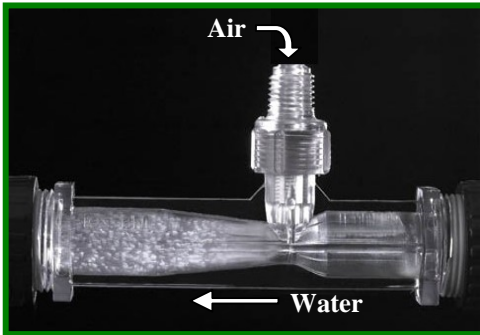


Mazzei AirJection® Irrigation

“Plowing Without a Plow”™

Specialized Mazzei® Injectors efficiently inject and mix micro air bubbles into the water.



AirJection® Irrigation delivers both water and air to the root zone of the plant.



Root mass is significantly increased in bell pepper plants with AirJection® Irrigation (right) in comparison to water-only irrigation (left).



Information Needed for Mazzei AirJection® Irrigation System Design

1. Tape run length (bed length): _____
2. Number of lines per bed: _____
3. Tape Specifications
 - a. Manufacturer: _____
 - b. Model number: _____
 - c. Flow rate: _____ gpm/100ft. or gph/emitter
 - d. Emitter spacing: _____
 - e. Tape operating pressure at head end: _____
4. Irrigation Layout
 - a. Number of tape lines per control valve: _____
 - b. Type of distribution/submain piping (circle one):
layflat oval hose PVC aluminum other: _____
 - c. Water pressure available in the field: _____

Guidelines for Using Mazzei AirJection® Irrigation

- Tape should be sub-surface or under plastic mulch.
- The field should be level or may have a uniform slope, not having undulating hills.
- Generally, the irrigation system should be able to supply at least 25 PSI of water pressure to the injector inlet (with 12 PSI tape inlet pressure).
- System components prior to where the injector is installed should also be able to handle at least 25 PSI of water pressure (more or less may be required, depending on desired tape operating pressure).

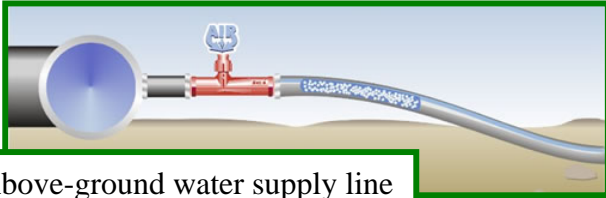
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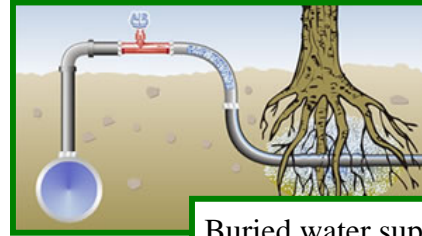


Typical Installations:

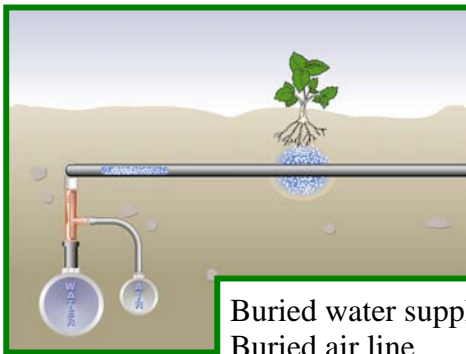
All installations must have subsurface drip irrigation, be on level to moderately sloped terrain, and must have 25 PSI minimum pressure available at the inlet of the injectors (when drip tape inlet pressure is 12 PSI).



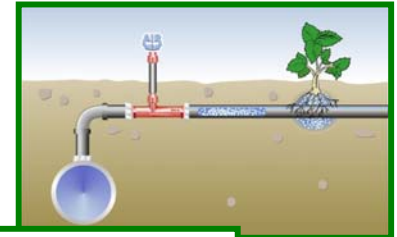
Above-ground water supply line
Above-ground Mazzei® Injectors



Buried water supply line
Above-ground Mazzei® Injectors



Buried water supply line
Buried air line
Buried Mazzei® Injectors



Buried water supply line
Buried Mazzei® Injectors
with snorkels for air suction

Test Results:



California State University Fresno and the Center for Irrigation Technology have conducted numerous trials since 2000. Data from university-led trials and commercial installations has shown that AirJection® Irrigation achieves increases of 13% - 35% and greater over water-only irrigation.

Benefits:

- Significant Increases in:
 - Root Mass
 - Crop Yield
 - Fruit Density
 - Sugar Content
 - Germination Rate
- Improves Water Use Efficiency
- Early Maturation
- Increases Plant's Salinity Tolerance
- Improves Late Season Production
- Promotes Minimum Tillage

Continued Research:

- Reduced Water Use
- Irrigation Rate and Duration
- Microbial Activity in Soils
 - DNA Discoveries
 - Aerobic Improvements
 - Nitrogen Fixing Bacteria Influence
- Reduced Fertilizer Use
- Reduce Tillage
- Environmental Impacts