

## Save some water and fertilizers:

In traditional arboriculture, a lot of water is evapored without using by plants. With this system water goes down in the soil to benefit entirely to plant.

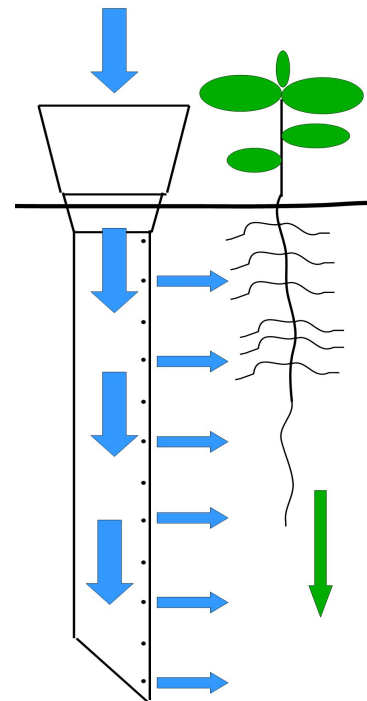
Example with a plantation of citrus fruits : 23 less water :  
plantation of 100 trees/ha with this technic need 27,5 m<sup>3</sup>  
instead of 650 m<sup>3</sup> in traditional irrigation.

## Obtain more resistant trees:

When a tree is planted, you must favour in maximum its roots system to obtain the most sturdy tree. A firmly implanted tree will resist better to a changing environment.

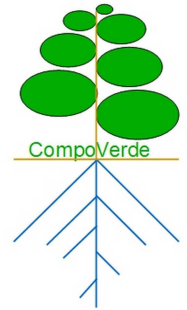
## Grow and produce more and faster :

With this method, trees thrive faster and produce earlier than a surface irrigation. Example with mango tree : grow two times faster and production often doubled in comparison with a traditional irrigation



Blue arrows:  
water and nutrients

Green arrows:  
Growth of the main root



Notes :

- Perforations only on one side (next to tree) or on the three sides for the market gardening (3 plants) to irrigate efficiently.

- Water and nutrients go down in the shaft and feed roots in depth.

- Roots follow water and nutrients in depth.

## A efficient technique to plant trees

This irrigation shaft stimulates growth of roots in depth in bringing directly to roots water and nutrients. Roots absorb water and nutrients along the shaft. It leads roots to deep of soil where the temperature is constant and allows so a continue growth of root, even while bad season.

It makes plants more resistant, because roots are less exposed to unfavorable factors in deep soil and favours storage of reserves in roots.

The tree is autonomous in 18 months.

## Particularities of this system

- Save so far 90% of water and fertilizers
- Fast vegetative growth
- Method suitable to arid or tropical areas
- More 90% of success for trees planting in Sahel
- Increase resistance to different environmental stresses
- Resistance of drought stress
- Maintenance of a low salt level, even using salt water
- Time reduction for watering and weeding
- Simple and fast installing irrigation system
- Need only light equipment
- Suitable to the market gardening