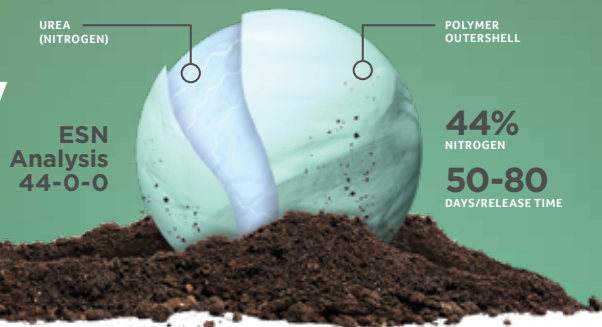




How ESN Technology Works



Coated Nitrogen Granules

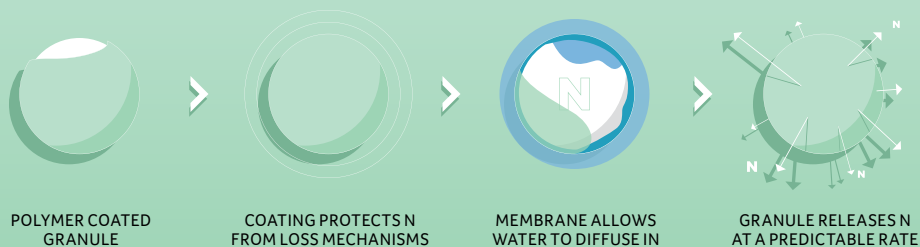
ESN technology uses a flexible, polymer coating to encapsulate an N granule. The coating protects the N from loss mechanisms, releasing it when the crop needs it most.

Temperature Controlled-Release

The unique polymer coating releases N based on the two requirements for crop growth: moisture and temperature. Moisture creates an N solution inside the coating, and the solution moves through the coating at a rate based on soil temperature. The movement and rate match the N demand of the growing crop.

Backed by Independent Research

ESN is backed by over 800 crop years of testing by independent, third-party researchers. The data is proof of performance for a unique product.



Canola



- Enhances nitrogen use efficiency
- Improves crop yield and quality
- Provides convenience through ease of use
- Environmentally responsible



Learn more about the industry's leading environmentally smart nitrogen at smartnitrogen.com





ESN Technology for Canola

Too much early-season nitrogen (N) encourages lodging, depletes soil moisture and leaves less N for seed production.

ESN technology controls N release, reducing N loss and increasing N efficiency. Additionally, it significantly reduces N loss to the environment. Using ESN technology is a smarter way to grow.

ESN Technology and Increased Yield

When compared with similar N treatments of urea or UAN, using 50-75% of N with ESN technology has been shown to increase canola yield an average of 8-10%. This data is derived from a number of independent research studies conducted at various locations in Western Canada.

Seed Safety

Applied at rates up to three times higher than conventional N fertilizers, ESN won't harm growing seedlings.

Using 50-75% of N with ESN technology has been shown to increase canola yield an average of 8-10%.

Reduced Lodging

Excessive available nitrogen (N) early in the growing season can sometimes overstimulate vegetative growth in grain crops resulting in lodging. ESN's controlled nitrogen supply provides N when it is needed, avoids early season excesses and may reduce the lodging caused by excessive N supply.

Other Benefits of ESN Technology

WIDER APPLICATION WINDOW

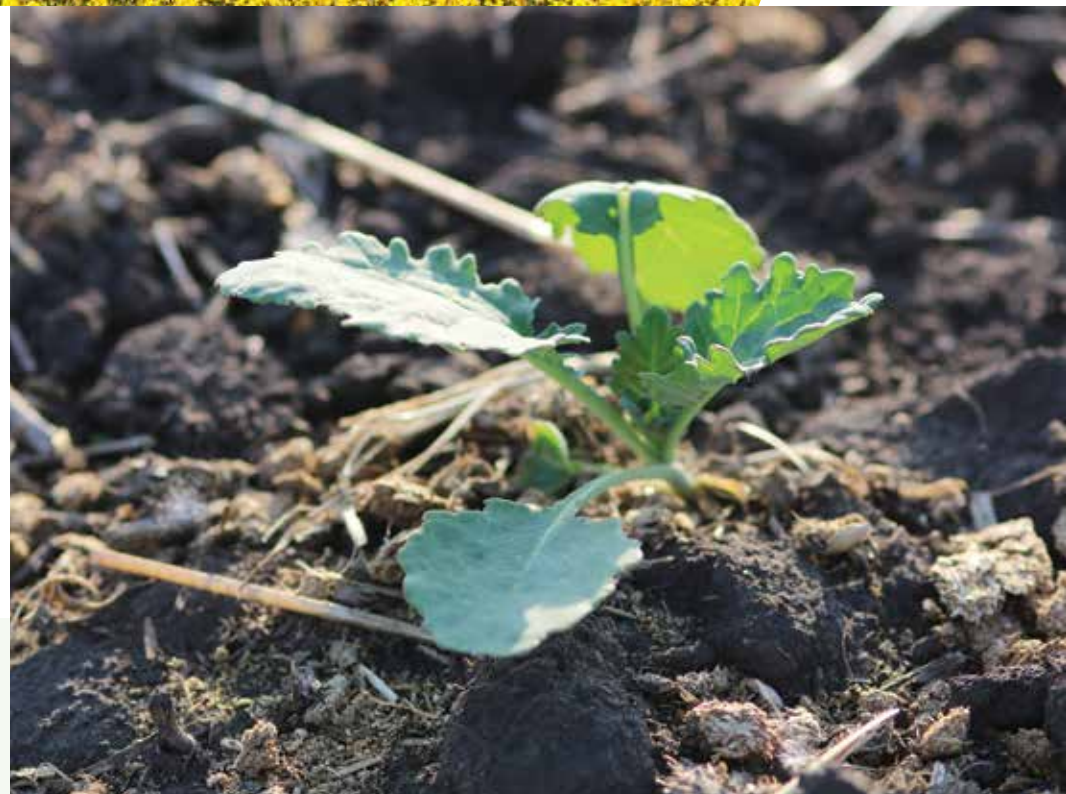
ESN provides a wider application window in both the spring and the fall, allowing you to apply fertilizer on your schedule.

CONVENIENT TO USE AND APPLY

ESN is compatible with no-till operations and is easy to blend. It will not set up in storage and therefore has a longer shelf life.

ENVIRONMENTALLY RESPONSIBLE

ESN significantly reduces N loss, providing substantial benefits to the environment. In the U.S., the national NRCS and local EQIP programs offer grower incentives for the use of ESN.



ESN is the only controlled-release nitrogen designed for agriculture that delivers a significant return on investment through increased nitrogen efficiency.

Applied at rates up to three times higher than conventional N fertilizers, ESN won't harm growing seedlings.

Application Timing and Handling

ESN is generally applied at rates similar to conventional N fertilizers. Field location, weather conditions, timing of N demand and potential for N loss are all factors to consider in determining application timing.

ESN was developed and extensively tested to resist the effects of normal handling. Excessive handling can affect the coating and N release.

For more application timing and handling recommendations, talk to your local retailer, ESN representative or visit smartnitrogen.com.