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There was a kit for drip irrigation being demonstrated at the Nairobi International Show 2000. It was labelled the dream drip kit for vegetable production.

A closer look at the kit showed why the one who designed it put the name dream on it. Like the man who invented the famous Eureka and later screamed Eureka, Eureka for all and sundry to know, this dream kit has all the qualities of a good dream that finally comes true. A brief introduction to drip irrigation will lead us to see why this kit could not have come at a better time.

Drip or trickle irrigation is a method of irrigation that is becoming increasingly popular in areas where water is scarce. The method can water plants throughout the day and at the same time minimise losses through deep percolation, runoff and soil evaporation.

Deep percolation is when water goes deep into the soil beyond the reach of the roots. Runoff is water running on the surface of the soil into channels and is finally lost into rivers, lakes and oceans.

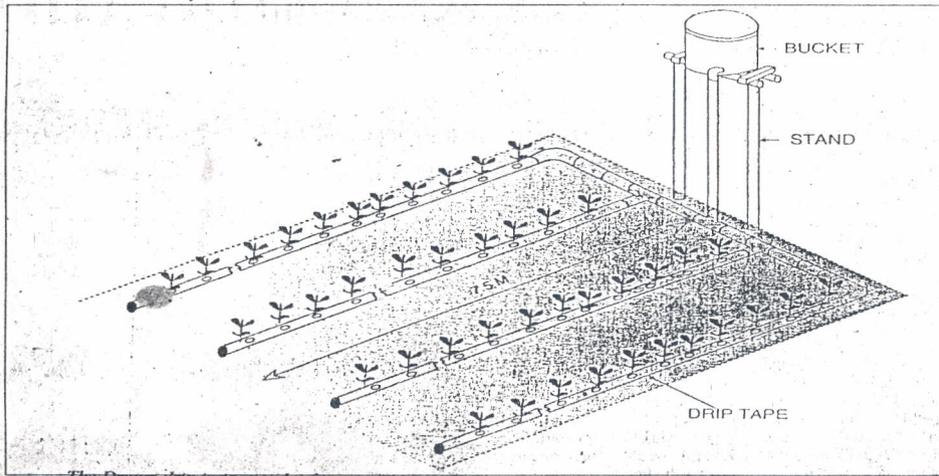
The irrigation is accomplished by using pipes with perforations called emitters or drippers at selected spacing to deliver water to the soil surface near the base of the plants. The system applies water slowly to keep the soil moisture within the desired range for plants.

There is considerable saving in water by adopting this method since the water could be applied almost precisely to the root zone and there is no need to wet the entire area between the crops.

The method reduces salt concentration in the root zone when irrigated with poor quality water. Drip irrigation permits the application of fertilisers through the system.

This kit waters 100 plants - this was as it was displayed by

# Dream drip kit for vegetable production



The dream drip irrigation kit for vegetable growing

the Agricultural Engineering Department of the University of Nairobi at the Nairobi International Show 2000. Some of the plants were spinach and some were the popular *sukaama* *wiki*. A tree for agroforestry was not left out to ensure a greener environment. The kit has four rows that are 7.5m long.

Each row had 25 plants. The type of plants watered is determined by the diet requirements of the farmer. Other plants can be watered besides the ones on display at that time. To water 100 plants require the

farmer to fill the 20 litres plastic bucket that come with the kit with water in the morning and evening.

There are modifications where the bucket carries 40 litres in which case the farmer needs to refill the water only once a day. Most people including those from areas considered dry will swear they know where to get an extra 40 litres of water everyday and that means more vegetables than they will ever require for each family.

The water used to water these 100 plants is amazingly little

compared to the expected benefits. Its price was put at Sh1,200, which is just right for the harsh economic times we are in.

The kit has a user manual explaining how to assemble, maintain and dismantle in case one has to move. All the people watching and listening agreed the kit was cheap and simple. A number of people bought the kits and those without money at hand inquired where they could get one. Millions of people out there need the kit to be able to supply their families with vegetables

throughout the year and it would be exactly that irrespective of rainfall expectations.

- Other advantages include:
- No need to use pumps
  - High uniformity of water distribution from outlets
  - All components are locally available
  - Simple installation
  - Easy to maintain and repair
  - Easy to transport as all its components fit into the 20 litres plastic bucket.
  - Can be used to apply fertilisers.

Let's stop waiting for the rains. Since the El-Nino rains of

1997/98 few areas in the country have had adequate rains. The worst hit has always been the arid and the semi-arid areas but recently high potential areas have not been spared.

The truth is plain and clear - the country is hot and dry and the people of Kenya have no control over the rains while it is up there in the sky.

What is worth more? A bird at hand or two in the air. We all know the answer and our ancestors were right. It is now time to act and start depending on water that is available now like water from the rivers, lakes, wells, boreholes and springs, other than depend on what we have no control over. For agriculture in Kenya to flourish, there is need to put more human, materials and time resources as only a new outlook could save our country from starvation.

A good example is this dream drip kit for vegetable production. Everybody requires vegetables for a healthy body but few can afford the high prices that accompany droughts.

If everyone ensured they have the kit to produce vegetables, surely the designer of this kit will have changed peoples' lives. This will be by reducing the visits Kenyans make to doctors as a result of poor eyesight, skin and mental disorders and poor bone development as a result of vegetables lacking in the diet. Vegetables provide vital minerals to our bodies and they have now been made cheaper to produce by owning this dream kit.

In our country, water availability for domestic and agriculture use has not taken center stage, as one would expect. Worse still, rainfall availability is too erratic to be dependable. Adequate water provisions for everybody is not an individual's task and will remain in the hands of community leaders to plan and implement. In the meantime, there are those identified sources, which provide for our daily water needs, however little, everyday.