



**Jimmy D. Johnson**  
**Agrotain International**  
**Collierville, TN**

# What is Agrotain?

- Urease inhibitor – fertilizer additive
- N-(n-butyl)thio phosphoric triamide
- Controls ammonia volatilization
- Improves nitrogen efficiency
- For Urea and UAN solution fertilizers
- Has 21 patents in 70 countries
- Recognized as one of the 100 most technologically significant new products by “R & D Magazine”

# Two Study Conclusions

## 2007 Cotton Beltwide

- Agrotain stabilized urea improved cotton N use efficiency comparable to ammonium nitrate
- Agrotain stabilized UAN dribbled was as effective as injected

# Return on investment

N15 Cotton Study

Mississippi State University

Agrotain stabilized urea

Increased N efficiency by 22lbs N/A

$22\text{lbs N/A} \times 0.364/\text{lb urea N} = \$8.01$

Agrotain cost for 120lbs N/A = \$5.88

Return on investment was **36.2%**

This does not include any yield increase

# Return on investment

N15 Cotton Study

Mississippi State University

Agrotain stabilized urea

Increased N efficiency by 22lbs N/A

22lbs N/A x 0.57/lb urea N = \$12.55

Agrotain cost for 120lbs N/A = \$6.00

Return on investment was **109.2%**

This does not include any yield increase

# \$500+ Urea

Can you afford to apply nitrogen  
without Agrotain protection?

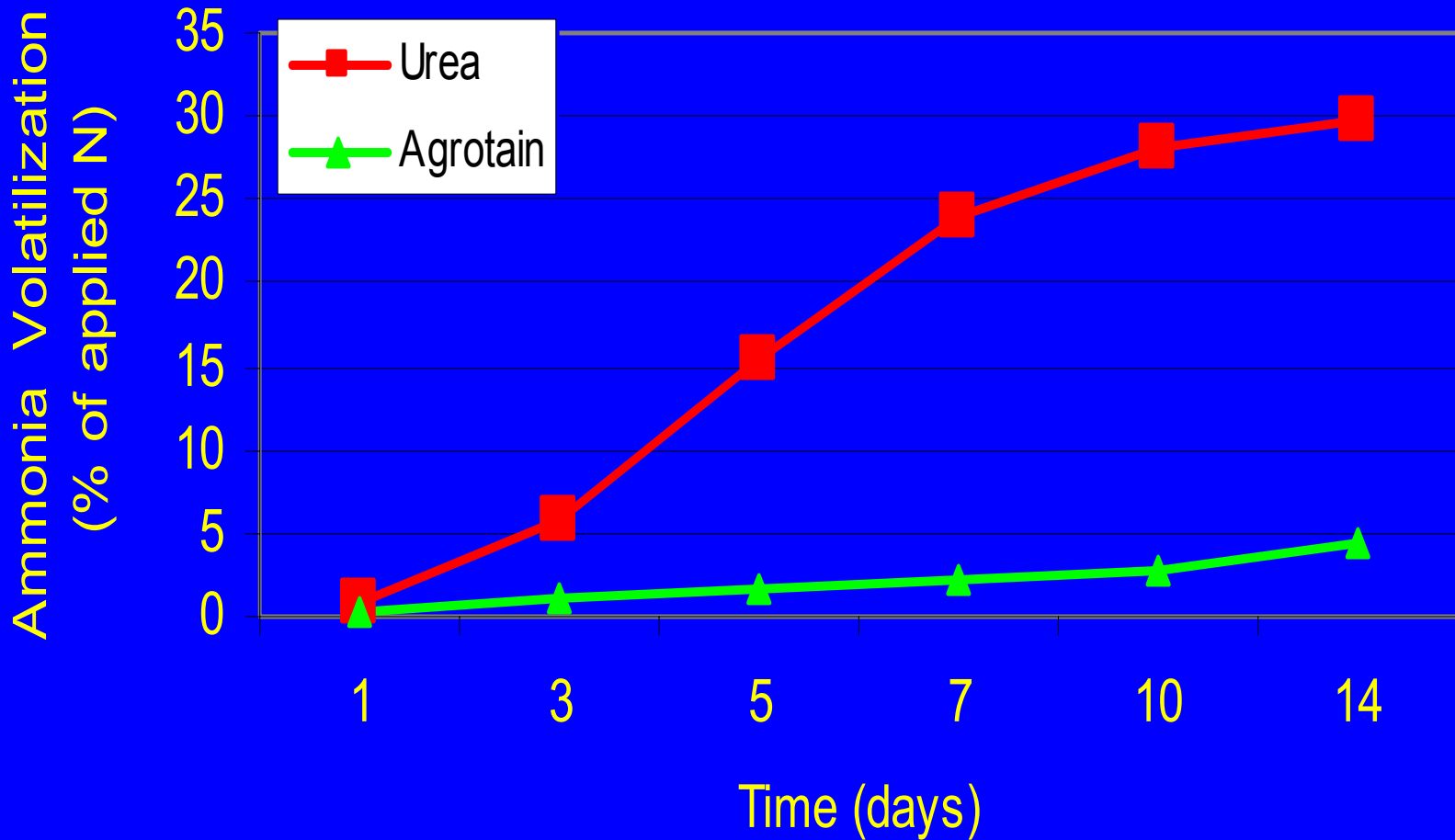
30% by Volatilization

$$\$500 \times .30 = \$150$$



# Auburn University Cool Weather Study

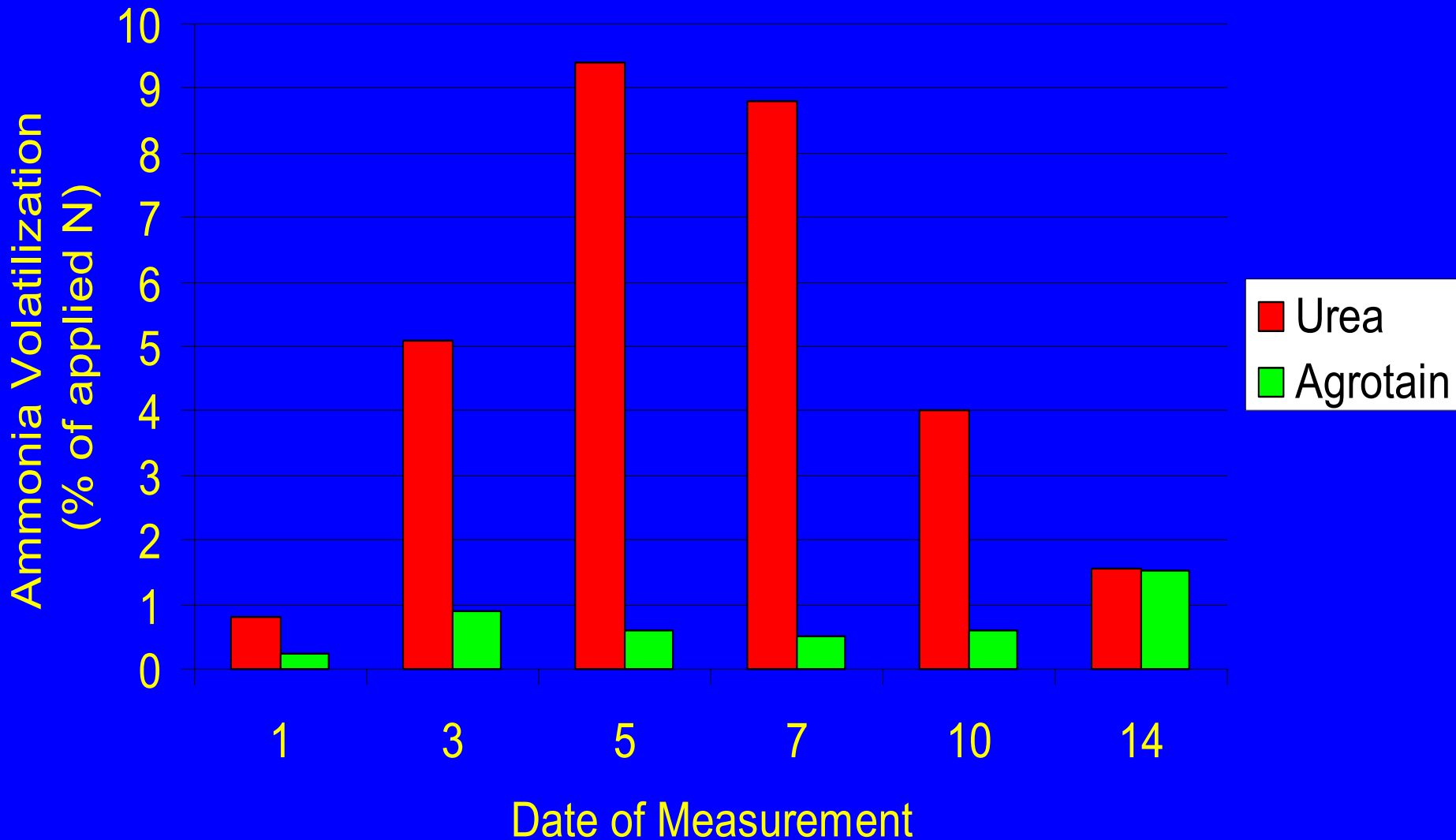
## Percent Nitrogen Loss by Ammonia Volatilization





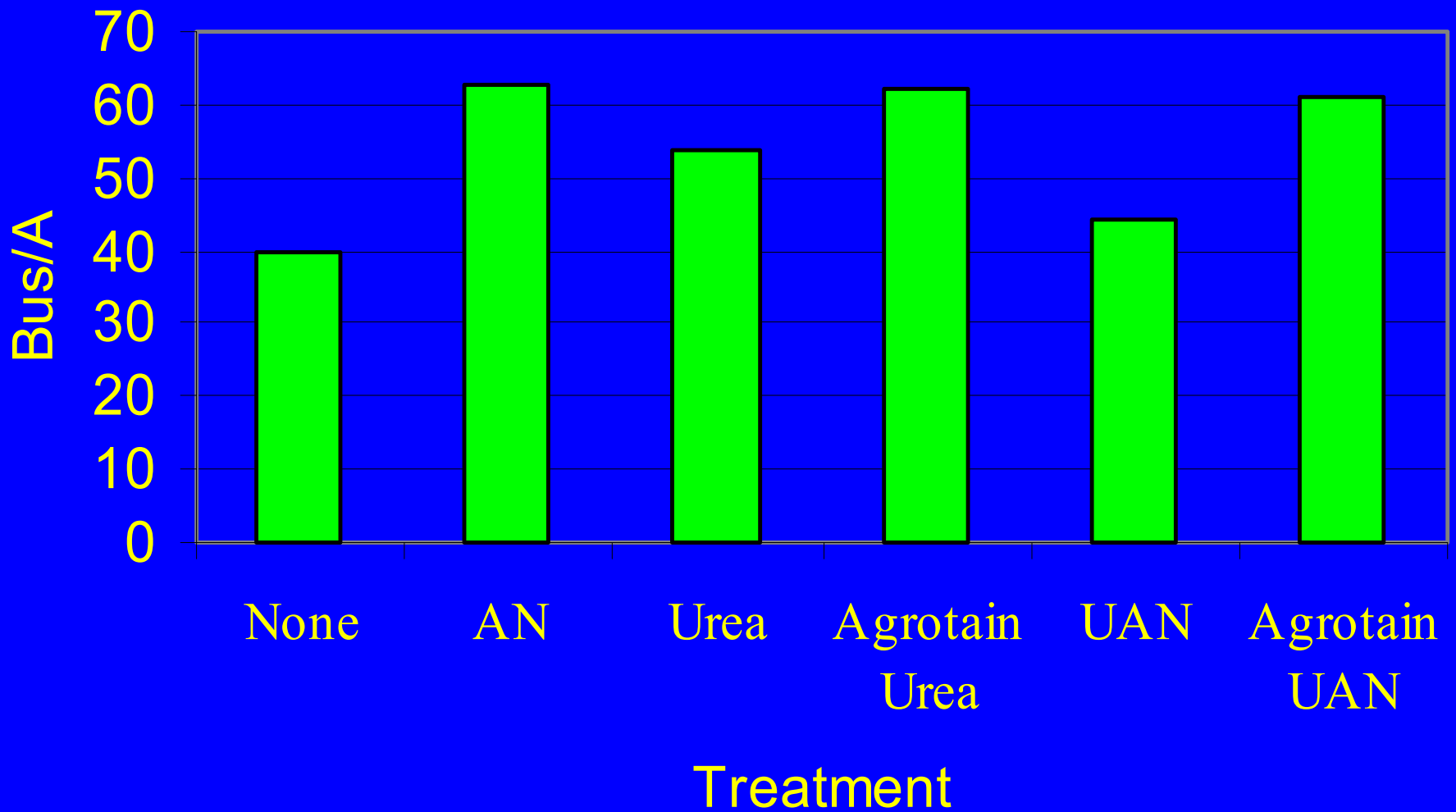
# Auburn University Cool Weather Study

## Percent Nitrogen Loss by Ammonia Volatilization



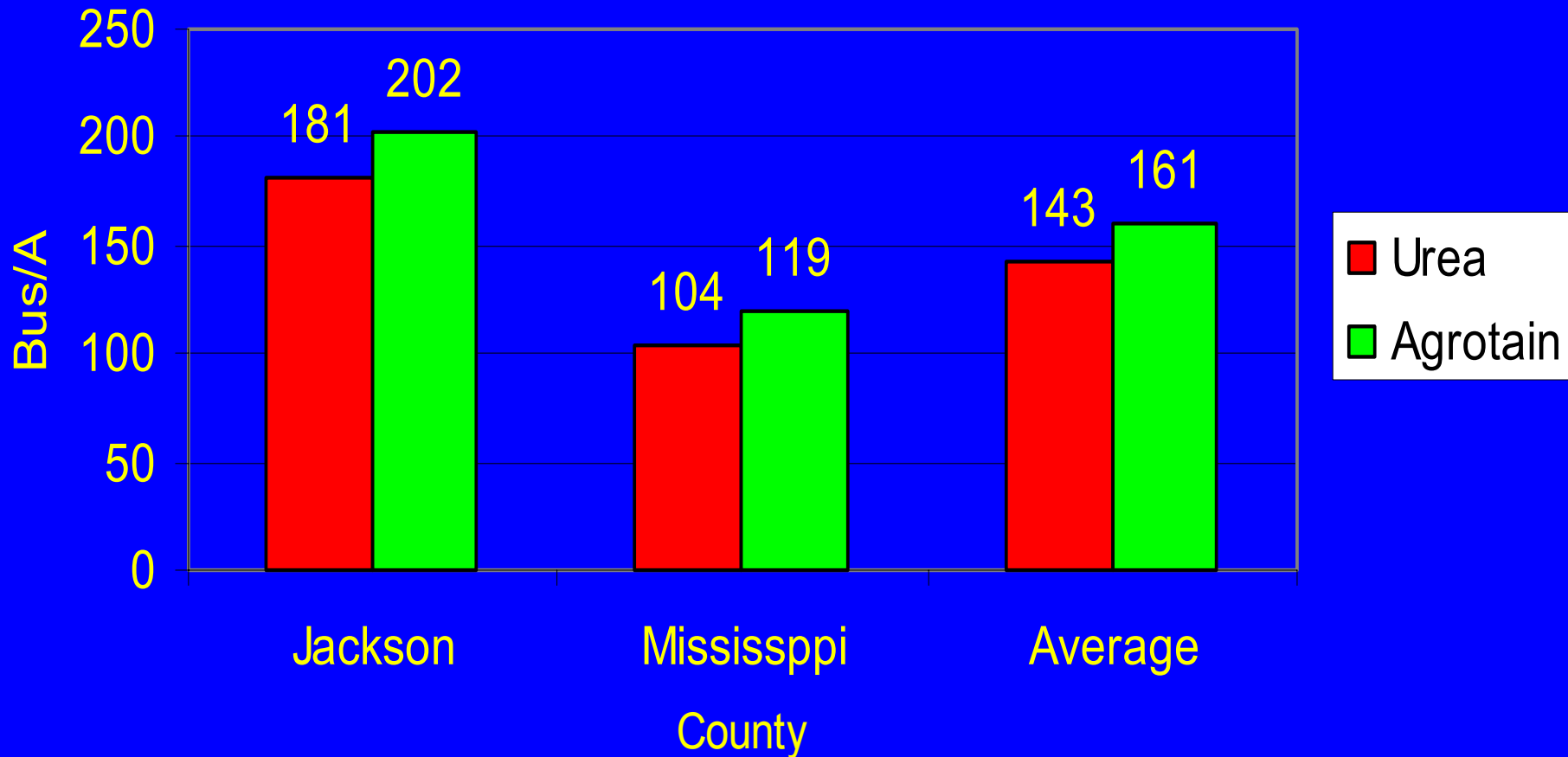
# Wheat Study

University of Missouri



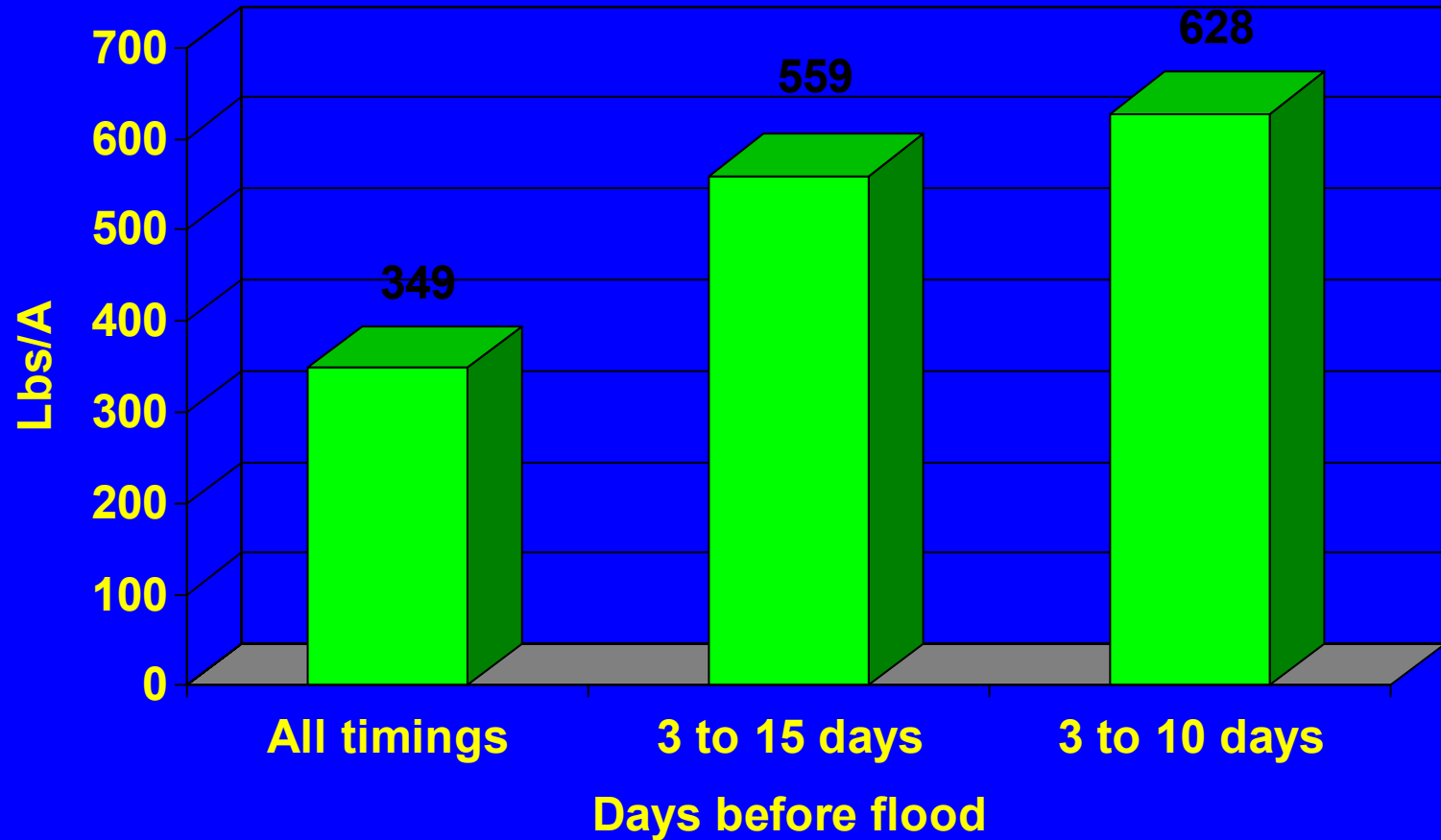
# Significant Corn Yield Increase with Agrotain in 2007

University of Arkansas



# Influence of Agrotain on Rice Grain Yield

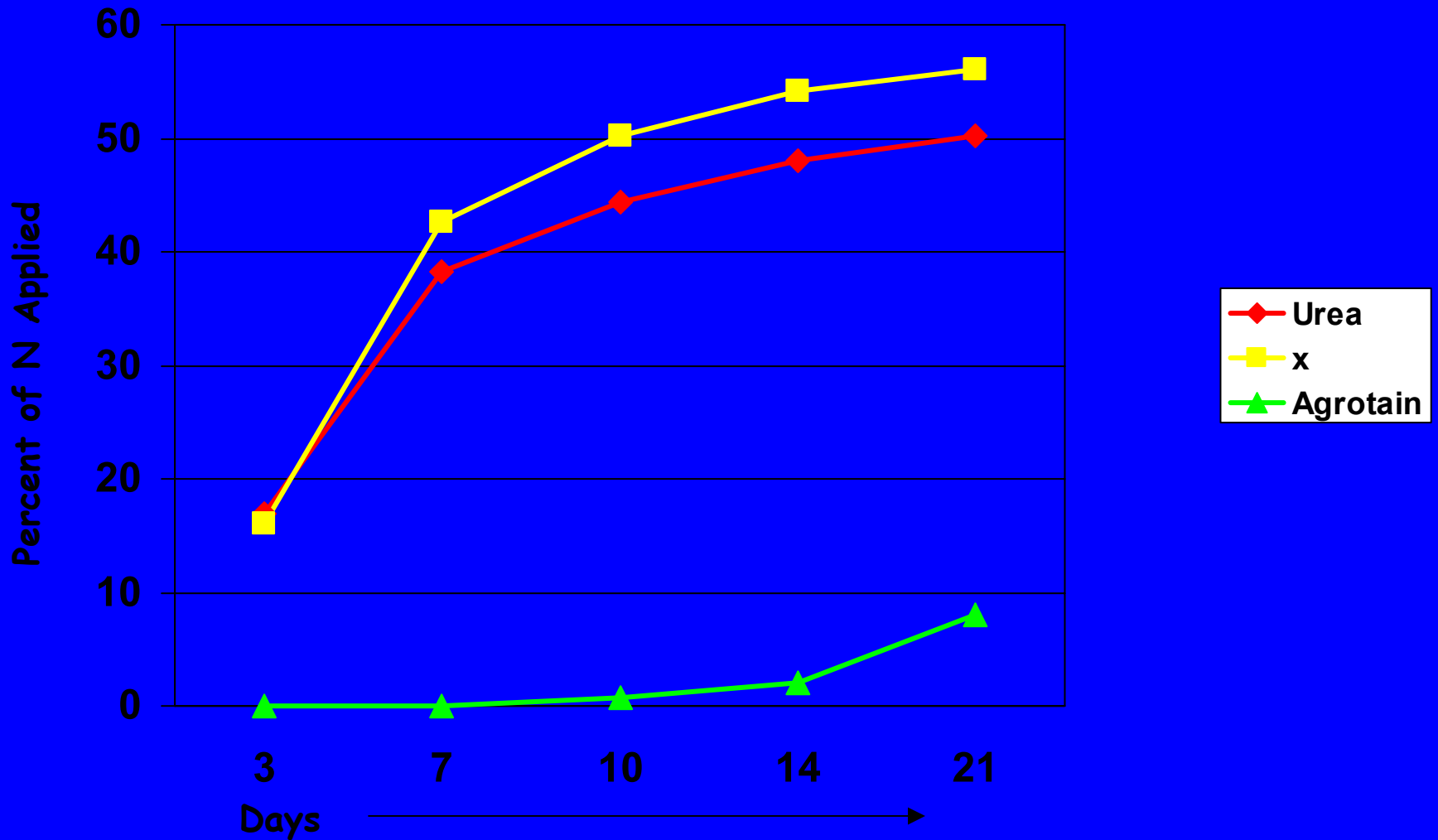
## Four Year Summary of University Plots



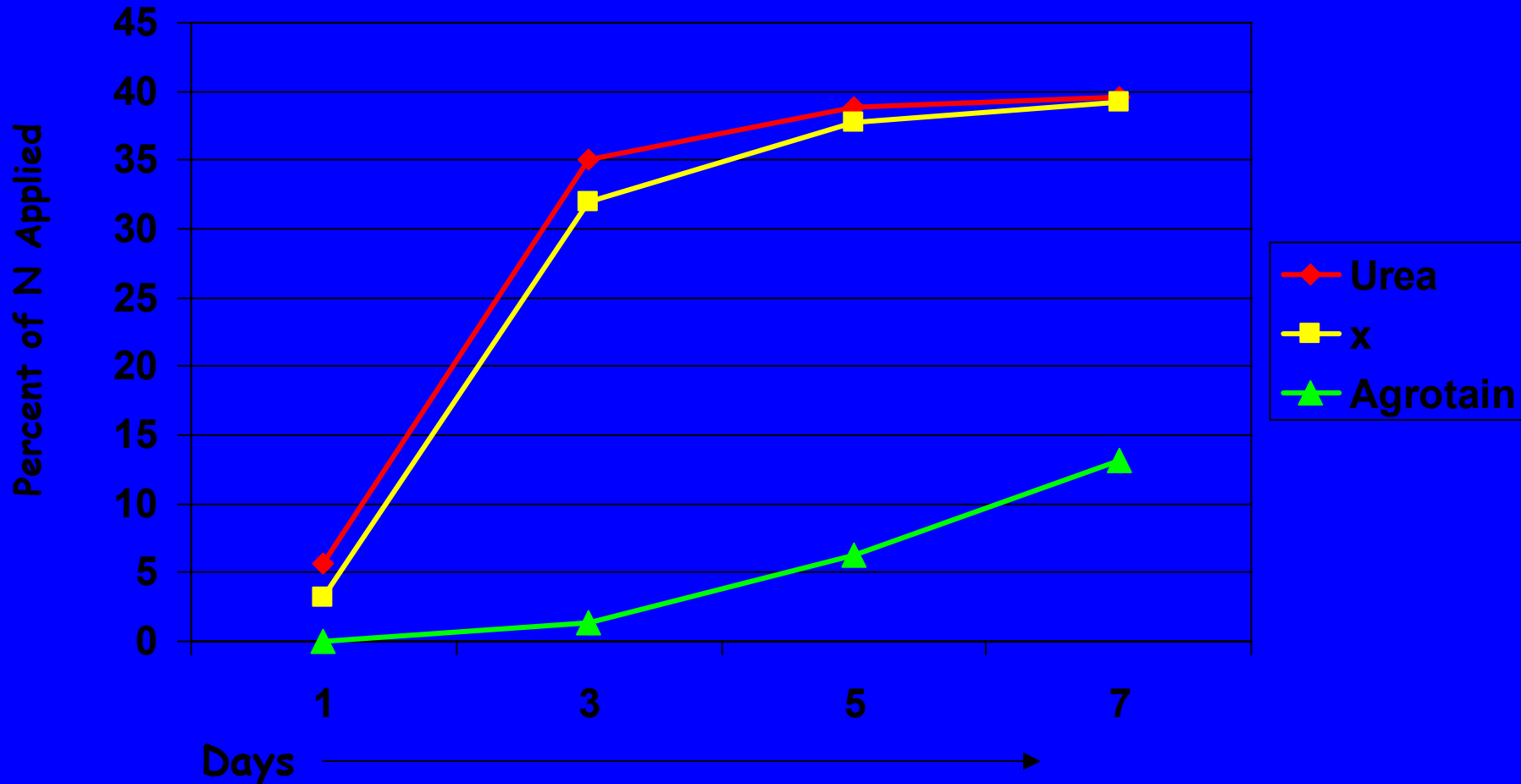
# Dr. Willis Thornsberry, Private Consultant

## Volatility Study

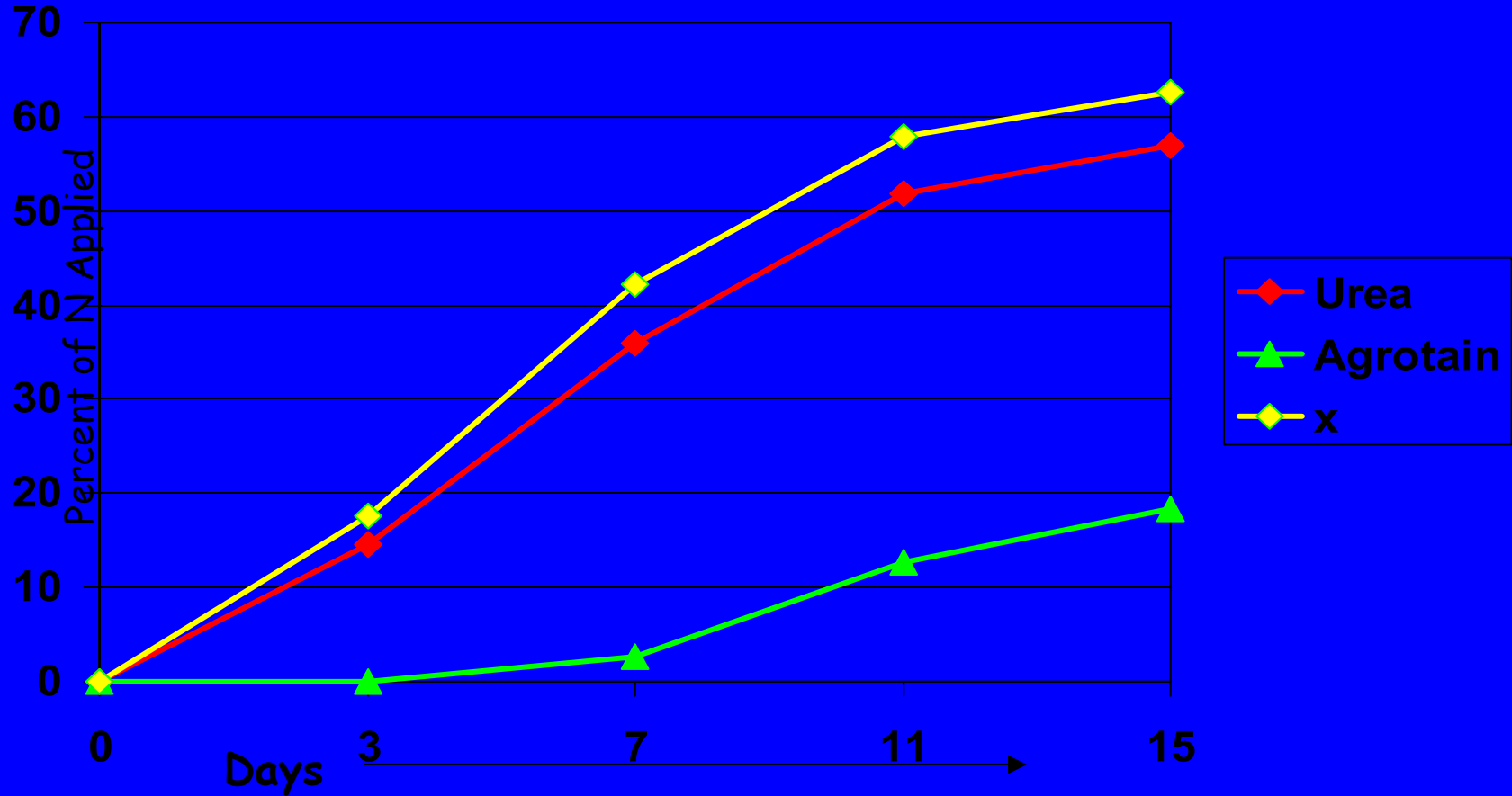
July 26, 2004



Auburn University  
Volatility Study  
May 21, 2007



University of Arkansas  
Volatility Studies  
September, 2007



Agrotain is the only urease inhibitor recognized by the Association of American Plant Food Control Officials (AAPFCO).



# **AGROTAIN**

**Urea**

**UAN**

**for any crop**



# Agrotain Plus for UAN

**Urease inhibitor plus**

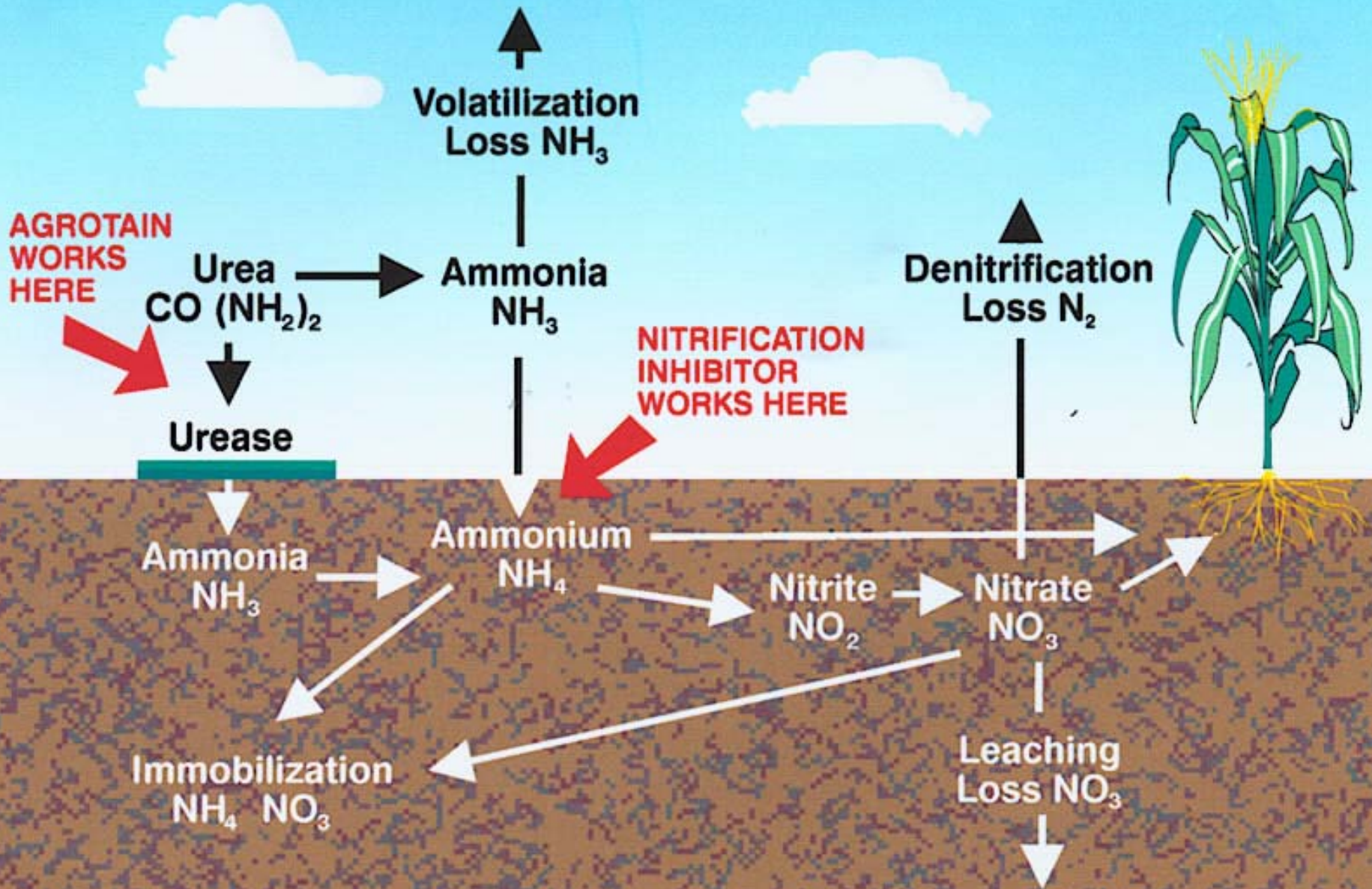
**Nitrification inhibitor**

**DC formulation**

**15 lbs/Ton of UAN**

**Cost ~7 cents/lb N**

# NITROGEN CYCLE



# **AGROTAIN PLUS**

**UAN**

**Large One Shot N Application**

**To Reduce Nitrification**

**Leaching**

**Denitrification**



**Thank You**