

Ollas are clay jugs or vessels

- Traditionally used to carry and store grain and water
- Used for subsurface irrigation for more than 2,000 yrs

Water Delivery

- Flow rate is determined by clay porosity and soil water content, not by water pressure
- Dispersion distance is determined by soil structure and plant root distribution

Multiple Interconnected Ollas

- Multiple clay pots connected together must be on the same level
- Water pressure is maintained at atmosphere with a regulator vessel (float valve)



Modern one quart Olla made from two 4" clay flower pots



A line of Ollas before being buried and connected together with a water line

D. Shillingburg - July 2010

Olla Irrigated Lettuce and Peas

3' x 10' bed, 14 - one quart ollas, 4.0 gallon reservoir, 4.0 gallon regulator reservoir

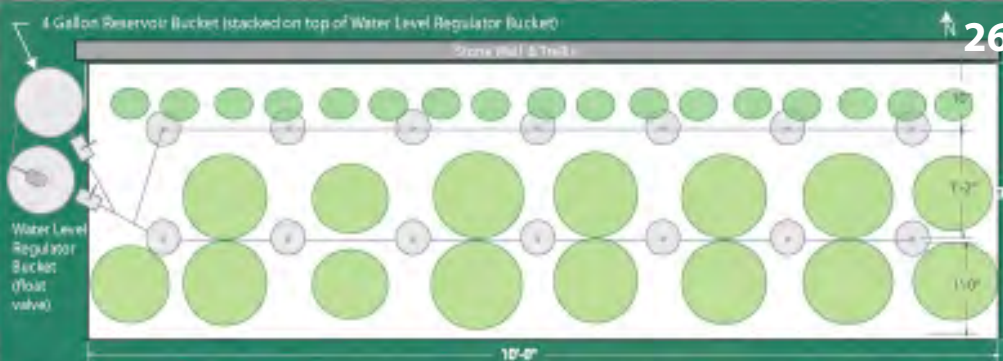


Installation and Planting

Pots Installed - July 24th
Transplanted Lettuce - Aug 1st
Harvest Mature Head - Aug 20th

Water Use

2 - 8gal/24hrs



- Flower Pot Olla - 4 1/2" d
- Irrigation Line - 1/4" Drip Line
- Cascadia Peas
- Lettuce - mixed varieties

Olla Irrigated Lettuce and Peas
3' x 10' bed, 14 - one quart ollas, 4.0 gallon reservoir and regulator reservoir



Advantages to Olla Irrigation

- Most efficient irrigation system - 90-95%
- Soil maintained near "field capacity" within dispersion zone around the olla
- Accelerated plant growth
- Low Maintenance



One quart Olla made from two 4 1/2" clay flower pots

Drawbacks to Olla Irrigation

- Labor of Construction and Installation
- Unknown life span of a system
- Managing interplantings and sequential planting
- Soil Fertility and Soil Pest Management



Parts required for a one quart Olla made from two 4 1/2" flower pots.