

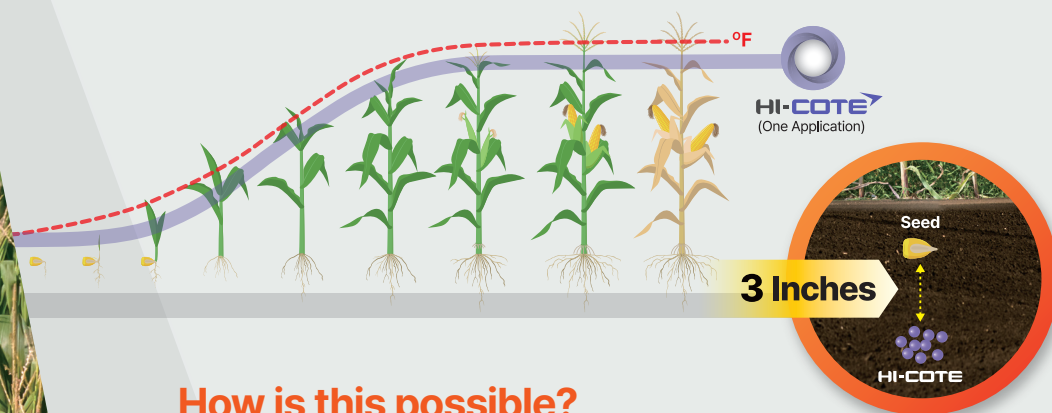
HI-COTE®

The Future of Fertilizer

HI-COTE offers a one-time application with nutrient release precisely timed to the seed germination stage. It provides consistent nutrient supply over 120 days, ensuring better alignment with crop growth needs compared to the unpredictable release of conventional CRFs.

HI-COTE granules feature a uniformly applied pliable polymer coating using a fluid bed technique, which prevents dumping issues from collision damage and accelerated osmosis, ensuring consistent release rates and improved performance.

Smart Fall Application



How is this possible?

Hi-Cote fertilizer eliminates the risk of fertilizer burn as its nutrients release only under optimal conditions and then follows the corn growth pattern. It serves as a viable alternative to UAN and UAN-Split applications, offering a reliable option for consistent nutrient delivery.

Why Choose Smart Fall Application?

HI-COTE fertilizer helps avoid the high rental costs and time constraints of the spring season by allowing for more flexible application timing. Additionally, its high nutrient efficiency reduces nitrogen pollution, making it an environmentally friendly option.



High rental costs



Time constraints



Eco-friendly



High nutrient efficiency

Conventional Spring Application vs. Fall Application of HI-COTE

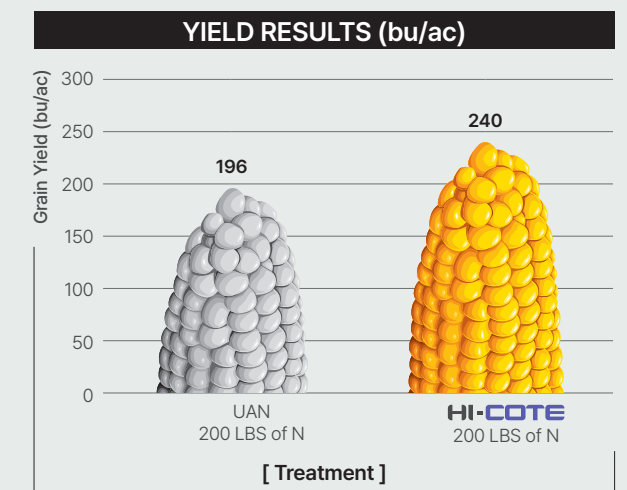
This study examines the potential of HI-COTE, a Controlled-Release Nitrogen Fertilizer(HI-COTE), to compete with conventional fertilizers like Urea-Ammonium-Nitrate(UAN). Applying HI-COTE at 200 lbs of N in fall furrow applications yielded results comparable to traditional spring applications, without causing burn symptoms. HI-COTE ensures continuous nutrient supply throughout the growth period. Research indicates that HI-COTE can reduce nitrogen application rates without compromising yields, supporting sustainability by lowering fertilizer use while maintaining productivity. HI-COTE proves effective in delivering consistent nutrients from fall application harvest.

Question 1

Can HI-COTE compete with conventional fertilizer methods, namely Urea-Ammonium-Nitrate(UAN)?

Answer

Using HI-COTE at 200 lbs of N in fall furrow applications resulted in yields comparable to traditional methods without burn symptoms. In the spring, when seeds were planted 2-3 inches above the fertilizer, no burn symptoms occurred, a typical issue when fertilizer is too close to seeds before germination. HI-COTE's controlled-release properties effectively prevented this and ensured nutrient retention over the winter, continuously feeding plants during the growth period and positively affecting yield.



* University of Illinois at Urbana Champaign, 2023

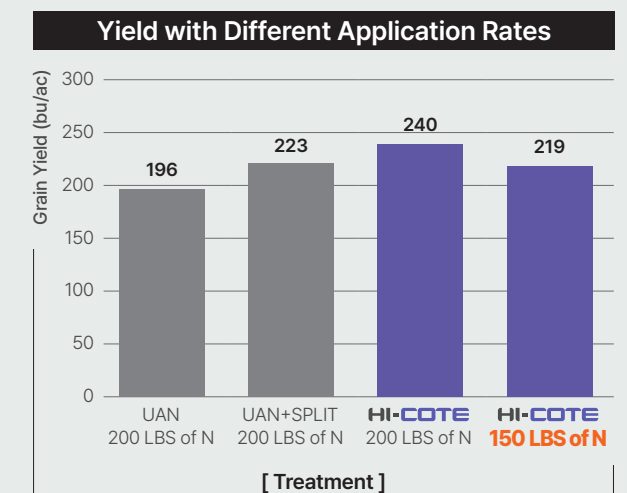
Yield with Different Application Rates

Question 2

Does HI-COTE create the opportunity to lower nitrogen application rates without sacrificing yields?

Answer

Research suggests that HI-COTE can reduce nitrogen application rates without compromising yields. For instance, a standard treatment of 200 lbs of UAN and UAN+Split applied in spring was compared to a reduced rate of 150 lbs of N (a 25% reduction) applied in fall using HI-COTE. The results showed that the 150 lbs of N application achieved yields comparable to the 200 lbs of N treatment. This underscores HI-COTE's efficient nutrient delivery, promoting sustainability by lowering overall fertilizer use while maintaining standard yield levels. These findings confirm HI-COTE's effectiveness in consistently supplying nutrients from fall application through harvest.



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