

One Plant Hydroponic System, Wick Growing

Most hydroponic systems today are a fairly complicated combination of holding materials, irrigation systems, aeration pumps, etc. For most people wanting to grow a single plant in hydroponics it has become quiet impossible to figure out where to find a cheap system to do so.

One of the cheapest systems available for hydroponic gardening of small plants (ideal for experimentation and school projects) is the hydroponic wick nutrient system. This system uses an absorbent fiber to carry on nutrient solution by capillary action towards the plant which usually rests above it. Wick systems are very easily built and are a very good fit for the growing of small plants.

Medium sized and large sized plants start to have problems with hydroponic wick systems due to the inherent capillary flow limitations that physics impose on the flow of nutrient solution. The absorbent fibers on capillary systems are also often clogged because of nutrient salt buildup (due to water evaporation because of the large surface area of the fibers). Water evaporation increases the concentration of salts along the fiber and starts to precipitate insoluble calcium and other metal phosphates. These are very hard to redissolve and often cause the system to stop working.

However, as I said before, wick systems such as the one built [here](#) are very appropriate for experimentation, growing a single hydroponic plant or doing school projects. The system is very easy and cheap to build.(below, a photograph of plants being grown on this system, note that they are very etiolated due to lack of proper lighting)

