

The logo for N-Serve, featuring the brand name in a bold, white, sans-serif font on a blue background. Below the name are three white, curved lines that suggest movement or a field.A blue rectangular label with the words "NITROGEN STABILIZER" in white, uppercase, sans-serif font.

JUST THE FACTS: QUESTIONS AND ANSWERS FOR N-SERVE®

With more than 35 years of proven success, N-Serve® nitrogen stabilizer protects your largest input investment and ensures nitrogen (N) is available when and where corn needs it most. When applied with anhydrous ammonia, N-Serve inhibits nitrification, which helps you optimize corn yield and profit potential.

Q1: Why is it important to stabilize nitrogen?

A1: After application, anhydrous ammonia converts to the ammonium form. This form of N is easy for corn plants to utilize. The longer the ammonium form of N is available to corn plants during the growing season, the more likely the corn crop will reach its optimum yield potential. However, if left unprotected, ammonium will convert to nitrate, a form of N highly susceptible to loss by leaching or denitrification.

N-Serve is designed to protect the ammonium form of N from conversion to nitrate, keeping more N available to corn at the root zone the following spring and optimizing yield potential. In fact, more than 35 years of university research shows that using N-Serve can result in a 5 percent to 7 percent additional yield on average.

Including N-Serve in fall anhydrous ammonia applications is important for many reasons:

- Applying nonstabilized anhydrous ammonia in the fall before soil temperatures drop leads to nitrification and N loss.
- About two-thirds of all annual drainage and nitrate losses occur in spring and early summer. N applied in the fall without N-Serve® nitrogen stabilizer has nitrified by then and is subject to leaching and denitrification.
- All cultural practices are susceptible to nitrogen loss.
- The conversion of ammonium to nitrate (nitrification) slows down as soil temperatures reach 40 F or cooler. But waiting for soil to cool to that level before applying N in the fall simply isn't practical.
- Fall application of anhydrous ammonia can begin when soil temperatures drop to 50 F. This still allows for nitrification to occur if the nitrogen is left unstabilized.

Q2: What benefits could I see if I use N-Serve with my fall-applied anhydrous ammonia this year?

A2: N-Serve helps you optimize yield and profit potential of corn. More than 35 years of third-party university research resulted in an average yield increase of 5 percent to 7 percent when using N-Serve. It gives you confidence that N is available at the root zone during key stages of corn growth. Corn can uptake and use nitrogen more efficiently when it is in the ammonium form. N-Serve inhibits nitrification, keeping N in that ammonium form longer and leading to more readily available nutrients.

By protecting N at the plant root zone, N-Serve® nitrogen stabilizer helps keep the maximum amount of N available to corn when it needs N most — optimizing corn yield potential. In addition, N-Serve promotes increased grain protein, improved standability, reduced risk of stalk rot and more natural crop drydown during the growing season.

Q3: What if I wait and apply N-Serve with my fertilizer next spring?

A3: All it takes is a period of moist soil and warm temperatures before corn has entered its maximum nitrogen uptake period to lose significant yield potential due to N loss.

Q4: Should I adjust my nitrogen rate if I use a nitrogen stabilizer?

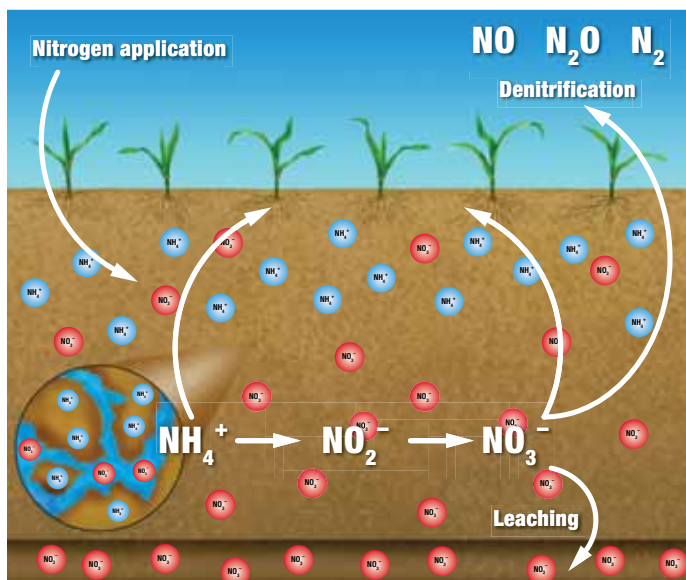
A4: No, you should always use the recommended N rate for your location. N-Serve protects your investment by keeping more of that nitrogen available to the corn plant longer. If you are overapplying nitrogen, the excess can be subject to loss and can cause environmental impacts. N-Serve is a tool that allows you to apply the recommended rate of N without risking the environmental impacts of overfertilization.

Q5: What is the recommended rate for N-Serve® nitrogen stabilizer?

A5: No matter what N rate you apply, always use the labeled rate of 32 ounces of N-Serve per acre for optimum results. It treats the soil, not the nitrogen. Once in the soil, N-Serve suppresses bacteria that convert anhydrous ammonia into the easily lost nitrate form. N-Serve is designed to allow growers to apply the right amount of N and protect that N from loss.

Q6: If I apply anhydrous ammonia in the fall, will N-Serve still be working in the spring?

A6: Yes, fall-applied N-Serve® nitrogen stabilizer still works in the spring. We typically refer to a 90-day period of effectiveness with N-Serve. When soil temperatures are cooler than 40 F, loss of both N-Serve and N is suspended until soil temperatures are warmer than 40 F in the spring. Therefore, some of that 90-day period may occur in the fall, while most of it will occur in the spring — when most rainfall occurs leading to leaching and denitrification.



Q7: Can you prove N-Serve works?

A7: Yes. More than 35 years of third-party university research resulted in an average yield increase of 5 percent to 7 percent when using N-Serve. In some cases, data has shown increases of more than 7 percent. There is no other nitrification inhibitor as widely tested by universities or published in as many scientific articles as N-Serve® nitrogen stabilizer.

N-Serve also is the only nitrogen stabilizer accepted for registration by the U.S. Environmental Protection Agency when used with anhydrous ammonia.

Q8: I tried N-Serve 10 years ago and didn't see results. Why should I consider using it again?

A8: Several variables have changed over the last decade — nitrogen rates, price of nitrogen, hybrids, planting populations and yield. These changes have altered the way we farm and make stabilizing nitrogen even more important than ever. If nitrogen is not the limiting factor, a yield increase resulting from N-Serve is not anticipated.

Q9: Why are nitrogen stabilizers needed in drought conditions?

A9: We may have dry conditions now, but spring weather is unpredictable. If we have wet conditions that encourage N loss in the spring, stabilized nitrogen will better withstand those conditions — keeping more nitrogen available longer. Under dry conditions, soils warm quicker, causing faster conversion to nitrate if not protected by N-Serve.

For more information on N-Serve® nitrogen stabilizer, contact your local sales representative or visit www.NitrogenStabilizers.com.



Solutions for the Growing World

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Do not fall-apply anhydrous ammonia south of Highway 16 in the state of Illinois. Always read and follow label directions.
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