

Corteva Agriscience launches biological product for nitrogen efficiency



New Utrisha™ N nutrient efficiency optimizer lets crops capture nitrogen from the atmosphere

Utrisha™ N nutrient efficiency optimizer is an exciting addition to the growing Corteva Agriscience Biologicals product portfolio. Biologicals are a distinctive class of products: Each one is either a living organism (like a beneficial bacteria) or derived from naturally occurring substances (like enzymes). Corteva Biologicals products are designed to work alongside conventional chemistries and fit into farmers' existing management practices, offering a balanced approach to plant health, pest control and disease that helps reduce environmental impact and helps farmers produce profitable harvests. The Corteva Biologicals portfolio is divided into three categories: biostimulants, biocontrol and pheromones. Corteva biostimulant products enhance plant health, improve resilience and help plants maximize nutrition use; our biocontrol products help manage pests and protect both crops and biodiversity; and Corteva pheromone products help release, attract and disrupt insect pest mating.

A different way to harness nitrogen

Utrisha N falls into the biostimulants category of Corteva Biologicals. It's composed of a naturally occurring bacteria, *Methylobacterium symbioticum*, that fixes nitrogen from the atmosphere and converts it to ammonium, increasing the nitrogen use efficiency of crops and boosting yield potential.

Utrisha N supplies nitrogen throughout the crop cycle in an effective and controlled way and reduces the plant's dependency on nitrogen uptake from the soil. It can be used in corn, cotton, alfalfa, wheat and rice.

Utrisha™ N

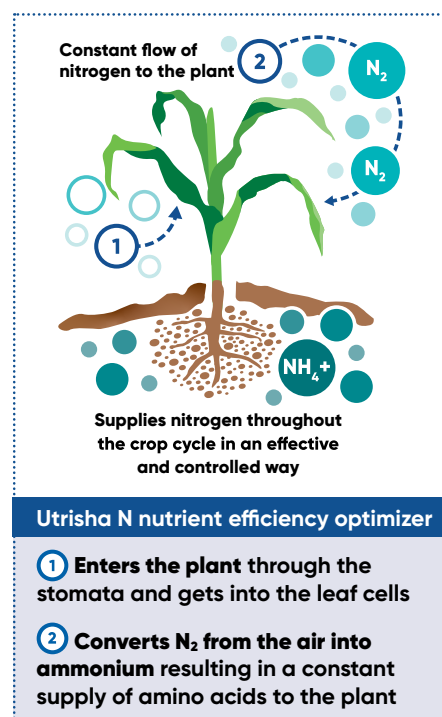
 NUTRIENT EFFICIENCY
OPTIMIZER

How it works

Utrisha N™ nutrient efficiency optimizer works by entering the green leaves of the plant via stomata. From there, it colonizes the plant and then converts nitrogen from the air into ammonium. The ammonium is used by plant enzymes to produce glutamine, which is incorporated into essential proteins the plant needs to grow and thrive. Once the plant's metabolic needs for glutamine are met, the unused glutamine stops the bacteria from producing more ammonium. So, with Utrisha N, ammonium can't be overproduced. The bacteria fix only enough nitrogen for the plant to use in its growing conditions.

Flexible, reliable and sustainable

Since Utrisha N delivers nitrogen directly to actively growing plant parts, there's no risk of poor application timing or negative





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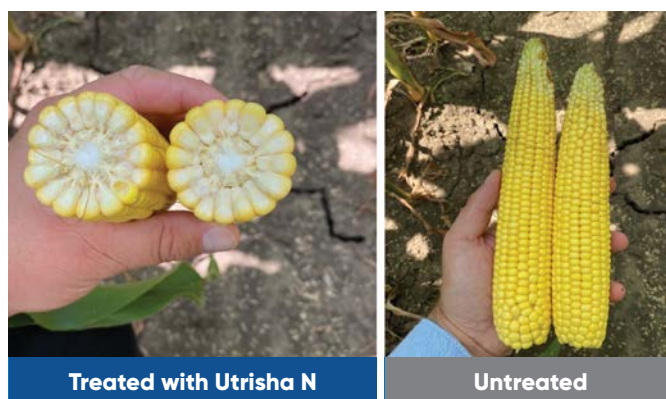
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environmental effects from typical nitrogen applications. Utrisha N also works well as a component of standard side-dress programs – aerial portions of the plant serve as a nitrogen source along with those sources absorbed by the root system. For example, Utrisha N could be paired with new PinnitMax® TG nitrogen stabilizer, which helps get nitrogen to the root zone. Because it's quickly colonized in the plant, Utrisha N can be applied to corn as early as V3, as well as in later vegetative stages.

Like all Corteva Agriscience products, Utrisha N is backed by extensive research to ensure proven, predictable performance in the field. This is especially important for biological products, which sometimes lack adequate data to back up their performance claims. Corteva only brings biological products to market once we fully understand how they work and are confident they will meet farmers' expectations and deliver genuine value on their acres.

Utrisha N is a great option for farmers looking for new ways to improve nitrogen uptake and yield while reducing their environmental footprint – it doesn't leach into water tables or release additional greenhouse gases. Utrisha N is also listed by the Organic Materials Review Institute (OMRI) and is approved for use in certified organic production, food processing and handling.

For farmers, Utrisha N provides a new, sustainable way to get nitrogen into plants and improve stewardship of their land and soils, all while improving yield potential.



Field trial pictures comparing corn cobs from untreated plots (right) to those treated with Utrisha N (left).

To learn more about Utrisha N visit, corteva.us/utrisha-n.

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