

Nitrogen Fertilizer Permit Might Be Required

All pre-plant applications of nitrogen fertilizers are prohibited prior to November 1 throughout the Little Blue Natural Resources District. Also, no liquid or dry nitrogen fertilizer can be applied between November 1st and March 1st without receiving a "fertilizer permit" from the Little Blue NRD. If you received the fertilizer permit, you will be required to put an nitrogen inhibitor in the liquid or dry nitrogen fertilizer. A nitrogen fertilizer is classified when the first number in the fertilizer formulation is the largest number. Anhydrous ammonia applications are still allowed after the first of November without an nitrogen inhibitor.

Two exemptions are provided in the spreading of manure, sewage, and other by-products conducted in compliance with state laws and regulations, and the applications of pre-plant starter nitrogen to fall seeded crops, such as wheat.

Even though the restriction is for November 1, the LBNRD still recommends that the soil temperature reaches 50 degrees at the 4 inch depth before applying nitrogen fertilizer to minimize the leaching potential. Soil sampling should be conducted prior to any application of nitrogen fertilizer, as nitrogen residual in the soil does fluctuate yearly.

Getting in a hurry to apply nitrogen for next year's row crop can be an expensive mistake. There is a high risk of losing nitrogen applied too early from volatilization or rainfall. Fall-applied nitrogen must stay in the ammonium form throughout the fall, winter and early spring to decrease the risk of volatilization or leaching. Once it is converted to the nitrate form in the soil, the risk of loss through leaching or de-nitrification is substantial.

The key to preserving nitrogen in the ammonium form is to apply it after the soil temperature drops and stays below 50 degrees Fahrenheit. Soil temperature can easily fluctuate above and below 50 degrees for one or two weeks. Therefore, it is important to be aware of the average last date when the soil temperature is higher than 50° degrees. Historical records show that the average soil temperatures reach 50° F about November 1. While surface soil temperatures can vary considerably day to day, soil temperatures at a 4 inch depth change more slowly. Conversion of banded ammonia products to nitrate will be slow due to cool soil temperatures.