

# WATERING/IRRIGATION

## Learning Objective

Students will learn about the water needs of passion fruit, and will create irrigation bottles for each of their vines.

## Materials

### Classroom

Blackboard, flipchart

Markers or chalk

Visual aids

Water bottles-- make sure these are delivered from Kampala before this lesson!!!!

Knife or panga

Hammer

Small nails

### Field

Shovel

Water source and jerry cans

Marker

## Key Takeaways

- Passion fruit plants need consistent water.
- In the dry season, you can help to give your plants the water that they need using irrigation.

## Watering

Passion fruit plants need a lot of water to survive, especially during the flowering and fruiting period. They have an extensive, but shallow root system, which means that, if the ground is dry, they cannot burrow deep into the ground to get the water that they need.

**Irrigation** means to supply something such as land or crops with water by using artificial means. We will need to use irrigation for our passion fruit plants during the dry season to make sure that they receive enough water.

## When to Irrigate?

Irrigation should be started at the first signs of "water stress." This means that the ground will have lost its moisture, and plants may begin showing signs of dryness.

## Bottle Creation Project

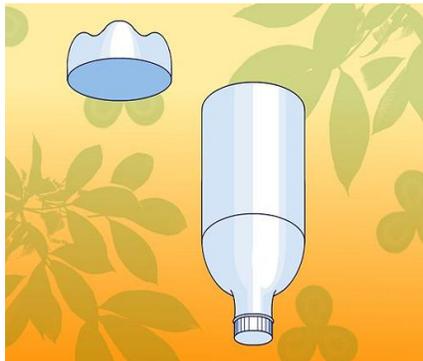
Irrigation is often done using sprinkler systems or drip lines, but the girls will learn a cheaper alternative to water her plants. Each girl should receive her own large plastic bottle with the cap still on. The instructor will have their own plastic bottle as well, and will demonstrate each step for the girls before they start on their own.

### Step 1

Get a plastic bottle with the cap still on. Take the cap and poke around 1 to 4 holes in it. You can create the holes by using a small nail and a hammer. Place the cap back on the bottle.

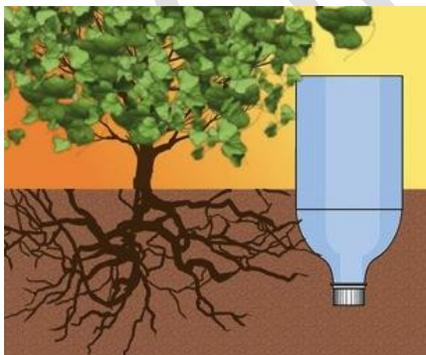


The number of holes that you punch on the cap will depend on how fast you want the water to flow. The more holes in the cap, the faster the water will drip. (Note: Most of the time, the slow drip method will be the better approach, because releasing the water slowly will allow the ground to more fully absorb the water without evaporation.)



### Step 2

Take the body of the soda bottle, and cut off the bottom portion (around 1 inch from the bottom) with a sharp knife. This will turn the bottle into a funnel.



### Step 3

Dig a hole next to one of the plants that is deep enough to cover 1/2-1/3 of the entire bottle. The hole should be approximately 30 cm from the base of the plant to avoid damaging the roots. Demonstrate 1/2-1/3, and mark on the bottle using a marker. With the cap on, place the bottle into the hole, cap-side down.