



More from Every Acre, Animal & Gallon of Manure

Managing High Fertilizer Costs

With extremely high fertilizer prices, we need to look at ways to reduce fertilizer costs and yet not have a train wreck. Running a complete soil test that includes base saturation and the trace elements will help us determine the best plan of action for each field. We would also suggest running a Haney Test to analyze the soil biology and the availability of nutrients. Once you have the soil tests we can determine the amount of fertilizer that you need for your realistic yield goal. Here are some suggestions to reduce fertilizer costs.

- Apply the Crop Residue Digestion Program (CRDP). Residue contains an enormous amount of nutrients and of course carbon, that we can release and make them plant available if we can break down the residue. A 180 bu/A corn crop has 80 lbs N, 30 lbs P₂O₅, 190 lbs K₂O, 16 lbs S, 35 lbs Ca, 25 lbs Mg and trace elements. By releasing those nutrients, we can possibly eliminate a potassium application which would save a considerable amount of money, provided your soil test will warrant it.
- Applying **Soft Rock Phosphate (SRP)** at 300 lbs/A broadcast or 250 lbs/A as a subsurface band is another way to reduce applying high salt fertilizers. SRP contains 23% P, 30% Ca and 55 trace elements. It is colloidal, meaning that is surrounded by a carbon which prevents the P from being tied up by Ca and Mg and remains available in your soil. Acid treated phosphorus, such as MAP and DAP release quickly and can become adsorbed to Ca and Mg in your soil making much of the applied P tied up and unavailable to the crop. SRP breaks down slowly due to its colloidal nature which prevents P from being tied up. In addition, MAP and DAP have had all of the trace elements removed unlike SRP which contains all of the trace minerals. MAP and DAP are made from SRP which is mined from the ground. They remove the natural trace elements in order to achieve a higher concentration of P when manufacturing MAP and DAP. The traces are critical for enzyme production and overall plant health.
- Apply a low salt, 100% orthophosphate starter such as our **YieldBooster™ 20-14-12-6** plus traces. Starter is especially important in cool, wet soil conditions. We all want higher yields and the earlier we plant the more likely for higher yields. With early planting, we need an early shot of phosphorus and nitrogen to get the plant off to a good start. In addition, since this is a dry material, you mix up what you want and you don't have to pay for water!
- Add **BioNurture®** to your starter program. BioNurture contains a diverse blend of microbes that will help to solubilize soil bound nutrients, break up soil compaction and provide the crop with the nutrients and biology that it needs. In addition, BioNurture has nitrifying bacteria that convert atmospheric N making it plant available. This will allow us to reduce N rates.
- Spread manure on more acres. Make sure to bioaugment your manure with **Manure Master™ Plus-PA**, first. Manure Master Plus-PA will reduce top and bottom solids, salt, odor and liquefy the manure making it easier to pump. By spreading bioaugmented manure on more acres you can provide your crop with a more biologically friendly fertilizer than dry fertilizer.
- Apply a foliar such as **BioEnergy+™** to enhance growth and development. BioEnergy+ provides the plant energy from molasses, microbes, microbial stimulants, chitosan and many other components to stimulate crop growth. In addition, it contains an ethylene inhibitor that keeps the plant growing when its under stress.

Dennis Klockenga, CCA

Crop & Manure Management Consultant

320-333-1608 (cell)