

## BAM-FX™ - Unlocking Nutrition for the World™

**BAM-FX™** (Bio Available Minerals – Formula X) is an ionic nutrient delivery system for agriculture. Based on a research product designed for use in space by Zero Gravity Solutions, Inc. (ZGSI), this technology has far reaching applications both for NASA human space missions as well as for agricultural purposes here on Earth. The patented BAM-FX technology was designed to boost the nutritional value and enhance the stress defense systems of food crops. BAM-FX is now a commercially available micronutrient product, utilizing technology that no other company can offer.

BAM-FX enables the efficient uptake of its perfectly paired, highly bio-available 7% zinc and 2% copper minerals directly into the cells of plants, resulting in increased yield, plant stress tolerance, nutritive value and potential reduction in NPK fertilizer use.

### Background

The BAM-FX proprietary technology was originally developed to ensure fresh food crops for astronauts in space. Chief Science Officer and founder of ZGSI, John W. Kennedy, recognized that future NASA space programs were directed at the long term goals of sending astronauts on extended deep space missions. Cargo volume and weight limitations dictate that a continuous supply of fresh food crops be grown to feed the crew on such journeys. Plants also provide essential minerals with organic carriers, making plants a superior source of nutrition compared to vitamin and mineral supplements. A new way for robust food crops to support astronaut nutrition and immune requirements was needed and thus BAM-FX was born.

### Key Benefits of BAM-FX

Although developed with space habitat support in mind, BAM-FX offers substantial agricultural benefits here on Earth. Extensive field trials worldwide on a large variety of crops across a broad range of climates and conditions have consistently demonstrated the enhanced value and efficacy of using BAM-FX as part of a grower's crop plant mineral nutrition program, including the production of more robust plants of higher quality with greater yields. BAM-FX also tank mixes well with many commercial products, such as standard NPK fertilizers and fungicides.



### Product Overview

**BAM-FX™** is a balanced, super-efficient, ionized micronutrient delivery system for agriculture. BAM-FX works by enabling the efficient uptake of micro and macro nutrient minerals into plants. The BAM-FX formula can be applied either through the direct application at the time of planting or foliar treatment of the plant throughout various stages of development.

The BAM-FX product line ultimately provides a way to improve the nutritional value of foods we consume, and has been observed to help enhance the stress defense systems of food crops. The ability to impact plant food crops using a next-generation precision agricultural technology – thought to be far superior to existing fertilizer salts and current widely used nutritional supplementation practices – can help pave the way for revolutionary advances in world agriculture and help enhance the security of our global food supplies.

Commercialization of BAM-FX into the worldwide agricultural market has commenced, offering significant benefits and advantages to early adopters and ultimately the future of agriculture.

## Proven Results

Observed results and Independent lab analyses from multi-season field trials worldwide on a large variety of crops have consistently demonstrated:

- Visibly better growth
- Increased biomass
- Enhanced yields
- Better rooting/root systems
- More flowering
- Faster ripening
- Better food quality – enhanced or increased mineral content (Zn, Cu, S, N)
- Reduction of fertilizer use to achieve same or better yields
- Markedly improved stress tolerance to environmental stresses such as frost damage, heat or drought and chemical stresses due to excessive minerals or chemicals (i.e. boron, alkaline, salt)

## How BAM-FX works

- Whether applied by soil drench and/or foliar spray, it's the bioavailability of the minerals that makes our product different.
- BAM-FX is a highly positively charged Zinc and Copper solution balanced together in a specific ratio, along with ~25% Sulfate and ~0.2% Ammonia.
- This unique blend of positive electrical charge combined with the most bioavailable forms of these elements (Zn, Cu, S, N) results in far superior delivery of these micro and macronutrients to where it is needed, the plant shoots/leaves and roots.
- Unlike other primarily zinc containing products, our formula's zinc and copper minerals actually get into the plant cells and are more easily incorporated into the molecular machinery.
- It has a low pH, which stimulates root growth.
- BAM-FX increases performance with an overall reduction in NPK.

## About BAM Agricultural Solutions, Inc.

BAM Agricultural Solutions is a next generation agribusiness focused on providing targeted, innovative and valuable solutions to challenges facing world agriculture. BAM Agricultural Solutions is using its patented platform technology to introduce a broad and evolving product line of BAM (Bio Available Minerals) precision agriculture products designed to increase crop yields and quality while also addressing crop plant mineral deficiencies and other stress related agricultural challenges. BAM-FX™, with its basic zinc/copper formula, is the company's flagship product. New formulations of BAM-FX, which add other important elements directed at specific crop and soil formulations are under development.

For more information:  
[www.bam-fx.com](http://www.bam-fx.com)