

7. Tower Gardens

What are tower gardens

Tower gardens are small upright gardens that can be watered using gray water. These gardens are good for older people, as you do not need to bend down a lot and can be made anywhere close to a home.

What is gray water

Gray water refers to the water that has already been used for domestic purposes; such as washing of dishes and clothes. Because of the normal shortage of water, it is essential to save water. This water can be re used for gardening purposes.

Making the most of gray water

In many cases, water has to be carried from the nearest stand-pipe in plastic containers not for the purpose of gardening, but for cooking and washing. This water can be re-used for growing vegetables successfully. These are a way of saving water, so-called gray water, and use it for gardening.

Vegetables are grown in a column of soil that fills a bag. They are planted in holes cut in the sides of the bag itself and, each day, the available gray water is poured into the bag.

Vegetables can grow successfully with soapy water! You can clear the soapy water out of the system by pouring two buckets of clean water into the column, once a week.

This is lazy gardening

One of the main attractions of the method is that little labour or attention is required and this appeals to all busy gardeners. Once people have become familiar with the towers, they prefer to position them right at the back door so that it is easy to pour the wastewater into the tower.

It is difficult to predict how much water is required, only time can tell. If water forms a puddle around the bottom of the tower, it is an indication that too much water is being applied and the obvious answer is to make a second tower!

Making up the tower

The way in which the tower works is simple:

- ❖ The **upright poles** can be made from branches or fencing standards. Where crops such as tomatoes are planted in the top layer of soil, extensions can be wired on to provide trellising.
- ❖ The selection **of the cloth** that forms the sides of the tower is critical.
 - Nylon gunny bags can last about two years;
 - Sacking, as shown in the photograph on the right can only **last the season**;
 - Black plastic sheets deteriorate rapidly in the sunlight;
 - Shade netting proved to be far more durable; but it is important to use nylon string or fishing line to join up the ends of the shade netting to form cylinder, as shown in the diagram.



*A picture of a tower garden being constructed.
Poles here are made from branches, and the
tower is made from shade cloth.*



- ❖ The **soil** is contained by the shade cloth “skin” and surrounds a central stone packed drain/ column.

The **soil mix** provides fertility and retains water:

- Mixtures of six parts of soil, four parts of manure and two parts of wood ash are satisfactory.
- The soil should be damp but not too wet, when you are packing the tower.
- The water must be distributed evenly throughout the soil mass and will not penetrate any compacted areas.



The **stone column** in the middle of the tower controls the flow of **water** so that the soil in the tower is kept moist.

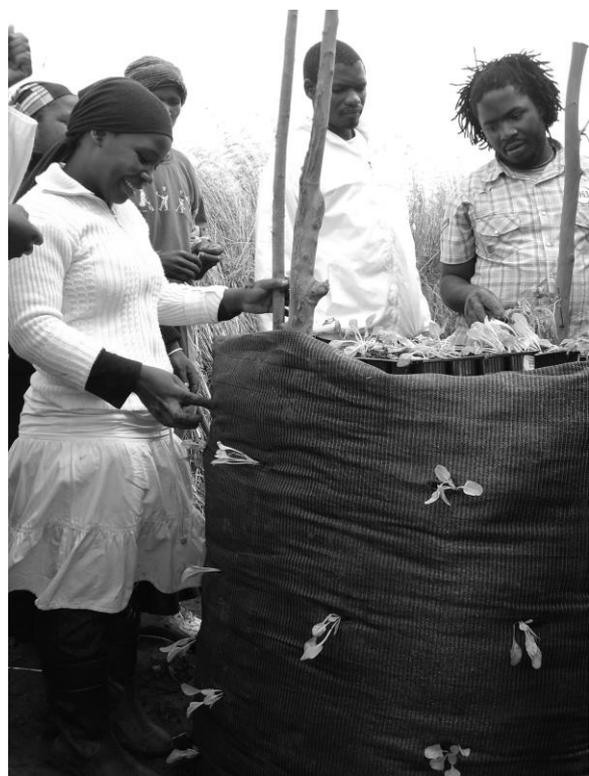
- ❖ Carefully pack flat stones, or building rubble.
- ❖ If it is possible, use smallish round stones, provided they are evenly packed, so that even water distribution is achieved.

Participants in Potshini are busy filling up the stone column in the middle. Note the small white bucket (bottomless) that help to provide a rigid structure for the placing of the stones.

What vegetables can be grown?

- ❖ Leafy crops

The towers are ideal for leafy crops, typically the various varieties of spinach



that are planted through the holes in the side of the shade net cylinder. Ideally the holes should not be one above the other but should be staggered diagonally, providing more space for root development.

Participants in Potshini are planting spinach into the sides of the newly prepared tower garden. Tomatoes and onions will be planted in the top.

❖ Tomatoes and onions

Tomatoes and Onions can be planted in the top layer and, if crops require trellising, this can be provided by extending the vertical uprights and joining them with wire or string. Where possible, companion crops should be grown to facilitate biological control of disease and pests. *Garlic* and *onions* are useful in this regard.

An unexpected benefit is the way in which the vegetables have **thrived in severe heat wave conditions** that have proved too much for conventionally planted gardens. The reason for this is not quite clear. It may be the free air circulation, lower soil temperature or the better moisture status of the soil.

It is not claimed that towers will be able to provide all the food a family needs but the contribution made to nutrition and eating pleasure is very considerable.