

# Vital Start®

100% water soluble starter fertilizer specifically designed for row crops and vegetables.



**Specially  
balanced formula**  
to **BOOST** germination  
and initial growth!

**Vital Start®** is a pop-up starter fertilizer with a special nutritional balance that enhances hybrid vigor. It boosts the development of emerging seedlings by supplying essential nutrients close to the root system. Ensuring rapid crop establishment and early growth is desirable since plant development and yield can be influenced by it.

**Vital Start®** has been added with **RBT™ Root Bioenhancer Technology**— which is the combination of organic acids in precise balance with inorganic nutrients that boost root biomass development and increase nutrient uptake by an improved interaction between soil and root system.



Powered by **RBT™**  
Root Bioenhancer Technology

Vital Start® is a key part of **Vital Plant Nutrition Program™**



**Vital Plant Nutrition Program™** is a complete plant nutrition system developed for row crops and some specialty crops, for farmers who are constantly seeking more yields and better quality of harvest through proven water-soluble nutrient technology. Our proposal is based on multi-nutrient and well-balanced formulations added with organic acids to enhance crop performance. Our program consists of a pop-up starter fertilizer and three *Hi-specialty* fertilizers, that can be applied either straight or combined, designed to fit specific needs of any crop and any farmer.





# Eight balanced nutrients plus organic acids\* in one formula

**17-44-3 + 1.2S + 0.09Fe + 0.19Zn + 0.02Mn + 0.01B + 0A\***

- ✓ Improves seed emergence and crop uniformity by providing nutrients from the start.
- ✓ Fosters earlier crop maturity by stimulating swift development.
- ✓ Improves crop yields; using a starter fertilizer as part of a complete fertilization program improves crop performance and yield.
- ✓ Reduces weed competition by depositing nutrients under the surface and earlier crop canopy development is achieved.

## Directions for Use

### How to prepare **Vital Start**® solution



#### ADD

Vital Start dry WS product to water to produce a stock solution. (see Chart 1)



#### AGITATE

stock solution thoroughly



#### APPLY

at a rate of 3 to 8 gal/acre at planting, according to crop and soil conditions. (see Chart 2)

Fill the tank with clean water to 82% of its capacity, then add 3.57 lb of **Vital Start**® per each gallon of water added; final stock solution obtained must reach 100% of the tank capacity. Be sure to dissolve the product completely with constant agitation during the mixing process.

Mix				Final Stock Solution Properties			
Water	+	<b>Vital Start</b> ®	=	Volume	Weight	Weight per Gal	Conc.* (weight/weight)
15.4 gal	+	<b>55.11 lb</b>	=	19 gal	184 lb	9.73 lb	30%
8.4 gal	+	<b>30 lb</b>	=	10.3 gal	<b>100 lb</b>	9.73 lb	30%
82 gal	+	<b>292 lb</b>	=	<b>100 gal</b>	973 lb	9.73 lb	30%
<b>100 gal</b>	+	<b>357 lb</b>	=	122 gal	1,191 lb	9.73 lb	30%

\* Weight/weight concentration, obtained with water at a temp. of 20°C / 68°F; for water at lower temperature, reduce the stock solution concentration and increase the application rate accordingly. Some measurements were rounded to facilitate field mixing.

### How much to **apply** of **Vital Start**® solution

**Vital Start**® can be incorporated into the soil, or applied over the seed, either as a pop-up or in a zone or band in the soil at a minimum depth of 2 to 4 inches. In accordance with concentration of solution (see Chart 1) and soil texture/organic matter content (see Chart 2), apply 3 to 8 gal of **Vital Start**® per acre.

For crops under irrigation, higher application rates may be used.

Crop	Application rate (gal/acre) according to soil texture and organic matter content.		
	Sand Low O.M.**	Clay Med O.M.**	Silt High O.M.**
Sugar Cane	5	6	8
Corn	4	5	6
Wheat/Sorghum	4	5	6
Soybeans	4	5	6
Sunflowers	4	5	6
Cotton	3	4	5
Vegetables	3	4	5

\*\*Sand/Low O.M.: less than 1.5% organic matter.

\*\*Clay/Med O.M.: from 1.5% to 2.0% organic matter.

\*\*Silt/High O.M.: more than 2.0% organic matter.

With regard to conditions not shown on these charts, please contact your crop advisor or a Vital Fertilizers® representative.

**Vital // Hi-Calc**  
Plant Nutrient Calculator



**Vital Plant Nutrition Program**™ is supported by **Vital Hi-Calc**® a simple yet powerful plant nutrient calculator that allows the farmer to determine:

- ✓ **How to prepare stock solutions**—choose volume of water, bags or concentration.
- ✓ **Create straight fertilizer solutions**—all Vital products are NPK balanced formulations with a high concentrated key nutrient.
- ✓ **Create your own nutrition programs**—combine all three lines of products to design your own formula.
- ✓ **Follow suggested nutrition programs**—direct recommendations per crop from our Crop Nutrition Specialist.
- ✓ **Set application rates**—according to stock solution concentration, and determine gallons to apply per acre and final formula obtained after combining our Vital Hi-N®, Vital Hi-P® and Vital Hi-K® products.
- ✓ **Create versatile N-rich solutions**—by combining Vital Hi-N® urea based and Vital Hi-N® nitrate based you can balance three forms of nitrogen plus extra macro and micronutrients and organic acids.



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