

# PROTECT YOUR NITROGEN INVESTMENT

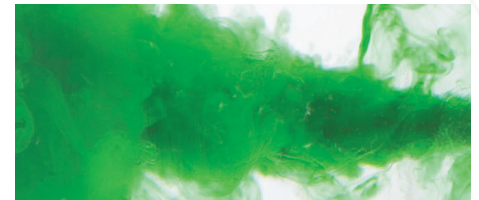
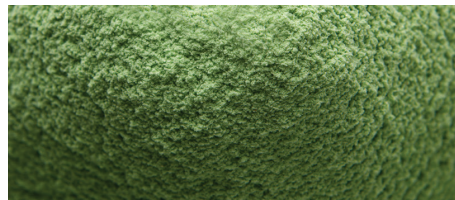
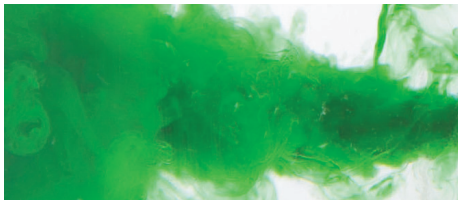
**AGROTAIN®**

Nitrogen loss through ammonia volatilization can be a serious problem impacting yield potential and return on investment. AGROTAIN® nitrogen stabilizer is proven to control loss from ammonia volatilization, so more nitrogen is available for plant uptake.

## NITROGEN LOSS IS REAL

Research studies prove that nitrogen loss due to ammonia volatilization can be significant (up to 40%) when urea or UAN is not adequately incorporated.

“Adequate incorporation” means more than 0.5 inches of rain or irrigation or mechanical incorporation into the soil of more than 2 inches deep.



## FORMULATIONS

AGROTAIN stabilizer comes in a variety of formulations to meet the needs of your specific operation.

### AGROTAIN® ADVANCED 1.0

An innovative, patent-pending liquid formulation with optimized cold-weather handling properties and quicker drying time when applied to urea. The proprietary formulation allows for a reduced application rate, minimizing the potential for buildup and allowing retailers to treat faster and store less product.

### AGROTAIN® DRI-MAXX

This highly concentrated, patent-pending dry formulation of AGROTAIN stabilizer offers improved handling characteristics and better flowability. This product adheres to the urea granules without adding additional moisture to the blend, resulting in minimal buildup.

### AGROTAIN® ULTRA

AGROTAIN ULTRA stabilizer is a liquid formulation urease inhibitor that protects against ammonia volatilization. It can be blended with urea or UAN.

<b>UREA</b>	2.1 L/MT
<b>UAN (28-32%)</b>	1.05 L/MT

<b>UREA</b>	1.25 KG/MT
<b>UAN</b>	0.625 KG/MT

<b>UREA</b>	3.1 L/MT
<b>UAN (28-32%)</b>	1.5 L/MT

<b>PACKAGE SIZES</b>	2 x 9.46 L case 947 L tote
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<b>PACKAGE SIZE</b>	11.25 KG/MT
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<b>PACKAGE SIZE</b>	2x9.46 L case 947 L tote
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# HOW DEEP IS YOUR NITROGEN INVESTMENT?

- When shallow banding unprotected urea less than two inches deep, researchers found that nitrogen loss due to ammonia volatilization can be even greater than unprotected broadcast urea.
- Research by Agriculture and Agri-Food Canada showed that when untreated urea was placed in bands two inches below the surface, nitrogen loss due to ammonia volatilization was more than 25% (figure 1). Additional moisture below the soil caused the incorporated urea to dissolve and hydrolyze quicker, releasing more ammonia gas.
- Lost nitrogen can have an impact on your yield and return on investment. Research conducted on canola at sites across Alberta, Saskatchewan and Manitoba showed that protecting shallow-banded urea with AGROTAIN® nitrogen stabilizer resulted in a 5 bu/acre average yield advantage compared to shallow-banded unprotected urea (figure 2).

## GET TIME ON YOUR SIDE THIS GROWING SEASON

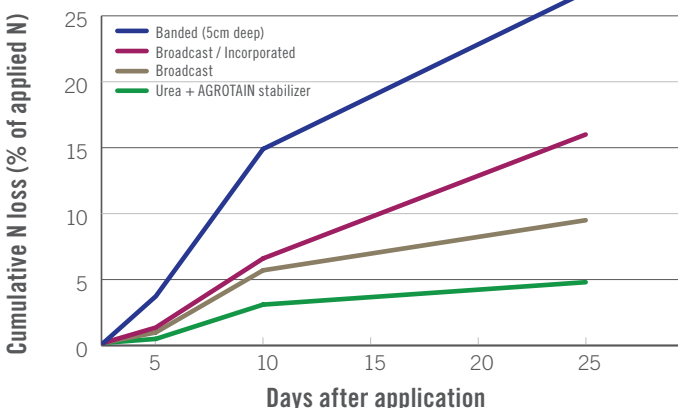
When it comes to putting seed in the ground, the earlier the better. With AGROTAIN® DRI-MAXX nitrogen stabilizer you can make the most of seeding time, increase operational efficiency by up to 40% or more and protect nitrogen from ammonia volatilization. It's as easy as taking these steps:

- 1.) Remove nitrogen from your air tank at seeding.
- 2.) Broadcast urea protected with AGROTAIN DRI-MAXX stabilizer either before or after seeding.

These two measures will not only improve your seeding efficiency but also help protect your return on investment. New research shows that broadcasting urea protected by AGROTAIN stabilizer provided a 7 bu/acre average yield advantage compared to unprotected broadcast urea. Broadcasting AGROTAIN-treated urea also outperformed shallow-banded and deep-banded urea.

FIG. 1

### SHALLOW-BAND NITROGEN LOSS



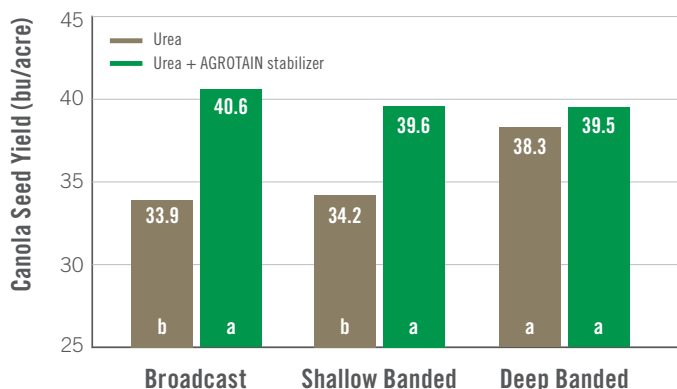
Field study  
Average study temperature: 4.5° C  
Le Bras clay loam soil; pH 5.5  
Nitrogen rate of 125 lbs N/acre

Urea incorporated 2 inches deep  
AGROTAIN applied at label rate  
Source: Rochette et al., 2009.  
Agriculture and Agri-Food Canada.

The underlying data was provided by Agriculture and Agri-Food Canada and neither Agriculture and Agri-Food Canada, nor the individual researcher referenced, endorse or recommend any product or service.

FIG. 2

### CANOLA SEED YIELD ADVANTAGE WITH AGROTAIN IN BROADCAST & SHALLOW-BANDED APPLICATIONS



Average results across four sites in 2014 (AB, SK, and MB)

Shallow banding varied from 1/4 inches to less than 2 inches. Deep banding varied from 2 inches to 3 inches.

N applied at rate recommended for each site

AGROTAIN stabilizer applied at recommended rate

Source: Myles Dick, University of Alberta; Chris Holzapfel, Indian Head Agricultural Research Foundation, and Mario Tenuta, University of Manitoba.

The underlying data was provided by the University of Alberta, Indian Head Agricultural Research Foundation and the University of Manitoba, and neither the University of Alberta, Indian Head Agricultural Research Foundation and the University of Manitoba, nor the individual researcher referenced, endorse or recommend any product or service.