Microirrigation is the universal term for drip, trickle or microspray irrigation systems. It is a growing technology which has the potential to optimize plant growth, conserve soil, water and fertilizer resources while also protecting the environment.

Emitter flow rates for drip tube are usually defined as flow rates in gpm/100 ft – which usually includes 100 emitters.
Advantages

- Potential water savings
- Smaller flow rates
- Application of chemicals
- Water sources with high salinity content
- Improved Quality of the crop
- Adaptation to any topography
- Reduction of pest and diseases
- Some frost protection
Water flowing from the emitter is distributed in the soil by gravity and capillary forces creating the contour lines, often referred to as "onion" patterns. The exact shape of the wetted volume and moisture distribution will depend on the soil texture, initial soil moisture, and to some degree, on the rate of water application.

Disadvantages – potential problems
- Plugging
- Moisture distribution
- Salt buildup
- Initial cost
- Easy to damage

Emitter Spacing in Sandy Soils
Overlapping of wetting patterns is critical for the good uniformity – this is especially important on light soils.
Water Distribution in Soils

Soil texture or an underlining hardpan can influence the water distribution pattern.

Salinity and Emitter Placement
Landscape Microirrigation

Where to Put the Emitters?

Landscapes are unspoiled by ugly gadgets, garden hose, driplines or protruding sprinkler heads.

Less Vandalism

Reduced Liability

Grow Healthier Plants

SDI

- Invisible
- Landscapes are unspoiled by ugly gadgets, garden hose, driplines or protruding sprinkler heads.
- Less Vandalism
- Reduced Liability
- Grow Healthier Plants

Poor System Selection

Subsurface Emitter Tube Details

Not to Scale