**Mixing Water Soluble Fertilizer**

**The Rule of 75***1 ounce per 100 gallons = 75 ppm*   
Where did this come from? One ounce (28.35 grams) of any pure dry substance that will dissolve 100% in a volume of 100 gallons of water equals 75 ppm   
1 ounce = 28.35 grams or 28,350 milligrams 28,350 milligrams ÷ 378 liters = 75 ppm (1gallon = 3.78 liters or 100 gallons = 378 liters)

**Calculating PPM**a = desired parts per million  
b = dosimeter setting for gallons of water  
c = 75 (constant from The Rule of 75)  
d = percent Nitrogen in fertilizer (we are using 20-20-20, N-P-K)

**Formula**a x b  
c x d  
  
**Sample Calculation for 500 PPM**500 x 100 = 50000 = 33.33 oz fertilizer / gallon of water in stock sol  
75 x 20 1500  
  
**Stock Solution**Four gallons of water in the stock solution because we are using a five gallon bucket  
33.33 oz of fertilizer x 4 gallons of water = 133.33 oz of fertilizer per four gallons of water  
  
**Convert oz to lbs**  
16 oz = 1 lbs  
133.33 oz of fertilizer / 16 oz per lbs = 8.33 lbs

**Convert the Decimal part tto oz**8.33 lbs is 8 lbs and .33 lbs   
Need to convert the .33 lbs to oz  
.33 lbs / 16oz = 5.33 oz  
Grand total of 8 lbs and 5.33 oz of fertilizer per four gallons of water

**Summary**  
If you have your Dosmatic set at a ratio of 1:100 (1%) and you want 500 ppm N to reach your plants and you have a four gallon stock solution you will need 8 lbs 5.3 oz of 20-20-20 water soluble fertilizer to mix with your four gallons of water.