

# What are We Going to Do Now?

## Recommendations for Spring Topdress Applications of Nitrogen (N) Fertilizer

*Larry Lutcher and Don Wysocki*



Ample snow in February increased the yield potential of winter wheat. How much? Nobody knows for sure. We can't predict future weather patterns. What is a reasonable expectation? We believe it is reasonable to assume wheat producers will harvest a crop that will yield 15 to 20 bu/ac more than the long-term field average. If our assumption is reasonably close AND if you fertilized (last fall), for an average crop, then a topdress treatment of 40 to 50 lb N/ac is warranted for soft white winter wheat. If you are raising a hard red winter variety, then the recommended application is 45 to 60 lb N/ac. Most producers will apply urea-ammonium nitrate (Solution 32). The application of 5 to 10 lb/ac of sulfur (S), with the N, is worth considering, and this is especially true if a field has a history of off-and-on problems with S deficiency. Sulfur deficiencies are expressed as a yellowing of *new* (younger) leaves or leaves that are closer to the top of the plant. This is different than symptoms associated with a N deficiency—a deficiency that is expressed as a yellowing of *older* leaves or leaves closer to the bottom of the plant. It is absolutely essential to make topdress fertilizer applications as soon as you can get into the field. Waiting to include a “little liquid N” with your herbicide spray is risky business this year, and the rate may not be sufficient for the expected increase in yield. Streamer nozzle applications are a popular option. Spoke-wheel and disc applications (and others) that place fertilizer “in-the-dirt” are ideal.

Topdress treatments, made by air, usually consist of a dry formulation of urea. Pellets or granules that remain on the surface of a warm and wet soil are very susceptible to “gassing off” unless there is significant rainfall immediately after application.

Utilization of a urease inhibitor (Agrotain® is a good example) may be warranted if Solution 32 is applied to a warm and wet soil surface AND if the 10-day forecast doesn't include significant rainfall. Treatment of dry urea granules or pellets, with a urease-inhibitor, is certainly worth considering and likely to be cost-effective. Application of products like Agrotain® is not necessary when fertilizer is thoroughly incorporated into soil.