

NITROGEN STABILIZER RATE REFERENCE CHART

Innovar Ag provides two different products using PENXCEL™ Technology that can be used alone or in combination. They also are compatible with other products, but we recommend checking compatibility before mixing.

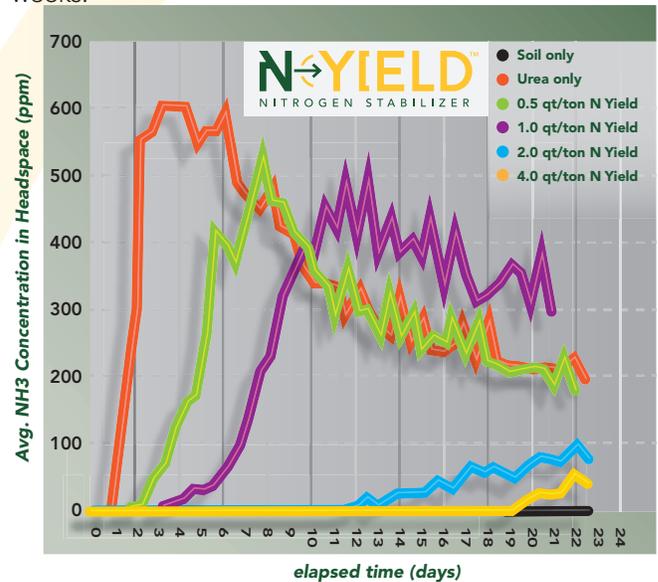
We provide the information found here to help guide your decision about which products and what rates are right for you.

Keep in mind the basic modes of action for each of our products. Our urease inhibitor product, N YIELD™ nitrogen stabilizer prevents losses into the air, primarily from surface applications. N-BOUND nitrogen stabilizer prevents losses in the soil, controlling the natural processes that cause denitrification and leaching.

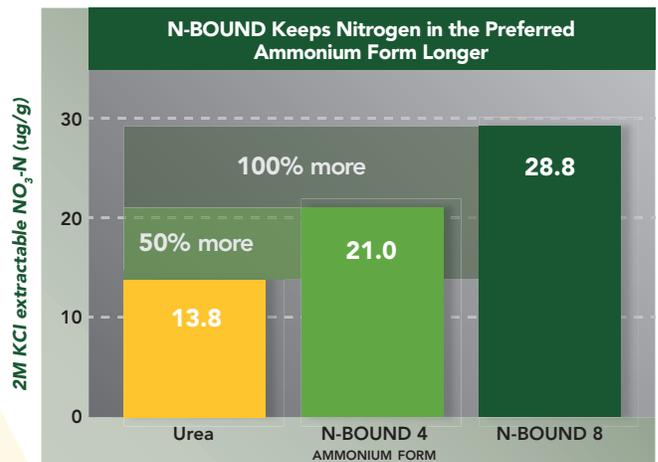
Both products are rate responsive, in that lower rates will shorten the length of control, while higher rates extend control. Environmental conditions including soil type, drainage and weather (primarily rainfall) all play key roles in determining exactly what performance you will experience in the field.

Innovar Ag promotes the use of soil tests and recommendations from local consultants and universities when creating your nutrient plan for your crop. We hope you find this information useful in building your plan.

Here's a rate response chart for N YIELD nitrogen stabilizer. If shorter control is acceptable, you can see that rates as low as 1 quart/L provide limited performance. Our typical recommendation is to use a minimum of 2 quart/L rate. 20% acrive. Higher rates extend the length of protection for your nitrogen beyond 2 weeks.



Similarly, N BOUND nitrogen stabilizer helps keep your fertilizer in the ammonium form longer. Rates show a 50% increase in ammonium for the 4 quart/L rate and 100% increase for the 8 quart/L rate.



2M KCl extractable ammonium-N at 4 weeks after application
N-BOUND™ 4 and 8 refer to q/t dosing levels per ton of urea



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UREA

For surface or shallow incorporated broadcast applications, the N YIELD nitrogen stabilizer rate can vary based on the time to expected rainfall and the amount expected. Small amounts of rain or dew start the volatilization process. Use highest rates 4 quarts for rice fields, high residue fields and where rainfall amounts are uncertain. Lower 2 quarts can be used where irrigation or regular rainfall of more than a ½ inch is expected within a week.

Generally, we do not recommend the use of N YIELD where urea is incorporated 2 inches or more below the soil surface as the probability of loss due to volatility is low.

N-BOUND nitrogen stabilizer should be added to urea where applications are made to fields with a history of nitrogen loss due to denitrification and leaching.

The highest rates of 8 quarts are recommended where heavy soils, poorly drained fields, and sandy soils are found. The lower rate of 4 quarts can be utilized where soil texture is good and the history of the field indicates an average problem with leaching.

UAN

Generally, the rates for UAN are reduced due to the volume used and the lower concentration of nitrogen in the fertilizer.

For broadcast applications, we recommend N YIELD at rates of 1 to 2 quarts based on the likelihood of rain (less product if rain is expected soon, more if rain will be delayed) and the amount of residue on the surface (the higher the rate of residue the higher the rate of product recommended).

For knifed-in applications of UAN, we recommend N-BOUND at rates of 2 to 4 quarts based on field history of problems with leaching. Higher rates should be used in heavy soils, poorly drained fields and sandy soils.

ANHYDROUS

Only N-BOUND is recommended for this application. Soils prone to leaching and fall anhydrous applications are recommended to use the higher rates of 72 oz. Lower 32 oz. rates can be used in spring applications.

