

HOW MUCH WATER DO YOU NEED November 2009

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WATER USE

To find out how much water we use, we placed a 1,000 liter tank with indicators next to one shade house (photo1). We fill the tank from a dam whenever the water level gets low. The tank is connected to the beds through a distributor and 12 mm pipe (photo 2).



Photo 1



Photo 2

To water the beds, we open the main valve at the tank and let gravity do the work. There is a single line with a valve for each one of the three large beds. The two small beds share a line. Once the water starts to run out of the overflow of a bed, we close the valve for that bed. It can take up to 30 minutes to fill all beds.

From 1 July 08 to 30 June 09 we used about 9,500 liters. During that time, we had 945 mm rain. Our use varied from 300 – 500 liters/month in winter, 500 – 1,000 in spring and autumn, and 1,000 – 1,500 in summer. Our beds were not fully planted during the year due to being overseas for some of the time.

Our current guess is that we need about 14,000 liters (2,200 gallons) per year when fully planted. This is about the amount of rain water that runs off the roof of a 6m x 3m carport in an area with 800 mm annual rainfall: 14,400 liters per year (1 mm of rain on 1 square meter of roof gives 1 liter of water.) Hence in coastal areas, a single carport provides all the water you need to grow a substantial part of your green vegetables.

If you depend on rain, or want to be independent from water restrictions you will need a tank. The size of the tank you need to get you through dry periods depends on your location and its annual rainfall pattern. You need to store water for the longest regular dry period of the year in your location.

DRAINAGE

We had falls of 76 – 150 mm in August and December 08, and February and April 09. While the walkways were flooded, the beds drained well and were not water logged. Having good drainage above the plastic liner proved to be essential. Poorly drained plastic boxes became waterlogged swamps that needed emptying and re-filling, after ofcourse putting in proper draining.