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## 4R BEST MANAGEMENT PRACTICES FOR NITROGEN FERTILIZER

(Right Source) -

- 1. Account for nitrogen being applied in other sources, such as ammoniated phosphate fertilizers or manures.
- 2. For fall anhydrous ammonia applications, wait until soils are 50°F at the 4-inch depth and getting colder.
- 3. Use a nitrification inhibitor with late-fall applications of anhydrous ammonia.
- 4. When applying anhydrous ammonia, apply at a depth and position to minimize ammonia loss during application and avoid injury to young corn plants.
- 5. Urea applications are not recommended in the fall or winter, especially on frozen and/ or snow covered soils.
- 6. If using a urea-based fertilizer product, incorporate or inject the product into the soil.
- 7. If surface-applying a urea fertilizer product, apply within two days before a rainfall event of at least 0.25 inches.
- 8. If urea or UAN is surface applied under conditions for potentially large volatile loss, use a urease inhibitor.
- 9. If applying UAN over the top of corn, limit application rates and use directed rather than broadcast application if corn is larger than the V7 growth stage.
- 10. Limit urea or UAN application rates when applied near the seed row.

Sources: Iowa State University: **Site Specific 4R Nutrient Management Planning, Nitrogen**International Plant Nutrition Institute: **Nitrogen Notes**; The Fertilizer Institute: **4R Educational Modules**