

NEON

Nitrogen
Stabilizers



RESTORE THE BALANCE

Nitrogen Stabilizers



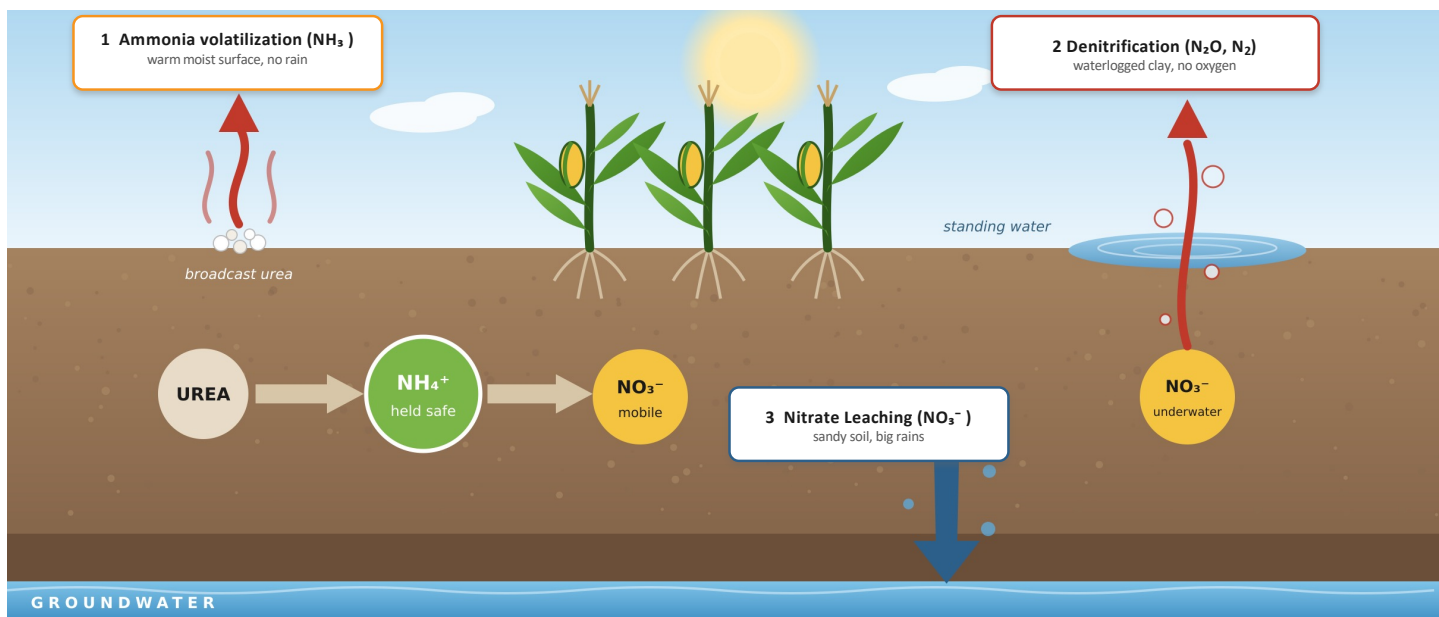
Protect Your Nitrogen. Improve Nitrogen Use Efficiency.

Nitrogen is one of the largest investments you make in your crop. But once nitrogen is applied, environmental conditions can quickly put that investment at risk. Moisture, temperature, soil type and application methods can all contribute to nitrogen loss, reducing the amount available to the crop when demand is highest.

NEON Nitrogen Stabilizers help protect nitrogen above and below the soil surface, keeping more nitrogen available for crop uptake and helping you get more from every fertilizer dollar.

Three Mechanisms of Nitrogen Loss

The level of nitrogen loss is dependent on the nitrogen source (form), placement, timing and rate. In addition, the weather and soil type play a huge factor in the potential for these losses.

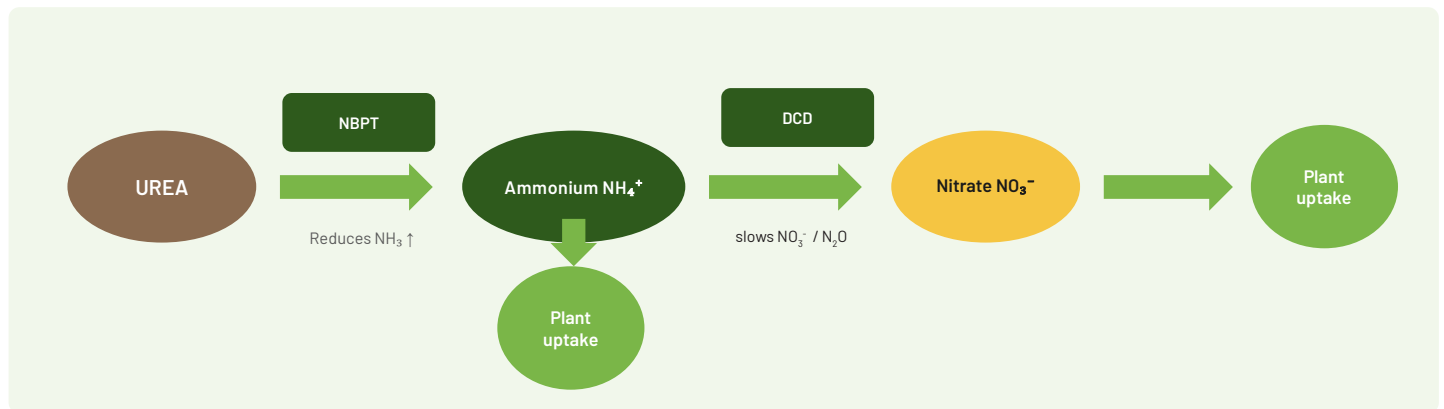


Loss	Where it Happens	Red Flags	The Solution
Volatilization (NH ₃)	At the surface, before N even enters the soil	Broadcast urea/UAN, warm + moist + no rain, high pH	Urease inhibitor (NBPT)
Denitrification (N ₂ O, N ₂)	In waterlogged soil, from the nitrate pool	Heavy clay, big rains, standing water, low spots	Nitrification inhibitor (DCD)
Leaching (NO ₃ ⁻)	Below the root zone, riding the water	Sand, big rains, early N, nitrate-containing resources	Nitrification inhibitor (DCD)

Addressing Loss with NEON Nitrogen Stabilizers

The NEON product line offers dual action with both inhibitors in one jug.

These 2 inhibitors work in sequence with each other, to stretch nitrogen availability to better match the needs of the crop.



The NEON product line addresses the 3 main ways nitrogen is lost:

Reduce NH_3 Volatilization

More N to the plant; less air pollution

Reduce Nitrate Leaching

More N to the plant; groundwater protected

Reduce Denitrification

Higher NUE; lower N_2O greenhouse gas emissions

Benefits of NBPT

The Urease Inhibitor

- Blocks the urease enzyme from starting the hydrolysis process, keeping the fertilizer in the urea form.
- Protects urea (and urea in UAN) from converting to ammonium for 2 weeks, or longer with a higher rate of NBPT.
- Breaks down with the addition of water, which normally occurs from rainfall or irrigation.

Benefits of DCD

The Nitrification Inhibitor

- DCD limits *Nitrosomonas* bacterial growth in the soil
- *Nitrosomonas* is the soil organism (bacteria) responsible for converting ammonium (NH_4^+) to nitrite (NO_2^-). The first of 2 steps in the nitrification process.
- DCD manages this nitrogen conversion for 2 to 4 weeks.

The NEON Difference

PenXcel Technology

The NEON Nitrogen Stabilizer product line use the PenXcel technology, a uniquely formulated fertilizer additive for urea and urea ammonium nitrate (UAN). NEON nitrogen stabilizer products utilize two highly concentrated actives for triple-action control of nitrogen losses.



More than Surface Coverage

A fertilizer granule may look completely coated—but appearance alone does not determine protection.

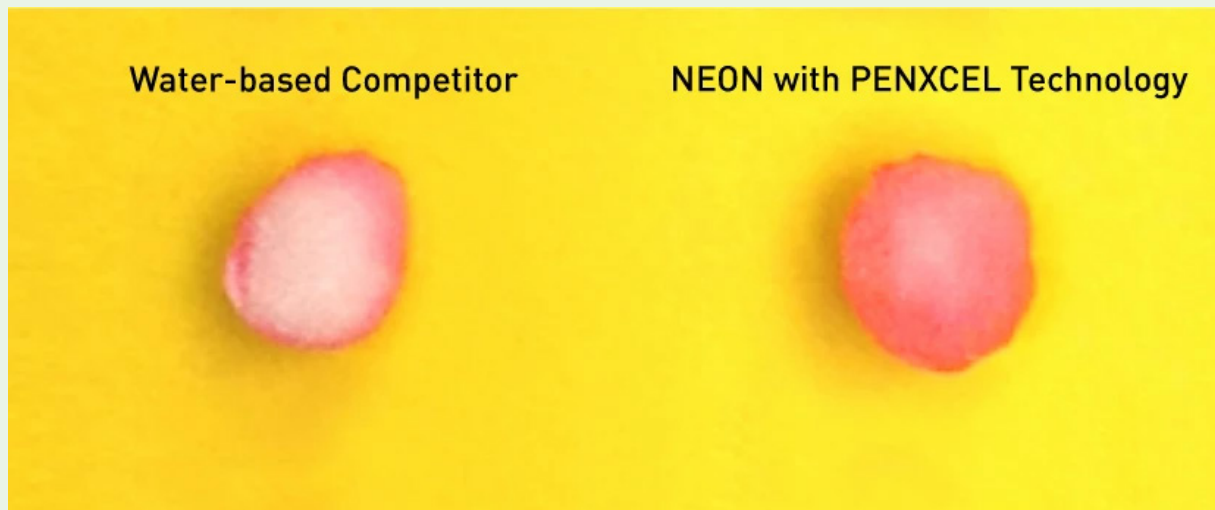
As illustrated by the dye comparison in the image below, PenXcel Technology is designed to carry the active ingredients deeper into the fertilizer granule rather than concentrating the treatment only at the surface.

Why does that matter?

As a urea granule dissolves from the outside in, deeper penetration helps maintain contact between the fertilizer and the nitrogen stabilizer throughout dissolution.

Better penetration. More consistent protection.

Dye Test – West Texas A&M (2014)

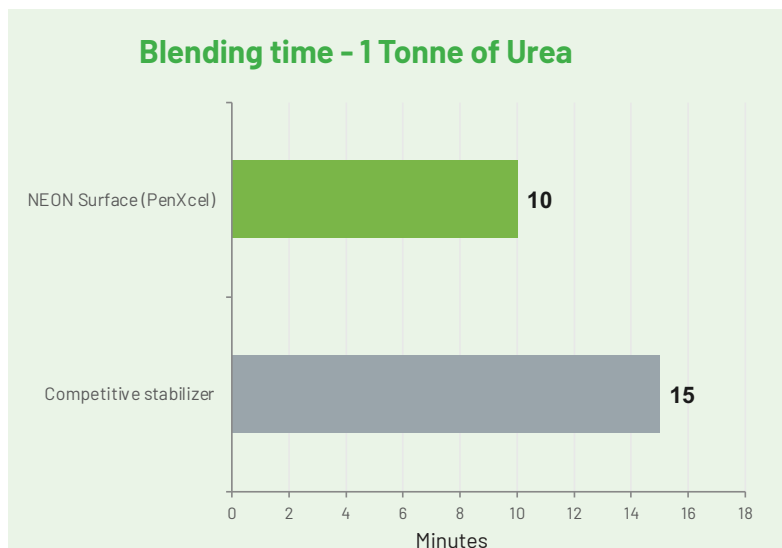


Why Depth Wins in the Field

- Granules dissolve from the outside in — a coated granule without PenXcel Technology loses its protection with the first layer
- A PenXcel treated granule keeps protecting as every layer dissolves
- Deeper penetration = more of each granule actually treated per litre of product
- Also stabilizes NBPT itself — extending shelf life after blending

Blending and Flowability

When fertilizer application windows are short, every minute of blending matters. PenXcel technology is designed for smoother handling and more efficient incorporation onto urea and UAN fertilizer.



25% faster per tonne - hours saved across a spring treating season

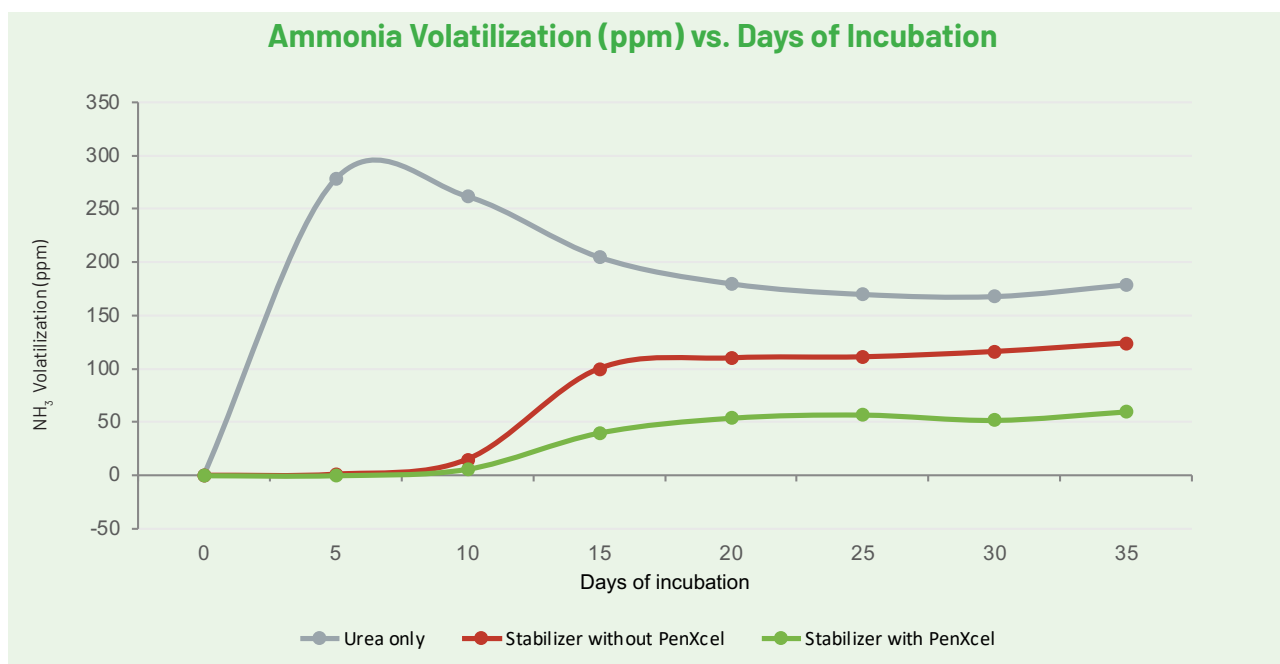
What the Treaters Noticed

- **Faster Treating:** Shorter blend times can help increase throughput during peak fertilizer season.
- **Cold-Weather Performance:** Designed to blend effectively under the conditions of winter and cold spring days.
- **Improved Flowability:** Helps minimize stickiness and clumping after treatment.

The blending data shows NEON Surface at 10 minutes of blending time versus 15 for the competitive stabilizer, approximately 25% faster per tonne.

Formulation Efficacy

Nitrogen loss can begin quickly when warm temperatures, moisture, and surface exposure work against your fertilizer investment. PenXcel technology helps reduce the conditions that lead to ammonia volatilization.



The Takeaway

- **Same active ingredients. Different Formulation. Roughly half the loss.**
- When a competitor leads with their NBPT percentage, you counter with this curve: it's not what's on the label, it's what reaches the granule core – and stays active.

Product Portfolio:

NEON Nitrogen Stabilizers

Formulations Tailored for All Applications of Nitrogen

Dual Action: Urease and Nitrification Inhibitor

- NEON reduces urease enzyme activity, allowing rainfall or irrigation to dissolve urea fully into the soil and form ammonium.
- By keeping nitrogen in the ammonium form, NEON reduces nitrogen loss from leaching and denitrification.
- NEON slows soil bacteria from converting ammonium to nitrate (nitrification).
- Result: More nitrogen retained in the soil, more efficient plant uptake, and reduced environmental impact.



NEON Surface - The Balanced Flagship

PRODUCT FACTS

- 17% NBPT / 25% DCD — urea 3 L/MT, UAN 1.5 L/MT
- Balanced protection: volatilization + denitrification + leaching
- Effective wherever residue, rainfall, or irrigation is significant
- Ideal for fall shallow-banded, at-planting, or broadcast applications
- The default answer when the field faces more than one risk — or you can't be sure which



NEON Air - The Volatilization Fighter

PRODUCT FACTS

- 30% NBPT / 15% DCD — urea 2 L/MT, UAN 1 L/MT
- Primary protection: ammonia volatilization
- Secondary protection: denitrification and leaching
- Built for broadcast urea/UAN, high-pH soils, and long dry spells after application
- Longer ammonia protection and real DCD backup underneath



NEON Soil - The Below-Ground Defender

PRODUCT FACTS

- 5% NBPT / 30% DCD — urea 4 L/MT, UAN 3 L/MT
- Designed for heavy clay soils and waterlogging-prone fields
- Protection priorities: denitrification and nitrate leaching
- Minor ammonia volatilization protection included
- Strong fit for early-applied N and nitrate-containing sources (UAN) on wet or permeable soil
- The wet-spring insurance policy: keeps N in the ammonium form



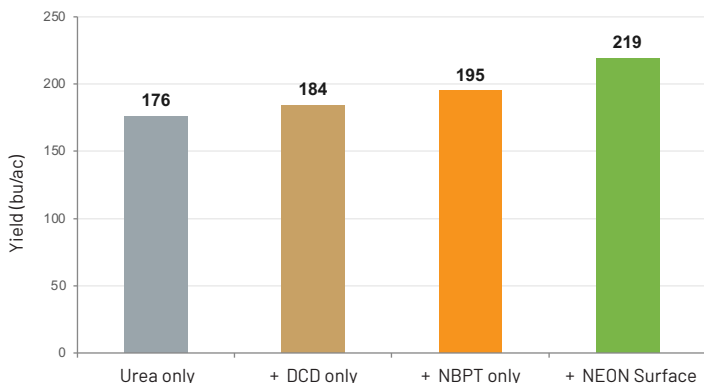
NEON 40-5 - The High-Concentrate Closer

PRODUCT FACTS

- 40% NBPT / 5% DCD — urea 1.25 L/MT, UAN 0.75 L/MT
- Volatilization protection equal to NEON Air — at a fraction of the volume
- Mild denitrification and leaching protection from the DCD
- Lowest mix rate = less freight, less handling, faster treating at scale
- The pick for cost effective performance and high volume urea programs

Proven Agronomic Performance

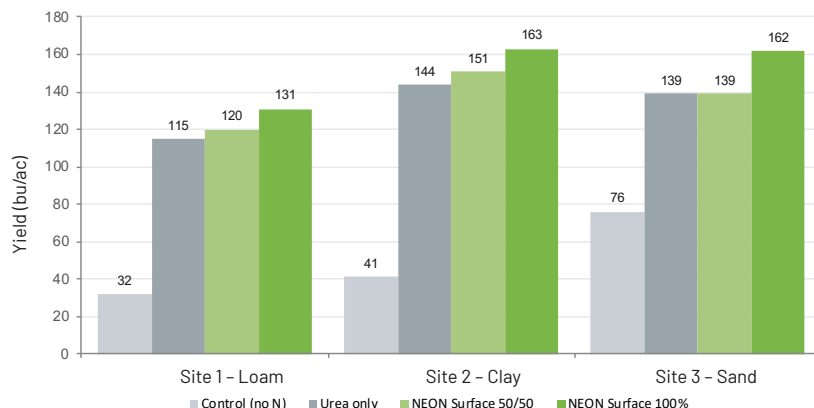
The Yield Proof: Dual Action Wins



Summary of 3 trials on 3 different soil types (loam, clay and sand)
NEON Surface applied at 3 L/MT onto urea for all 3 trials
Nitrogen was applied at 241 lb/ac for all treatments

- A summary of 3 replicated N stabilizer trials on corn showed the agronomics benefits from the dual action in Neon Surface compared to a single N stabilizer.
- The DCD only treatment showed a 8 bu/ac yield benefit while the NPBT alone treatment reported a 19 bu/ac increase over Urea only.
- The best treatment was Neon Surface (both DCD and NBPT) where the yield increase was 43 bu/ac compared to the check but also 35 and 24 bu/ac more than the single treatments, respectively.

Dryland Corn: Three Soils, Same Winner



Urea Broadcast at V4
NEON Surface treatments - 100% treated vs 50/50 blend (half treated)

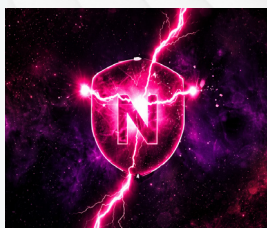
- Heavy rainfall on 3 different soil types (Loam, Clay and Sand) caused significant loss of nitrogen and yield to the crop.
- The trials highlighted the value of a topdress application of urea at the V4 stage of corn, resulted in a significant yield increase (average of 84 bu/ac).
- The best performing treatment was the 100% treated urea with Neon Surface (dual action) that added an additional 20 and 16 bu/ac compared to the stand alone urea and 50/50 blend, respectively.

The Yield Proof Is in the Cob



Urea only | + DCD only | + NBPT only | + NEON Surface

DUAL ACTION ADVANTAGE



The dual action affect of Neon Surface helped the corn fill to drive yield when compared to not only the uncoated urea but also the single N stabilizer products.

The Lineup at a Glance

NEON Nitrogen Stabilizers

NEON
SURFACE

Balanced Flagship

17%
NBPT

25%
DCD

Urea: 3 L/MT
UAN: 1.5 L/MT

Strong, balanced protection from all three loss mechanisms - works in any environment.

NEON
AIR

Volatilization Fighter

30%
NBPT

15%
DCD

Urea: 2 L/MT
UAN: 1 L/MT

Surface applications where volatilization is the main threat, with denitrification backup.

NEON
SOIL

Below-Ground Defender

5%
NBPT

30%
DCD

Urea: 4 L/MT
UAN: 3 L/MT

Heavy clay and leach-prone ground—maximum DCD for the wettest fields.

NEON
40-5

High-Concentrate

40%
NBPT

5%
DCD

Urea: 1.25 L/MT
UAN: 0.75 L/MT

NEON Air-level volatilization protection at the lowest mix rate and cost per tonne.