



# CROP LINE

A Growing Newsletter  Creative Research Original Products

## Introducing “UpGrade”

CL # 22

Atlantic-Pacific is most pleased to announce a new product for American Agriculture. Introducing **UpGrade**, ..... slow release agent for urea using polymer technology. **UpGrade** provides more ‘time’ for your urea based Nitrogen dollar to merge into the soil instead of volatilizing and be lost ‘up in the air’.

Nutrient management has been receiving more and more national and international attention. Almost half of the world’s nitrogen (N) market is urea based fertilizer. Special management practices are needed when urea is applied because of its unique chemical transformation. Severe losses in efficiency may impact the results if these practices are not followed. Studies have shown that urea based fertilizer can lose up from 50% to 90% of nitrogen content to ammonia gasses providing there is high moisture on the ground or in the air. So once applied, urea should be incorporated by tillage or water within 48 hours or sooner if moisture is present. Volatilization starts as soon as soil moisture gets in contact with the urea.

Atlantic-Pacific’s goal is to be part of the producer’s nutrient management program to reduce waste, runoff and emission gases. Using new polymer technology, Atlantic-Pacific has come up with a unique polymeric material that assists with this endeavor .... **UpGrade**. **UpGrade** is for use on crops that use urea based fertilizers. It is applied to the urea at the fertilizer dealer prior to application. **UpGrade** interacts with the moisture when it contacts with the urea by modifying the change (hydrolysis). In other words, **UpGrade** slows down the volatilization loss and allows time for incorporation because of its polymer coating.

The key to conserving urea fertilizer nitrogen is to put the urea into the soil and not merely on the soil. **UpGrade** coat’s the granular urea to reduce dissolution and slow the volatilization by 50% against untreated urea. When the **UpGrade** treated urea reaction takes place in the soil, the nitrogen will be captured as exchangeable ammonia on the soil exchange complex and little or no loss of ammonia gas escapes into the air.

Today the cost of urea fertilizer makes it a large investment. You can minimize or eliminate your loss by using **UpGrade**. The rate is 3 quarts per ton and allows your fertilizer to do its job of getting your investment back.

In addition to the financial considerations, this minimizes ammonia gas to the atmosphere and fertilizer runoff into creeks and streams. This helps us to be good stewards to our land.

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