

Crops Bulletin

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Prepared by
Paul Kassel
Extension Field
Agronomist

*Serving Clay, Buena
Vista, Dickinson,
Emmet, Kossuth, and
Palo Alto Counties*

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Questions on Urea application. The potential for loss of the N from urea to the air causes concern each spring. It will volatilize (change to a gas) if it is not incorporated with tillage or moved into the soil with rainfall. The following are some scenarios that describe N loss from urea. *Liquid N solutions are half urea.*

Conditions that *favor* volatilization losses of N from surface applied urea

- soil surface damp or wet
- warm (70 F) sunny conditions
- high pH soils
- high amounts of crop residue

Conditions that *lessen* the chance of urea volatilization

- dry soil surface
- cool air temperature
- neutral or slightly acid soil pH
- low amounts of crop residue

There will be minimal volatilization losses of urea if incorporation or a half-inch of rainfall occurs within two to three days. Nitrogen loss from volatilization can be 30% in a worst case scenario (15% from liquid N solutions).

Black Cutworm. ISU extension coordinates a black cutworm moth trapping system. There have been some moth catches this year – from April 17 to 21. Moth catches and growing degree day info indicate *when* to expect black cutworm damage to corn. Unfortunately, moth trap catches do not predict how *severe* that damage might be.

Alfalfa stands. Alfalfa fields that were seeded in 2007 should have 12 to 20 plants per square foot. Fields that were seeded in 2006 (or before) should have 4- 8 plants per square foot. Hay fields that are mixed alfalfa/grass /clover can have about half the before mentioned plants per square foot and still be productive.

Another way to assess potential alfalfa yield is to count stems per square foot. This is more accurate when the alfalfa is a few inches tall. Stems counts of 55/square foot are considered ideal, where as stem counts of less than 40 will have reduced hay yields.