

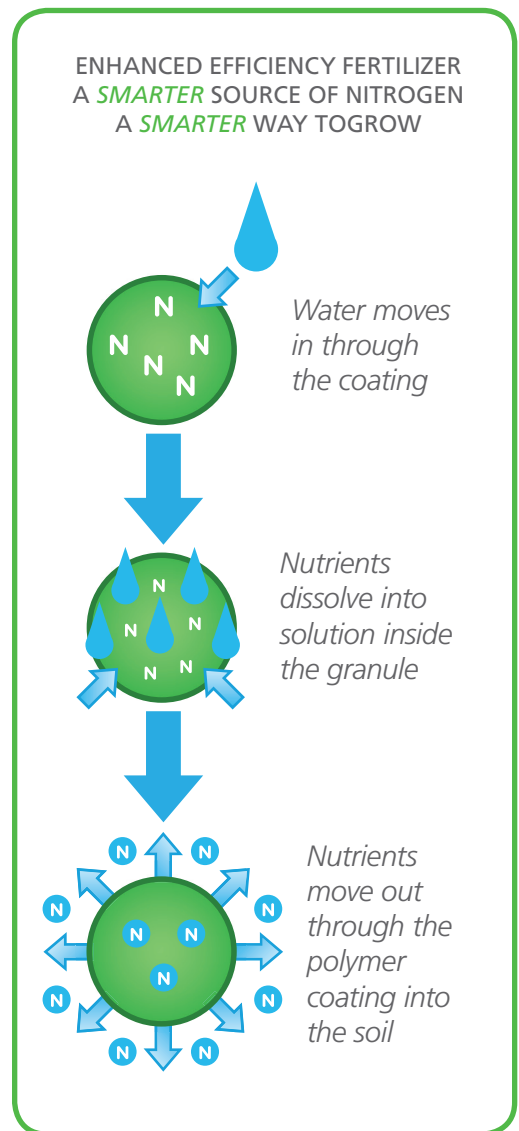
# REDUCE NITROGEN LOSS

## Maximize the Performance of Your Nutrient Applications and Minimize Nitrogen Loss by Applying ESN<sup>®</sup>.

Reduce the potential for loss of your nitrogen (N) investment to leaching, volatilization, and denitrification.

**RIGHT SOURCE:** ESN is water-soluble nitrogen within a flexible biodegradable polymer coating. The polymer coating allows moisture to pass through and dissolve the N granule within. Then the N solution releases as soil temperatures increase. Ensuring that the N rate matches crop demand. ESN is the right source for many N applications because it can improve N use efficiency and simplify decisions on rate, timing, and placement.

**RIGHT RATE:** To maximize crop yield, the right rate of each nutrient needs to be applied. ESN is 44% N. The best recommended practice is to apply the optimal amount of N needed to maximize profits, which typically occur at an N rate slightly below that needed for maximum yield. ESN's polymer coating protects N from loss to the environment and therefore the N applied will be available to the crop when it needs it. Reducing N loss by using ESN results in more predictable yields and optimum rates.



### Environmentally Smarter

We are driven by the conviction that fertilizer will play a critical role in meeting increased global demand for food in the future, and that fertilizer must be used safely, effectively and efficiently. ESN was developed with the 4Rs of Nutrient Stewardship in mind—Use the Right nutrient source at the Right rate, at the Right time, and in the Right place. ESN should be a key part of any growers best management practices.

**RIGHT TIME:** Nutrients are required at specific times in the growing cycle of the crop. When these nutrients are applied and available is critical to maximizing profits. Because ESN protects N from loss, the grower has the flexibility to apply N over a much wider window than with conventional fertilizers. ESN can be applied from before planting to side-dress, and even in the fall in some geographies. Because ESN releases N solution throughout the season, it assures the needed N will be available at the right time, when the crop requires it.

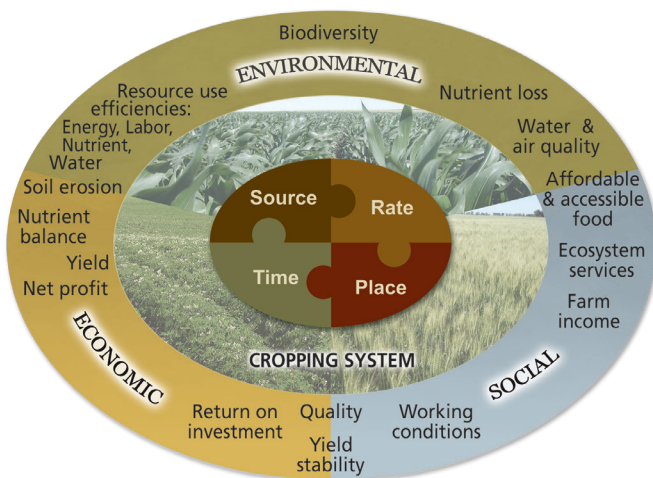
**RIGHT PLACE:** Placement of nutrients is critical to crop development, but some nutrients can be toxic to the crop if placed too close as it emerges. For those growers who apply N at planting, studies have shown ESN can be applied at up to three times the safe rate of urea and still be safe for the crop. Some N sources may be prone to specific loss mechanisms with certain placements and require special considerations to prevent these losses. For example, surface application of urea may be particularly prone to volatilization. Performance of N placements with conventional fertilizers therefore have a greater risk of loss when compared to ESN's built in loss prevention technology.



**How can we help?**

To make ESN a part of your nitrogen management program, contact an authorized retailer or representative.

**For more information:**  
[www.SmartNitrogen.com](http://www.SmartNitrogen.com)



**ESN IS THE RIGHT CHOICE:**

- *Better N use efficiency and profits*
- *Flexibility in timing and placement*
- *More accurate N rate decisions*