

Vital Hi-N®

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



TWO balanced formulas to meet all nitrogen and key nutrients needs!

Urea-based formula + organic acids

Vital Hi-N® 30-12-7 is a urea-based water-soluble NPK fertilizer with an important balance of key nutrients and micronutrients, formulated to enhance overall growth and plant development, for an extended period of time after application. Urea and ammonium nitrogen, as a cost-efficient nitrogen sources, will remain in the soil until it is transformed and absorbed by the plant.

Nitrate-based formula + organic acids

Vital Hi-N® 24-9-5 is a nitrate-based water-soluble NPK fertilizer with secondary nutrients and micronutrients designed as a balanced formula to increase plant biomass and enhance root development. Provides two forms of nitrogen, ammonium and nitrate, to obtain a phytotonic effect and a significantly rapid plant response to massive growth.

Both Vital Hi-N® formulas, urea-based and nitrate-based, have 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 Hi-N® 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.



Seven nutrients, three forms of nitrogen plus organic acids* in two formulas

✓ **30-12-7 + 3.5S + 0.89Mg + 0.09Fe + 0.18Zn + OA***
(Urea based)

✓ **24-9-5 + 3S + 0.8Mg + 0.07Fe + 0.14Zn + OA***
(Nitrate based)

By mixing these two formulas, you will obtain three different forms of nitrogen: nitrate, ammonium, and urea. By using them straight, each bag provides two forms of nitrogen: urea-ammonium (30-12-7) or nitrate-ammonium (24-9-5).

Directions for Use

How to prepare Vital Hi-N® solution



ADD

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



AGITATE

stock solution thoroughly



APPLY

at a rate of 8 to 66 gal/acre, according to crop and soil conditions. (see Chart 2 and/or 3)

Fill the tank with water to 80% (30-12-7) or 85% (24-9-5) of its capacity, then add 3.57 lb (30-12-7) or 2.78 lb (24-9-5) of Vital Hi-N® 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		=	Stock Solution Properties			
	Water	+ Vital Hi-N®		Volume	Weight	Weight per Gal	Conc.* (weight/weight)
30-12-7	15.4 gal	+ 55.11 lb	=	19.3 gal	183 lb	9.50 lb	30%
	8.4 gal	+ 30 lb		10.5 gal	100 lb	9.50 lb	30%
	80 gal	+ 285 lb		100 gal	950 lb	9.50 lb	30%
	100 gal	+ 357.3 lb		125 gal	1,191 lb	9.50 lb	30%
24-9-5	19.8 gal	+ 55.11 lb	=	23.5 gal	220 lb	9.40 lb	25%
	9 gal	+ 25 lb		10.6 gal	100 lb	9.40 lb	25%
	84.5 gal	+ 235 lb		100 gal	940 lb	9.40 lb	25%
	100 gal	+ 278 lb		118 gal	1,112 lb	9.40 lb	25%

* 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 Hi-N® solution

CROP	Sand**	Clay**	Silt**	# Applications
Corn	27	32	40	1
Soybeans	16	22	27	1
Cotton/Sunflowers	22	22	27	1
Wheat/Sorghum	8	10	12	1
Greens	22	27	32	2-3
Vegetables	27	32	40	2-3
Sugar Cane	34	40	50	2-3

CROP	Sand**	Clay**	Silt**	# Applications
Corn	35	40	53	1
Soybeans	21	26	35	1
Cotton/Sunflowers	22	26	35	1
Wheat/Sorghum	11	13	14	1
Greens	26	33	38	2-3
Vegetables	35	40	53	2-3
Sugar Cane	44	50	66	2-3

**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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