

A Tale of Two Gardens

Liz started a garden to keep herself supplied with primo buds. She wanted an efficient low care system which would produce high quality buds without much effort. Since she did not have a lot of space to spare, Liz emptied a closet and prepared it to serve as a garden. She painted the 4'x4'x7' closet flat white and installed a heavy plastic tarp on the floor to prevent water spillage. She hung a 400-watt high pressure sodium (HPS) lamp from a hook in the ceiling with a chain so it was adjustable. A 20 lb. CO2 tank and short interval timer were placed in the chamber to inject the gas into it. A hole was made in the wall to vent an exhaust fan connected to a thermostate-humidostat. This was designed to keep the room temperature in the 70s and the humidity in the 50s. An oscillating fan was placed in the room to keep the air circulating. (a negative-ion generator was used to control odor). Now it was time to start the seeds. Small rockwool cubes were placed in a tray and watered with a dilute solution of hydroponic vegetative growth stage fertilizer. The tray was drained of water so that only 1/4" - 1/2" layer remained. A seed and a label were poked 3/8" deep into each cube. The cubes were kept moist. The seeds, descendants of several varieties of Dutch seed, germinated in a few days and were ready for transplanting nine days later. The seeds were transplanted into round 6" diameter containers filled with pebble-sized crushed lava rock. The rock absorbs water and transports it through capillary action, much as a tissue moves water. Six containers were placed in each tray. An aerator was placed on the bottom of each of the five trays. Each aerator was attached to a gang valve which in turn was connected to a single small aquarium pump. The containers were watered from the top with a full-strength vegetative growth stage nutrient/water solution. About two to three inches of water was left in each tray for the lava to draw up, much like a wick. When the water level went down in the tray, unfertilized water was added.

Part 2

Last month, Liz transplanted into 6-inch containers. Liz's closet garden took off. In 30 days, the plants were 18" tall and growing very rapidly. Liz changed the fertilizer solution in the trays every 10 days and kept the light about two feet above the plants. She made sure that the water level in the trays was maintained at about two inches. During the month that she was away from the garden for a three and a four day stretch. Though the water level in the trays had dropped a bit when she returned, the plants were still healthy and doing fine. The plants looked vigorous and showed no signs of deficiencies. Shortly after these pictures were taken (sorry no pics), Liz turned the lights back to 12 hours to induce flowering.

Part 3

Liz's garden was in mid-flower. The buds were swelling and creating their characteristic definition. The Early Pearl and Northern Lights buds grew along main branches, developing their configurations, then swelling out. The Skunks were maturing slower, their buds growing large on the primary branches. The plants looked healthy with no sign of deficiency. They were growing fast and vigorously. The system continued working without a hitch. Liz added water to the trays as needed to keep a level between 1 and 2 inches. The fertilizer solution was changed in each tray every ten days. Liz changed over to flowering fertilizer when she turned the lights down to 12 hours. Still, the plants showed no signs of lack of nitrogen (N). Because of scheduling problems, Liz was unable to take cuttings off the plants until two weeks after turning the lights down. After taking the cuttings she placed them in the refrigerator for a few days until she had time to work on them. From bottom up, her cloning kit consisted of: + A small heating mat (sold in nurseries) over the wooden bookshelf + A plastic tray about three inches deep, filled with water + An aerator sitting at the bottom of the tray hooked to a pump + And an almost flat styrofoam plate salvaged from a fruit carton. (The plastic tray had melted into the mat a little, so it was replaced with a glass tray.) The clones were cut from the bottom of the plants. Liz trimmed them to about 2 1/2"-3", leaving only a few leaves at the top. She punched holes with a pencil and inserted the cuttings. The styrofoam held the clones in place. The water-nutrient solution contained flowering fertilizer at 1/4-strength and Olivia's rooting solution (a brand name). The heating mat kept the water in the tray at a constant warmth, in the low to mid-70s. The aerator insured adequate supplies of oxygen to the stems. The flowering fertilizer was used to limit leaf growth and help stimulate root growth.

Part 4

Liz transplanted the seedlings to 6" pots about 90 days ago. Now half the garden has been harvested. The Early Pearls and some Northern Lights have blossomed, ripened, and been cut. This leaves some NL crosses, the Skunks, and Hash plant. Hash plant seems to be having a hard time flowering and probably needs a shorter light period. The glands have filled with resin causing the buds to floresce. New pistil growth has stopped. The fan leaves are yellowing and dying, leaving the maturing buds naked. The tray and pot system worked extremely well. Liz now changes the water every two weeks and adds water as needed to keep the level at between one to two inches. The five-parts-lava-one-part-vermiculite mix stays moist through capillary action, but has large air spaces, so the roots always have oxygen. The water itself is aerated with a small fish-tank air pump. Roots have been growing out of the containers into the water trays. They look healthy and white. The clones, which were started last month, are now rooted, ready to be transplanted into the garden. They have been growing in a tray filled with water. They are supported by a styrofoam divider salvaged from a vegetable box. The water is kept at 75 degrees F. using a fish-tank thermostat-heater.

Part 5

Liz has harvested all of the plants in the garden, yielding between 6 and 8 ounces. She likes all of the plants, but especially the NL-Skunk crosses. Liz now has three growing areas. Her largest space, is the 4' x 4' flower room. Underneath this garden, she has built a small vegetative growth space which can handle either clones or plants which are less than 8" tall. It is lit using fluorescent lights. This space is not being used right now, but will be soon. There are only a few clones left in the rooting chambers. The rest of them have been potted and placed in the flowering room, where they are being given constant light. Some of the plants which were harvested are also in the room. Most of the buds have been picked off them, leaving only leaves on a stem no higher than 12". The plants are expected to revert to vegetative cycle and then will be reflowered. The lighting cycle will be cut back to the flowering cycle of 12-on/12-off within a few weeks.

Part 6

All three of Liz's gardens are being used now. The rooting section, the stage two vegetative growth section and the flowering section have healthy plants. The rooting section consists of a glass baking dish filled with water slightly enriched with high phosphorous fertilizer. Styrofoam forms the float on the water, holding the clones in place. The water is aerated using a fish-tank pump and aerator unit. To promote rooting, the water is kept between 70-75 degrees F. using a plant heating mat. The second stage garden is where the rooted clones are fattened up before flowering. The space is lit by fluorescents and allows the plants to get about a foot tall. The plants in Liz's main garden, where flowering takes place, are in early flowering and filling out. Most of these plants have already flowered once. After removing the buds from the plants, Liz let them go into a vegetative cycle by running the lights continuously. After a few weeks the flowering cycle regimen of 12 hours light/12 hours darkness was reinstated. When plants are reflowered they tend to be very bushy. To eliminate small branches crowding the area, most are clipped off. Liz let most of the branches grow. As a result she has hundreds of flowering sites on each plant, but they are much smaller than they would be with fewer branches. Liz is away, so she has placed "water fountains" in her garden to make sure that the plants do not go dry. The reservoirs are designed to keep the water level at two inches. The water is stored in a 2-liter plastic soda bottle and travels through a small tube directly into the tray.