

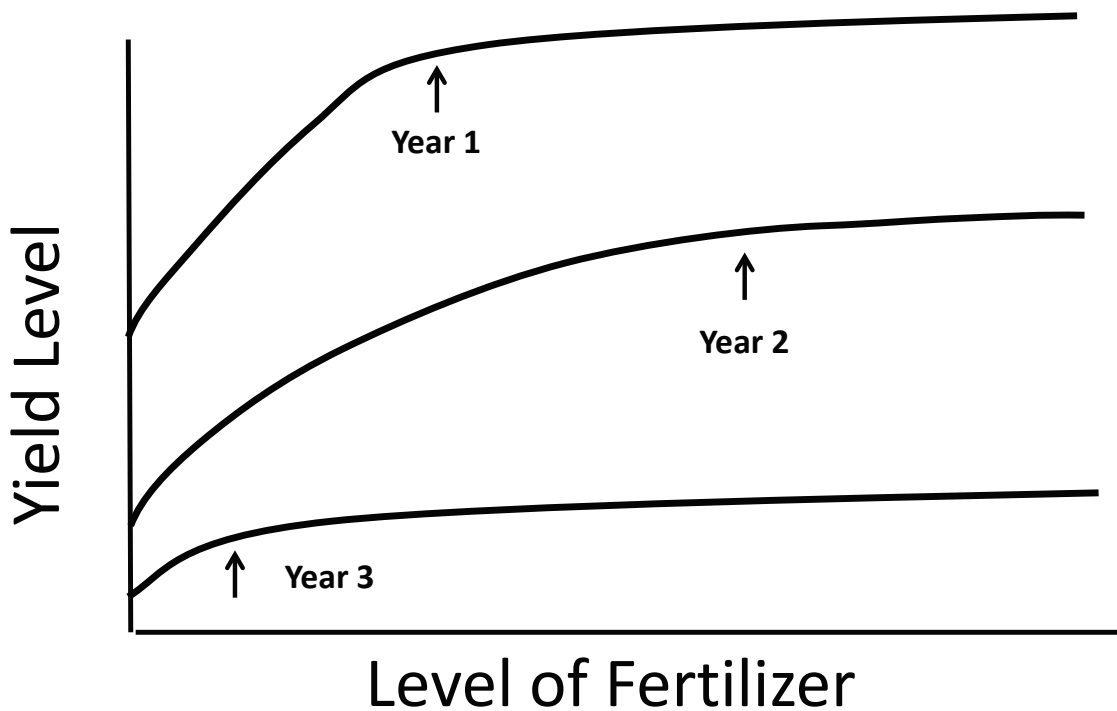
Managing Nitrogen to Improve Uptake Efficiency

Greg Schwab

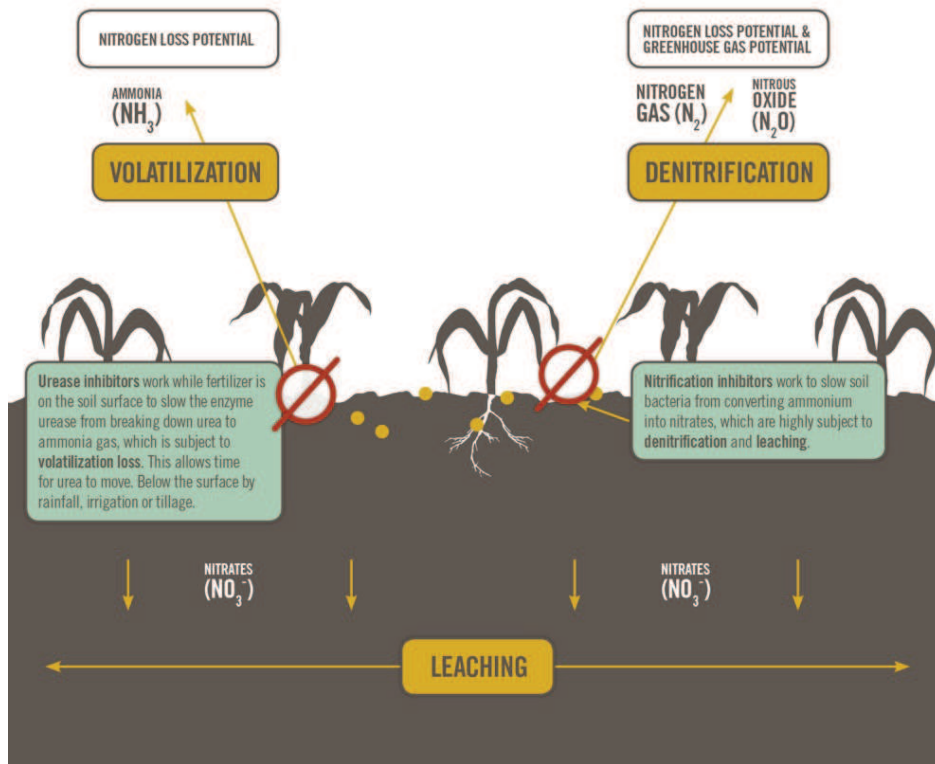
INNOVATIVE SCIENCE
ADVANCING
FERTILIZER
TECHNOLOGY



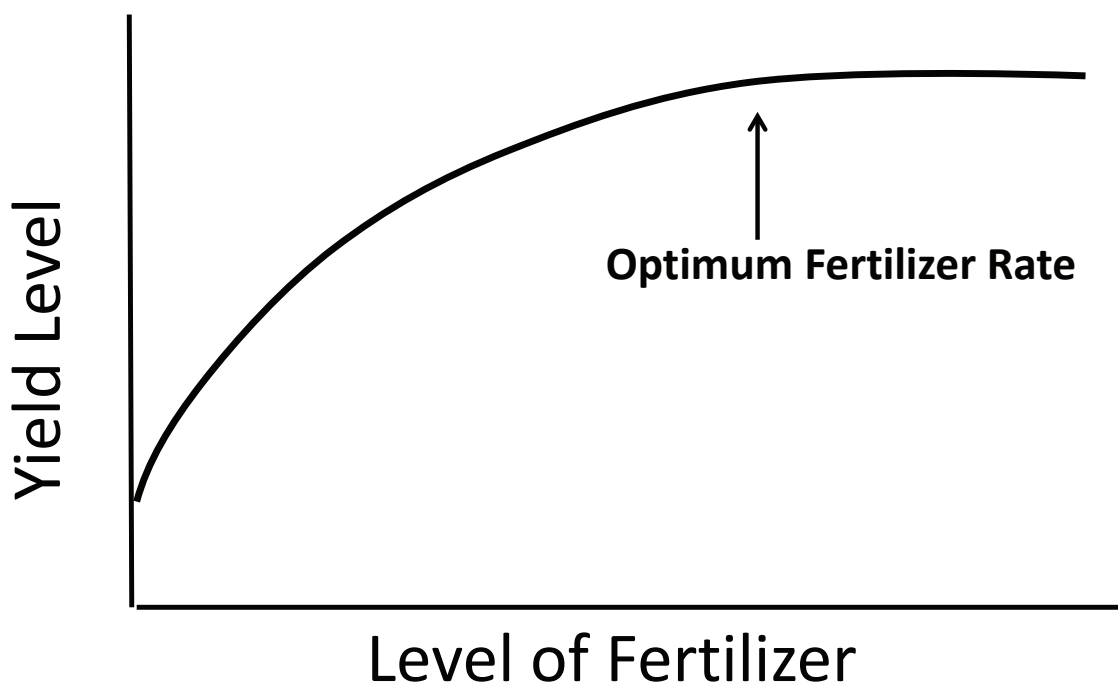
Seasonal Affect on Fertilizer Requirement



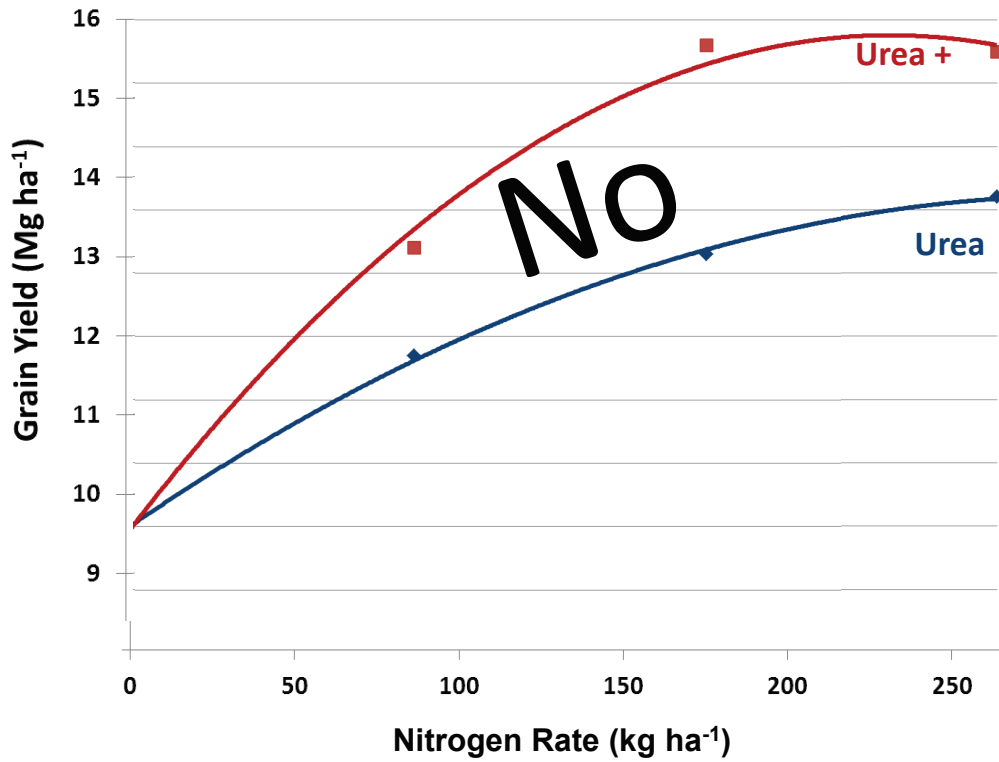
Three Forms of Nitrogen Loss



Fertilizer Response Curve



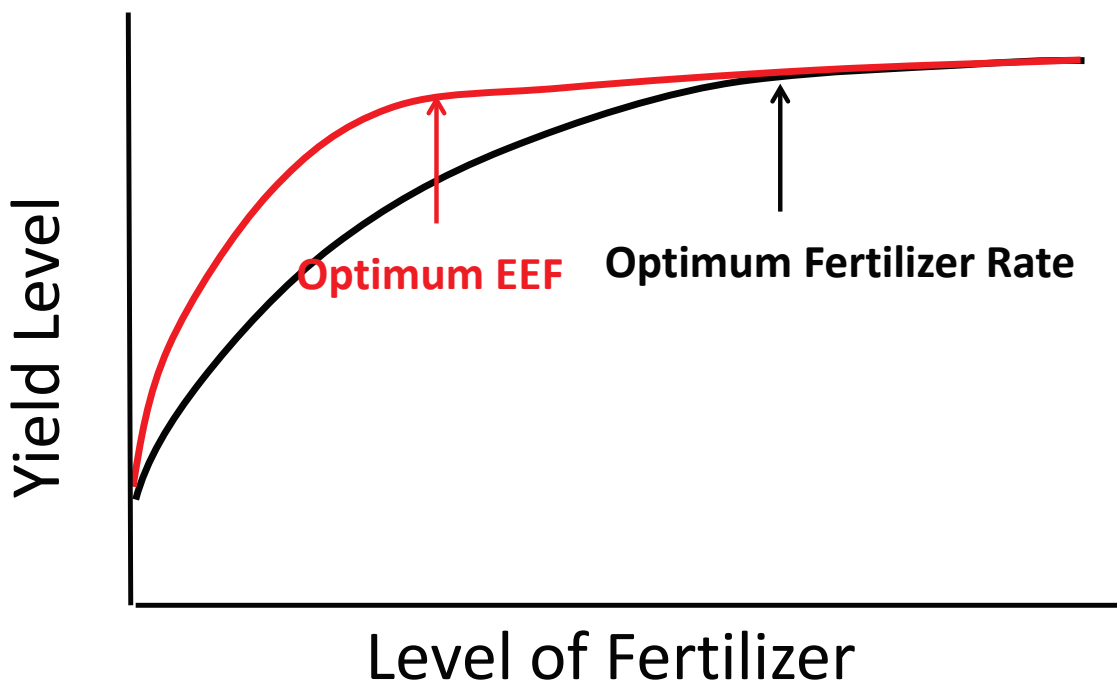
Enhanced Efficiency Fertilizer?



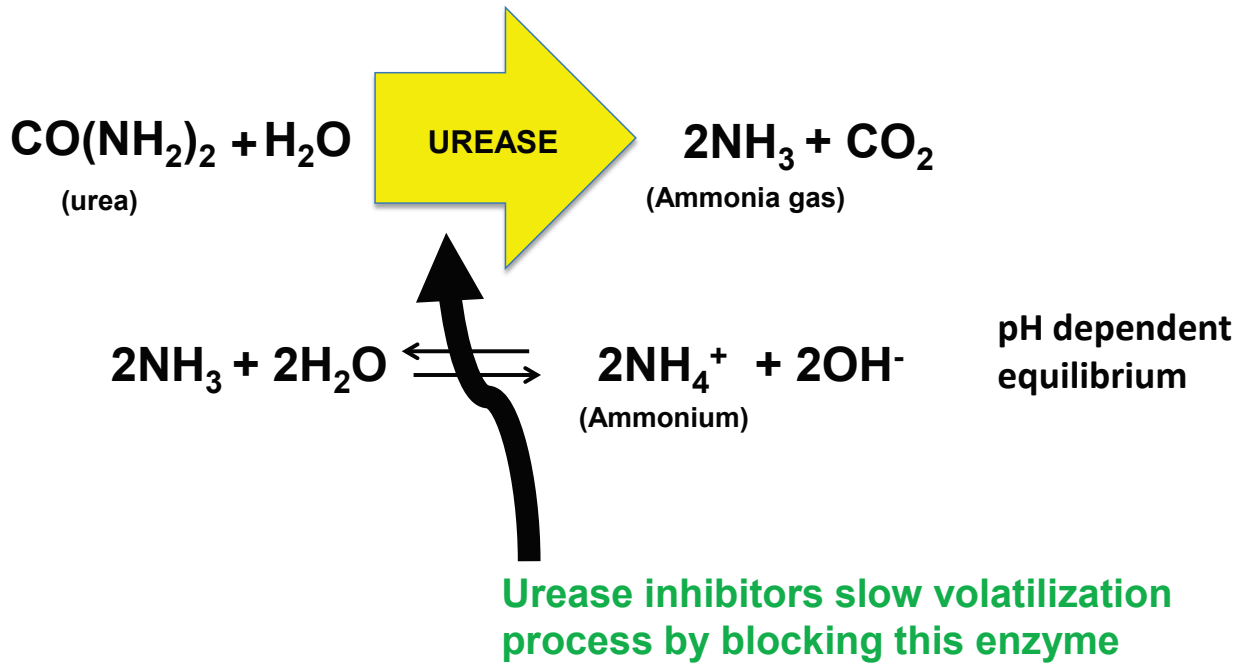
(Gordon, 2005)



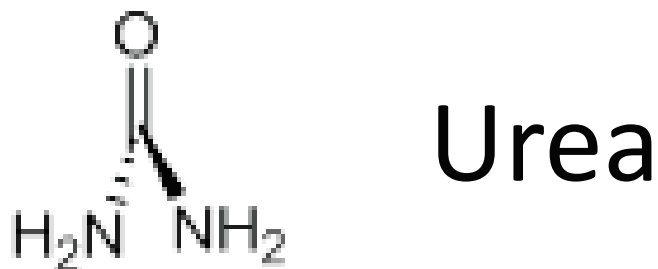
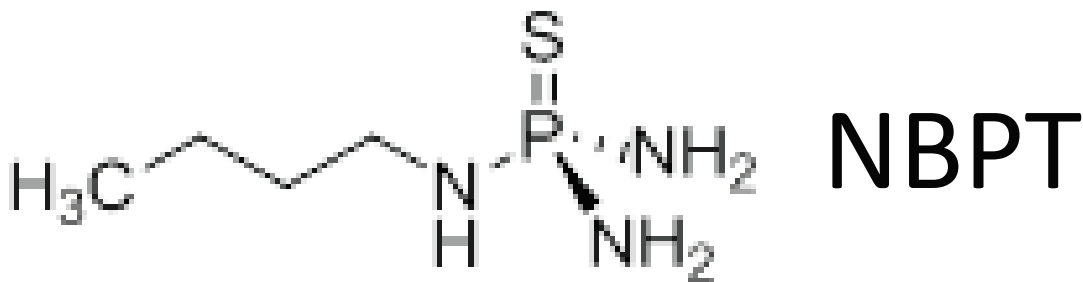
Enhanced Efficiency Fertilizer



How Does AGROTAIN® Nitrogen Stabilizer Work?



Mode of Action of AGROTAIN® Stabilizer

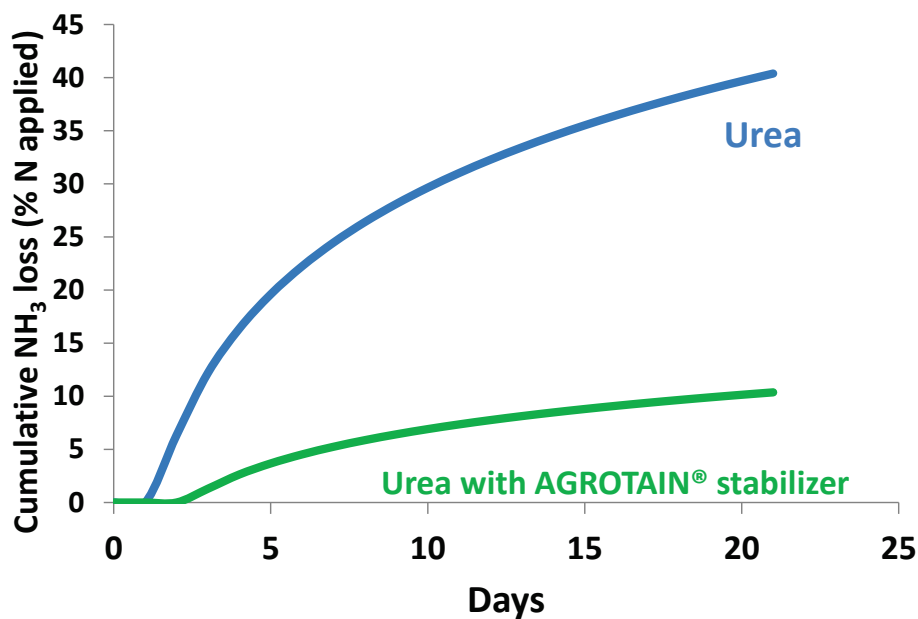


CUMULATIVE N LOSS VIA VOLATILIZATION

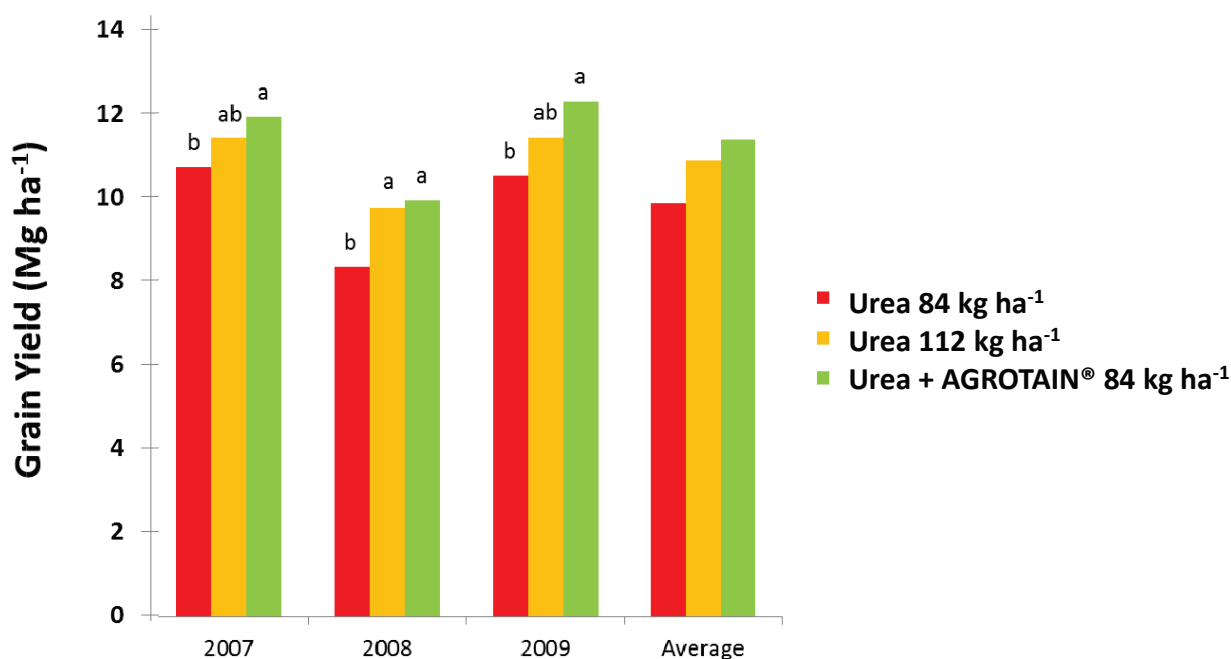
University Lab and Field Volatilization Studies

Locations

North Dakota State Univ.
Oregon State Univ.
Auburn Univ.
Univ. of Florida



KENTUCKY RESEARCH RESULTS - CORN

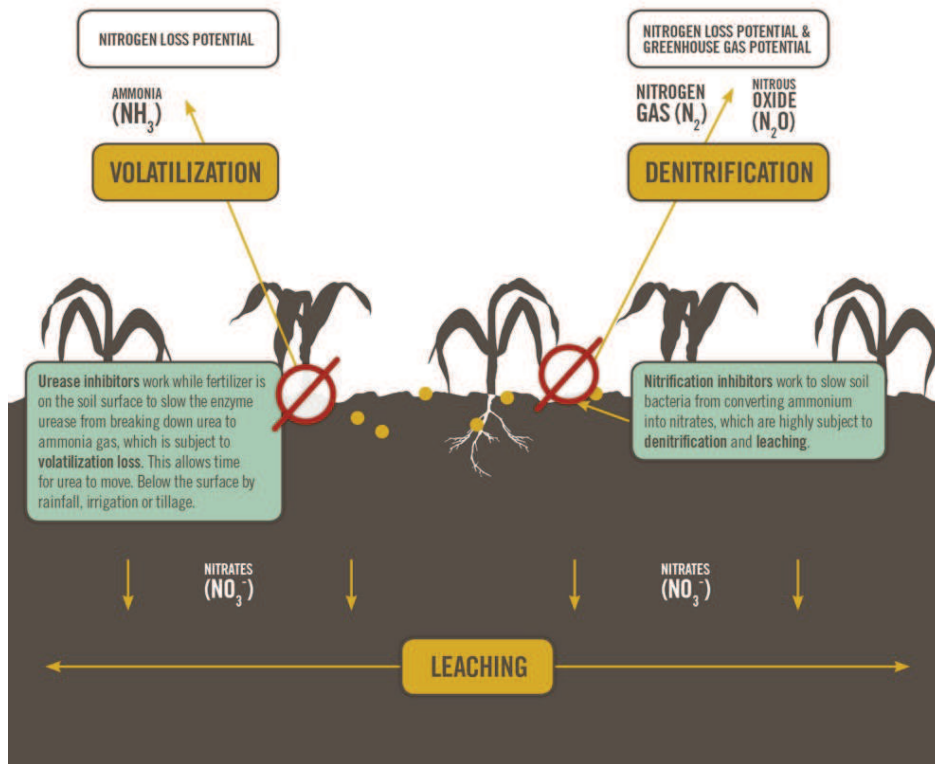


- Treatments were broadcast at 1-2 weeks after planting
- Within each year, bars followed by the same letter are not statistically different

Source: Murdock, 2009. University Kentucky.

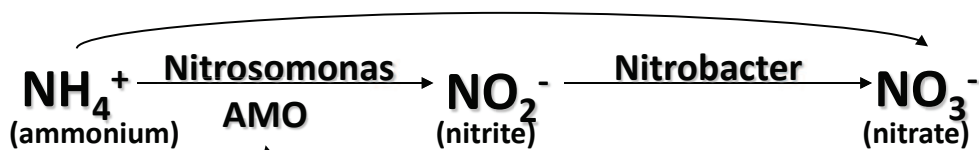


Dual Inhibitors



Nitrification Mode of Action

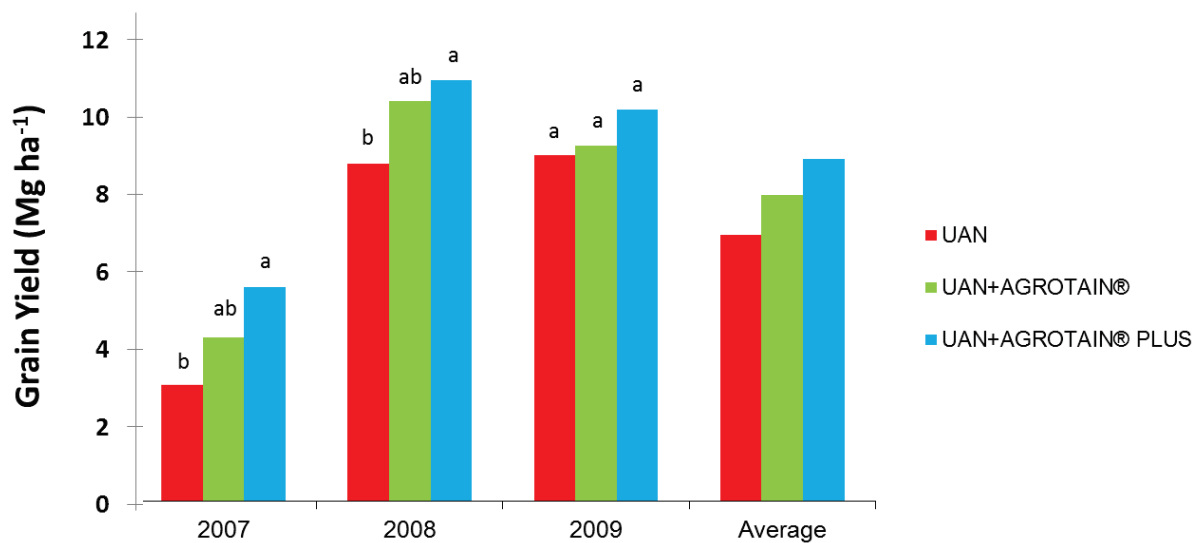
Nitrification



Nitrification inhibitors act by blocking this enzyme



ILLINOIS RESEARCH RESULTS - CORN

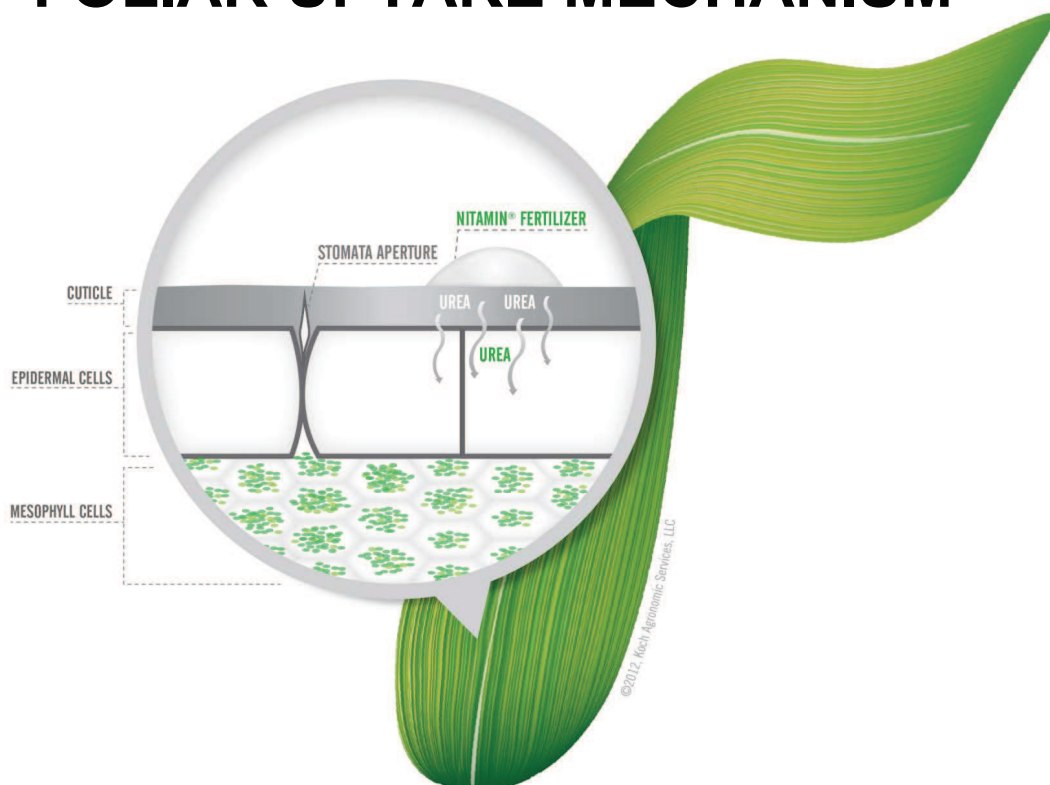


- Nitrogen rate of 134 kg N ha⁻¹
- Treatments were broadcast at pre-plant
- Within each year, bars followed by the same letter are not statistically different

Source: Ebelhar and Hart, 2009. University of Illinois.



FOLIAR UPTAKE MECHANISM



Continuous Improvement of Existing Product Lines

Koch Agronomic Services manufactures and markets innovative fertilizer products to reduce nitrogen loss for enhanced efficiency.

U.S. | AGRICULTURE



Nitamin® fertilizer

Foliar-applied slow-release liquid nitrogen fertilizer.



Nitamin Nfusion® fertilizer

Soil-applied slow-release liquid nitrogen fertilizer.



AGROTAIN® ULTRA nitrogen stabilizer

Urease inhibitor to protect against ammonia volatilization.



AGROTAIN® PLUS nitrogen stabilizer

Urease and nitrification inhibitor to stabilize nitrogen above and below ground.



AGROTAIN® DRY nitrogen stabilizer

Highly concentrated urease inhibitor adapted for air-flow spreaders and planters.



SUPERU® fertilizer

Urea fertilizer enhanced with AGROTAIN® PLUS nitrogen stabilizer.



Questions

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