BECK'S Bio-Gold – 2010

Purpose:

Bio-Gold from Global Chem LLC, is a 100% organic bacteria product containing a wide variety of aerobic and anaerobic micro-organisms including those that are nitrogen-fixing. Bio-Gold naturally produces plant growth activators within the soil such as auxins, indoleacetic acid, and gibberellins (gibberellic acid) which support function of growth and maturity in plants. Since Bio-Gold contains both organic matter and micro-organisms, it develops its own compost which contains humates, producing a healthier fertile soil. Bio-Gold microbes convert atmospheric nitrogen to a usable form for the crop and metabolizes enzymes organically, assuring an "On-Demand" supply of nitrogen for the plant.

Global Chem LLC promotes that with the use of Bio-Gold, commercial nitrogen rates can be reduced by up to 50-75% and still maintain yields within 3% of normal nitrogen fertility programs. Best results have occurred when applied early with pre-emerge herbicide or incorporated at planting. All Bio-Gold applications in this study were done in pre-plant situations.

		Central IL		Central IN		Southern IN		Average	
Product Applied	Lbs. N.	Percent Moisture	Bushels† Per Acre	Percent Moisture	Bushels† Per Acre	Percent Moisture	Bushels† Per Acre	Percent Moisture	Bushels† Per Acre
None (control)	180 - 200	22.9	233.2	18.7	217.0	18.2	228.0	19.9	226.1
Bio Gold	180 - 200	22.5	240.3	19.3	195.6	17.4	236.3	19.7	224.1
None	90 - 100	22.6	196.8	17.3	184.7	17.9	197.5	19.3	193.0
Bio Gold	90 - 100	22.6	232.7	17.4	203.6	17.8	223.2	19.3	219.8

†Bushels per acre corrected to 15% moisture.
*XL™ brand seed is distributed by Beck's Superior Hybrids, Inc.
™XL is a trademark of Pioneer Hi-Bred.
^Net Return based on $3.80/Bu. corn, $232/ton 28% nitrogen.

Summary:

When we evaluate all three locations, we see a yield benefit from Bio-Gold 5 out of 6 times, when we compare it to the same nitrogen rate without Bio-Gold. Although we saw a yield benefit with the use of Bio-Gold, we are not able to see a positive economic return at a cost of $22.50/A. for the Bio-Gold product.

Being a good steward of the land has great importance and we are in favor of reducing nitrogen rates if it can be done without sacrificing net returns. In order for the Bio-Gold program to be successful, producers must understand the nitrogen cycle, their current nitrogen program, and must be avid crop scouts during the growing season. By instilling a program of reduced nitrogen rates, growers may need to prepare for an additional late-season nitrogen application if nitrogen deficiencies occur.