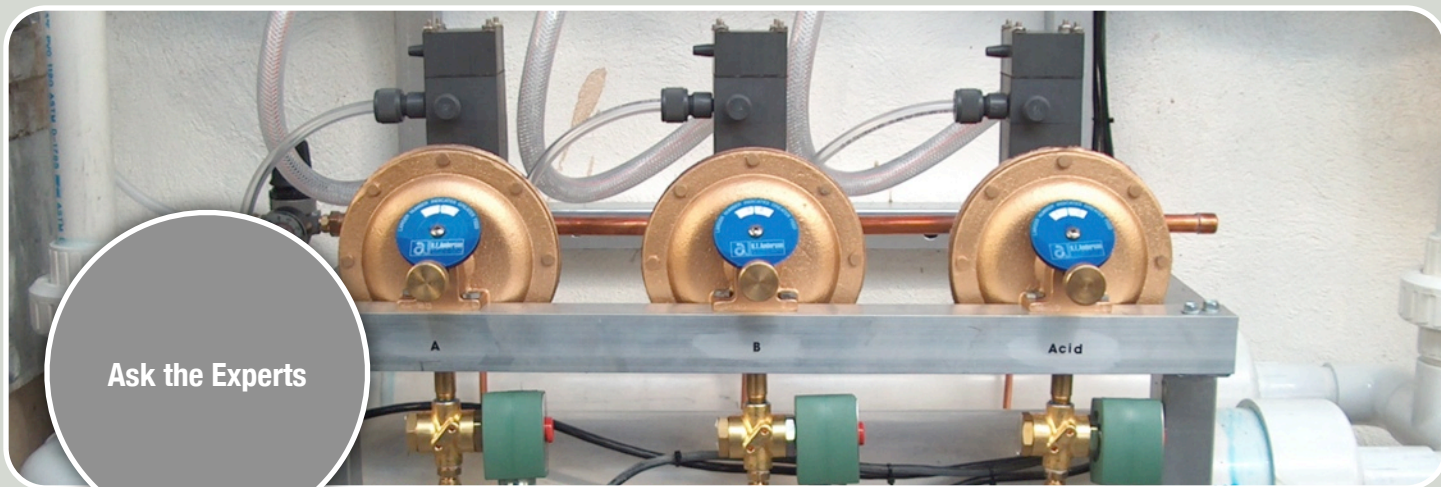


GREENHOUSE - Q AND A

TIPS AND ADVICE

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Ask the Experts

Question : How much fertilizer / mixing rate

We get asked with this one everything we do an injector installation.

Here's a simple easy little trick. It doesn't matter what type of fertilizer that you are using (pre formulated or single source). Here's a great method. If you take 10 grams of any fertilizer and throw it into 100 liters of water PPM = percentage. Its quite simple. But.... because of the fertilizers act, phosphorus content is expressed as phosphoric acid and potassium is expressed as soluble potash one has to divide the phosphorus (phosphoric acid) by 2.23, and the potassium (soluble potash) by 1.21 . Other others PPM = percentage if 10 grams is added to 100 liters water.

So lets say a grower is injecting at 1:100 ratio. They want 150 PPM of Nitrogen (N) and is using 20-20-20 fertilizer.

At 1:100 injection one liter of stock solution is equal to 100 liters of irrigation water. Stock solution is the fertilizer dissolved fertilizer in solution.

150 PPM target/20 % Nitrogen (N) = 7.5

Therefore for every liter of water in the stock solution tank if you add $10 \times 7.5 = 75$ grams of 20-20-20. This will get the nitrogen levels up to 150 PPM.

What about phosphorus well it will be $150/2.23 = 67$ PPM

and potassium it will $150/1.21 = 123$ PPM

And if furnished with a trace package --- simply

multiply the % of each by the factor 7.5 and you have them in PPM as well.

What PPM of Calcium (19% CA) is added when 60 grams of Calcium Nitrate is added to a litre of stock solution and the injection ratio is 1:100.

$$60/10 = 6 \text{ and } 6 \times 19 = 114 \text{ PPM Ca}$$

and if the Nitrogen % in the Calcium Nitrate is 14.5%, then the contribution of nitrogen will be 87 PPM.

It's not that confusing if you think about it for a while.

If you have any questions please feel free to contact our office.

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*Consultants, Suppliers and Installer to the
Commercial Greenhouse Industry*

