Taking Successful Cuttings

- First and foremost—cleanliness! Clean work area, clean utensils and a clean and healthy mother plant from which to take cuttings.

- Cut the cutting about 1/2" below the node (the growing point for a new stem) or 3/4" below a leaf. Use a sharp knife. (A Grodan box cutter works great).

- Dip the node in a rooting hormone gel or powder. Follow instructions on the package. DO NOT dip directly into jar as this can spread diseases.

- Make a slit into the Grodan starter or use the round Macroplug with a pre-made slit. Gently place the prepared cutting into the starter. Make sure there is some contact between the stem and the wool, but do not crush the wool around the stem.

Grodan Starters:

- Are clean and completely inert—free of pathogens.
- Have a high water retention, so they will not dry out quickly.
- Come in a variety of sizes and shapes suited for both cuttings and seeds. (please see product guide)
- Are versatile—transplant into Grodan stonewool or any other media (such as CocoCan® coco, peat mixes, soil, etc.)
- 1.5" size A-OK plugs and round Macros fit perfectly into Gro-Blocks and the Grodan Starter Tray.

Please visit our web site www.hydroponics101.com

- To find more information.
- To ask us questions.
- To locate a Grodan dealer.

How do you start plants?
It depends. Do you want the easy way that requires less inputs? Or the lazy way with more set up initially, but less maintenance afterwards? Both descriptions will be given in this brochure with some helpful hints on taking the perfect cutting (clone).

General Preparation
- Choose a Grodan starter such as A-OK plugs, round Macroplug or wrapped Mini-Blocks.
- Soak your Grodan starters by dipping in a nutrient solution at quarter strength (pH 5.5) (please see blue SOAK brochure for more details).
- Use good quality clean seed. Or choose strong cuttings from a healthy mother plant (see end of brochure for taking cuttings).
- Use rooting hormone for your cuttings; You will get better results.
- LIGHT: Use only low to medium sunlight or fluorescent lighting. Strong light will burn the seedlings or will cause the humidity dome to be too hot.
- In case you can’t measure pH, 1/2 a squeezed lemon per gallon of water can be used to roughly adjust pH.

Starting plants - the easy way!
- Plant seed or cutting in the hole of the wet starter. Make sure to dip cuttings in a rooting hormone beforehand.
- Place in a zip-lock bag or a tray with a clear humidity dome. Leave bag open 1/2 inch. Starters should not need any water for the first 1-2 weeks. Mist if they begin to dry. DO NOT keep the starters soaking wet.
- Gradually adjust ventilation dome or open up bag about 2 inches, when roots are visible. When the seedling has 4 leaves, it can be removed from the bag or from under the dome. Also gradually increase the nutrient strength, so you end up at half strength just before transplanting. In a couple of weeks, you should have a well-rooted seedling ready for transplant.

Starting plants - the lazy way
with the Grodan Starter Tray System for 1.5" A-OK or round Macroplug.
- Purchase a propagation heat mat and thermostat. Place the heating mat under a 10x20 flat with no holes. Add just enough water to fill the flat to about below the Grodan white tray. (Approximately 1/4" of water).
- Hang the white tray on the flat (tray will not fit inside the flat; it is meant to hang on lip of the flat). Make sure the white tray is not touching water. Fill with your prepared cuttings. Leave a couple of cells open so that enough vapor goes through to create a humid environment. Cover with a dome and tape it down.
- DO NOT touch or water for two weeks: it’s the lazy way! You may need to add a little water to the flat. Cuttings should be ready in two weeks, if not sooner. (If you planted seeds, it may be a little longer). Adjust ventilation dome and increase nutrients as in the last step of the Easy Way before transplanting.

You can make your own cloning system at a fraction of the cost of most systems. You will also avoid the problems with expensive continuous mist cloners, such as overly warm water on the roots or plugs that stay too wet.