

**Tashkent institute of irrigation and agricultural
mechanization engineers**

Speciality: Water saving irrigation technology

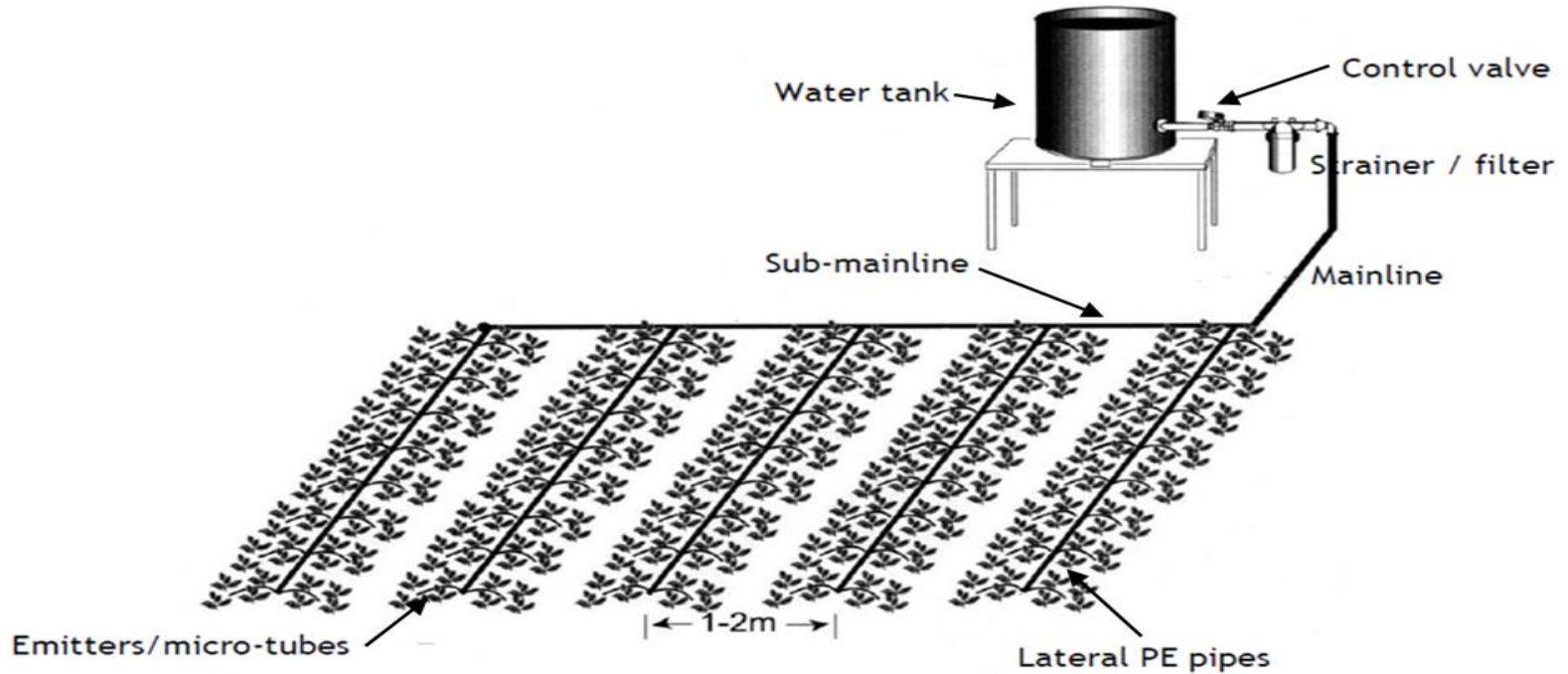
Subject: English language

Theme: Drip Irrigation Systems

What is Drip Irrigation?

- Irrigation method that applies water to plants at a very low rate of application and without any pressure
- The concept of the system is to target the roots of the crop rather than the entire land area the crops cover
- Water is able to reach the deepest roots of the crop through capillaries and gravity

Example Layout of System



- Compared to conventional systems, drip irrigation systems are:
 - easy to design
 - inexpensive
 - easy to install

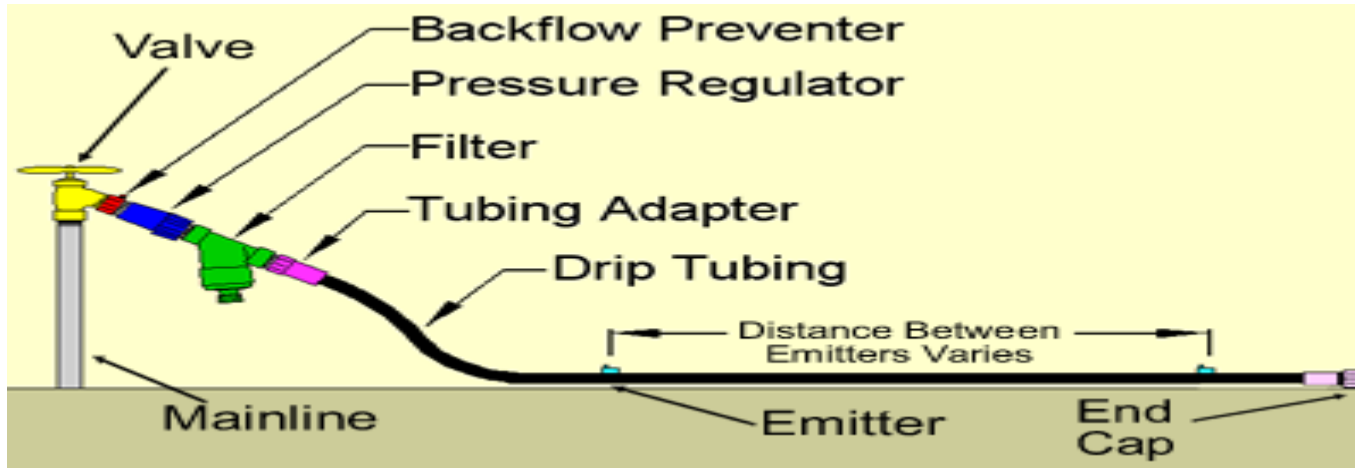
Drip Irrigation System Components

- Pumping set
 - Generates pressure to control the amount of water supplied
- Filters
 - Removes the impurities in the water



Main Lines

- This is the distribution system for drip irrigation
- PVC pipes and polyethylene pipes used in the system
- Pipes generally 65 mm in radius
- Sub Main
 - Connected to main line through a control valve
 - Distributes the water laterally through the field
- Drippers/emitters
 - Connected on the laterals in order to emit water in drops at a continuous flow rate
 - flow rates generally do not exceed 15 liters/hr



- Recommended for:
 - trees, shrubs, vines, roses, vegetables, flower beds, pots, and individual plants

Create a plant list as well as a property sketch

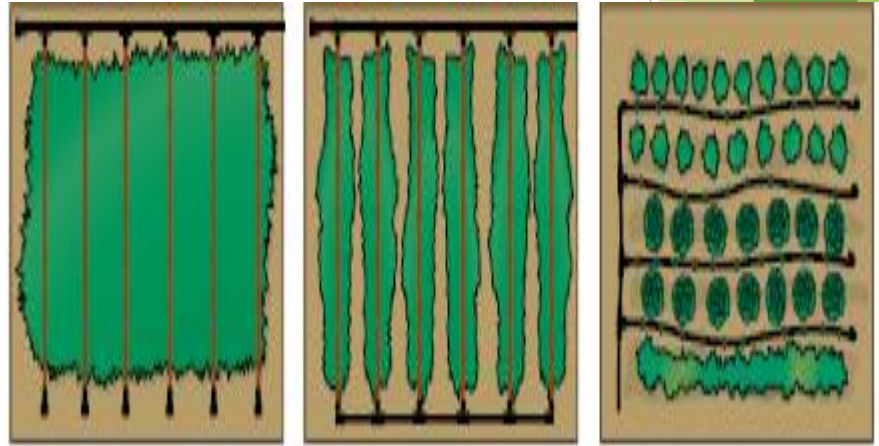
- Different soils require different drippers
 - Sandy: 2 GPH drippers (10"-12" spacing)
 - Loamy: 1 GPH drippers (16"-18" spacing)
 - Clay: .5 GPH drippers (18"-24" spacing)

***GPH → Gallons Per Hour**

- Different plants require different layouts

Classifications:

1. Roses, trees, shrubs
2. Container plants, hanging baskets, window boxes
3. Vegetable gardens, row crops



Interesting Fact

- With marijuana production becoming a booming industry...
 - Drip irrigation is the most effective system for the plant and is widely used

