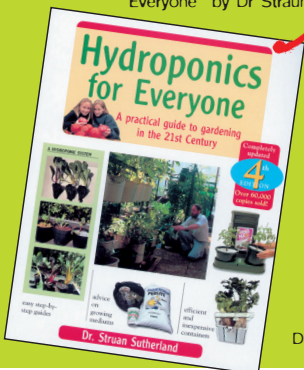


Instructions for your Clone/Seed Kit

HOW TO CLONE FROM CUTTINGS

1. Flush 40x40mm Cultilene® rockwool cube in luke warm water. For best results always use filtered or rain water.
2. Using shears, take 10-15cm long cutting with 3-4 leaves. Stems should be approximately pencil thickness.
3. Generally the best clones are from firm stems higher up the parent plant, these have highest growth hormones (auxins).
4. Cut the parent plant no more than 30%. From now on use a scalpel and flame sterilize every 10 cuts.
5. **IMPORTANT STEPS 5-7.** Cut quickly and put the entire cutting in a bucket of pH 5.8-6.5 lukewarm water. Leave soaking for 30 minutes.
6. Underwater, trim off two bottom leaves (one is okay), flush with the stem. This node is where the roots grow from in the Cultilene® rockwool cube. Scratch 2cm off the stem to promote rooting.
7. Final base cut must be taken underwater to stop air embolism (bubbles). Cut at base of stem at 45°, 1cm under the node.
8. Soak Cultilene® rockwool cubes in DutchMaster™ Gold APS Cutting Nutrient and Spray.
9. Dip the cuttings into DutchMaster™ Clone Fast Replicator.
10. Locate small hole in moist Cultilene® rockwool cube and push in clone. Make small hole larger if necessary.
11. Spray on Ag-Grow Grow® or Nulife QuickStart as per instructions on the bottle.
12. Put your Cultilene® rockwool cube on base/drain tray and under clear lid at 75% humidity. Leave the vents open. Place in shaded sunlight, avoiding excessive heat. We recommend compact florescent lighting, favouring the growth spectrum.
13. Ideal root temperature is 25°C, use a heat pad if required. Foliage temperature should be between 20-22°C. Ventilate accordingly.
14. Cultilene® rockwool cube must not sit in water or roots will rot!
15. As Cultilene® rockwool cube dries out, re-water with ¼ strength Ag-Grow Grow® nutrient solution at pH 5.8-6.5. Make a nutrient bath and dunk cube in water, until all stale air is expelled and roots are replenished with fresh oxygen.
16. Healthy roots appear thick, white and hairy in 4-6 days. The best plants will be from these.
17. When roots appear at bottom of Cultilene® rockwool cube, plant the clone into your hydroponic media such as perlite, perlite/vermiculite, coco peat or Cultilene® rockwool slab. Water with Ag-Grow Grow® nutrient solution at ½ to full strength or a good quality hydroponic nutrient of your choice.

We recommend reading "Hydroponics for Everyone" by Dr Straun Sutherland



Use Ag-Grow Grow® nutrient



Test your pH with Flairform pH Test Kit

Dip your cuttings into Dutch Master Replicator



AQUAPONICS WA

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Visit www.hydroponicexpress.com.au for helpful hints and tips



hy•dro•pon•ics [noun]

From the Greek words hydro (water) and ponos (labour) is a method of growing plants using mineral nutrient solutions instead of soil. Plants may be grown with their roots in the mineral nutrient solution only or in an inert medium, such as perlite, perlite/vermiculite, expanded clay or rock-wool. A variety of techniques exist. Soil-less culture is a broader term than hydroponics; it only requires that no soils with clay or silt are used.



WICK IS TEASED OUT TO GIVE BETTER NUTRIENT DISTRIBUTION

Supports are used to keep container out of the nutrient solution



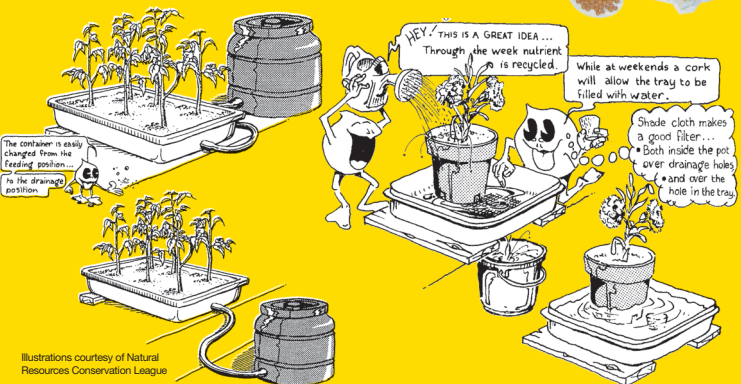
Most greenhouse plants grown world wide grow in hydroponics or soil-less methods.



HOW TO GROW FROM SEED

1. Flush 40x40mm or 75x75mm Cultilene® rockwool cube in luke warm water. For best results always use filtered or rain water.
2. a. For small seeds, locate small hole in 40x40mm Cultilene® rockwool cube. Push seed into moist cube (check seed packet for correct depth).
b. For large seeds such as beans, peas, cucumber etc, use 75x75mm Cultilene® rockwool cube. Fill hole with perlite or fine expanded clay, and plant seed directly into media. Plant seed in correct upright position. If unsure, plant horizontally.
3. Put your Cultilene® rockwool cube on base/drain tray and under clear lid at 75% humidity. Leave the vents open. Place in shaded sunlight, avoiding excessive heat. We recommend compact florescent lighting, favouring the growth spectrum.
4. Cultilene® rockwool cube must not sit in water or roots will rot!
5. Germination occurs in 2-7 days. Ideal seed temperature is 25°C.
6. As Cultilene® rockwool cube dries out, re-water with ¼ strength Ag-Grow Grow® nutrient solution. Make a nutrient bath and dunk cube into solution, until all stale air is expelled and roots are replenished with fresh oxygen.
7. When bottom roots appear, plant the seedling into your hydroponic media such as perlite, perlite/vermiculite, coco peat or Cultilene® rockwool slab. Water with Ag-Grow Grow® nutrient solution at ½ to full strength or a good quality hydroponic nutrient of your choice.

Many types of hydroponic media are available



Illustrations courtesy of Natural Resources Conservation League