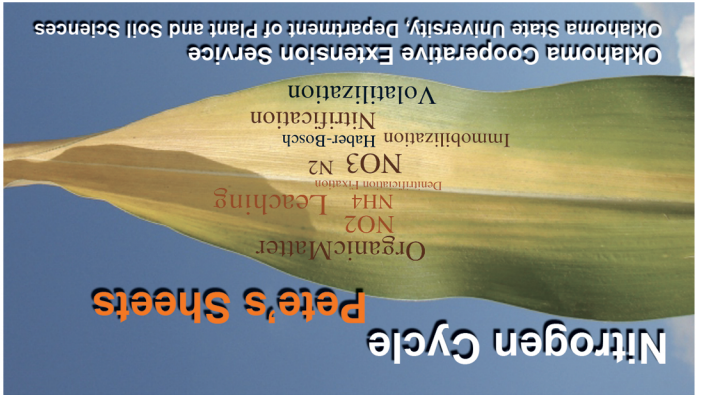

Ammonia: NH3, gaseous form of nitrogen (N)
Ammonia Volatilization: Loss pathway, loss of NH3 from soil surface occurs in hot dry soils with pH >7.0.
Ammonium: NH4, plant available form of N. Found on soil exchange sites, not mobile.
Denitrification: Loss pathway, conversion of NO3 to gaseous forms of N (N2, NO, N2O) in waterlogged soils.
Haber-Bosch: Industrial process of converting atmospheric N2 into Fertilzer N. Requires heat and pressure.
Immobilization: Conversion of NH4 and NO3 into organic matter / organic N.
Leaching: Loss pathway, movement of NO3 with soil water out of the root zone.
Mineralization; Conversion of organic N into plant available mineral N (NH4 and NO3).
Nitrification: Conversion of NH4 into NO3, requires Nitrosomonas, Nitrobacter, and O2.
Nitrate: NO3, plant available N. due to its negative charge it is mobile in soil. Soil is also negatively charged.
Nitrite: NO2, not plant available, toxic to plants at high concentrations, converts to NO3 immediately when O2 is present.
N2 Fixation: Conversion of atmospheric N into organic and mineral N.
Organic Matter: decomposing plant and animal materials.
Plant Loss: Loss pathway, NH3 is lost from plant tissues. Occurs under drought stress.

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