

The Grapevine

Starting Seedlings Volume 2.0

I don't know about you, but April is passing in a blink of an eye around our office. As quickly as the month is flying by, it seems like my vegetable transplants are growing even faster. The good news is we are rapidly approaching our frost-free date of April 15th and the forecast shows some warmer nights coming up. It's almost time to start transitioning any vegetable starts or even plants purchased at the greenhouse outside. We still have a couple weeks before it's safe to consider planting warm season plants outside but that doesn't mean we get to sit back and twiddle our thumbs till then. Let's talk about how to "harden off" your plants and troubleshooting common issues.

One of the biggest mistakes I see people make when starting their own vegetables or purchasing plants from a greenhouse is they don't harden the plants off before planting them outside. "Hardening off" is the process of transitioning plants grown in a greenhouse or a protected indoor location to the harsher outdoor conditions with fluctuating temperatures, wind and sunlight. This should be a gradual process that slows the growth of the top of the plant, encourages more root development, reduces the amount of water in the plant and actually thickens the cell wall. The process really does "toughen up" the plant as they change from soft and supple to leaves and stems that are harder and firm to the touch. You should start this process several weeks before you actually want to plant outdoors. Rushing this step can lead to sunburn, stunted plants, wilting and possibly even the plant dying from shock.



The first step of hardening a plant off actually should happen inside. The first step is to gradually reduce the amount of water you give the plants. You never allow them to wilt, but allow the soil to partially dry out so the plants slow down their growth. At this point I would also add a fan blowing on the seedlings at a low speed to start acclimating them to the ever-present wind in Kansas. On days when it's above 55 degrees outside move the plants outside and place in a shady, protected location for a couple of hours. Over the next couple weeks, gradually extend the amount of time outside and increase the amount of sun and wind that the plants receive. Be sure to take them inside at night, especially if the temperatures are projected to get into the 40's. After two weeks the plants should be able to handle full sun and most of our winds. Remember it's not just our seedlings grown inside that need this process, any plant that has been grown in a garden center will also need to be transitioned outside, especially early in the season.

A couple trouble shooting steps, if your plants have gotten leggy you may need to transplant them into large containers prior to attempting to transition them outside. Leggy plants tend to struggle in the wind and we have at least a couple weeks before they can be safely planted outside. There is absolutely nothing wrong with bumping your plants to a larger container. Remember that leggy tomatoes can be planted deeper than the current soil line as they will root up the stem.



Another issue commonly seen is yellowing leaves if you haven't been fertilizing your transplants. Unfortunately, we shouldn't be fertilizing as much during the hardening off process because we want to slow the growth of the plant, not increase it. I would continue to add some fertilizer, but nutrient deficiencies will have to wait to be corrected till the plants are planted in the ground.

The overall goal of hardening our plants off is to slow the growth of the plants and allow them to adjust to the fluctuations of the outside world. After a hardening off period our vegetables, even the ones that love heat can tolerate a dip in night temperatures (not to freezing, but a cooler night) without being harmed. The hardening off process described above can also be used to move your houseplants outside. Not all plants can handle full sun outside but remember to gradually transition the plants to avoid burning the leaves. Happy growing!!

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Reminders-

- Sidedress cabbage, broccoli and cauliflower 3 weeks after transplanting. See <https://tinyurl.com/j2ggaa6> for sidedressing chart.
- Sidedress onions 2 to 4 weeks after transplanting.
- Prevent “weedwacker disease” on trees and shrubs by using a ring of mulch around your trees. Remember we want a crater around the tree not a volcano mounded up to the trunk.
- Apply pre-emergent herbicide to your lawn. Be sure to water it in after application for best control.

Upcoming Events

- *April 21st- 6:30 pm- Composting and Gardening Basics*
Spring has sprung and with-it gardening season has begun. Compost can be an amazing addition to your garden and flower beds but it can be intimidating to get started. As we start the gardening season join us to learn how to successfully compost your lawn, garden and kitchen scraps, learn some common issues and troubleshooting guides along with some different options for composting bins. The class will also cover some troubleshooting and common issues of issues you have in your garden this season. Register [here](#) to allow for enough handouts.
- *May 4, 2022: New and Improved Annual Flower Varieties*
New and improved varieties of annual flowers hit the garden center shelves every year. Which varieties will provide you outstanding summer performance? Join Matthew McKernan, Sedgwick County Horticulture Extension Agent as he highlights new varieties of annual flowers with outstanding performance, along with tips for growing annual flowers more successfully this summer! For more information on KSRE Garden Hour [click here](#).