



## CROP RESEARCH & DEVELOPMENT UNIT

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## WHAT IS FERTIGATION?

Fertigation is the application of fertilizers, soil amendments, or other water-soluble products through an irrigation system.



Fertigation is used to spoon-feed nutrients to plants.

## WHY USE FERTIGATION?

1. **Higher yields and better quality crops:** The supply of nutrients to the crops according to the physiological stage, considering the climate and soil characteristics, resulting in high yields and high quality crops.

2. **Increased efficiency of nutrients:** Nutrients are applied to the root zone and uniformly, where the active roots are concentrated. Less fertilizer applied resulting on decrease of production costs.

3. **Reduction of groundwater pollution:** The exact dosage optimizes fertilization, reducing the potential for groundwater contamination caused by the leaching of fertilizers.

4. **Greater convenience and economy:** Allows use of fertilizer solutions, which is more practical than the solid or granular type fertilizers.

5. **Efficient application of microelements:** which are expensive and are required in small quantities.

## What should be considered?

1. **Soil Analysis:** to determine soil nutrient availability and soil type. The soil analysis will assist in the development of a fertilization program.

2. **Irrigation System & Injector Pump:** Drip Irrigation system is utilized for vegetable production. Injector pumps such as piston pump and Venturi type are recommended.

3. **Water Quality:** Sediments in the water can plug the emitters in drip hoses.

4. **Water Supply:** Adequate supply of water demanded by the crop.

5. **Fertilizers:** It is essential that nutrients used for Fertigation are soluble.



Venturi Type Fertilizer Injector

This injector is less expensive and is easily installed to the irrigation system.



Piston Pump Fertilizer Injector

## Diagram of a Fertigation Unit

Tunnel Type Protective Structure

Air Release Valve

Water Filtering System

Reservoir of mixture of Fertilizers that will be injected into the irrigation system



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