## **Fertilizer Stock Solutions for Hydrosol**

B.A. Kratky

Scotts recommends 130 oz Hydrosol 5-11-26 plus 86 oz calcium nitrate per 1000 gal of growing solution.

## For Lettuce

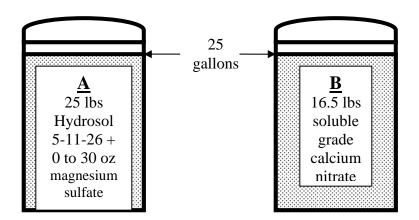
Stock solution A consists of 25 lbs Scotts Hydrosol 5-11-26 in a total of 25 gal of solution. In addition the grower may also choose to add up to 30 oz magnesium sulfate. This fertilizer contains a slightly lower than desired concentration of magnesium sulfate because the water in some locations is high in magnesium. Water is Hawaii is typically low in magnesium.

Stock solution B consists of 16.5 lb of soluble grade calcium nitrate in a total of 25 gal of solution.

Stock solutions are added in equal volumes to prepare a nutrient solution with an electrical conductivity (EC) of 1.5 mS. If one does not have an electrical conductivity meter, then 3/4 ounce or 1.5 tablespoon of stock solution A plus 3/4 ounce or 1.5 tablespoon of stock solution B should be added to each gallon of water in the growing tank.

One inch of water depth on 1 square foot = 0.625 gal of water.

Therefore, one inch of water in a 4 ft x 8 ft tank (32 sq. ft.) = 20 gallons. Five inches of water in a 4 x 8 ft tank which is 5 inches deep = 100 gallons and would require 75 ounces of stock solution A and 75 ounces of stock solution B.



Each stock solution should have its own measuring cup and stirring rod. Stock solutions should be kept separate when in a concentrated form, because they will react. However, these solutions do not react when mixed in the dilute growing solution.