



Nitrogen Considerations

6/20/18

A nitrogen deficiency can steal yield in crops quicker than a shortage of any other nutrient. The rainy weather that many of us are experiencing this spring has made nitrogen management a real challenge.

Loss occurs mainly from leaching or denitrification. Ammonium forms of nitrogen are converted to nitrate nitrogen when soil temperatures are above 50 degrees, through a bacterial process called nitrification. Once the nitrogen is in the nitrate form it is subject to leaching, particularly on coarse textured soils. Denitrification is a bacterial process that takes place in anaerobic soil conditions caused by saturated soils where nitrate nitrogen is converted to nitrogen gas and lost to the atmosphere.

How can we determine how much nitrogen we have?

A Pre Sidedress Nitrate Nitrogen Test can be used to help determine nitrogen status on fields where you suspect significant nitrogen loss. 25 parts per million of nitrate nitrogen should be adequate to finish the crop. Additional nitrogen should be applied if you are below these levels.

We have also seen additional nitrogen pay off if you experience a heavy rainfall event immediately after a sidedress application or if you have excessive June rainfall. Dribble applications with high clearance rigs are usually successful, even though the nitrogen does not get mechanically incorporated. Applying liquids where the soil surface is moist or getting rain after the application will ensure that you benefit from the nitrogen application. It is good to add complex carbons to the mix. This would include products such as **Bio Humus, Activator II, Liquid**

Sugars, Molasses, Drammatic Fish, and SP-1™. This application also allows the chance to apply potassium and/or other nutrients that might be deficient.

This season is reminding us of 2015. We did not realize the susceptibility of organic nitrogens to N loss. We are told that manure mineralizes and comes available quite slowly. But in 2015, many observed nitrogen deficiency and a lack of nitrogen supply in June. Organic forms convert to nitrate and will be rapidly leached with excess moisture.

Consider nitrate testing and evaluating your nitrogen status. Adequate nitrogen is a must! **Call your AgriEnergy rep today. 815.872.1190.**