

2 Key Findings from 2024 Nitrogen Trials

The Corteva Agriscience nitrogen stabilizer sales team continues to collect and analyze on-farm data to help you and your customers make strategic, cost-effective nutrient management decisions. Although yield results are still to be determined, Chris Klumke, nitrogen stabilizer market development specialist, Corteva Agriscience, says there are two trends worth noting as we head into the fall application season:

1 Beneficial soil bacteria are not depleted by N-Serve® nitrogen stabilizer.

"We commonly hear concerns that our nitrogen stabilizers negatively affect non-target soil bacteria, but that's simply not true," says Klumke, who oversees trials in Indiana and Illinois. "We worked with Trace Genomics to measure bacterial diversity across multiple sites, comparing treated, untreated and competitor-treated fields."

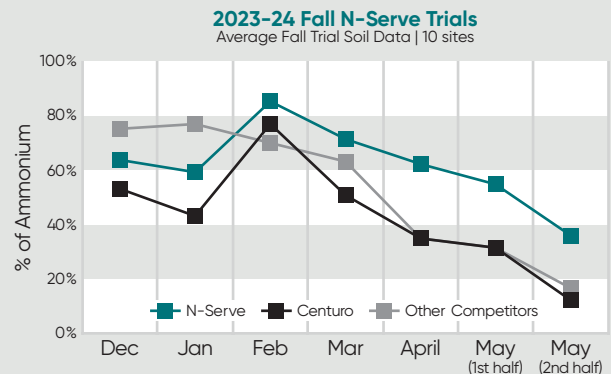
The tests account for the number of species present as well as the relative abundance of each species. Both bacteria and archaea (another single-celled organism) are included. Generally, a higher diversity measurement means healthier soil.

The team sampled fall-applied fields in March and spring-applied fields in late May.

"The results show soil bacteria was consistent across the board, and all samples treated with N-Serve nitrogen stabilizer either met or exceeded the benchmark for healthy soil," Klumke says.

2 N-Serve nitrogen stabilizer outperforms other stabilizers in protecting nitrogen applications.

In 6 months with higher-than-average rainfall across 10 trial locations, N-Serve nitrogen stabilizer maintained a higher amount of nitrogen in the ammonium form compared with competitors in similar conditions.



Samples depicted in data above were taken across 10 sites across Iowa and Illinois. Each dot represents the average across the 10 sites. The Nitrogen and Nitrogen Stabilizer applications occurred in Fall 2023 prior to samples beginning to be taken.

An average of 36% of Nitrogen was still available in the ammonium form in the second half of May in soils where fall-applied N was stabilized with N-Serve.

What's next?

Klumke says that the trials are ongoing and more data will be available later this year. With the weather conditions that growers across the Midwest have experienced this season, he expects a yield advantage for the fields treated with a Corteva nitrogen stabilizer.

"With all the rain that we have gotten in several parts of the country this summer, there's potential for nitrogen to be a limiting factor," he says. "And the right choice of a stabilizer could pay big dividends."

