

Foot Hill News!

Hydroponics

Dedicated to: Education • Research • Fun!

Issue #12 • Spring 2001

Hydroponic orchids on the increase!

Monterey County, California, grew and shipped 12.5 million dollars worth of orchids in 1998.

The final totals are not yet in for the year 2000, but it could exceed 25 million dollars!

Andy Matus is the largest California orchid grower and has found cultural methods to ensure that blooming orchids are available 12 months out of the year.

Hydroponics and tissue culture methods are combined with intensive breeding to create new hybrids that have the outstanding characteristics of small plants with huge, long-lasting blossoms.

Source: Growing Edge magazine Volume 12 #3 January/February 2001, pages 54-55

Hydromax 2000 aeroponic system

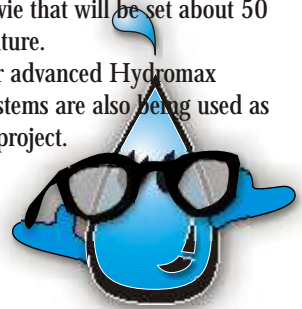
The photo at right shows healthy white roots when the top cover is lifted. The lower parts of the roots dangle into the pool of nutrient solution. The upper roots are constantly sprayed with nutrient water by a submersible pump.

The special nozzles break the water into a flat circular pattern of droplets. These droplets fly through the air and become charged with dissolved oxygen on their way to the plant roots.

Lights! Hydroponics!

Twentieth Century Fox Film Corporation purchased many of the newest HID Horticultural lighting systems, as well as complete Hydroponic growing systems and living Hydroponic plants, for an upcoming movie that will be set about 50 years in the future.

Some of our advanced Hydromax Aeroponic systems are also being used as props for the project.



LAUSD orders more Xtra-Edge Hydroponic nutrients

San Miguel High School, in South Gate, ordered Oasis propagation blocks and Xtra-Edge Hydroponic nutrients as part of its new science education program.

Mount Vernon Middle School, in Los Angeles, ordered special full-spectrum horticultural lights for the part of its new science education program that uses Hydroponics as a learning tool.

The photo above shows our resident 

The special garden carts have two tiers of full-spectrum lighting, with four 48-inch fluorescent tubes on each tier.

This size cart is capable of supporting

several hundred small seedlings, making it possible to share one Hydroponic Laboratory with more than one classroom.



Hydromax Mini Ebb & Flow/NFT Hydroponic system

This photo shows lettuce growing in 3-inch rockwool cubes.

A very small submersible pump raises water from the lower reservoir to the growing tray.



The growing tray fits inside the reservoir, making a small self contained system. The water drains by gravity back to the lower tank.

Our New Hobby

by Ken Suarez

My wife Robin and I had been interested in Hydroponics for years, so when our son, Paul, asked us to help him put together a small Hydroponic garden for his middle-school science fair, we were ready to try it.

We helped him design the little garden and went to Foothill Hydroponics, where Mr. Mohsen Daha was very helpful to Paul. He gave Paul technical advice, lots of literature, and was generous with discount prices.

Paul's tiny garden, made from a recycled soap tub, was a great success. But after the fair, its four tiny one-inch rockwool pots couldn't contain the tomato and pepper plants to maturity, so we let the project go and put the empty tub in the garage, where it sat for over a year.

But our interest persisted, and this year we decided to experiment with a slightly larger setup. After much consideration, we decided on a Hydromax 2000 ebb and flow system, which holds twelve plants. Since it's indoors, we light it with a 250-watt metal halide lamp.

Setting up the system was easy. Foothill Hydroponics staff explained everything and were available by phone for further help.

By using starter plant sets already in four-inch rock wool containers, we were able to have an "instant" indoor salad farm, which is approximately two feet wide by four feet long, in which we are growing tomatoes, lettuce, green peppers,

chives, and flowers. This will provide us with fresh salads and flowers during the winter months.

We will use Paul's tiny science project farm to start plants from seeds and move them to the Hydromax when they're ready to transplant.

The whole family is enjoying the new hobby. Besides providing food and beauty, the plants add oxygen to the air, and there have been several, unexpected bonuses. The metal halide lamp in our



big family room cheers us up on cold, wet, gloomy days. It makes our family room such a cheerful place to be in, that we wish we had bought a metal halide lamp years ago, even if we didn't intend to grow hydroponic vegetables. Paul says that the light is great for drawing and drafting for school projects because he can see fine detail with it much better than

with the regular house lights. Our pre-existing indoor plants, growing in soil, get the double benefit of the “indoor sunlight” and the recycled nutrient solution.

The nutrient solution recirculating ads moisture to the air and sounds like we have a small waterfall in the house.

So, if you're looking for a new hobby, starting a Hydroponic garden is fun, it's educational, it will provide you with vegetables and flowers, and it will cheer you up on cold winter days.

Past newsletters available Online! at www.foothillhydroponics.com



The screenshot shows the top portion of a newsletter. At the top left is a circular logo with a plant. To its right is the 'Foothill Hydroponics' logo in a stylized font, with the tagline 'Dedicated to: Research • Education • Fun!' below it. On the far right is a graphic of a water droplet with a magnifying glass over it, labeled 'Hydroponics'. Below the logo is a section titled 'Here's the latest Hydroponics news!' with a sub-headline: 'From aquaculture to zinc sulfate, from hydroponics hobbyists to space station gardeners, we cover it all in our "Foothill Hydroponics News".' There is a 'Foothill Hydroponics' logo again, followed by a link to download an Adobe PDF version of the newsletter. On the left side of the newsletter, there is a vertical navigation menu with arrows pointing to 'Home', 'About Us', 'Contact Us', 'Hydroponics', and 'Aerponics'. At the bottom of the newsletter, there is a 'Past Newsletters' section with a 'Download' button and a date 'Our First Issue! 03/11'. To the right is an 'Inside' section listing 'The Tomato Machine', 'HYDROBAX', 'Hydroponics', and 'Fungus Control'.

Foothill Hydroponics supports Symposium

On November 18, 2000, the Los Angeles County Office of Education hosted a “New Teacher Fall Symposium,” for new math and science teachers, at the Sheraton Hotel in Cerritos, California.

Foothill Hydroponics participated by displaying hydroponic supplies and by highlighting the new aeroponic spray system in a booth.

Foothill Hydroponics also presented a breakout session titled “Hydroponics in the Classroom.” The workshop, presented by Pat Brown and Ginger Krelle, demonstrated easy and inexpensive ways for teachers to energize their curricula, while meeting California science standards, by growing plants in the classroom hydroponically.

Teachers also learned how to utilize Hydroponics to create an environment

which fosters hands-on learning and allows students to use the scientific method to perform their own experiments.

Teachers who attended the session were inspired, and Dean C. Gilbert, the L.A. County Science Consultant, stated that “the workshop received very positive comments, disseminated a great deal of information, and made a definite impact on these teachers.”

The workshop was well-attended, and all participants received starter kits provided by Foothill Hydroponics.

An aeroponic starter kit was raffled off at the end of the session, and was eagerly received by a 7th-grade science teacher.



My Hydroponic Greenhouse

By Cal Singman

The greenhouse that I built was based on the location and size that suited my need. Since I had no room in my backyard, the only available site was my driveway.

Searching for suitable plans, I chose one in the "Popular Science Woodworking Projects" of 1987. The plans called for an 8' x 10' greenhouse. I decreased the size to 8' x 8'.

I also used 2" x 4" redwood for the midsill, and screws instead of nails. This way the greenhouse can be dismantled and moved if necessary.

The 8' x 8' size is a perfect size to have two 26-gallon capacity reservoirs, one on each side, each holding two HydroTrays or any combination to fit.

As for the growing media, I have tried pea gravel but have found that using the 4" x 4" x 3" rockwool cube best suited my needs.

I have been growing all types of lettuce, tomatoes, sugar peas, Japanese cucumbers, peppers and a variety of herbs.

When my crop is ripe, my wife enjoys picking the fresh vegetables every day for our nightly salads. This is a wonderful fulfilling hobby and also great fun!



*"Thank you,
Foothill Hydroponics,
for helping me!"*