

PA- Supplemental Guidance

AIR-02 Nitrogen stabilizers for air emissions control – The use of a nitrogen stabilizer with either urea or ammonium fertilizers to control the rate of ammonia and ammonium conversion. For this enhancement “nitrogen stabilizers” includes nitrification inhibitors and urease inhibitors.

This activity is applicable in Pennsylvania for N applications (excluding pop-up and starter fertilizer) made within 30 days of planting. This enhancement is not applicable for Fall application of N.

Requires current 590 nutrient management records.

Use only for urease inhibitors

Urease-inhibitors are recommended by Penn State when urea containing fertilizers are surface applied. Use urease inhibitors with 46-0-0, 30% UAN nitrogen solution, and other blended fertilizers that contain urea.

Use of nitrification inhibitors is NOT generally or routinely recommended by Penn State because research in Pennsylvania has shown inconsistent results. Nitrification inhibitors are effective when there is a high likelihood of nitrate loss through leaching or de-nitrification, especially when the N is applied well ahead of crop uptake. A typical scenario for nitrification inhibitor use is with fall application of anhydrous ammonia in the western states corn belt.

Definitions

Nitrification Inhibitor – A substance that inhibits the biological oxidation of ammoniacal nitrogen to nitrate nitrogen

Nitrogen Stabilizer – A substance added to a fertilizer which extends the time the nitrogen component of the fertilizer remains in the soil in the urea or ammoniacal form.

Urease Inhibitor – A substance which inhibits hydrolytic action on urea by the urease enzyme. When applied to soils the effect of the urease inhibitor is less urea nitrogen lost by ammonia volatilization.

System/acre

Amount Applicable = Cropland acres

Not applicable on adjacent land

*Not compatible with: ANM01, ANM02, ANM04, ANM05, ANM06, ANM07, ANM08,
ANM10, ANM12
ANM23
ENR01, ENR08
PLT08
SOE01
SQL01, SQL05
WQL05, WQL07, WQL08, WQL09, WQL10, WQL20, WQL22
WQT01*