



Enhancing Liquid Fertilizers

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Liquid fertilizers have long been recognized for their role in crop production because of their many advantages, including:

- The convenience of handling liquids rather than dry fertilizers
- The ability to deliver a uniform blend of crop nutrients in every drop of a liquid
- Different components can be blended together in a liquid to meet the specific needs of the crop at each stage throughout the growing season
- The ease of targeted placement in close proximity to crop roots makes liquid applications popular for both planter and sidedress applications
- Liquid fertilizer is easily combined with herbicides or insecticides for soil or foliar applications

With all of these advantages, what could be better than liquid fertilizer?

AgriEnergy has been in the business of enhancing liquid fertilizer with carbon based fertility for over 25 years. We believe in the concept of tying all nutrients to a carbon of some type. Carbon-containing products include various sugars, molasses, fish hydrolysates and humic substances such as humic and fulvic acid.

Humic substances are an excellent carbon source that provides many benefits. The following is a partial list of benefits attributed to humic substances by Dr. Robert E. Pettit, Emeritus Associate Professor, Texas A&M University:

- Enhance uptake of major plant nutrients (N, P, and K)
- Reduce leaching of trace minerals
- A good source of energy and trace minerals for beneficial soil organisms
- Mediate pesticide and toxin degradation
- Buffer soil pH and salts
- Stabilize soil temperature and water evaporation
- Directly and indirectly influence plant growth
- Have a pronounced influence on plant root growth
- Excellent carriers and activators for foliar fertilizers
- Affect plant cell membrane permeability and enhance nutrient transport within the plant
- Enhance plant metabolism and plant chlorophyll content
- Increase production of high energy adenosine triphosphate (ATP), the plant's mechanism for cycling energy

You can see why it is important to include humic substances, with all that they bring to the table, in your fertility program. AgriEnergy has three liquid products that contain humic substances.

- **Bio Humus** is a 6% humic acid with biological activators.
- **Activator II** contains both humic acid and fulvic acid plus other biological activators and trace minerals.
- **Fulvic Acid** is a highly reactive, short chained molecule derived from leonardite.

We also have different options for **dry humates**.

Contact your AgriEnergy Resources representative to see how you can take advantage of humic substances in your 2014 fertility program.