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 fertilizer N. Requires heat and pressure.
Immobilization: Conversion of NH₄⁺ and NO₃⁻ into organic matter or 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.
Nitrates: 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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Brian Arnall, OSU Precision Nutrient Management Ext. Specialist
b.arnall@okstate.edu 373 Ag Hall Office:(405) 744.1722
Web www.npk.okstate.edu www.facebook.com/osunpk
Blog:www.OSUNPK.com Twitter@OSU_NPK YouTube Channel OSUNPK