

Plan for Options for In-season Nitrogen Management

Many cornfields have anhydrous ammonia applied during dry soil conditions in March. Now, as we move closer to planting time, other nitrogen sources are used.

The application of ammonia and other nitrogen sources are critical for rapid corn growth to make stalks and leaves and then through the season and to finish with grain fill. Often growers worry about the loss of nitrogen. The loss of nitrogen greatly reduces corn yield.

Best management practices for application of nitrogen fertilizer is to apply as close as possible to the period of rapid crop uptake. Managing nitrogen in this way will minimize losses. This is one management option.

There are two periods of nitrogen losses. One is early spring when soils are wet and before corn begins its stage of rapid growth. This is before corn has the opportunity to use the applied nitrogen.

The second is late May and early June. Corn has started its rapid growth but saturated soils can result in nitrogen losses. The combination of warm and wet soils can lead to rapid nitrogen loss through denitrification. This risk is greatest on poorly drained soils.

Weather can change from wet to dry and vice-versa so it is wise to have a plan to rescue nitrogen deficient corn. I hope that we will not need such a plan but having a plan in place can reduce yield losses.

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