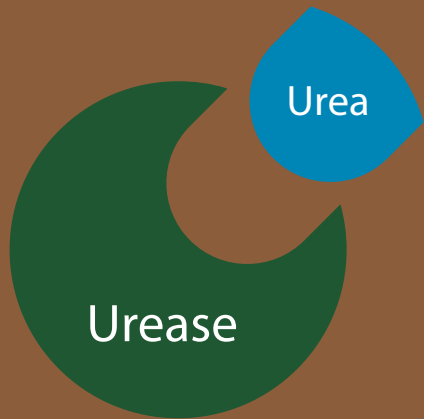


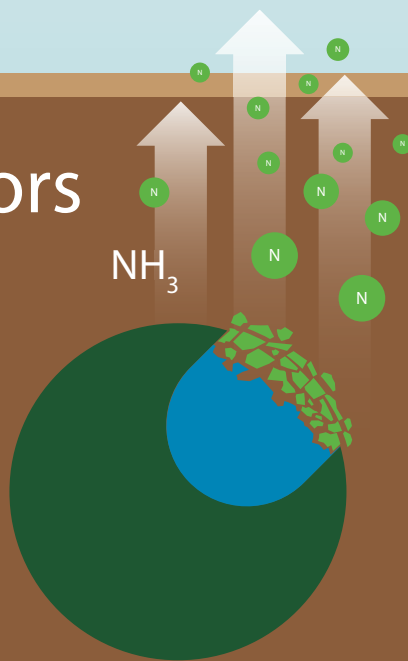
# Protecting Your Nitrogen

How can growers make nitrogen available to crops when they need it most?  
By limiting nitrogen loss using these two main nitrogen use efficiency technologies.

## 1 Urease inhibitors

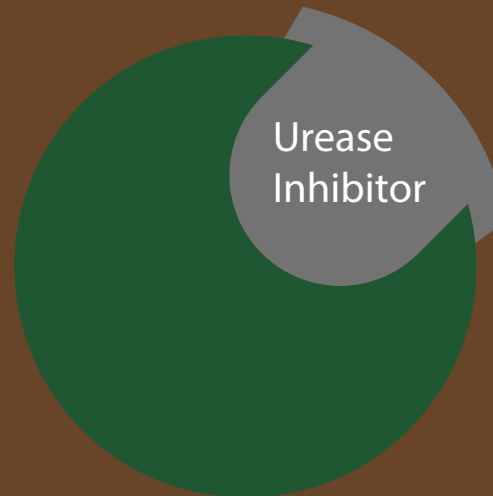


A. Urease enzymes break down urea that's present in the soil.



B. The enzyme binds to urea. Nitrogen is lost due to the formation of ammonia.

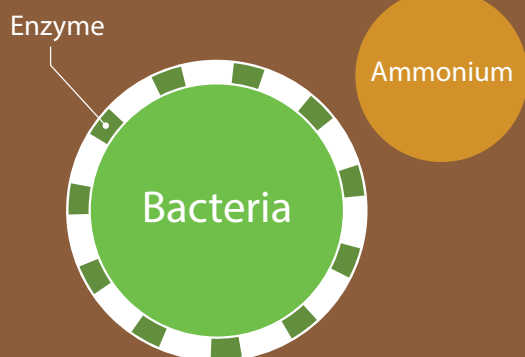
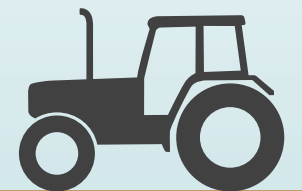
### SOLUTION



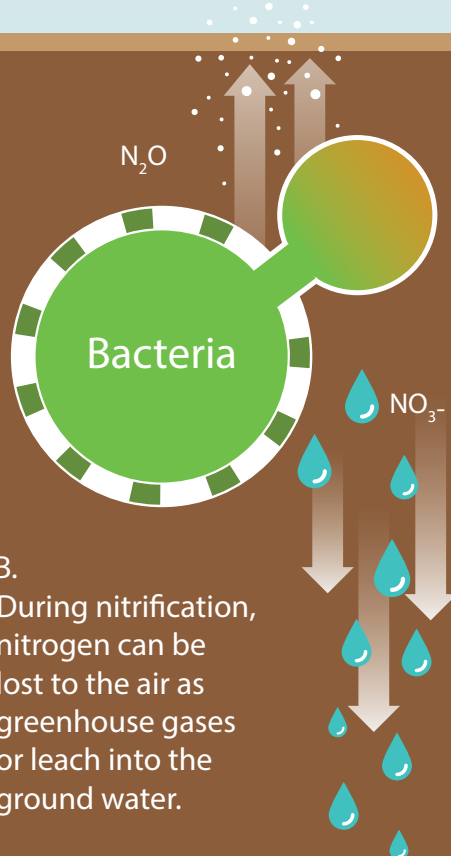
Urease inhibitors block the site where urea attaches, slowing down ammonia loss.

Up to 98% reduction in ammonia loss is possible with Limus® from BASF, a urease inhibitor that works on a broad range of urease enzymes.

## 2 Nitrification inhibitors

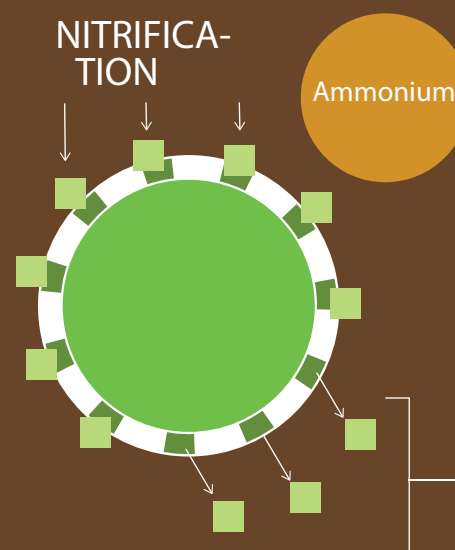


A. Ammonium- and urea-based fertilizers are transformed into nitrate by specific bacteria in a process called nitrification.



B. During nitrification, nitrogen can be lost to the air as greenhouse gases or leach into the ground water.

### SOLUTION



**ABATED INHIBITION**  
Nitrification inhibitors delay ammonium conversion by inhibiting the bacterial enzymes, resulting in improved plant nutrition

Inhibition lasts for only a period of time before nitrification resumes.

Nitrification inhibitors from BASF can reduce, on average, nitrate leaching by 35% and nitrous oxide emissions by 50%.

Keeping nitrogen where it belongs  
When more nitrogen is available to crops, growers can potentially achieve greater yields and a greater return on their fertilizer investment.

 **BASF**  
We create chemistry