

# GROW YOUR OWN LETTUCE WITH HYDROPONICS

Hydroponics is one of the many ways of growing food in water. This system is known as Static Hydroponics because there are NO pumps or electricity needed to move the water. This allows for many of the advantages without the added cost of electricity. Seeds are started in soil and grown for three weeks before transplanting into Hydroponic Beds where it will continue to grow for another 3-5 weeks.

## ALOHA FRIENDS AND FAMILY!

We are very excited to bring you our Home-Style Hydroponic Lettuce Kits! Our goal is to encourage backyard gardening and to give you-the home gardener, as many tips as possible to create a fun and successful experience. If you are limited in garden area, this system is perfect for lanais, under the overhang of your house and provides a great opportunity to grow your own food, even if you don't have a yard. Best of Luck!

Love Always,  
Kahuku Farms



## HYDROPONIC FUN FACTS

Hydroponic systems use much less water and fertilizer than conventionally grown lettuce in soil.

Because the plants are off the ground and grow so quickly, pests like slugs, snails, and caterpillars are greatly reduced. This allows us to use different organic based pesticides or none at all.

Other plants besides lettuce can also be grown in this system. We have tried basil, green onion, pak choi, mint and watercress and many others are possible. Because of the limited amount of water and lack of oxygen, some plants like tomatoes and kale grow better in the ground.

## SUPPLIES NEEDED

- **Kahuku Farms Grow Base**  
(fits 6 seedlings)
  - Pre-drilled foam
  - Black water tub
- **Net Pots** (6)
- **Nutrients**
  - Grow Mix (5 Tbs)
  - Calcium Nitrate (3 Tbs)
  - Magnesium Sulfate (2 Tbs)
- **Lettuce Seedlings** (6)
- **Water** (6 gal)



## DIRECTIONS

**STEP 1** Measure and fill one (1) gal of water in a separate bucket and add nutrients one by one. Stir with stick until fully dissolved

**STEP 2** Measure five (5) gallons of water and fill black tub. Add Nutrient solution (from Step 1) into black tub.

**STEP 3** Transplant lettuce seedlings into the Grow Base in the early morning or evening when cool. Do **NOT** transplant seedlings in midday sun. Make sure the roots can reach the water.

We recommend using the three (3) week old seedlings provided at Kahuku Farms in your home kits for best results. The health of your seedlings will dramatically affect the amount of time until harvest.

**STEP 4** Harvest and Enjoy in about 3-5 weeks. The length of time your lettuce spends in the grow kit will depend on the time of the year. The best time to harvest your lettuce is when the head becomes full and before it matures. When this happens the flavor of the leaf will become bitter and the texture will be less tender.

*\*\*\*During the hot and humid months of summer, lettuce may undergo stress, and because of the stress, it will cause the plant to stretch and shoot up a seed flower much earlier in its life. This means you will always need to harvest much smaller younger plants during this time of the year to still enjoy the best tasting lettuce.*

**STEP 5** Always sanitize and rinse your foam, net pots and black water tub with a 10% Clorox solution after each harvest.

## OUR VERY BEST GROWING TIPS

Lettuce plants love cool temperatures and will go into shock and stress when exposed to too much heat and wind. Once a lettuce seedling goes into shock/stress it may have a hard time recovering.

**ALWAYS** keep dry nutrition separate from each other and use as soon as possible. Avoid having to store for a long period of time. Always keep in a cool, dry, dark place and **ONLY** combine in water. (Do **NOT** combine dry nutrients together outside of water)

Be very selective in choosing the right location to grow your lettuce kit. Lettuce loves the morning sun and afternoon shade. The less wind and rain it is exposed to, the better.

There are hundreds of varieties of lettuce. Each variety grows better in different climates and locations. Kahuku Farms has spent years testing and selecting different varieties of lettuce that grow best in our area.

When buying seedlings from Kahuku Farms, Always bring your plastic net pots and appropriate cardboard box with a wet paper towel to transport your seedlings from our farm to your home.

Do not keep seedlings in car or any hot place for a long period of time.

Please check out the CTAHR website for more great tips and details about this cool system.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/vc-1.pdf>

