

E R G O F I T O I N A C T I O N

Give Nature What Nature Wants

## Hydroponics



ERGOFITO

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## **HYDROPONICS:**

Hydroponics is a subset of hydro culture and a method of growing plants using mineral nutrient solutions in water without soil.

Terrestrial plants may be grown with their roots in the mineral nutrient solution only or in an inert medium, such as perlite, gravel, biochar, mineral wool, expanded clay pebbles or coconut husk.

Hydroponics is applied in two main types:

- Solution Culture
- Medium Culture

Which are divided in Sub-irrigation and Top irrigation.

The practiced hydroponics systems are:

- Static Solution Culture
- Continuous Flow Solution Culture
- Aeroponics
- Passive Sub Irrigation
- Ebb and Flow or Flood and Drain Sub Irrigation
- Run to Waste
- Deep Water Culture

Irrespective of the hydroponic system applied, the plant's needs remain the same. Nutrients in hydroponics are dissolved in water, the plant's weak points remain similar. Some of the problems in hydroponics are:

- Without soil as a buffer, any failure to the hydroponic system leads to rapid plant death.
- Pathogen attacks such as damp-off due to Verticillium wilt caused by the high moisture levels associated with hydroponics and over watering of soil based plants.
- Many hydroponic plants require different fertilizers and containment systems.

In order to manage and improve nutrients root absorption allowing the plant to better perform as well as fending off diseases, beneficial microbiological balance in the form of **Ergofito Universal Plus** is advisable.

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## **APPLICATION METHOD:**

**Ergofito Universal Plus** can be applied either in the water with the normal fertilization application or via foliar. In both ways, **Ergofito Universal Plus** will eliminate all exudates which promotes fungi that grows out of the structure and towards the plant. Once the pathogen enters the host, it makes its way to the vascular system, and specifically the xylem. The fungi can spread as hyphae through the plant, but can also spread as spores. Verticillium produce conidia on conidiophores and once conidia are released in the xylem; they can quickly colonize the plant.

## **Apply as follows:**

In hydroponics, the plants density is generally 12 500 plants per hectare. **Ergofito** dosage in hydroponics is 3 grams of **Ergofito Universal Plus** per plant for its full cycle from sapping to harvest. The said 3 grams per plant is calculated as an overall single irrigation system, the required total of **Ergofito Universal Plus** is simply added to the circulating water when the usual fertilization is applied. In the case where the Run to Waste system is used, it is advisable to apply **Ergofito Universal Plus** via foliar.

### **First Application:**

<b>A p p l y</b>	<b>W h e n</b>	<b>Q u a n t i t y</b>
<b>Ergofito Universal Plus</b>	When Plants are Placed	1 Gram per Plant

### **Second Application:**

<b>A p p l y</b>	<b>W h e n</b>	<b>Q u a n t i t y</b>
<b>Ergofito Universal Plus</b>	When Plant Flowers or 20 days Later	1 Gram per Plant

### **Third Application:**

<b>A p p l y</b>	<b>W h e n</b>	<b>Q u a n t i t y</b>
<b>Ergofito Universal Plus</b>	20 Days Later from Above	1 Gram per Plant

***Refer to “Ergofito Benifets” literature for a full list of advantages and benefets.***



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