HOW IT WORKS



CENTURO® nitrogen stabilizer from Koch Agronomic Services is a next-generation nitrification inhibitor for anhydrous ammonia featuring a patented active ingredient. The first nitrification inhibitor registered by the EPA for anhydrous ammonia in 40 years, CENTURO provides a research-proven solution for stabilizing anhydrous ammonia applications.

HOW IT WORKS IN THE SOIL

To understand how CENTURO works, first let's look at how nitrogen reacts in the soil. Ammonia, once applied to the soil, quickly moves into the ammonium state. In this form, nitrogen is available for uptake by the crop. Ammonium will then convert to nitrate in about two weeks depending on the soil type and temperature. Slowing the conversion of ammonium to nitrate is key to preventing nitrogen loss – ammonium will bind to the soil whereas nitrate can move with water and is prone to loss through leaching and denitrification.



The conversion of ammonium into nitrate is a three-step process, the most important step performed by AMO which is found inside the nitrosomonas bacteria.



AMO has an active site where oxidation occurs. When ammonia is oxidized by AMO, it begins the nitrification process.



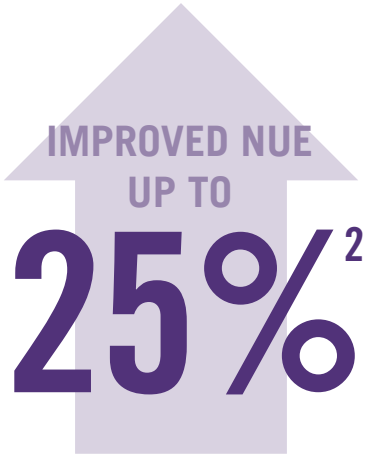
Research suggests the active ingredient in CENTURO exhibits nitrification inhibition by temporarily occupying the active site or altering the enzyme so that it cannot oxidize ammonia. This means CENTURO can hold the nitrogen in the ammonium form three times longer than without an inhibitor.[1]

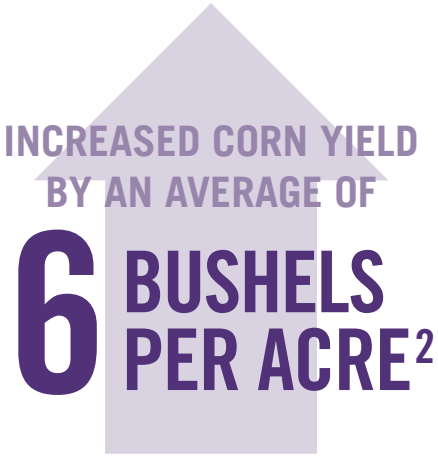
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HOW IT WORKS **FOR YOU**

What does the increased longevity mean for you? With fall-applied anhydrous, nitrogen will be more stable for a longer period of time, maximizing availability for crop uptake. With spring-applied anhydrous, you've minimized potential losses to leaching and denitrification from spring rains prior to crop establishment.

When you protect the nitrogen you apply, you maximize the nutrients available for crop uptake. Third-party trials conducted across four site locations in Nebraska, Illinois and Missouri in 2016, 2017 and 2018 showed CENTURO improved nitrogen use efficiency by up to 25 percent and increased corn yield in fall-applied ammonia by an average of 6 bushels per acre compared to untreated fall-applied ammonia.[2]





THE NEXT GENERATION OF NITROGEN STABILIZATION.

Protect your investment. Optimize your yield.
Contact your retailer today to get started or visit **CENTURO.com** for more information.

KOCH AGRONOMIC SERVICES

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