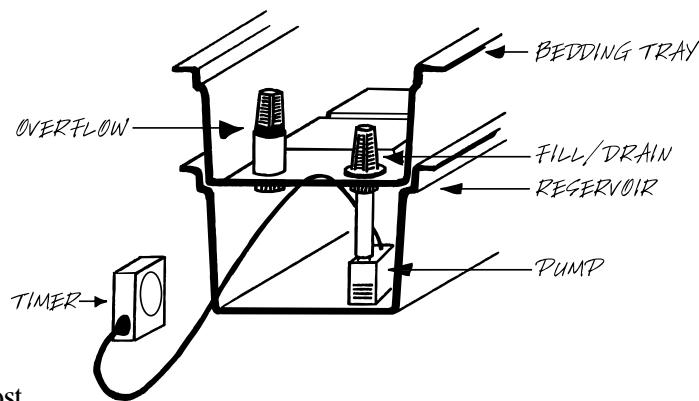


Baby Bloomer™ Gro-Rock



You are in for a fascinating gardening experience with the simplest, most productive soil-less garden available in the U.S. The Baby Bloomer is actually a miniature version of our larger gardens in which we've been growing herbs, vegetables, and flowers for many years. The Baby Bloomer contains the sum of our growing experience so that you will enjoy a successful garden now and for years to come. Please read these instructions thoroughly before assembling your garden. Also, read tips before planting seeds.

Baby Bloomer Components

[1] Baby Bloomer Tray and Reservoir

[1] Timer

[1] 1lb Nutrients

[1] Speedy clamp

[1] 30" section blue vinyl tubing

[1] MN404 Pump

[1] Baby Bloomer overflow

[1] Baby Bloomer fill/drain

[2] 10l bags of Gro-Rock

[10] Pots

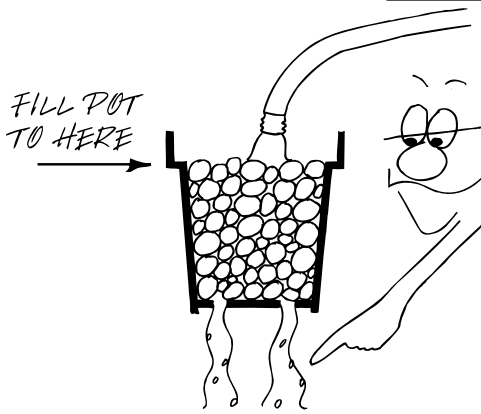
[10] 1"x1" Rockwool cubes

[2] Packets of seed (lettuce and tomato)

HOW IT WORKS

Soil-less or hydroponic growing is simply the most efficient way of providing nutrients, water, and oxygen to your plants. Plants do not spend energy seeking nutrients with their roots. Nutrients, along with oxygen, are delivered right to the root zone by an intermittent flood and drain system. When roots are flooded, nutrients are absorbed; when roots are drained, fresh oxygen is pulled in. Plants are in pots so you can individually tend them. The timer automatically takes care of your plants while you're away.

Figure A



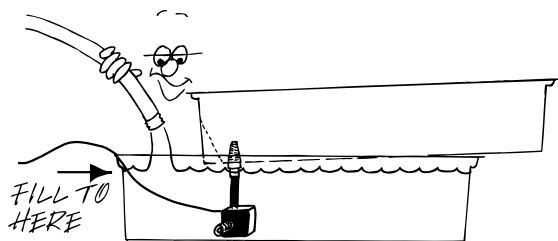
1. Find a sunny location...

for your Baby Bloomer outside, or inside on a level surface. If outside, make sure it's protected from strong wind. If inside, make sure it receives at least six hours of direct sun a day and has fresh air nearby. If you are using a grow lamp, follow the manufacturers instructions for operating H.I.D. lamps. If you are interested in finding out about grow lamps, call your dealer or us.

2. Prepare pots for seeds.

Pour gro-rocks into pots. Rinse with water to wash excess sediment and dust away. You will have some gro-rocks left over - save them. Set pots in bedding tray. See Figure A

Figure B



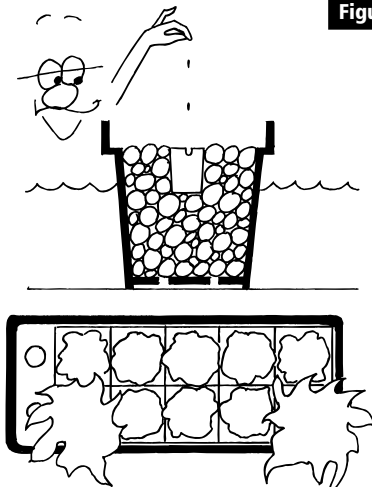
* Gro-Rocks are a naturally occurring volcanic tuft that hold water extremely well. They have a neutral Ph 7.0 and are reusable over and over again.

3. Fill the reservoir with water.

Push tray back 6" to fill. You can do this to inspect pump or add nutrients, too. See Figure B

Reservoir holds 6 gallons of water.

Figure C



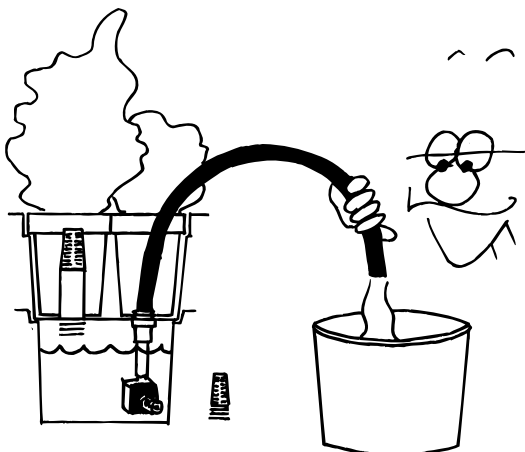
4. Add nutrients to reservoir.

For seedlings, start out by adding 1/2 tsp per gallon (or 3 tsps for the 6 gallon reservoir). Stir with a stick to dissolve nutrients. When plants are 2" tall, start using 1 tsp per gallon. Filling reservoir and adding nutrients is called freshening the reservoir.

5. It's time to plant seeds.

Wet 10 root cubes with tap water. Break apart and set in pots like this. Tomato seeds are round discs and lettuce seed are long and skinny. Place pots in bedding tray. Drop 2 or 3 seeds into each cube. Seeds will germinate faster if you cover the pots with paper, cardboard, or something to keep seeds in the dark until they sprout; uncover once sprouted. See Figure C

Figure D



6. How to use your timer.

When you pull up one grey pin, the timer turns the pump on for 1/2 hour. When plants are seedlings, feed twice a day for 1/2 hour each time. When plants grow tall, four feedings a day are necessary (e.g. 9am-11am-1pm-5pm). Since feeding time and duration are dependent on size of plant and temperature, it is important to check for wetness by lifting a pot up every now and then and feeling it's weight. You can feed from 4 to 20 times a day if need be, especially if it's hot and plants are large. Never let gro-rocks get completely dry.

7. Checking the water level in reservoir.

When water level is down halfway (to 3 gallons) you will need to fill reservoir or top up. Sticking your finger or a stick in the peep hole (the hole the cord comes out of) will tell you how much water you have. Here is a topping up schedule for each time the water level gets down halfway:

Top Up #1 add water and 1/2 strength nutrient (i.e. 3 gallons water :1 1/2 tsp nutrient)

Top Up #2 when water level gets down to 3 gallons again (same as #1)

Top Up #3 same as #1 and #2

Top Up #4 drain and freshen the reservoir

Don't worry if it's a little more or less than 3 gallons when you top up. The Baby Bloomer is very forgiving. After a number of top ups you'll get the hang of it.

8. Draining the reservoir.

Pull up the fill/drain screen and slip in the drain tube. Turn on pump with the timer and drain into yard, sink or watering can. Draining a 6 gallon reservoir will fill three 2 1/2 gallon water cans. You'll get good at this quickly. Drained nutrients are great for patio plants, trees, grass, etc. See Figure D

9. What's the pH Test Kit for?

The Baby Bloomer nutrients and growing medium are designed to work well over a broad range of our nation's water sources. However, if you have softened water or a very high mineral content, you must use bottled spring, or distilled water for your Baby Bloomer. If your plants are not performing well, the pH Test Kit is there to test your water and nutrient solution (in the reservoir) before you call your dealer. There are inexpensive pH adjustment solutions available should you have a pH problem. As a rule, if your pH is between 5.0 and 8.0 (6.3 is perfect) - you are in great shape and your plants will thrive.

Have a Question? Problem? Suggestion? Please let us know!

We constantly refine and enhance our products to reflect what our customers need and want. How do we know what to do? You tell us! Our most important source of ideas and suggestions is you – the people who use our products.

If you have questions, ideas, suggestions, or yes, problems, we want to know about it. Call us at (800-458-6543), fax us (707-822-4718), or send us an e-mail at info@amhydro.com.

Thank You For Choosing American Hydroponics

In addition to complete hydroponic kits, American Hydroponics also manufactures individual components. We offer light rotators, automatic nutrient and pH dosing controllers, and 2-part powdered Evolution Solution for those of you who want to save money by making your own concentrates. For larger operations, American Hydroponics also manufactures commercial NFT systems. For more information about the complete line of products available from American Hydroponics, consult your local retailer or visit us online at: www.amhydro.com.

Limit of Liability: Under no circumstances, including, but not limited to, negligence, shall American Hydroponics be liable for any special or consequential damages that result from the use of, or the inability to use, the materials in these instructions, even if American Hydroponics has been advised of the possibility of such damages. Applicable law may not allow the limitation or exclusion of liability or incidental or consequential damages, so the above limitation or exclusion may not apply to you. American Hydroponics is not liable for damage due to omissions or typographical errors.

Tips

- Sometimes you will see a little algae growth on the gro-rocks around the seedling. Don't worry, it won't hurt your plant. Try to add enough gro-rocks so the top layer stays dry and free of algae.
- If ever the reservoir gets too low, the pump will make a slurping sound. Freshen reservoir immediately.
- Keep all 10 pots filled with Gro-rocks and in the bedding tray; the flood level is dependent on this.
- When planting lettuce, try planting every two weeks for a continuous supply. If you plant 10 seeds per pot, you can thin them when they're 4" tall and have tender salads right off.
- Thin tomatoes to one per pot and have them at either end of the Baby Bloomer. We recommend starting off with two tomato plants and seven pots of lettuce. When tomatoes fruit, you will have to stake them. Later on, try herbs, peas, broccoli, peppers, miniature roses- try lots of plants. **Remember** to choose seeds with this in mind - dwarf veggies and flowers are much easier to deal with in a small garden. You can grow a zucchini plant or a 10' tomato plant, but they will drink five gallons of water a day and leave no room for anything else. Bigger systems are available for larger plants and flowers.
- Our kitty is 15 years old and has been drinking out of the nutrient reservoir for eight years. She has a shiny coat, is healthy, and loves the nutrients. We wouldn't suggest drinking from the reservoir, but it is a fact that the nutrients are specially formulated to be nutritionally complete. Once you taste a Baby Bloomer veggie, you'll know. Tissue nutrition tests rank the quality of hydroponic produce right up there with the best organics.
- You can transplant soil plants into the Baby Bloomer. Rinse soil from roots, gently pour gro-rocks around the roots, set in the Bloomer and turn on the timer. Plants will rarely experience any shock. We caution you, if you are growing inside, it is best to start from seeds. Nursery plants usually have bugs and bugs love to be inside.
- When storing your Baby Bloomer, shake gro-rocks off of roots and salvage as many rocks as possible. Clean pots, trays, fittings, and pump. Put gro-rocks in a bucket with water a 1 tsp clorox. Let set for a few days and rinse with water, let dry and put back in bag. Slide into box to grow again next spring, or get a lamp and grow on through the winter. Nutrients cost about \$11.00 a year.
- In hotter climates (90°-100°) water temperatures may exceed tolerable levels for roots. Growth will be slow and plants listless. Cover Baby Bloomer with reflective material and cool off with water daily.

TROUBLESHOOTING

- A lack of light is the #1 problem with any garden. If plants are stretching you need more light. Pale leaves indicate need for more nutrient. Add 1/2 tsp per gallon more and you'll see the results the very next day. If leaves get crispy around the edges, nutrient is too concentrated. Dilute reservoir with water. If after following the steps provided, and reading the tips, you are having problems with your plants, the Baby Bloomer, pH, etc. call your dealer.
- If ever the pump stops pumping, pull bedding tray back (as in Figure B) and tap on the pump with a screwdriver. If that doesn't work, snap the little cover off pump and check it out. The impellor may be jammed with debris.
- If, after many years, you want to get rid of the Baby Bloomer tray and reservoir - send them back to us for recycling.