agriculture.

This type of project is good for allowing us to understand simple relationships — adding X pounds of nitrogen fertilizer will result in Z pounds of bermudagrass. It does not, however, tell us the value of that additional grass to our program, nor does it tell us about other effects of adding X pounds of nitrogen. It also does not determine if buying fertilizer is the best use of the money required at that point in time. If putting out fertilizer increases forage at a time when forage is in surplus, this is entirely different than if it increases forage during a period of forage shortage.

If adding nitrogen fertilizer results in reduced soil organic matter and soil life, is the short-term gain worth the long-term cost? If the money required to buy fertilizer could be used instead to add forage legumes to the vegetation sward or to subdivide paddocks for better grazing control, would these uses have more value and longer-lasting effects in moving the operation toward its goals?

My point in all of this is to make clear that few decisions in agriculture are simple because there are always biological factors, financial factors and human factors that will be affected and must be considered.

We have gone wrong in trying to apply simple answers to complex problems. How many “miracle forages” have come and gone? How many “final solutions” have we seen to weed and brush problems? Weeds are not caused by a deficiency of weed poison. Weeds proliferate because the conditions present — bare ground, few leaves on forage, low soil life — favor their growth over the growth of forage plants.

Scientists vs. producers

This disconnection between research scientists and producers is due to fundamental differences in their roles. Scientists start out with a hypothesis (I think such and such is true) and devise a program to determine whether the hypothesis is true or untrue.

The producer starts out with a set of goals (make a profit, improve the land, enjoy life) and manages so as to make these goals happen.

The good producer-manager follows closely the results of the practices used and, when results are different from those desired, changes the program. The scientist cannot change the program in mid-course; the experiment must be carried out with a hypothesis (I think such and such is true) and devise a program to determine if buying fertilizer is the best use of the money required at that point in time.

We don't need new forage plants. We need to learn to manage for the health of the plants we have.

The problem is not that scientists are not doing work useful for producers. It is that we try to take the results of their research projects as answers to problems instead of pieces of the puzzle to be considered along with all the others.

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