DRIP IRRIGATION IN AGRICULTURE

introduction

Just like people, plants like to get their water and nutrients in a balanced way. Nobody wants to eat a month's worth of food in one day, and the same goes for plants. Which is why drip irrigation applies water and nutrients frequently and in small doses, ensuring optimal growing conditions that helps produce the highest yields possible.

What is drip irrigation?
Drip irrigation is the most efficient water and nutrient delivery system for growing crops. It delivers water and nutrients directly to the plant's roots zone, in the right amounts, at the right time, so each plant gets exactly what it needs, when it needs it, to grow optimally. Thanks to drip irrigation, farmers can produce higher yields while saving on water as well as fertilizers, energy and even crop protection products.

Digram

All thanks to the drip system, which facilitates the slow supply of water in drops to provide the right amount of water to plants. Unlike other irrigation methods, it successfully irrigates the plants that are cultivated in uneven/sloped lands.

How does it work?

Water and nutrients are delivered across the field in pipes called 'dripperlines' featuring smaller units known as 'drippers'. Each dripper emits drops containing water and fertilizers, resulting in the uniform application of water and nutrients direct to each plant's root zone, across an entire field.

The drip system also facilitates fertilizing plants where fertilizers are diluted and supplied through the pipes/tubes. Let's get into the details of the components of the system.

LAYOUT/COMPONENTS OF THE DRIP IRRIGATION SYSTEM:

The drip irrigation system has many components to facilitate the proper delivery of water to plants. They are.

1. Pump station

2. Control head

3. Mainlines

4. Sublines

5. Laterals

6. Emitters

APLLCATION :-

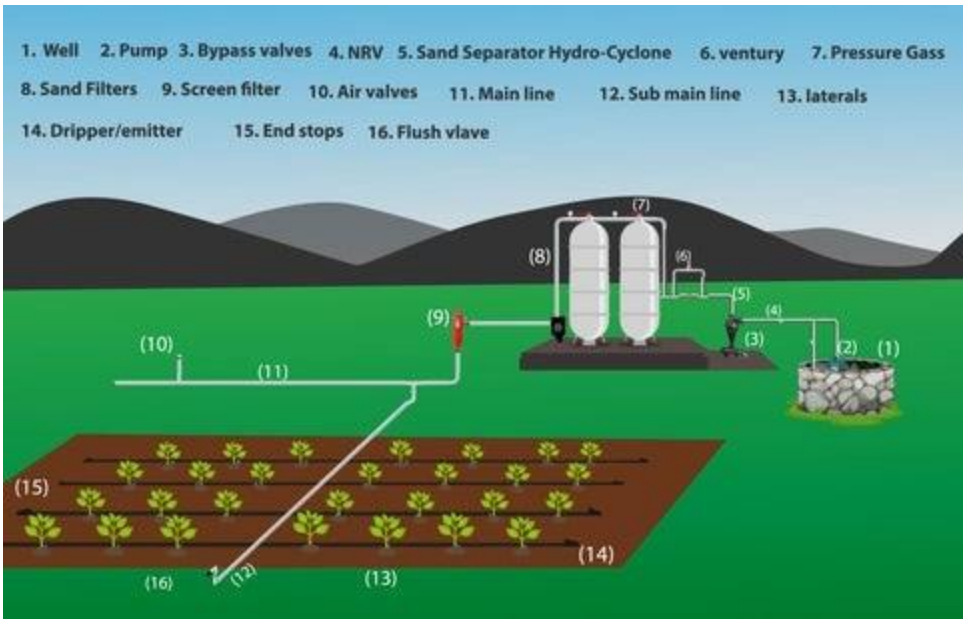
Drip Irrigation is the most efficient water and nutrient delivery system for growing crops. It delivers water and nutrients directly to the plant's root zone, in the right amounts, at the right time, so each plant gets exactly what it needs, when it needs it, to grow optimally.

OBJECTIVES: -

The goal is to place water directly into the root zone and minimize evaporation. Drip irrigation systems distribute water through a network of valves, pipes, tubing, and emitters.

PROGRAMMING: -

NO NEEDED


1. Well 2. Pump 3. Bypass valves 4. NRV 5. Sand Separator Hydro-Cyclone 6. ventury 7. Pressure Gass
8. Sand Filters 9. Screen filter 10. Air valves 11. Main line 12. Sub main line 13. laterals
14. Dripper/emitter 15. End stops 16. Flush vlave
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