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Grow Your Own Vegetable Transplants
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With many commercial transplant production facilities reporting record sales last year, gardeners may wish to consider producing their own transplants. There are several advantages to germinating your own seed, but it may not be appropriate for all gardeners. If you intend to have a large garden, then purchasing your own seed may be worthwhile. For those gardeners who wish to have only a few plants of a particular vegetable, it may be more appropriate to purchase transplants. Either way, transplants offer two primary benefits to gardeners over direct seeding. First, germinating seeds in a protected environment decreases seedling mortality and, when done correctly, increases seedling vigor. Second, transplants set out in the garden can be hand-chosen, leading to more uniform production.

Many home gardeners are reluctant to produce their own transplants because of the space that they take up, the light that they require, and the time involved. However, there are many benefits to consider, as well. By producing their own transplants, gardeners don’t have to hope that their favorite varieties will be available at the garden center or worry about pest issues that can carry over from commercial production facilities.

The ideal place to grow transplants is in a greenhouse. This allows for the greatest amount of room to work and the volume of a greenhouse can buffer temperature swings. If you don’t have a greenhouse, using a hotbed is the next best option. Hotbeds are clear-covered boxes set outdoors, usually near the foundation of a house, supplied with supplemental heat (MU Extension has a publication on hotbeds and coldframes). Where hot beds are not practical, transplants can be produced indoors.

For indoor production, you should still take advantage of natural light. South-facing windows are the best places for transplants, but they will still need supplemental light. There is a variety of special fluorescent light bulbs designed for plant growth. These bulbs should be placed about 4-6 inches directly above the plants. There are several designs available for simple structures that help optimize seedling growth indoors. It’s a good idea to hang the lights in a way that allows you to move them up and

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down to maintain an acceptable distance between the light source and the plants as they grow.

Prior to planting them in the garden, your transplants should be acclimated to the outdoor environment. This process is also called “hardening off.” By gradually introducing the plants to conditions similar to the outdoor climate, they become less likely to be stunted. Acclimate plants by lowering the indoor temperatures by 10 degrees for about 10 days or by placing them outside in a protected area.

Well-acclimated plants should stand up to the environment after they have been transplanted into the garden. However, they will still be susceptible to transplanting shock. To alleviate the effects of this shock, plant them in the late afternoon or on a cloudy day. This will give the plants an opportunity to recover quickly.

To find out which plants do best when transplanted, contact your local University of Missouri Extension office or visit extension.missouri.edu.