Fertilizer Question/Answers

Question: How much fertilizer do I put in my stock tank with a injector?

Answer: This depends on a few things...

- Whether you have a fixed injector or one that can be changed
- What PPM (parts per million Nitrogen) you want to be feeding at
- Use the following Charts decide how much grams/L to use

For any fertilizer that has 20%N(20-8-20, 20-20-20 etc.) (grams/liter of concentration)							
Injector	100ppm	150ppm	200ppm	250ppm	300ppm	350ppm	400ppm
1:200	100	150	200	250	300	350	400
1:150	75	112.5	150	187.5	225	262.5	300
1:128	64	96	128	160	192	224	256
1:100	50	75	100	125	150	175	200
1:50	25	38	50	62.5	75	87.5	100

For any fertilizer that has 15%N (15-15-30, 15-30-15 etc.) (grams/Liter of concentration)							
Injector	100ppm	150ppm	200ppm	250ppm	300ppm	350ppm	400ppm
1:200	133	200	260	333.33	400	466.67	533.33
1:150	100	150	200	250	300	350	400
1:128	85.33	128	170.67	213.33	256	298.67	341.33
1:100	67	100	133	166.67	200	233.33	266.67
1:50	34	50	67	83.3	100	116.66	133.33

Question: How do I figure that out for a different injector ratio?

Answer: There is a equation that you can use to figure out any rate for any injector or fertilizer.

X = (Desired ppm x Dilution Factor) / (Percent Nitrogen x Conversion Constant)

Desired ppm = what you want to be feeding at

Dilution Factor = the biggest number in your injector rate (Ex, 1:200, Dilution Factor is 200)

Percent Nitrogen = the first number in your fertilizer (Ex. 10-52-10, Percent Nitrogen is 10)

Conversion Constant = Different depending on what you are trying to figure out but in general they are:

Conversion Constant by Measurement Units	
Units	Conversion Constant
Ounces of fertilizer per gallon	75
Pounds of fertilizer per gallon	1200
Grams of fertilizer per liter	10

Example:

How many grams/L would be needed to get 300ppm if I have a injector ratio of 1:250 using a 10-52-10 fertilizer.

X = (Desired ppm x Dilution Ratio) / (Percent Nitrogen x Conversion Constant)

Desired ppm = 300

Dilution Ratio = 250

Percent Nitrogen = 10

Conversion Constant = Use chart on previous page. Grams/L = 10

X = (300 x 250) / (10 x 10)

X = 75,000/100

X = 750grams/L of stock solution

Question: What is Electrical Conductivity and do I need to know about it and will it affect my plants?

Answer: Electrical Conductivity (E.C) is the measure of total dissolved salts in a solution, the factor that influences a plants ability to absorb water as well as nutrients. So yes, it is very good to know what it is. It is a very easy way to measure fertilizer level. Every fertilizer should have a Conductivity Chart showing what the EC is at various PPM. Water in general has a E.C Value. So to check what value your E.C is giving you check the water that is coming into your greenhouse and get a E.C. and then check what the EC is after you add fertilizer to it. Subtract the first E.C and then verify it to the chart to show you how much fertilizer you are adding to the water. Below is the Conductivity Chart for our Water Soluble products. Every fertilizer is different. Omex has very low salt in their fertilizer which makes it beneficial to your plants.

Conductivity Chart (mmhos)				
	20-20-20	**15-30-15**	**15-15-30**	**20-8-20**
100ppm	0.41	0.6	0.53	0.48
150ppm	0.61	0.88	0.77	0.7
200ppm	0.82	1.16	1.05	0.95

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