

Evaluating products designed to enhance fertilizer efficiency.

Numerous products representing a wide range of possible chemistries are marketed to enhance fertilizer efficiency. Prior to selecting any such products, producers are advised to:

- remember that highest crop yields will result from effective overall management based on sound agronomic principles along with favorable environmental conditions, and not the selection of any single product.

- assess crop production budgets to determine if you are willing to accept the cost of the product in light of potential returns.

Descriptions of field test results with some of these products are available on a website developed by cooperating university research & extension programs in the North-Central region of the U.S.

- Compendium of research reports on the use of non-traditional materials for crop production

<http://extension.agron.iastate.edu/compendium/index.aspx>

When using this site, enter a search word such as Agrotain (7 articles), AVAIL (6 articles), ESN (2 articles), Nutrisphere (8 articles), etc.

For some products, we have prepared statements based on experiences in North Carolina.

- Soil Facts: Alternative Synthetic N Fertilizer Products
& Soil Facts: Starter Phosphorus Fertilizer and Additives in NC Soils,
select from the following link:

<http://www.soil.ncsu.edu/publications/extension.htm#Fertilizers>

- Evaluating organic soil amendments and fertilizer enhancers. The link that follows leads to a CCA training article that describes evaluation of a specific category of products with an indirect mechanism of activity based on the application of organic materials with a relatively high cation exchange capacity. See pages 19-22 of the March-April edition of this Crops & Soils magazine article: <https://www.agronomy.org/publications/crops-and-soils/4202>

Additional slide sets are available to Cooperative Extension Agents on the NCSU Departmental Wiki pages. http://intranet.ces.ncsu.edu/index.php/Soil_Science

- Slide set: Alternative N Fertilizer Sources (Southern Region Project)

http://intranet.ces.ncsu.edu/images/d/df/Alternative_N_Fertilizer.Southern_Region.2011.pptx

- Slide set: N use efficiency of a slow-release fertilizer (Nitamin)

http://intranet.ces.ncsu.edu/images/9/91/Nitrogen_Fertilizer_Corn_Wheat.ppt

FAQ –prepared by C.R. Crozier Feb 28, 2013