AGROTAIN®
Improved Nitrogen Efficiency

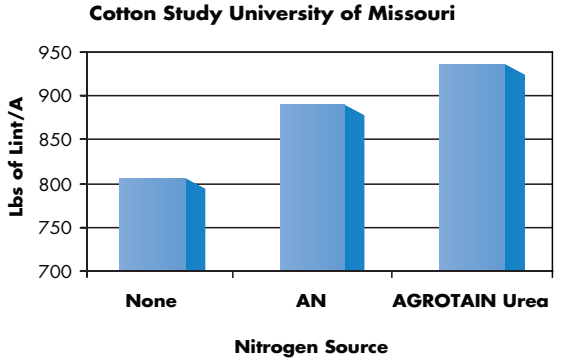
New Nitrogen Options for Cotton

Ammonium nitrate has been a good source of nitrogen for cotton farmers for years. However, ammonium nitrate is classified as a Certain and Hazardous Material which has resulted in increased regulation and heightened concerns by the Coast Guard, the US Department of Transportation, and the Department of Homeland Security. This has resulted in an increased cost to farm supply stores with regard to handling, storage, liability insurance and in some instances availability. The liability risk has become too great for many companies to continue handling ammonium nitrate. Retailers must have an efficient and effective alternative for their farmers. Several studies have been conducted with university researchers to find an effective alternative.

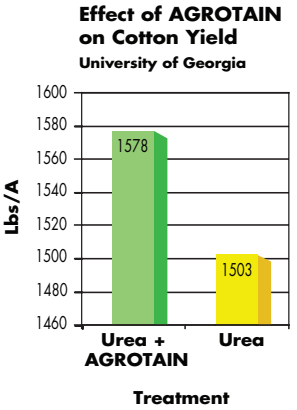
A two year N-15 cotton study was conducted by Dr. Jac Varco at Mississippi State University to compare ammonium nitrate, urea, and urea treated with AGROTAIN. Year one was wet following application and year two was dry following application. Some conclusions of these studies were:

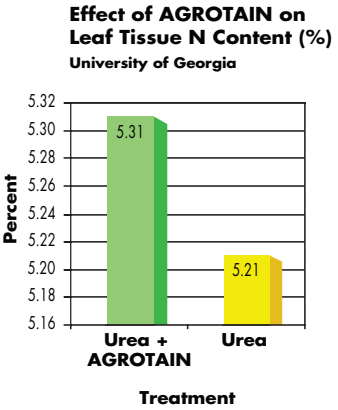
- AGROTAIN increased total N uptake
- AGROTAIN reduced ammonia volatilization
- AGROTAIN produced similar results to Ammonium Nitrate
- AGROTAIN treated urea increased yield compared to untreated urea
- AGROTAIN increased cotton nitrogen use efficiency

The following graph shows results of a cotton study conducted by Dr. Gene Stevens at the University of Missouri Delta Center. AGROTAIN treated urea was significantly greater than no nitrogen at the .05 level. There was no significant difference between AGROTAIN treated urea and ammonium nitrate.



The following graphs show results of a cotton study conducted by Dr. Glenn Harris University of Georgia.





AGROTAIN treated urea percent leaf tissue nitrogen content and yield were greater than urea. Both of these charts again indicate that AGROTAIN improved nitrogen use efficiency. The data suggest that broadcasting granular urea treated with AGROTAIN is a valuable side dress nitrogen option and may be an economical choice.

Urea is 46% nitrogen which makes it a highly efficient source of solid nitrogen. It is easy to handle. Urea is not classified as a hazardous material. Urea has one problem, volatilization, which can be controlled by using AGROTAIN.

The above cotton studies and other university studies show that AGROTAIN is effective in reducing nitrogen loss by ammonia volatilization. This is supported by farmers' successful use of AGROTAIN with urea and UAN to improve their nitrogen efficiency. AGROTAIN is easy to use and is cost effective. AGROTAIN will cost approximately 2.25 cents per pound of urea or $2.25 per acre for 100 pounds of urea.

Protect you nitrogen investment with a proven product, AGROTAIN.

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