

OASIS[®] Grower Solutions Complete Fertilizer Balanced Nutrients for young plants and initial hydroponic production

Use Directions

Instructions for fertilizer usage during propagation (young plant production)

- Use OHF 16-4-17 with the initial watering of Horticultes[®] and Horticultes[®] XL
- The recommended rate during the whole course of propagation, i.e., from initial watering of the media until transplant, is 125 ppm N.
Note: Please refer to the Horticultes[®] / Horticultes[®] XL protocol sheet for the appropriate initial watering practices.
- OHF 16-4-17 is recommended both for overhead irrigation and sub-irrigation systems.

Instructions for fertilizer usage during production (young plant production)

- The recommended rate during production is 150 ppm N for most of the lettuce varieties, 125 - 150 ppm for spring mix lettuce, arugula, and watercress, and 175 ppm N for basil
- For the most effective use of OHF 16-4-17, please test your water with a horticultural testing lab

General fertilizer instructions

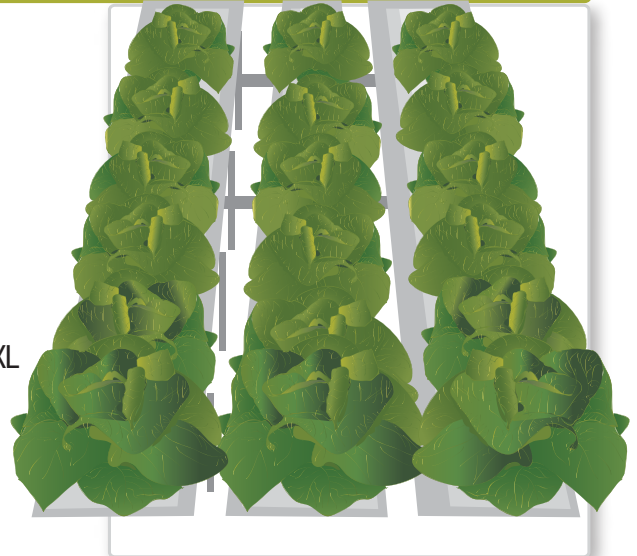
- OHF 16-4-17 can be applied by directly preparing the final use solution by an injector, or by an automated dosing system
- The following chart contains suggested amounts of fertilizer to make a 100-gallon fertilizer solution at 125 ppm N and its corresponding EC values (mS)

*Note: When making the final use solution, dissolve the amount in 100 gallons of water.
When using a 1:100 injector, dissolve in one gallon of water to make stock solution.
When using automated dosing system, use the EC values.*

Desired N Rate (ppm)	oz.	EC (mS)
125	10.5	0.98
150	12.6	1.17
175	14.7	1.37

- The following are the elemental ppm concentrations that will be obtained with 125 ppm N, 150 ppm N, and 175 ppm N.

ppm N	NO ³	NH ⁴	P	K	Ca	Mg	Fe	Mn	Zn	B	Mo	Cu
125	97.5	27.38	13.25	107.50	30.50	15.25	1.54	0.38	0.39	0.13	0.06	0.06
150	117.00	32.85	15.90	129.00	36.60	18.30	1.85	0.45	0.47	0.15	0.08	0.08
175	136.50	38.33	18.55	150.50	42.70	21.35	2.15	0.53	0.54	0.18	0.09	0.09



150 ppm



125 - 150 ppm



175 ppm

- EC value is the best method to determine the fertilizer strength. Remember to factor in the EC of the starting water. For example: at 125 ppm, the EC of the nutrient solution will be $.975$ plus EC of the starting water
- The pH target for the fertilizer solution is 6.0 (OHF 16-4-17 is a neutral formulation)
- For propagation, where the fertilizer solution is typically not recirculated, it is not required to constantly monitor and adjust the EC and pH
- For production, and in some cases of propagation where the fertilizer solution is recirculated, monitoring and adjusting the EC and pH of the final solution on a daily basis is crucial for optimal performance
- If an acidifier is being utilized, sulfuric acid is recommended to lower the solution pH to 6.0. This also will allow for additional sulphur to be incorporated into the final nutrient solution
- For best results during production, the water alkalinity should be greater than 80 ppm CaCO_3 . For water with alkalinity between 40 ppm and 80 ppm CaCO_3 ppm, growers should incorporate Jack's Hydroponic pH adjuster (by J. R. Peters Inc.) as directed to raise the pH. The Jack's Hydroponic pH adjuster will also allow for additional sulphur and magnesium to be incorporated into the nutrient solution



* Not for use as a foliar feed.