

Preflood Urea Critical To High Yields

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Most growers know the importance of nitrogen fertilizer on their rice crop. However, it is important to remember that the preflood nitrogen sets the yield potential for the crop. Midseason nitrogen may help the crop when the nitrogen has “run out”. However, midseason nitrogen usually cannot make up for mismanaged preflood nitrogen. Because of this, it is always a good idea to refresh our memory of how management decisions can impact the rice crop’s ability to get the most of the fertilizer.

Urea needs to be applied to dry soil to prevent loss. Even when it seems that it is not possible to get the soils dry, patience is king. The loss from fields where urea has been applied to early tillering rice in muddy or flooded soils can approach 50-60 percent. Even with Agrotain, the loss on muddy soil can approach 25 percent. Application of Agrotain-treated urea to dry soil results in less than less than 5-10 percent loss. Since less nitrogen is lost, rice uptake is more efficient.

Agrotain is worth the investment for most pro-

ducers. If you can flood in 2 days or less, you probably don’t need Agrotain. Otherwise, Agrotain is recommended. There are other products being promoted as “Agrotain alternatives”, “generic Agrotain”, or “Agrotain replacements”. We have tested N-Zone, X-tend, Nutrisphere, and Upgrade and found that Agrotain is the only product that reduces ammonia volatilization losses.

How dry is dry? That is often the question when I recommend that urea should be applied to dry soils. In general terms, if the soil is wet enough to leave tracks when you walk, it is too wet to apply fertilizer. Also remember to think about your levee ditches. If you have several levees and can’t afford to lose that rice, the levee ditches need to be dry also. Δ

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