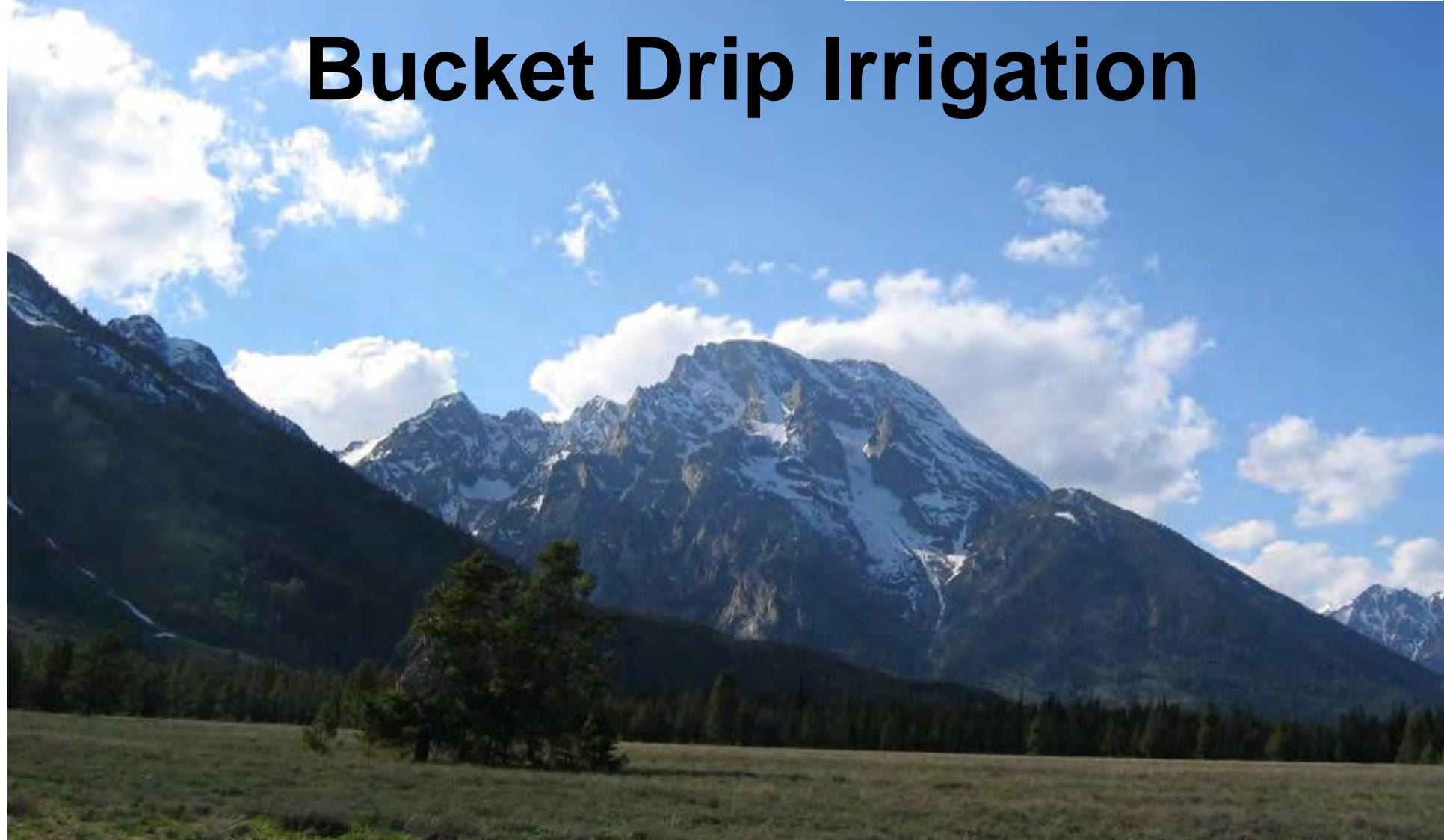
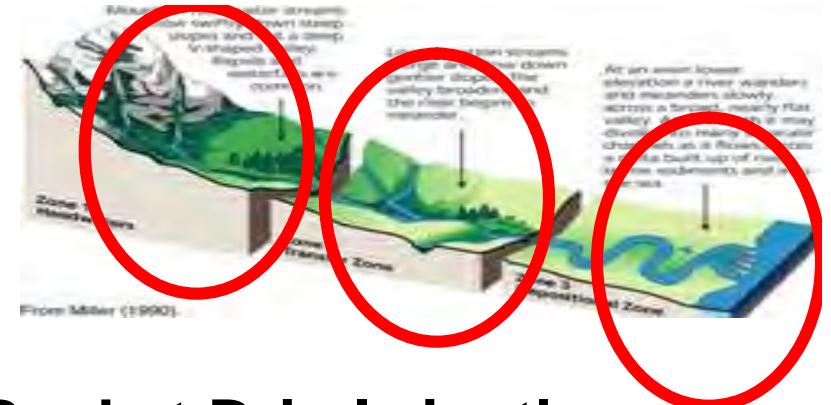


Bucket Drip Irrigation



This training was prepared by the U.S. Department of Agriculture (USDA) team of Otto Gonzalez-USDA Foreign Agricultural Service (Team Leader), Jon Fripp (Civil Engineer) and Chris Hoag (Wetland Plant Ecologist)-USDA Natural Resources Conservation Service (Civil Engineers). Fripp and Hoag were the primary authors of this material. The U.S. AID provided funding support for the USDA team.



Bucket Drip Irrigation

- For Flower Crops
- For Vegetable Crops
- Can be constructed in any zone





**Water into bucket and
drips out of the drip
lines onto the plants**

**Water into bucket once or
twice a day. This depends on:**

- Type of plants
- Soils
- Temperature
- Recent Weather
- Wind





Photo from Chapin Living Waters Foundation



Bucket drip irrigation
is simple irrigation:
• Been Used Worldwide
• Not Expensive
• Low Pressure
• Saves Water
• Fertilizer Application

***700 pounds of tomatoes
from one kit in one year
(100 plants)***



Chapin Bucket Drip Irrigation Kits

- Filter screen
- Water Supply Line
- Drip Line

Need to add:

- Bucket
- Stand
- Plants



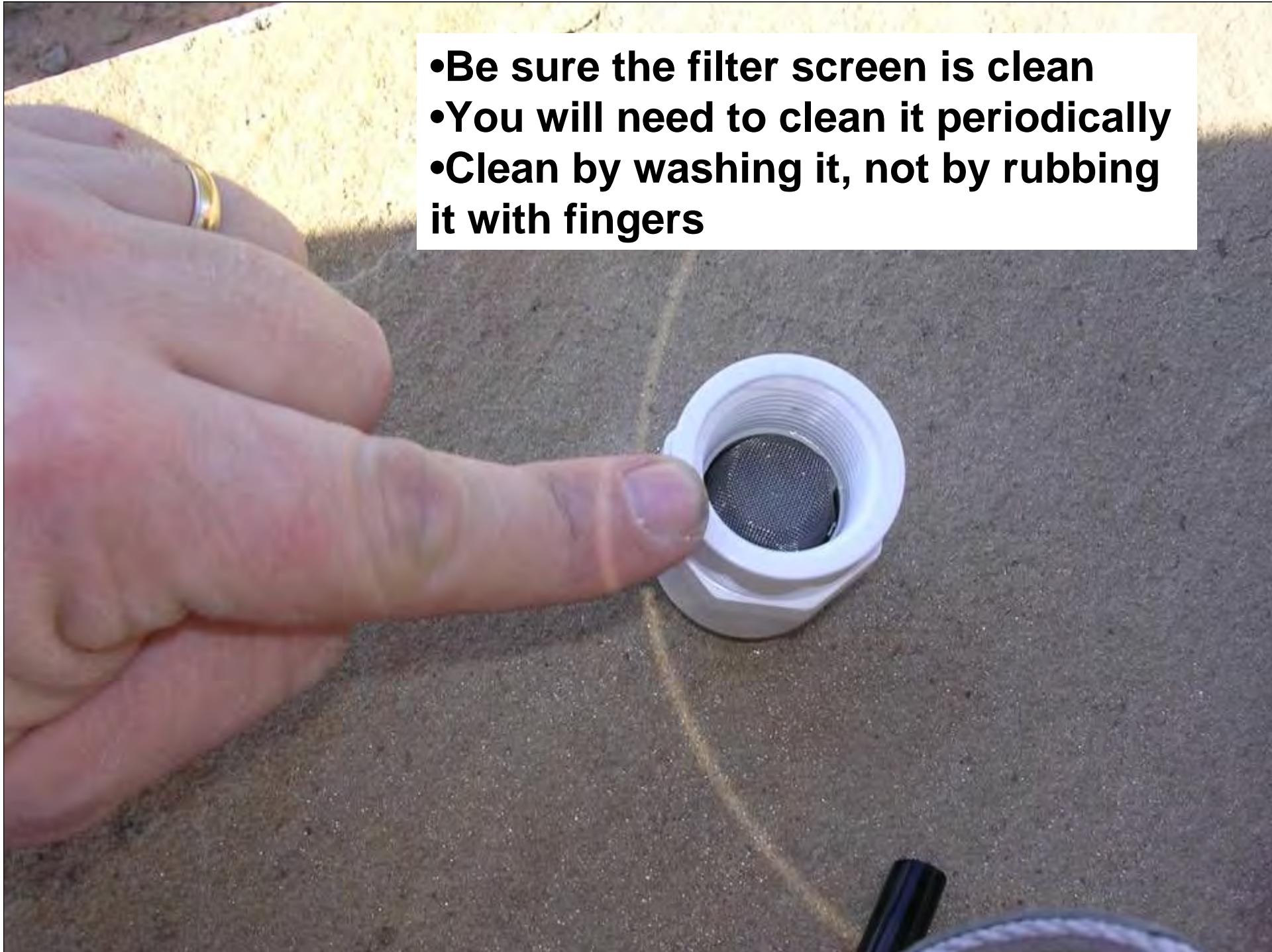
We will look at the steps to build and use a bucket drip

Remember the basics of irrigation

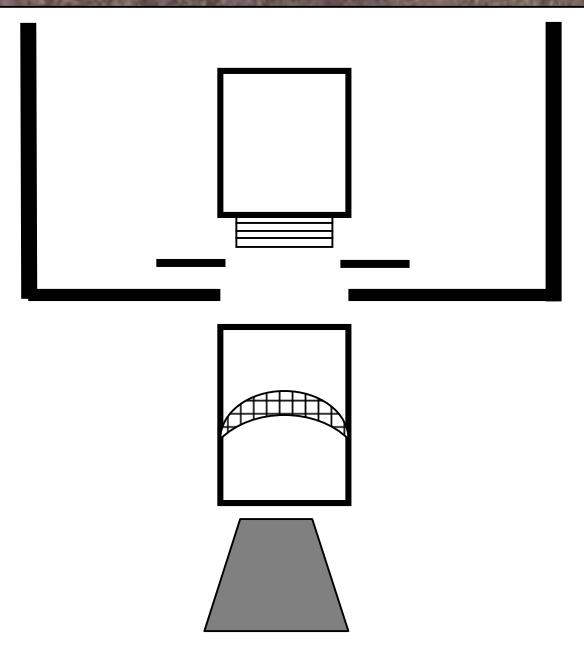


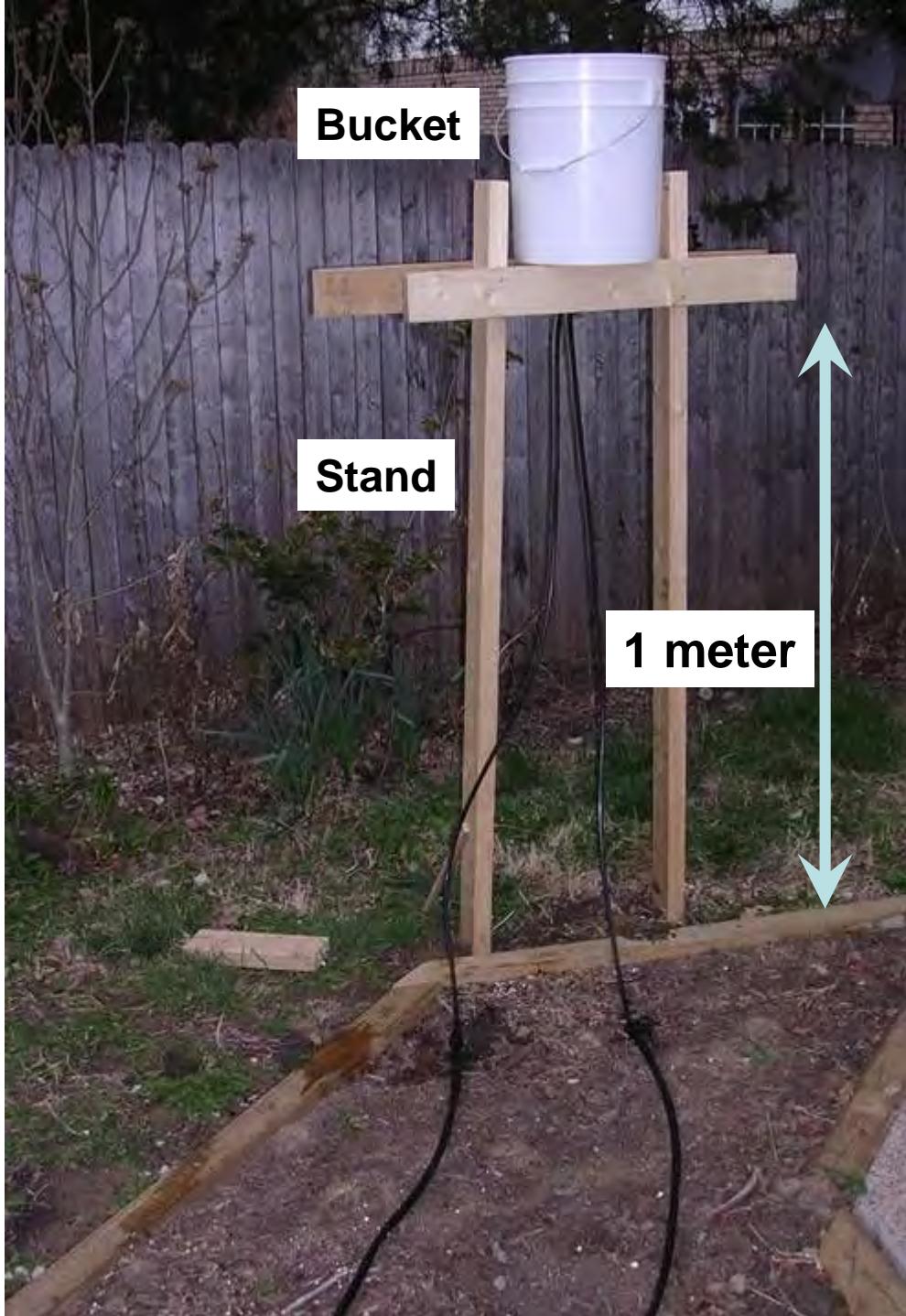
**The first step is to drill a hole in
the bottom of a clean bucket**

- Be sure the filter screen is clean
- You will need to clean it periodically
- Clean by washing it, not by rubbing it with fingers



- Examine the fittings
- Notice how they will be assembled into the bucket
- They must be tight





- Bucket is placed on stand at highest end of garden
- The stand should be at least 1 meter high

The water supply lines go into the rubber stopper





Connect the water supply line to the drip line



- Stretch the drip line across the garden
- Avoid folds or creases
- Do not vary elevation by more than 1 foot
- Drip line should be in contact with the soil
- Weight the drip line down with rocks
- The drip opening should be on top of the line





- Close end of drip line
- Fold over twice and put in sleeve
- Can also tie with string





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**Carefully pour clean
water into the
bucket**



- Look for wet spots
- Mark them
- Place plants where there is a drip

Notice that the drip should be on top of the drip line

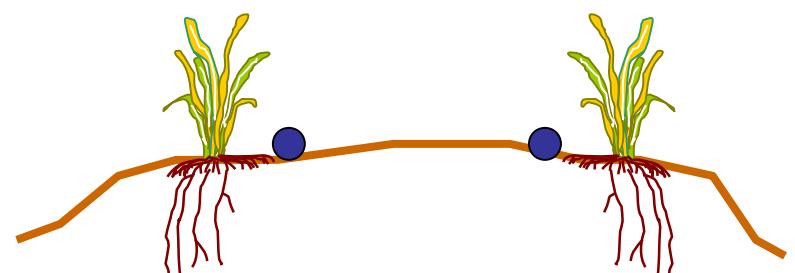


- Plants should go where the drip will be
- Try to avoid getting soil on the drip line
- Can place mulch over line to reduce evaporation loss of water





Plants should be down slope of the drip





Clogging can be a problem.

May need to cover the bucket top to keep dust and sand from blowing to bucket

If hole becomes blocked or the drip becomes slow:

- Do not use a pin to clear the hole**
- Rub your finger across the hole and blow into it**





Can also flush the lines

This is done by opening the ends of the drip lines and pouring clean water through it.



Photo from John Tiedeman



**The Chapin bucket
drip irrigation kits
should last 5 to 7
years with proper care**



If stored

- Flush clean water thru the opened drip lines.
- Clean the filter screen
- Carefully roll the drip lines
- Do not fold the drip lines



- Can apply fertilizer to the irrigation water.
- The fertilizer will go straight to the plant



- If you are using a compost tea for fertilizer, be sure to pour it through a heavy cloth

Test Time

What is wrong here?

Answer: line is bent



Test Time

What is wrong here?

Hint: this is the inside of the drip bucket.

Answer: water is too dirty. The irrigation water needs to be cleaner. Dirty water can clog the openings



Questions?

