

Consider Container Gardening

No ground to garden in? No problem! Even if you have little space, poor soil, or are surrounded by cement and blacktop, you can still have a thriving youth garden project - in containers. As long as you have some sun and access to water, gardening in containers lets you and your students grow vegetables, herbs, flowers, even fruit trees. A container garden can be as simple as a few pots of herbs in a window box or as elaborate as an array of large, outdoor tubs with plants that rotate seasonally. You can do all your gardening in containers or they can complement an in-ground garden space. Some of the benefits of container gardening include:

- Maximizing your space. You can take advantage of small areas like sunny window ledges and courtyards to plants.
- Testing the waters. You may want to make sure gardening will work well with your audience before committing lots of resources.
- Portability. If you're faced with challenges - vandalism and theft, or upcoming construction that will displace your plots - you can design container gardens that are easy to move on a daily or seasonal basis.
- Soil control. By using containers, you can be certain about the safety of your growing media and enjoy eating your harvest. This lets you garden safely where levels of lead and other soil pollutants are a concern.
- Blacktop greening. Perhaps your schoolyard is void of soil and green space. You can place containers on concrete or cement surfaces and grow an ample harvest of vegetable or enhance your space with colorful flowers.
- Accessibility. Container gardens can be easier for those with impaired mobility to access easily.

However, there is a downside to container gardening - the need for frequent watering. Plants growing in containers are much more dependent on a gardener for regular watering than most plants growing in the ground. Because plants in containers are growing in a limited volume of soil, they dry out relatively quickly. Especially during hot weather, container plants may need daily watering. So the easy availability of water is an important consideration when you're deciding where to place your container garden, along with planning for who will be responsible for carrying out this important chore, both when school is in session and over weekend and vacation breaks.

Self-watering containers can help make watering chores easier. They have a water reservoir plus a mechanism that wicks the water up into the potting soil as needed, providing plants with a sustained supply of moisture and doing away with the need for daily watering. A drip irrigation system hooked up to a timer is another labor-saving option and can be a great investment, especially in areas where summer temperatures soar.

Selecting Plants for Containers

There are lots of choices when it comes to deciding what to grow in containers! Many vegetable crops thrive in containers as long as they're properly sized for the plants you're growing. But the most practical choices are plants that stay relatively compact. For example, pumpkin and squash varieties that produce large, rambling vines are challenging to grow as container crops, but bush varieties that take up much less space can be very successful. The same is true for tomatoes; varieties labeled "dwarf," "compact," "bush," or "determinate" will adapt most easily to container culture. Lettuce and other greens, root crops, bush beans, peppers, onions, cabbage family crops, and many herbs are relatively small plants and are all good choices for container growing.

Interested in flowers as well as food? There is an enormous array of beautiful annual bloomers that will be happy in containers, including marigolds, zinnias, petunias, and strawflowers. Flowering plants will not only add beauty to your garden space; they'll attract pollinators and other beneficial insects as well.

If you're interested in growing perennial plants in containers, whether it's fruit trees, berry bushes, or flowering perennials, you'll need to consider not only container size but also your climate. The roots of plants in containers are more vulnerable to cold than the roots of plants in the ground. It's a good idea to choose plants that are rated to two hardiness zones colder than the zone you're in (e.g. if you are located in Zone 6, choose plants rated to Zone 4) and/or be prepared to provide winter protection for your plants in their containers.

Choosing Containers

There are an almost endless number of possibilities for containers, ranging from half whiskey barrels to plastic pots to a pair of old work boots filled with soil! Just about any container that has drainage holes is a potential candidate. For the most successful choices, keep these things in mind when selecting containers for your garden.

- **Size** – If you are growing veggies, a good rule of thumb may be “the bigger the better.” Bigger containers will give the roots of your plants more room to roam, and the larger volume of soil will hold on to soil moisture better. How big is big enough? Give plant like peppers, kale, chard, and broccoli at least 1-2 gallons of soil per plant. Larger plants like tomatoes, cucumbers, and bush squash need at least 4-5 gallons of soil per plant. Smaller, shallower rooted plants like lettuce, onions, radishes and herbs can get by in less roomy containers with less soil. Also keep in mind how much the planted container will weigh. While a larger container may be easier to care for, it will also be harder to move. If you may need to move containers around, make sure they are on wheels if they are too heavy to lift.
- **Materials** – Containers that are made from non-porous materials like plastic or glazed ceramic will dry out more slowly than ones made of porous materials like wood and terra cotta. If you garden in a cold climate and your containers will need to spend the winter outside, clay or ceramic containers are not the best choice, as they may crack in freezing temperatures. They should be emptied and stored out of the weather.

Planting Containers

This is the fun part! Whether you are sowing seeds or setting out transplants, here are a couple of important things to keep in mind as you get ready to plant.

- **Use a Container Planting Mix**

Use potting soil or soilless potting mix, not soil straight from the garden to fill your containers. This type of growing medium will allow for proper drainage and aeration, while retaining adequate moisture. For reasons that can be explained by complicated physics, even soil that is well-drained in the ground will not be adequately drained or aerated in a container. Most container planting mixes are soilless, and are made from a mixture of materials such as peat, coir, bark, perlite, or vermiculite. Packaged mixes are also pasteurized so they don't contain organisms that could cause plant disease and may or may not contain fertilizer. Moisten the mix before you fill your containers; it should be damp, not wringing wet. Add enough planting mix so that, when the plants are in place, the mix level is an inch or so below the rim of small containers and two inches below for large containers. This will give you room to add enough water when you irrigate. If your planting mix doesn't contain fertilizer, you can add some slow-release fertilizer granules to it to keep your plants fed for a couple of months.

- **Don't Add Gravel**

One piece of advice you may have encountered is to put some coarse material such as gravel at the bottom of the container to improve drainage. This is a myth! Adding a layer of coarse material will actually make the container drain less well because water does not move easily across the boundary from the finer-textured planting mix to the coarser material. For the best drainage, fill your containers uniformly with potting mix.

Keeping Your Container Garden Thriving

Container plantings and hanging baskets have a limited volume of soil and can dry out really fast when the weather gets hot. Some containers may even need watering more than once a day when temperatures reach into the eighties and nineties. If the entire rootball dries out, it can sometimes be hard to rewet the potting soil, especially if it's high in peat. If this happens, add water slowly so that it soaks in and doesn't just run down between the soil ball and the inside of the pot.

All that watering leaches nutrients out of the soil quickly, so plants grown in containers will need regular fertilization. You can either mix in slow-release fertilizer pellets at planting time or give your plants a dose of soluble fertilizer, such as fish emulsion, every 3-4 weeks.