**ENGINEERED FOR HIGH PERFORMANCE GROWTH** 

# Onites<sup>2®</sup> by & AgriGro

HEALTHIER SOILS | STRONGER PLANTS | HIGHER YIELDS

# **START START STRONG START**

**IgniteS**<sup>2</sup> is formulated to get your crops out of the gate early before lack of nutrition and resulting stress can rob them of the development, health, and yield they were designed to produce.





# **FINISH STRONG.**

**IgniteS**<sup>2</sup> by Agri-Gro<sup>®</sup> contains essential soil and plant nutritional supplements not found in ordinary N-P-K fertilizers that help plants maximize yield and overcome stress from lack of nutrition. **IgniteS**<sup>2</sup> **ensures that your soil and crops are getting the nutrition they re-quire when it is needed most.** 

With **IgniteS**<sup>2</sup> you can tank mix a nutritional supplement into your normal spray or in-row starter program that has a targeted effect on the soil and plants' biological system. This effect improves soil structure, promotes healthy soil for better growing conditions, increases fertilizer efficiency, supports vibrant and robust plant growth, and boosts yields. **IgniteS**<sup>2</sup> is designed to do all that and more.

**IgniteS<sup>2</sup> supplies essential nutrients and beneficial soil and plant supplements that boost plant growth, allowing crops to reach their genetic yield potential.** Field studies have shown that crops treated with IgniteS<sup>2</sup> are healthier, have improved nutrient uptake and availability, plant growth and higher yields.

## TAL STARTS NTH. THE SOL

If your soil is like most, you probably have an abundance of insoluble nutrients that are not available to your crops. These are nutrients you have paid for, but are not receiving any benefit from. IgniteS<sup>2</sup> will harness these nutrients and put them to work for your crop during the growing season.

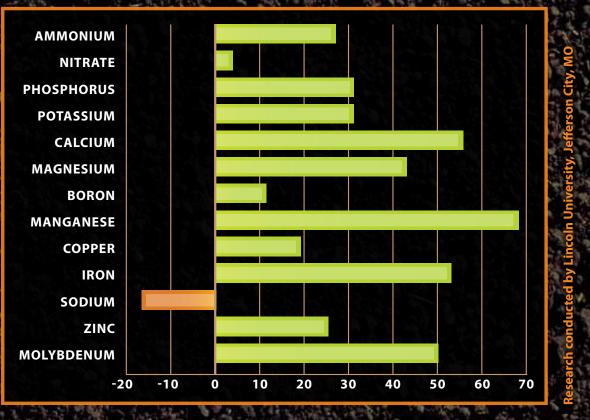
When soil applied or placed in furrow at planting, various studies have shown the active ingredients in IgniteS<sup>2</sup> trigger a natural biological process that creates an explosion of beneficial microbial growth of 3,000% or more within the first 72 hours of application. This increased enzymatic and microbial activity works to release insoluble nutrients in the soil and convert them to a soluble form plants can utilize. By improving the uptake and availability of applied fertilizers and those nutrients presently in the soil, IgniteS<sup>2</sup> helps "Get What You're Paying For" out of the soil and into the plant where it's needed.

It's time to get what you're paying for out of the soil and into the plant where it's needed. 99

This tremendous increase in the availability of nutrients has a direct effect on the growth and development of your crops, resulting in healthier, higher quality plants with better yields.

University testing has proven that when applied broadcast to the soil or placed in-furrow at planting, the active ingredients in IgniteS<sup>2</sup> create significantly higher concentrations of available nitrogen, calcium, copper, potassium, magnesium, manganese, phosphorus, boron, molybdenum, iron and zinc compared to untreated soils. IgniteS<sup>2</sup> makes more of nutrients available for deposit in the vegetative tissue as well, having a positive result on yield, test weight, and quality.

### PERCENT OF INCREASE IN NUTRIENT AVAILABILITY USING IGNITES<sup>2</sup>



In a detailed university study, the active ingredients in IgniteS<sup>2</sup> significantly increased the uptake and availability of 12 macro and micro-nutrients while lowering the levels of sodium in the soil and plant tissue.

**CONCLUSION:** IgniteS<sup>2</sup> not only improves yield and plant growth, but has the potential to reduce environmental pollution by more efficient utilization of fertilizer nutrients and thus the potential reduction of applied conventional fertilizers.

## IMPROVED MICROBIAL ACTIVITY EQUALS BETTER NUTRIENT CYCLING AND RESIDUE MANAGEMENT

In nature, when plants and animals expire, over time they decay with exposure to water, sun, air, and the family of naturally occurring micro-organisms called decomposers. However, in most commercially farmed soils, the biological activity in the soil has become very low.

This leaves partially decomposed organic matter and crop residue to accumulate, which minimizes the soil's effectiveness to transfer nutrients and creating less than ideal growing conditions for plants. The resulting consequences create a greater need for applied fertil

a greater need for applied fertilizers and chemical fungicides to sustain favorable growing conditions.

**IgniteS**<sup>2</sup> re-invigorates this natural biological process by increasing the populations of indigenous decomposing micro-organisms in the soil. **In fact, research by EMSL**  Labs, New York, NY, verified the active ingredients in IgniteS<sup>2</sup> are able to stimulate microbial activity by 3400% within 24 hours of application. This improves the natural bio-degradation process which allows the earth to recycle itself, resulting in more organic matter and the

production of humus, a valuable source of plant nutrition.

With **IgniteS**<sup>2</sup> stimulating this powerful microbial process, crops will benefit from a noticeable increase in available nutrients as well as the

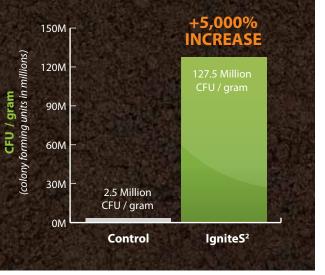
production of other plant beneficial compounds including proteins and enzymes, and physical improvements to the soil strata these microbes generate. The plant/ soil system becomes healthier and more efficient in its uptake of nutrients, requiring less water and less conventional N-P-K fertilizer to produce higher crop yields.

#### SOILS WITH LOW LEVELS OF MICROBIAL ACTIVITY WILL NOT BE AS PRODUCTIVE AS THOSE WITH ELEVATED LEVELS OF BENEFICIAL MICRO-ORGANISMS, *REGARDLESS OF THE AMOUNT OF FERTILIZER APPLIED*.

### QUALITY OVER QUANTITY

While high microbial populations in a growing environment are important, a better indication of a soil's health and production capabilities are the types of microbes involved. This brings to light another advantage of **IgniteS**<sup>2</sup>, the ability to elevate the numbers of beneficial species.

Research by EMSL Labs, New York, NY, verified IgniteS<sup>2</sup> was able to stimulate microbial activity by **5**,000% within 24 hours of application.



## **BENEFITS AT A GLANCE**

- Supports plant growth and development from seed germination and early plant growth through harvest, and from root to tip.
- Significantly improves return on investment.
- Improves the availability of resident soil minerals and fertilizer materials.
- Improves crop quality and yields.

- Improves soil structure; tilth, porosity, and friability.
- Minimizes the impact of pH extremes.
- Improves water management within the soil.
- Aids in the detoxification of pollutants (chemical residues, salts).

## **RESEARCH RESULTS**

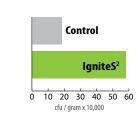
Molybdenum is essential for nitrogen fixation in all legumes. When applied at 16oz. per acre in furrow at planting, **IgniteS**<sup>2</sup>, which contains Molybdenum in chelated form, allows soybeans to reach their full potential by supporting maximum nitrogen nodulation.

#### **Corn Research**

11.3 Bushel / Acre Increase in Yields When applied at 16oz/acre in furrow, at planting. Irrigation Research Foundation. Yuma, CO. 2011

#### **Supporting Plant Health**

IgniteS<sup>2</sup> treated plots showed increased levels of Mn reducing bacteria by an average 214% in corn. Mn reducing bacteria transform manganese to a plant available form. USDA & University of Missouri. Roundup Ready™ Corn Research. Replicated Research, Two Year Average.



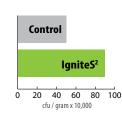
Control (196.2 BPA)

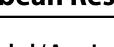
IgniteS<sup>2</sup> (207.5 BPA)

183 188 193 198 203 208

bushels / acre

IgniteS<sup>2</sup> treated plots showed increased levels of Fluorescent Pseudomonad Bacteria by an average 80% in corn. Fluorescent Pseudomonad Bacteria are generally associated with beneficial effects of the rhizosphere bacterial community. USDA & University of Missouri, Roundup Ready™ Corn Research Replicated Research, Two Year Average,





#### Control (79.2 BPA)

IgniteS<sup>2</sup> (85.8 BPA)

78 80 82 84 86 76 bushels / acre



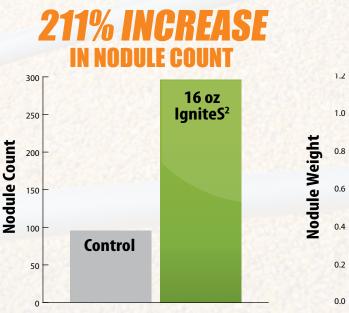
20 40 60 80 100 0 cfu / gram x 10,000

#### Control

IgniteS<sup>2</sup>

0 20 40 60 80 100 120 cfu / gram x 10,000

No Treatment



16 oz IgniteS<sup>2</sup>

In Furrow

**57% INCRE** 



**Research by University of Arkansas. 2011** 

#### **Soybean Research**

#### 6.6 Bushel / Acre Increase in Yields

When applied at 16oz/acre in furrow, 2x2. Irrigation Research Foundation. Yuma, CO. 2012

#### **Supporting Plant Health**

IgniteS<sup>2</sup> treated plots showed increased levels of Mn reducing bacteria by an average 89% in soybeans. Mn reducing bacteria transform manganese to a plant available form. USDA & University of Missouri. Roundup Ready<sup>™</sup> Soybean Research. Replicated Research, Two Year 3 Study Average

IgniteS<sup>2</sup> treated plots showed increased levels of Fluorescent Pseudomonad Bacteria by an average 256% in soybeans. Fluorescent Pseudomonad Bacteria are generally associated with beneficial effects of the rhizosphere bacterial community. USDA & University of Missouri, Roundup Ready™ Soybean Research Replicated Research, Two Year Average.

#### **APPLICATION DIRECTIONS**

**BROADCAST SOIL APPLICATION:** To enhance nutrient uptake and availability and improve crop residue management, IgniteS<sup>2</sup> should be soil applied in the spring and/or fall at a rate of 1-2 pints per acre, per application.

**IN ROW / STARTER APPLICATION:** IgniteS<sup>2</sup> should be applied in-furrow or 2x2 with all liquid starters at a rate of 1-2 pints per acre at planting.

IGNITES<sup>2</sup> CAN BE APPLIED THROUGH STANDARD GROUND OR AERIAL APPLICATION EQUIPMENT AND MAY BE MIXED WITH MOST HERBICIDES, PESTICIDES, FUNGICIDES AND CONVENTIONAL LIQUID FERTILIZERS.

#### IgniteS<sup>2</sup> is available in:

- 5 gallon boxes
- 55 gallon drums
- 275 gallon totes

#### Formulated for all:

- field crops
- fruit crops
- vegetable crops

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**IgniteS**<sup>2</sup> can take your yields and profits to the next level. To maximize yields, support overall plant health, and boost profits even further, continue treating established crops with **FoliarBlend**<sup>®</sup> by Agri-Gro<sup>®</sup>. Please contact your local distributor or visit us online at www.agrigro.com to learn more about **FoliarBlend**<sup>®</sup> and the other fine products offered by Agri-Gro Marketing, Inc.



#### WWW.IGNITES2.AGRIGRO.COM

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