

AP N-LOCK

ACTIVE INGREDIENT

NBPT

DCD

Rhizovit Complex

Compatibility and Mixing:

Compatible with UAN & 24S type solutions. For dry urea fertilizer mix with some water to be applied at a total mixture of 2qts. of water and N-Lock mix per ton.

Application Rates:

Use 25oz/ton of N-Lock for every ton of UAN or 24S type solutions. For dry urea fertilizer, use 32 oz/ton of fertilizer

Knowledge to sell this product:

50% of Nitrogen can be lost in 3 different ways: (1) Volatilization (2) Denitrification (3) Leaching

Additional information on Volatilization and Leaching

1. ***Nitrogen is lost by Volatilization***- This is the first loss of nitrogen when it is surface applied, immediately following application. When Nitrogen is surfaced applied it comes into contact with moisture and urease. Urease is naturally occurring in the soil, it breaks down the urea and releases it as ammonia into the air. **N-LOCK has NBPT to combat this urease enzyme from “feeding” on the urea** which allows the N to stay on the soil surface longer until we get rain to incorporate it into the soil.
2. ***Nitrogen is lost by Leaching***- After the nitrogen moves into the soil with rainfall it can be lost over time, no explanation needed here. **N-LOCK has DCD which helps prevent nitrogen from leaching.** When UAN is put down and gets into the soil that ammonia form of Nitrogen wants to start converting over to a Nitrate form of nitrogen because that is the form of nitrogen the plant roots take up most efficiently. But, nitrate nitrogen is also the most readily leached form of nitrogen. Without DCD the nitrogen in the soil would go from ammonia to nitrate quickly, and since the plant can't take up all the Nitrogen at once the nitrate nitrogen is then leached, making our N application less efficient.

****N-LOCK has NBPT and DCD to prevent these two main reasons of why N is lost****

Look for opportunities:

1. Wheat topdress
2. Surface applied Nitrogen behind planters
3. Layby applications with UAN or 24S type solutions
4. Dry applications of urea