

Late Season Cornstalk Nitrate Test Interpretation

Category	Nitrate-N result (ppm)	Interpretation
Low	< 700 ppm	Nitrogen likely limited yield. Nitrogen management should be evaluated to determine why the N supply was inadequate and management changed accordingly. There is a good probability that there would have been a profitable response to more N in this field. Corn probably was showing N deficiency symptoms*. As the test approaches the optimal range the likelihood of seeing a deficiency goes down.
Optimal	700 – 2000 ppm	Nitrogen was adequate but not excessive for optimum economic yields in this field. Fields testing in this range are an indication of good N management. A goal of N management should be to consistently have your fields test in the optimal range. However, even under ideal N management it may not be possible to be in the optimal range every year but the long term trend in test levels should be close to the optimal range. There may be some yellowing on the lower leaves before the corn reaches maturity*.
Excessive	> 2000 ppm	Nitrogen in the field was in excess of what is needed for optimum economic yields. Not only might this represent an economic loss, but it may also indicate a potential for N loss to the environment. Nitrogen management should be evaluated to determine why the N supply was excessive and management changed accordingly. Corn grown on fields in this category will probably not show any yellowing in the lower leaves until the leaves start to naturally die off*.

* *Nitrogen Deficiency Symptoms* – The common visual symptom of N deficiency on a corn leaf is a yellowing (eventually the area will die and turn brown) beginning at the tip of the leaf and going back the midrib in an inverted “V” shape. The symptoms will show up on the bottom leaves of the plant and as the deficiency becomes more severe leaves higher up on the plant will show the symptom.