

Should I fertilize my hay fields and pastures this fall?

By Marty Morgan, Wise County Ag Agent

We all know that fertilizer is not cheap, but some years it's cheaper than others. I just checked the local prices of 32-0-0 liquid and it is sitting at \$290 per ton and most folks have to hire this done. If you like putting out a dry fertilizer like Anhydrous Ammonia, 34-0-0, the price is at \$370 per ton and you can do it yourself pulling a buggy behind your truck or tractor. So which one is the most cost effective? To make it easy if you put out a hundred pounds of 32-0 per acre the cost will be in the neighborhood of \$21.50(14.50 for fertilize & 7 for application fee) A 100 pounds/ac of 34-0 will cost you exactly \$18.50 if you do it yourself and approx. \$26 if you hire it done. So you can see the different ways to go and the costs associated with whatever way you choose, You're the boss!

So we know what it cost per acre so the question now becomes is it economical to apply fertilizer to pasture and hay ground this fall and will it make a difference. The answer to that question is difficult because it depends on your specific situation. When considering the answer for your operation the first thing you should do is by doing a soil test and see where the nutrient levels stand. Have you done a soil test in the past 2 years? If not then I would suggest you do one. A soil test every year is the best, but one every two years is better than none. So when you get your soil test results back then you can determine what you need to apply. Now if you have tested your soil this past spring and applied the recommended rates I wouldn't worry about doing a soil test right now. I would just apply some Nitrogen and not worry about the Phosphorus and Potassium until next spring when you test again to see how much all three nutrients are deficient. If you didn't test this past spring I would do a test now and see where you stand. Some think Fall is a good time to put down Phosphorus and Potash because it takes several months to work itself in the ground and would for sure be available to the plant come the next spring. The source of nitrogen used in the fall is also important. Ammonium nitrate is the most efficient fertilizer to use because it is not subject to volatilization like liquid.

Now if you're putting straight Nitrogen in the fall and nothing else the question becomes how much nitrogen to apply and my answer is, "I wouldn't break the bank". Warm season pastures and hayfields will go dormant soon after the first freeze anyway but there is still time for some good growth before then especially if we receive additional rain. If you over seed pastures and hayfields or have some type of winter grass(like ryegrass) in them then that's a good reason to fertilize a little more. Research has shown that each lb of nitrogen applied in early to mid-August will increase cool-season grass production by 20-25 lbs dry matter per acre. So if one pound of nitrogen cost less than the cost of 25 lbs hay on a dry matter basis then more N should be applied. Of course this assumes adequate rainfall which makes for good growing conditions this fall.

I want to mention a little about the soil pH as it is important too. The minimum value depends on the type of forage you are producing. If it is a grass legume mixture then it can probably tolerate soil pH down to about 5.8, and if it is Coastal Bermuda then you will probably be ok with a pH 5.4 before yield is affected. I have had Coastal Hay fields down to a pH of 5.2 and they did fine, but I did go ahead and lime to raise it a couple tenths to 5.4. Is that economical? That is another question for another day!