AGRI-BRIEFS
AGRONOMIC NEWS ITEMS

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Fall 2004, No. 6

CONSIDERATIONS FOR FALL FERTILIZATION

The planning and timing of nutrient applications can have a substantial impact on the profitability of any farming operation. Fall application of some or the entire fertilizer requirement for a spring planted crop is often an appropriate nutrient management practice. Factors such as time management, economics, soil conditions, and environmental impact should be considered when making fall fertilization decisions. It is important to periodically review several points to evaluate how fall fertilization fits into the overall management system on a farm.

Fall application of phosphorus and potassium is a sound practice in many situations since these nutrients are of limited mobility in most soils. Aglime is another good candidate for fall application. Following are some of the benefits of appropriate fall application of these inputs.

- **Saves valuable time in the spring season**. Fall application clears the way for quick spring planting and assures that lower than optimum fertility won't limit crop yield.
- **Spreads-out grower and dealer workload**. Fall applications can help smooth-out some of the peaks and valleys of activity to make the yearly workload more evenly distributed for everyone involved.
- **Reduces the probability of soil compaction and its associated problems**. Fields tend to be drier in the fall than in the spring in many areas. Dry soils are much less susceptible to compaction from application equipment. Also, fall affords greater flexibility for scheduling applications to coincide with optimum soil conditions.
- **More reaction time**. Fall application allows more time for aglime to react with the soil to neutralize acidity. In reduced tillage systems more time is provided for nutrients to move into the root zone.

Is it a good idea to apply nitrogen fertilizer in the fall? The answer to this question is specific to the region, site, and soil. For example, nitrogen should not be applied in the fall on sandy soils with high leaching potential. However, where the likelihood of nitrogen loss through leaching is minimal, fall application may be appropriate. The use of an ammoniacal form of nitrogen after soil temperature remains below 50°F until spring is usually recommended. This helps prevent the conversion of ammonium to nitrate-nitrogen, thus minimizing the possibility of nitrate leaching. The probability of gaseous losses of nitrogen from some fertilizer sources is also reduced below 50°F. While general guidelines are useful, it's always best to check local best management practices before fall applying nitrogen.

Appropriate fall fertilization is an agronomically, environmentally, and economically sound practice. "Appropriate" here means that nutrients are applied such that losses prior to planting are minimized. For example, phosphorus and potassium are not applied to soils prone to erosion over the winter, potassium is not applied to very sandy soils with low cation exchange capacity, and nitrogen is applied to minimize leaching and volatilization losses.

In thinking ahead to next year's crop, consider the advantages of reasonable and appropriate fertilizer applications this fall.

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