



# HI-N 12-0-1 WDF



**KNOWN WORLDWIDE FOR SIMPLY THE BEST...  
...NATURAL FERTILIZER & SOIL BUILDERS!**

## FOR CERTIFIED, ORGANIC PRODUCTION

### SUSTĀNE HI-N 12-0-1 WDF BENEFITS

- A high analysis mix of soluble organic nitrogen sources
- Increases greening and plant growth
- Includes additional nutrients to promote efficient nitrogen uptake
- Contains naturally occurring humates
- Promotes root growth and activity
- Works well in all types of hydroponic systems
- Can be used to fortify compost teas
- Useful as a foliar fertilizer
- A key component of any fertigation program

### SETTING STANDARDS IN ORGANIC PLANT PRODUCTION

- Developed and tested with progressive, commercial growers and leading University researchers
- Sustāne Hi-N WDF has balanced levels of macro-, meso-, and micro-nutrients to promote efficient root uptake and more vigorous plant growth
- WDF mixes and disperses readily with water and contains very low levels of insoluble organic carriers
- Sustāne Hi-N WDF is pathogen, contaminant and weed seed free, allowed for export worldwide.
- Contains no blood, guts, bone, or meat-by products nor does it contain sewage sludge (biosolids) or industrial waste materials.
- Sustāne Hi-N WDF is an organic, National Organic Program compliant material
- Quality controlled by Sustāne in the USA at an EPA-permitted composting facility.



### HI-N 12-0-1 WDF

Sustāne Hi-N WDF is a high analysis, water dispersible, nitrogen fertilizer. It is specially formulated to promote rapid and durable greening and plant growth. Sustāne Hi-N WDF efficiently delivers a unique blend of soluble organic nitrogen sources to support plant growth. It can be used on diverse plants produced in a wide variety of growing systems.

### SUSTĀNE HI-N 12-0-1 WDF

- Is designed for use in hydroponics and greenhouse fertigation programs
- Useful as a starter fertilizer and for foliar feeding
- Ideal for fortifying compost teas

### RECOMMENDED USE

Application rates of Sustāne water dispersible fertilizers should be made based according to a crop's nutritional needs and tolerance for salt stress (see reverse). WDF should be diluted in water and mixed well prior to application. For best results, add package contents to fresh water in clean containers with mixing as described below.

Preparation of a homogenous solution is critical to successful fertigation. It is highly recommended that growers prepare a base concentrate of Sustāne's WDF in a bucket of water and then mix the concentrated solution into a larger volume of reservoir water to ensure proper mixing prior to dispensing.

Prepare a concentrate of 0.5 lb. of powder per gallon of water in your reservoir. Add the powder slowly while stirring until the required amount has gone into solution. Use a pre-filter screen on the reservoir's injector line. After the concentrate is fully mixed, let the solution sit for 15 minutes before placing the injector hose into reservoir.

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# HI-N 12-0-1 WDF

## FERTIGATION RATES & USE



Recommended use continued

Make sure the intake end is not touching the bottom of the reservoir and allow injector to pump all but 2% of the concentrate volume to avoid uptake of any contaminating grit that might rapidly clog intake screens. After fertigation, the remaining concentrate may be fully diluted and injected directly as part of the initial flush.

Apply fertigation solutions ONLY when temperatures are above 50°F (11°C) and below 85°F (30°C). Commercial users should check the pH and EC of the prepared fertigation solutions to make sure they are within acceptable ranges for their specific crops.

When diluted correctly, this product can be applied to plants through high volume, wide bore sprayers and piped irrigation lines. Pre-filtering is required to prevent clogging of narrow gauge lines and emitters. To minimize risks of clogging and biofouling, install lines with the widest bore that is practical and use the highest flow rates that work with that irrigation system. Be sure to flush all lines with water after each fertigation and fully clean lines on a monthly basis.

### APPLICATION RATES...

#### FOR HYDROPONICS & GREENHOUSE FERTIGATION

Use up to 2 lb. of Sustane WDF per 100 gallons of water for finished solutions with up to 300 PPM of N. To do so, prepare a base concentrate by thoroughly mixing 0.5 lb. powder per gallon of water (or 60 g per liter). This base concentrate can then be diluted into 50 to 150 volumes of water to obtain working solutions of various strengths. Working solutions can be applied regularly depending on crop demand and growing conditions.

##### Nutrients Supplied (PPM)

Volume of Base Conc.	Volumes of Water	Fertilizer Strength	N	P	K	S	Ca	Mg	Fe
1	75	Low	100	0	8	4	0.2	0.05	0.01
1	37	Medium	200	0	17	8	0.4	0.1	0.02
1	25	High	300	1	25	12	0.6	0.2	0.03

#### FOR FIELD CROP STARTER FERTILIZER

For in furrow and side dress drench applications, apply up to 40 lb. of Sustane Hi-N WDF per acre in no less than 200 gallons (45 kg per hectare in no less than 780 liters of water) of solution. To do so, mix up to 0.2 lb. of powder with each gallon (or 25 g per liter) of water while filling the mixing tank. Ensure powder is fully dissolved before application. Apply within 4 hours of preparation. Rinse applicator tank and pump lines thoroughly with water immediately following application to avoid clogging.

#### FOR FOLIAR FEEDING

For foliar applications to fruiting crops, apply up to 3 lb. of Sustane Hi-N WDF per acre using 100 gallons of water (3.5 kg per hectare using 1000 liters of water). To do so, prepare a base concentrate by thoroughly mixing 0.3 lb. of Sustane Hi-N WDF per gallon of water (36 g per liter). This base concentrate is then diluted 1:10 with water in the spray tank to prepare the working solution for foliar feeding. Apply 100 gallons per acre (or 1,000 liters per hectare) one to four times per season. Apply working solution within 4 hours of preparation. Rinse sprayer thoroughly with water immediately following application to avoid clogging.

#### FOR TURF

For turf applications, use 0.9 lb. of Sustane Hi-N WDF per 1,000 square feet using 2 gallons of water (500 g per 100 square meters using 7.8 liters of water). To do so, mix in 0.45 lb. Sustane Hi-N WDF per gallon of water while filling the applicator's reservoir tank. With constant agitation, apply 2 gallons of working solution per 1,000 square feet (7.5 liters per 100 square meters) of turf to provide 0.1 lb. of N per 1,000 square feet. Apply working solution within 4 hours of preparation. Rinse sprayer thoroughly with water immediately following application to avoid clogging.

### SUSTANE HI-N 12-0-1 WDF

Available in 1 lb. and 3 lb. canisters, and 20 lb. pails.

Item #	Package Size	Units / Case	Units / Pallet
Hi-N 12-0-1 WDF			
70-55-2001	1 lb. jar	12 / case	40 cases / pallet
70-55-2003	3 lb. canisters	12 / case	40 cases / pallet
70-55-2011	20 lb. 5-gallon pail ---		48 pails / pallet IX.IX.MMXX

##### Hi-N 12-0-1 WDF Guaranteed Analysis

Total Nitrogen (N) .....	12.0%
0.2% Ammoniacal Nitrogen	
0.9% Nitrate Nitrogen	
0.3% Water Insoluble Nitrogen	
10.6% Other Water Soluble Nitrogen*	
Soluble Potash (K <sub>2</sub> O) .....	1.0%
<i>Derived from hydrolyzed plant protein, aerobically composted turkey litter, sodium nitrate, sulfate of potash, and langbeinite.</i>	
*0.5% slowly available nitrogen from aerobically composted turkey litter	
100% Fertilizer Ingredients	