



Due to heavy rains and standing water in corn fields it is to be expected that signs of nitrogen losses will start showing up. These losses are caused by leaching, denitrification or runoff depending on the exact field situation; making these losses variable and hard to predict. Here are some factors in estimating nitrogen loss; when the fertilizer was applied, what form it was applied in, how long if the crop has been under water, and soil temperature. Losses to leaching are more likely to occur to fall applied anhydrous and nitrogen applied in either urea or ammonium nitrate form. Factors that influence leaching are how much water holding capacity of the soil before the rains, and the intensity of the rainfall. How much nitrate is lost due to denitrification depends on how long the soils are saturated and the temperature during that time. Estimates when soil temperatures are 55°F-60°F are in the 2% per day range when soil temperatures are greater than 65°F, losses can be up to 5% per day of saturation. So all total losses could easily have reached the 25%-30% range or greater by now.

That being said the Agronomy Team at United Farmers Cooperative is prepared to handle these challenges. We are recommending a side-dress or top-dress application of nitrogen be made to those water soaked acres. We would suggest applying 50lb-70lbs of N to irrigated acres that have been flooded or excessively wet this spring and 30lbs-50lbs of N to non-irrigated acres. If Urea is used we suggest using Nutrisphere and if UAN is used we would recommend using 1 gallon of Thiosulfate for every 10 gallons of UAN applied. These recommendations are being made to help those formulations of fertilizer to maintain stability in warmer weather.

If we do the initial application early enough and shortly afterwards the corn starts to show signs of nitrogen deficiency, United Farmers Cooperative is prepared to handle a later nitrogen application if needed. These application rates can be fine tuned with the use of Yield Potential Maps and Variable Rate Technology; using this combination will help us maximize yield and profit for you in these challenging times. We will have multiple custom application machines and a plan ready to get these operations done in a timely matter. With current commodity prices it is worth the time and expense to protect your crop.