Products And Practices That Work, Situations That Don't

DR. EDWIN RITCHEY

PRINCETON, KY.

Many different products and practices are used in farming operations. There are products and practices that have been proven over time, but their use cannot always be justified. There are two basic ways to improve profit in farming operations. The first is to increase yields while maintaining input costs. The other is to maintain yields and reduce production costs.

A very straight forward example is the use of glyphosate. It is a proven chemical that has been around for years. There have become resistance issues coming into play, but it is still a proven product. Why would you spray this product on a field that has no vegetation present? Hopefully most producers would not do this since it is a waste of chemical and money. If this did occur, it would increase production cost with no benefit in yield.

The second situation comes closer to home for many producers, and that is the issue of subsoiling. The fall of 2010 resulted in many acres of crop land being subsoiled, mostly due to an early harvest and plenty of time and nice weather for this operation. Subsoiling is a practice that is proven to work only if the situation warrants. If multiple penetrometer resistance (PR) values are greater than 300 psi throughout a field, then there is a good likelihood that a favorable response will result. However, if the field does not show these high PR values then, hardly ever, a positive yield response is found. This will cost the producer money for diesel fuel, labor to conduct the operation, equipment wear, and potentially reduce soil organic matter for that field. This costs unnecessary expense and reduces profit.

The final example is the use of fertilizers and other nutrient sources. Poultry litter and other animal manures are applied for the nutrients contained in the manure and to increase soil organic matter. The use of poultry litter is proven to provide nutrients, improve soil physical properties, and utilizes a "waste product" that has to be disposed of by some method. Land application of poultry litter is a good mechanism to utilize this product. Over time, the buildup of soil nutrients, particularly phosphorus, can reach levels of environmental concerns. Therefore, if animal manures are applied to fields with high or excessive amounts of soil nutrients, the nutrients contained in the litter will not be utilized efficiently. Further, the potential for negative environmental consequences are increased. Use soil tests to guide application rates of nutrients and match applications with the proper products. No one would apply DAP to corn if only nitrogen was needed to optimize yield. It costs too much per unit of N and could increase P in the soil to excessive levels. Essentially this is occurring often with the use of animal manures and other complete fertilizer products.

In summary, there are many products and practices that have been proven over time to work. Just because a product is effective, does not indicate it is appropriate for your particular situation. Make sure that the situation warrants their use. You could not only be increasing production costs resulting in reduced profits, but creating environmental concerns that will end up costing all producers in the long run. Δ

DR. EDWIN RITCHEY: Extension Soils Specialist, University of Kentucky