CALCIUM PRODUCTS™

Competitive Product Analysis:
Elemental sulfur (ES)

PRODUCT COMPARISON

	SO4™ PELLETIZED GYPSUM	ES
Calcium:	21%	0%
Sulfate-sulfur†:	17%	0%
Solubility‡:	Ideal	Very slow
Acidification:	None	Acidifies Soil

† ES contains 90% sulfur that is converted from elemental form to sulfate for plant availability.
‡ SO4 is available to plants in less than one week; ES is applied one year ahead of plant needs.

Key Differences

- The release of sulfur from SO4™ perfectly matches plant needs and supplies sulfur throughout the growing season.
- ES oxidation is very slow, taking approximately 3-4 years to become fully available as sulfate and to fully meet plant needs (Degryse et al., 2016).
- Due to its ideal solubility, SO4 can be applied in the fall, preplant in spring, or topdressed after emergence.
- SO4 will not acidify the soil; ES acidifies the soil due to the conversion of elemental-sulfur to sulfate-sulfur. Free hydrogen is left behind in this process, acidifying the soil. A 25 unit sulfur application from ES would require 90 lbs/A of 98G™ to offset this acidity.
- SO4 contains calcium, replacing crop uptake and helping maintain soil structure.
- Applying 25 unit S/A results in 72 SO4 pellets/ft^2 and 13 ES pellets/ft^2.

Literature Cited

Degryse, F., B. Ajiboye, R. da Silva, M. McLaughlin. 2016. Oxidation of Elemental Sulfur in Granular Fertilizers Depends on the Soil-Exposed Surface Area. Soil Sci. Soc. Am. J. 80:294-305.