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# Grow Boxes

by Don Freeman, Ron Miller, and Lisa Anhaiser

Grow Boxes are self-watering, low maintenance gardening containers for small spaces. They are reusable, last for 5 years or more, and are great for vegetables, fruits, herbs, and flowers.

You'll need:

1. 1 - 32 gallon plastic storage container with lid
2. 8 - 1 gallon nursery pots
3. 2 foot section of 2 inch PVC pipe
4. Duct tape
5. A long piece of wire
6. Garden soil mixed with compost
7. 1 large plastic garbage bag
8. 6 clothes pins (spring type) optional

Place the 8 nursery pots inside of the container, open ends up.

Next you'll work on the lid. The lid becomes the floor that the soil sits on and is supported by the eight 1 gallon nursery pots. The lid has to fit down inside the container so you'll have to cut about 1 ½ to 2 inches in from the edge. Don't worry if you don't match the contours of the container perfectly because we have duct tape!

Now drill ¼ inch holes about 2 inches apart all over the lid for drainage. Drill 5 or 6 holes in the lower 6 inches of the PVC pipe. With the lid resting on the nursery pots, draw circles for the corner holes approximately where the 2 corner nursery pots will end up. Cut these holes out. This is where the soil will go through the lid all the way to the bottom of the container. Cut another hole in the lid large enough for the PVC pipe that is used to fill the water reservoir. Use duct tape around the outer edges of the lid where it doesn't match up with the side of the container and around the edge of the hole for the PVC pipe. This prevents soil from slipping down into the reservoir below.



Drill side drainage holes. These holes should be drilled through the side of the container just below a point level with the lid when it is resting on the nursery pots, which is about 6 inches above the bottom of the container.

These holes are the part that makes watering this container fool proof. You just pour water down the PVC pipe and when water comes out the drain holes the container is full. Also drill a hole on each long side of the container above the lid and fix a wire tie across the middle of the container to prevent the container from bulging when full. Put the PVC pipe in place.

You're ready to add the soil. Place your container in the spot it is going to call home because once the soil is added it will be very heavy. Start in the corners and fill the holes with the nursery pots under them and pack the soil down a bit. This is how the water is "wicked" up to keep the soil that is above the suspended floor moist. Add a few inches of garden soil (a little soil will go through the holes but not enough to matter). Pack it down a bit then fill the container with soil. Water the container from the top to moisten, not saturate the soil (this is the only time you'll water from the top). Pack it down again.

Spread two cups of dry fertilizer (not the type for dissolving in water) in a narrow stripe, about 3 inches wide down the middle of the container then cover the fertilizer with soil. Use a fertilizer such as 15-5-10 or 13-13-13.

Cover the surface with a black plastic garbage bag to prevent rainwater from washing away nutrients and to reduce surface evaporation. Snap on the rim of the lid that was cut out (or use the clothes pins); it will keep the plastic bag in place.

Now cut holes in the plastic for the PVC pipe and for planting seedlings in the container. The number of plants depends on their mature size and the space they need.

Water the container by filling the reservoir through the PVC pipe. When the plants are small you can water once a week and when about 5 feet tall approximately every other day depending upon temperatures and amount of sunlight the plants are receiving. Just make sure there is water in the reservoir.

Make it portable by placing it on casters, or keep it on a patio or in a school garden. Use it for quick or continual harvests of annuals and perennials.



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