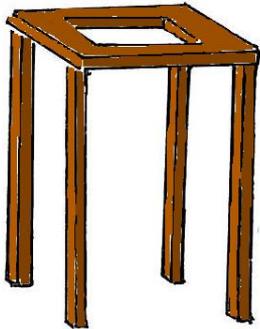


How to build your own drip irrigation kit



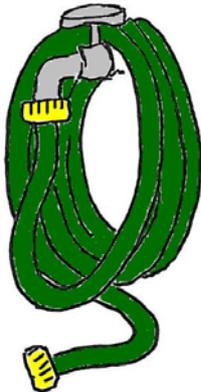
Step 1.

Create a platform that is a metre high to rest your bucket on. This could be an old stool that you've modified, you could build a stand out of bricks or you could build a frame like the one here.



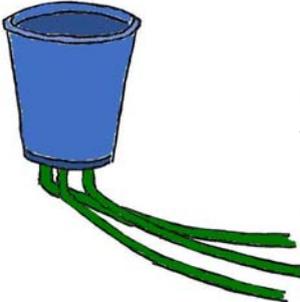
Step 2.

Find yourself an old bucket and make three holes in the bottom of it, big enough to fit a piece of hosepipe through, but not too big that it falls out.



Step 3.

Find some old garden hose and cut three lengths big enough to lay along your garden so that it will reach all of your seeds. Then make small holes in the hose around 20cm apart.



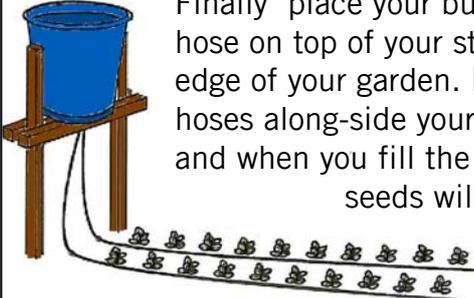
Step 4.

Place the pieces of hose in the holes in the bucket and make sure they are sealed using gaffer tape.



Step 5.

Next, plant three rows of seeds in your garden. Make sure the seeds are about 30cm apart.



Step 6.

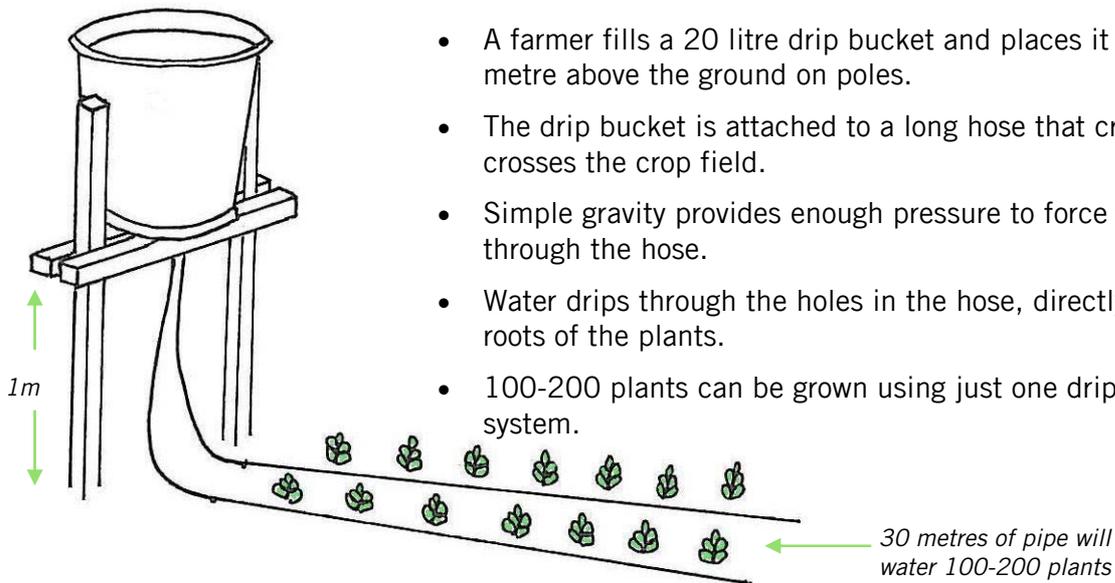
Finally place your bucket and hose on top of your stand at the edge of your garden. Lay the hoses along-side your seeds, and when you fill the bucket your seeds will be watered.

If you don't have a garden at the school you can still take part in this project, simply plant your seeds in a window box instead and create your own mini drip irrigation system using a large plastic cup and bendy straws.

How the drip irrigation system *beats the droughts*

Even if rain fall is low or erratic, the drip irrigation system allows farmers to nourish and grow the crops they need.

20 litre bucket
supported on
wooden poles



This is how it works:

- A large water harvesting tank in the village captures the rain and stores it.
- A farmer fills a 20 litre drip bucket and places it one metre above the ground on poles.
- The drip bucket is attached to a long hose that criss-crosses the crop field.
- Simple gravity provides enough pressure to force the water through the hose.
- Water drips through the holes in the hose, directly onto the roots of the plants.
- 100-200 plants can be grown using just one drip bucket system.

Raindrops are liquid gold to farmers in the poorest countries of the world. Yet when the rains do come – and in many places they come erratically or with decreasing frequency – most of that precious moisture is washed away, unused.

That is why Practical Action is working with communities in Zambia to introduce the drip irrigation system. This technology has proven to be one of the most successful and efficient ways to irrigate fields in poor communities.

By collecting the rain that does fall, storing it, and then directing it in concentrated bursts to the roots of plants, this system puts every drop to good use. None of that liquid gold is wasted as runoff, or lost by moving down through the soil too quickly for the roots to absorb it.



So instead of parched, dusty fields – and families facing starvation because of the failure of their crops – there are life-giving gardens, brimming with hearty fruit and vegetables or sturdy columns of maize, year after year.

This is exactly what has happened in rural areas of Zimbabwe and Mozambique where Practical Action, working alongside local people, has put the drip irrigation system into practice. After years of meagre returns, their fields are now bursting with all kinds of produce.