

Application and Use Recommendations Cotton



A **SMARTER** SOURCE OF NITROGEN. A **SMARTER** WAY TO GROW.*

More information, including contacts and territory maps, can be found online at SmartNitrogen.com.



Agrium Advanced Technologies (AAT) is a strategic business unit of Agrium Inc. AAT produces and markets controlled-release nutrients, micronutrients and plant protection products for sale to the agricultural, professional turf and ornamental markets primarily in North America.

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These are general use recommendations based on optimal growing conditions. Knowledge of local conditions and grower production or yield goals should be considered to modify or blend to achieve best results.



Maximizing your cotton crop performance

Benefits of ESN technology

- ▶ ESN technology protects your nitrogen investment from loss mechanisms, ensuring your cotton crops get N when they need it most.

Protecting your nitrogen investment with ESN:

- Enhances nitrogen use efficiency
- Improves crop yield and quality
- Provides convenience through ease of use
- Protects your environment with reduced N loss

Cotton Use Recommendations

- ▶ ESN's controlled release nitrogen provides flexibility in application timing. It can be used to enhance nitrogen-use efficiency and crop performance in a variety of cultural practices. The options below are general guidelines for preferred use under different nitrogen management strategies.

Pre-plant nitrogen management:

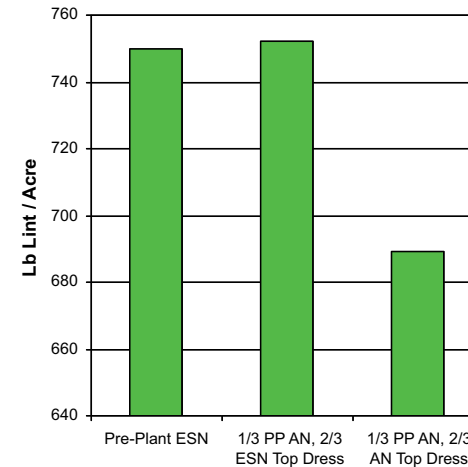
- A single ESN application at planting is convenient and reduces field operations in the growing crop. This single N application option helps prevent N loss.
- Apply N at recommended rates using ESN to supply 80 – 100% of the total recommended N. Apply before or at planting. Incorporate for dryland or furrow-irrigated cotton and, where possible, for sprinkler-irrigated cotton.

Side-dress or top-dress applications:

- Side- or top-dress ESN applications may provide better synchronization of N release with the crop's N demand and allows you to make in-season decisions based on crop stand establishment and water availability.
- Apply N at recommended rates in a blend with ESN comprising 70-90% of the total recommended N, two to four weeks after planting. This provides the best match between N uptake by the crop and N release from ESN granules. For dryland cotton, incorporation is highly recommended wherever possible. For furrow irrigation, ESN should be applied before irrigation furrows are cultivated. This allows you to incorporate the ESN and move it out of the irrigation furrows. For sprinkler irrigation, incorporation is preferred but not essential.

Split nitrogen-application strategies:

- Combining the N-loss protection of a side or top-dress ESN application with the immediate N availability of a pre-plant application of conventional fertilizer provides maximum flexibility in N timing.
- Apply sufficient soluble nitrogen at planting to supply the crop's needs for the first few weeks of growth, followed by the balance of the N requirement as a side or top-dress ESN application at your normal side or top-dress time. This provides N protection for traditional application practices.



Note – The examples provided represent the recommended options for achieving maximum benefit from ESN. In addition, ESN can be used at lower blend percentages (and a lower cost), but will result in less N protection and crop benefits.



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

