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Plant in Pots or the Ground?

By Dr. Matthew Lisy, UConn Adjunct Faculty

One of the most common questions I have received over the years is whether or not someone should plant their flowers or vegetables in pots or in the ground. The answer is not always a simple one, as there are many variables to consider. I typically tend to tuck plants into the ground for many reasons but there are a number of situations where a pot is the better alternative.



Tomatoes grown in the ground (left half) versus tomatoes in vegetable pots (right). The plants in the ground dwarf the potted ones and will greatly out produce them by summer's end. Photo by Matt Lisy.

A great advantage of pots is that they can go anywhere. There is no better way to color up a hardscape (patio, stone area, porch, balcony, unused portion of driveway, etc.) than with a few pots of flowering annuals. If the pots vary in height, there can be a vertical artistic element to the design as well.

Soil in pots generally warms up faster in the springtime, as they are literally miniature raised beds. This allows for quicker growth and increased size of your plant. Pots are a great way to control otherwise “invasive” plants or to separate different varieties of the same plant species. Many years ago my wife was into mints. We planted many varieties which, despite considerable separation, quickly ran together and we lost track of it all. The mint also took over the entire herb garden. Bamboo is another plant well suited to life in a pot to prevent its spread.

Watering is, in some respects, easier in a pot as you can give it as much or as little as the individual plant needs. Water generally drains out of a pot rather well, making over watering more difficult. You can also control the soil by using a specific container mix or making your own mix. By selecting specific ingredients, you can control many physical and chemical properties in the pot. Sure the ground could have amendments added in, but in a pot you can get exactly what you want from the start, and you know what the additives are. Be careful, however, as not all potting mixes are created equal. Some mixes have fertilizer incorporated already.

Planting in pots also gives some protection from herbivores. Pots can be moved if they are in a bad spot and roots are much less likely to be devoured by underground critters, like voles.

One of the biggest drawbacks to the use of pots is the fact that the plants are not in the ground. Soil has a plethora of beneficial soil microbes, invertebrates and insects that help our plants grow. Although old potting mix may gradually obtain some of these species mentioned above, the diversity and abundance is certainly not the same. Some newer potting mixes do include beneficial microbes.

Another thing that happens to potted specimens is that plants frequently and very quickly run out of nutrients. Regular fertilization is necessary for plants to grow large and full. Use synthetic or natural organic fertilizers with both macro and micronutrients. Micronutrients are typically present in garden soils but not in soilless potting mixes.

Pots also have a tendency to dry out quickly. The smaller the pot, the more quickly this happens. Some plants cannot recover very easily from drying out. From my experience, once a hanging basket dries out, it never looks quite as magnificent as it did before. Check container plants every day to see if they need watering.



Finally making a comeback, an otherwise beautiful hanging basket until it dried out toward the end of June's summer heat. Photo by Matt Liszy

Frequent fertilization, a necessity for potted plants, can lead to salt build up in the potting mix. It is generally not that much of a problem over one growing season, but a reason, along with disease issues, to use new potting mix each spring. Lastly, root space can be severely limited in pots. Many plants do not reach their full potential in pots. Planted in the ground, roots may reach down or spread out many feet for water and nutrients.

So for that pop of color or to add interest to a paved area, grab your garden pots and start planting. If you live in an apartment and want to enjoy the taste of fresh cherry tomatoes, certainly put a few plants in as large a pot as you can find. Select varieties suitable for pot culture. However, if you have the choice, plants in the ground will generally grow much bigger and better over the long run. They require less care and fertilizer from the gardener, which means you have more time to plant more plants! One last word of advice; if you plant in the ground, I highly recommend a soil test through the [UConn Soil and Nutrient Laboratory](#). It is very easy to do and relatively inexpensive. With proper soil chemistry, you will get the best plant growth and all your friends will want to know what your secret is!

For your gardening questions, feel free to contact us, toll-free, at the UConn Home & Garden Education Center at (877) 486-6271, visit our [website](#) or contact your local Cooperative Extension center.