



ALBION®

Metalosate® Plant Nutrition News

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New Metalosate® Products for Organic Production

By Jeremy O'Brien

With the creation of the NOP in 2002, the liquid Metalosate® products became unavailable for use in organic production. The reason for this exclusion was mainly due to the fact it is essential to include a preservative into them as they are an excellent medium for the growth of microbiological organisms. This would be true of any liquid amino acid product that actually contains amino acids, as the amino acids become the food source for the microbiological organisms (mold, bacteria). Albion decided that it would be better to formulate a new product line with modifications to the manufacturing process that would allow for the exclusion of the preservatives rather than change the liquid Metalosate® formulation.

This reformulation process began in the fall of 2002. Many different groups and Albion were involved in the process. In the beginning the Research and Development department took on most of the work with essential input being given by the agronomists in the plant division. By the winter of 2002 Albion had developed six experimental product formulations.

With the products having been developed it was then time to take them to the greenhouse and perform tests on them to determine efficacy, safety, rates of application, ease of use, etc.

Albion Advanced Nutrition has contracted with a local greenhouse in Utah for many years for space in which we can do this type of work in the winter months. We never offer a new foliar product to our customers without first spending a great deal of time and resources on studying the

product making certain that we are offering a safe and effective product.



In the greenhouse bean plants are used to make the determinations listed above. Beans grow quickly, and are very sensitive and will show phytotoxicity very readily. Beans will also readily uptake foliar nutrients. The plants are sprayed and observed for 5-7 days. They then are collected and analyzed for nutrient content. They are compared to the untreated plants as well as Metalosate® treated plants and a statistical analysis is performed on all of the data.

Different rates of the experimental products were applied to determine the optimal application rate. Once this was determined, the products were tested in a

field of canning beans in Layton Utah, to again look at efficacy as well as safety in the field. With this work having been completed by the fall of 2003, we then proceeded to large scale testes in the field on commercial organic farms in California, Washington, Colorado, and Florida in the 2004 growing season. The outcome of these field trials was very favorable and provided us with a great deal of valuable information.

The new products are water soluble amino acid powders. They have been approved by the Washington State Department of Agriculture for use in organic production under the guidelines of the NOP (National Organic Program). This means that they can be used by any certified organic producer anywhere in the USA.

It has been a long process and we are pleased to introduce the following products for the 2005 growing season:

- Metalosate® Calcium Amino Acid Soluble Powder (12.9% Ca)**
- Metalosate® Copper Amino Acid Soluble Powder (16.0% Cu)**
- Metalosate® Iron Amino Acid Soluble Powder (15.0% Fe)**
- Metalosate® Magnesium Amino Acid Soluble Powder (6.5% Mg)**
- Metalosate® Manganese Amino Acid Soluble Powder (16.4% Mn)**
- Metalosate® Zinc Amino Acid Soluble Powder (19.3% Zn) **

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101 North Main Street Clearfield, Utah 84015 USA

Phone (801) 773-4631 • (800) 453-2406 • Fax (801) 773-4633 • www.albion-an.com • E-mail: info@albion-an.com

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