

"Accessing Innovation"

Fall Anhydrous Considerations: Cameron Alderfer

Although global markets may have worked to increase overall fertilizer prices, anhydrous ammonia (NH3) is still the least expensive form of nitrogen available to farmers. For every 100 lbs of NH3 product applied, the producer can expect about 82 lbs of nitrogen to be available to their crop. I say "about" because there are many factors like moisture,



temperature, soil composition, microbe population, and application depth and timing that determine how much nitrogen is actually available. Immediately after injection of NH3, there is a localized zone of retention where it reacts with water and soil components. Regional soil moisture is currently adequate for proper sealing of the application furrow and the retention of NH3. NH3 retention increases with higher clay and organic matter content and decreases in sandy and low organic matter soils. At least 50% of NH3 retention capacity is due to soil organic matter. A few ways farmers can increase soil organic matter are planting crops with fibrous root systems, growing cover crops, and spreading manure. NH3 retention increases with increasing injection depth. When compared to clay soils, sandy soils require a deeper injection depth to gain the same retention rate of NH3. A deeper injection depth is also required in dry soils. NH3 application should only begin when soil temperature is 50oF or lower and trending downward. Higher temperatures allow for increased microbial activity which converts the applied fertilizer to nitrates, which can be lost through leaching and denitrification. Current soil temperatures in Ag Partners' local geography range from low 30oF's to 40oF's. Updated soil temperatures are available at AgPartnersCoop.com.

Many factors affect the stabilization of NH3 we apply. There are many fertilizer stabilization products available to help reduce the losses of nitrogen. Ag Partners offers a product called **NZone GL**, a nitrogen management aid that increases nitrogen availability and uptake, and reduces nitrogen loss. Ask your local Ag Partners agronomist how this product will help increase your fertilizer efficiency.

Lastly, a friendly reminder, please use extreme caution when applying NH3. Although it is the least expensive source of nitrogen fertilizer, it is also the most dangerous. Follow personal protective equipment standards and maintain your applicator. Check all hoses and connections, towing vehicle brakes, hitches, and lights.

Remember, someone expects you home tonight. Be safe and farm on!

Grain Market Update: Lincoln Hillyer

The grain markets were fairly slow this week. Beans quietly saw strength while corn struggled to go anywhere. With the crop in the bin, fresh news will be hard to come by until demand changes or South American weather come into play.

The newest grain expansion for Ag Partners is in Tarkio. The first load was dumped on Friday. The 346,000 bushel bin is fed by a 15,000 bu/hr leg. This new asset will help to continue serving our patrons in Northwest Missouri!

I am pleased to welcome **Pam Roesch** to the grain team here at Ag Partners! Pam has many years of cooperative and grain knowledge. She is catching on very quickly and will be a great asset for Ag Partners. Pam is working at the Seneca office.



Tarkio Location Manager, Gary Henson watches the pit in helping a truck prepare to unload.



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