

STRATEGIES FOR CATTLE PRODUCERS TO REDUCE FERTILIZER COSTS

UK Ag Economist (and beef producer) Dr. Greg Halich recently wrote an article providing cattle producers with tips to reduce their dependency on commercial fertilizers. This is important because fertilizer prices are currently at all-time highs, but beef prices haven't kept up with input costs. Compared to this time last year, Kentucky producers are getting approximately 13% higher prices for 500 – 600 pound steers, but paying over 100% more for nitrogen (N) and potassium (K).

A link to the full article from Dr. Halich is at the end of this article, but here are his main takeaways:

1. Use Legumes Instead of Commercial N: The best way to evaluate Return on Fertilizer Investment is to consider how much production increase you can expect for a fertilizer input at current prices. If we buy enough commercial nitrogen fertilizer to grow an extra ton of grass, we would expect that extra ton of forage to cost \$56 at current nitrogen prices and average Kentucky production. However, a clover seeding to grow that extra ton of forage would only cost \$10 at current clover seed prices and production. Getting our nitrogen from legumes is not as easy as ordering it from the fertilizer dealer, but at current fertilizer prices the clover will be the better financial decision for most cattle farms.

2. Feed Hay to Retain Nutrients: The average Kentucky cattle farm feeds 2 to 3 tons of hay per cow during the average winter. This amounts to approximately 72 – 108 pounds N, 24 – 36 pounds P, and 104 – 156 pounds K cycling through the cows. At current prices, that means each cow is passing approximately \$156 - \$233 (\$72 - \$108 of N, \$13 - \$19 of P, and \$71 - \$106 of K) through her manure and urine. Unfortunately, most of this fertilizer value (67% of the N and 90% of the K) is concentrated in the urine. If we feed hay in a sacrifice lot, feeding pad, or

conventional barn it is almost impossible to capture the nutrients from the urine, even if we spread the manure back onto the pastures. In order to capture the full value of these nutrients we have to feed hay on our pastures. The two best ways for Kentucky producers to do so is through bale grazing or unrolling hay. Most producers aren't using these feeding methods (yet), but farmers who feed hay directly on pasture will have lower fertilizer needs in the following year.

3. Reduce Your Stocking Rate: There is always a trade-off between increasing stocking rate (having more calves to sell) and higher production costs. All else equal, a higher stocking rate means that we will have to feed hay for more days in the year. The average cow-calf farm in Kentucky feeds hay 120 to 140 days per year, but UK research suggests that it is most profitable to feed hay no more than 60 to 90 days. More days on hay is always a substantial cost, but with record-high fertilizer prices we really have to be honest with ourselves about our stocking rate. Will those extra calves pay for the extra costs (including the fertilizer value of the hay) that it takes to maintain their mamas on the farm? If not, it will be more profitable to reduce our stocking rate.

Dr. Halich makes some challenging points in this article, but these are challenging times for beef producers. The full article has a lot more information, and is really worth a read for all of us during these times of high input prices. You can find the full article by going to (<https://bit.ly/reduce-your-fertilizer-needs>) or by doing an internet search for “Reducing your dependency on commercial fertilizers strategies for cattle farms in 2022 and beyond.”