



Five P's for growing vegetables in containers 2021



TITLE: 3b) The third “P” is PLANT. And in this 3(b) session, we are focused on summer, warm-season vegetables. Summer vegetables are those that would be killed by frost

Description: Some summer, warm-season crops – such as tomatoes and peppers, should be purchased as seedlings and transplanted into containers. Other summer crops – such as beans, cucumber and squash, can be sowed directly in containers.

Objective(s): Learn how to successfully transplant seedlings and sow seeds in a container.

WHAT: All vegetable seeds need these two things to germinate: warmth and moisture. If you purchased tomato or pepper plants, someone else has done this task for you.

WHY: Some summer vegetables, like tomatoes and peppers, have such a long time to maturity that they must be started indoors and then transplanted. They can not be direct seeded in our area. Other summer vegetables, like cucumbers and squash, have a shorter time to maturity and can be direct seeded. They do not need light to germinate, but they will need light shortly after they have germinated/sprouted. And as they grow, they will need greater amounts of light.

WHEN: Summer, warm-season vegetables can be started indoors well before the last spring frost. But do not set them out into the containers until the chance of frost is zero, as a frost will seriously stunt their growth – or even kill them.

WHERE: If your containers are small and easily moved, start the summer seeds in your garage. If your containers are large and not easily moved, set them in their final place before transplanting tomatoes and peppers, and before sowing seeds for beans, cucumbers and squash. For vegetables that like to grow tall and/or vine (tomatoes, cukes, squash) and will need vertical support, get your stake or trellis in place as soon as you transplant the seedling or sow the seeds. Be sure to set your containers of summer vegetables in a place where they will get AT LEAST 6 hours of sunlight each day. Summer vegetables will not grow well, or produce well, in the shade.

HOW: Refer to P#1 (Pick a Pot) for what size container you need for your specific summer crops. A 5-gallon bucket is the minimum for tomatoes, and a 7-gallon container is better. And that 5-7 gallon container will hold a single tomato, a single pepper, or a single eggplant!

If you are sowing seeds for beans, cucumbers or squash: the key is to keep the surface moist until the seeds have germinated. Do not let the surface dry out. If your container is indoors for sowing seeds, it may help to lay a moist paper towel on top, and gently water the paper towel to keep the surface moist. If your container is outside, it would work better to use a plastic container (with bottom cut off and lid removed), to keep birds from eating your seeds. The 7-gallon container is 12” deep, 14” in diameter, and can support 2 cucumbers, 1 squash, or 9 bush beans.

SUMMARY OF IMPORTANT POINTS:

- **READ THE SEED PACKET.** The seed packet contains a lot of useful information, such as when to plant, how deep to plant, how patient you need to be while waiting to see something sprout. Some packets give a range of soil temperatures where the germination rate will be best. Most beans, cucumbers and squashes will germinate in 4-7 days.
- Follow the instructions on the seed packet – with the exception that you can disregard any mention of “spacing between rows”, as you do not have the usual rows in your container.
- **CHOOSE “CONTAINER” VARIETIES.** There are many varieties of summer vegetables that have been hybridized to be smaller – to grow well in containers. Sometimes it will indicated “container variety”. Other indicates include the word “patio” in the name, such as “patio tomato”. Bush cucumbers will vine a bit, but will not need a trellis/support like regular cucumbers. Check the references below for specific names of container varieties.
- If you purchase seedlings, be sure to “harden” them before setting them outdoors in their containers. This is a process of giving them increased exposure to outdoor conditions over the course of a week. By the end of the week, they should have spent at least one night outdoors.
- When ready to plant: Be sure to look at the ten-day weather forecast, paying close attention to the night-time temperatures, as tomatoes and peppers really don’t like it when the temps dip to 55°F (or lower). And if there’s a chance of frost in the forecast, be prepared to cover your summer veggies with some type of fabric; do NOT use plastic.
- Average last frost date in Knoxville is April 15 – but that means there is a 50/50 chance of frost. That drops to about 30% chance a week later, and to about a 10% chance at the end of April. Play it safe, and wait until at least May 1. Many suggest waiting until Mothers’ Day.

Additional References:

“Container Gardening”, Texas A&M, <https://agrillifeextension.tamu.edu/solutions/container-gardening/>

“Vegetable Varieties for Containers”, Wisconsin Horticulture, <https://hort.extension.wisc.edu/articles/vegetable-varieties-for-containers/>

“Container Gardening with Vegetables & Herbs”, Michigan State University, <https://www.canr.msu.edu/uploads/resources/pdfs/containergarden-veggiesherbs.pdf>

Knox County Master Gardeners website: www.knoxcountymastergardener.org

Knox County Master Gardeners Facebook page: <https://www.facebook.com/KnoxCountyMG>

Ask-a-Master Gardener / Knox County Extension Helpline: (865) 215-2340

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