

Fertilizer changes increase chances of urea volatilization

The change to urea nitrogen fertilizers has increased possibility of volatilization in no-till situations.

Methods to control volatilization include incorporation of urea fertilizer.

Also, a rain can move the urea nitrogen into the soil so there is not volatilization.

THE RISK increases when urea nitrogen is applied to the surface and it lays on the surface for many days without being incorporated by rain, Wayne Flanary, MU Northwest agronomist in Oregon, says in a news release.

There are many stories indicating how much urea nitrogen can be volatilized.

Most of the time, these are not large amounts and are often overstated, however, the University of Missouri Extension does recommend the use of NBPT (Agrotain) when applying urea.

There are situations where this additive proves beneficial.

Top-dressing urea on pasture, even with cool temperatures, NBPT should be applied to urea. Also, when applying urea to no-till corn, NBPT should be applied to urea.

There is a common situation

where one would not benefit from NBPT.

When making a top-dressing urea application to corn that reaches three feet, research indicates NBPT is not needed.

THE MECHANISM for NBPT is to lock onto the urease enzyme binding sites. Urease is associated with crop residues. NBPT prevents the reaction from taking place.

There are other products in the marketplace indicating they also prevent urea nitrogen volatilization as additives to urea.

Research from Midwest Uni-

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versities indicates these products do not perform.

A soil fertility professor with University of Missouri Extension also indicates Missouri has drawn the same conclusion.

For more information, contact Flanary at 660-446-3724 or Heather Benedict, another regional agronomist, at 660-425-6434, University of Missouri Extension.