Self-watering pot

In potted plant production, irrigation is often a problem as the stored water volume is rapidly depleted by the growing plant which needs to be regulary monitored and watered by workers, which is very expensive. Also, no monitoring system is accurate enough to take into account the fact that different plants or the same plants at different growth stages or locations in a greenhouse or a nursery have different rhythms of growth and therefore different rates of water consumption.

The proposed pot design makes use of the air entry principle in a porous medium and capillary movement to create a system where a water reserve is maintained at the periphery of the pot and movement is allowed following the capillarity and air entry principles. As well as diminishing watering frequency, the system maintains constant water availability to the plant and accomodates the specific needs of different plants. Also, the system allows salt leaching, a serious problem with other subirrigation devices. Finally, the system allows for steam sterilization, a factor that may be important in limiting the spread of disease.