

Home Garden Series

Growing Transplants



Growing Your Own Vegetable Transplants

A transplant is a small plant germinated from a seed. Growing your own vegetable transplants is very rewarding. By using these basic tips, you'll be able to grow all kinds of exciting vegetable varieties in your own backyard.

What Vegetables Typically Are Transplanted?

Growing transplants is beneficial for vegetables that tend to be expensive or need to be planted at exact spacing. Root crops generally are not grown as transplants but are seeded directly into the garden. Less expensive seeds also are not typically transplanted.

Examples of vegetables that perform better if directly seeded into the garden plot are carrots, mustard greens, collard greens, turnips, beets, beans, peas, leaf lettuce, spinach, chard, sweet corn and radishes. Cucurbit vegetables such as pumpkins, watermelons, cantaloupes, cucumbers, gourds and squash perform best when directly seeded into the garden. Those also will perform well, however, if started as transplants as long as they are started only three to four weeks prior to transplanting.

Vegetables that commonly are transplanted include tomatoes, peppers, eggplants, broccoli, cauliflower, cabbage and Brussels sprouts.

Purchasing Seed

Growing your own transplants begins with purchasing seeds. Purchase fresh seeds from a reputable source. Cheap seeds or old seeds are not a bargain if you have poor germination and plant vigor. After planting, any remaining seeds should be dried (if wet), labeled (with name and date) and stored in the refrigerator or freezer.

Timing

It takes three to 10 weeks, based on the species, to produce a good transplant. Purchase seeds well in advance of when you want to plant something into the garden. Table 1 provides general timeframes to begin seeding your transplants prior to them being placed in the garden. Use the Louisiana Vegetable Planting Guide for planting dates, spacing requirements and depths to plant.

http://www.lsuagcenter.com/en/lawn_garden/home_gardening/vegetables/home_garden_crops/Louisiana+Vegetable+Planting+Guide.htm

VEGETABLE CROP	TIME REQUIRED from seed to transplant
Cucumber	3-4 weeks
Cantaloupe	3-4 weeks
Watermelon	3-4 weeks
Pumpkin	3-4 weeks
Gourd	3-4 weeks
Tomato (spring)	8-10 weeks
Tomato (fall)	4-6 weeks
Eggplant	8-10 weeks

VEGETABLE CROP	TIME REQUIRED from seed to transplant
Pepper (bell)	8-10 weeks
Pepper (hot)	8-10 weeks
Lettuce (head, Romaine, butterhead)	4-5 weeks
Artichoke	12 weeks
Brussels sprout	6-8 weeks
Broccoli	4-6 weeks
Cauliflower	4-6 weeks
Cabbage	4-6 weeks

Choosing a Container

Transplants can be started in many different types of containers. Containers must be clean and have adequate drainage. Recycled containers that had soil or food particles should be cleaned with a 10 percent bleach solution prior to reusing for transplants. Dip the dirty containers into the solution and use a brush to remove particles. Then rinse, dry and plant.



Choosing Media

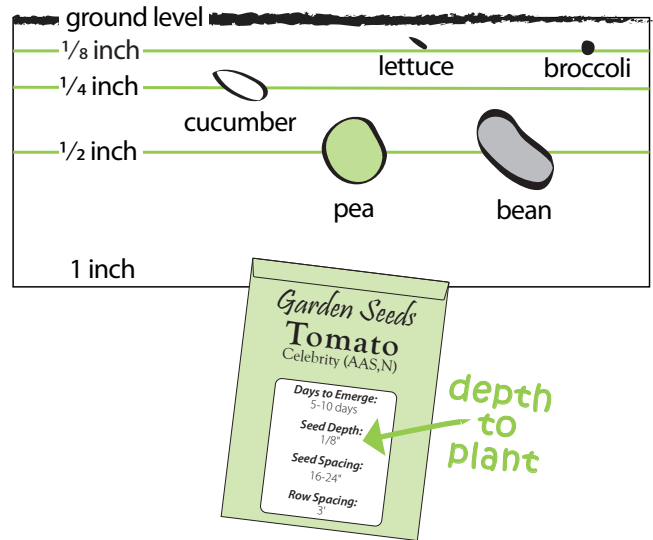
Transplants should be started in sterile media. Most germination media is soilless because of weed and disease problems. Media varies in consistency but generally is a blend of bark, perlite, vermiculite, sand, lime, micronutrients and peat moss.

Hardware stores and plant nurseries sell germinating mixes. These generally are the best media to start transplants with because they are sterile. Sterile media is media that has been heated, and most of the fungus, bacteria and mold spores are killed.



Plant Depth

Seeds should be planted no more than three to four times as deep as they are wide. A few seeds actually require light for germination. One example is lettuce. Read seed packets carefully to determine how deep to plant.



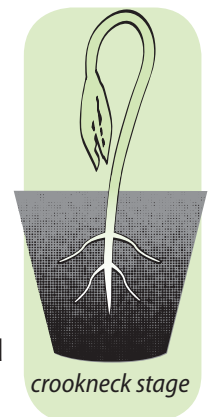
Seeding Procedure

Fill containers with media. Using a hose with a sprinkler or rain nozzle, apply water until it runs out of the bottom of the container. This ensures the planting media is thoroughly wet. Plant seeds to proper depth. If needed, cover the seeds with a small amount of media. Water again.

Sunlight is not needed for germination but is needed as soon as the seedlings emerge. Place trays/containers in an area that protects them from environmental elements but also allows for direct exposure to sunlight.

To increase uniform germination in tomatoes, eggplants and peppers, use heating mats that are made for greenhouse use to help seedlings emerge. Set heating mats with a thermostat so they have a consistent temperature of 85 degrees Fahrenheit. Place seedling trays or containers on top of heating mats. Loosely place plastic wrap on top of each container or tray to hold in humidity.

Remove trays and containers from heating pads in exactly 48 hours for tomatoes and 72 hours for peppers and eggplants. The seeds should be at the crookneck stage.



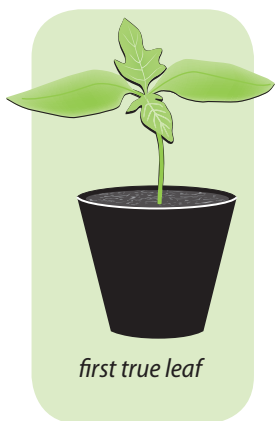
At this point, full sunlight is needed for proper growth. Place seedlings in the greenhouse, cold frame or other area where they are kept warm but also in direct sunlight.

Fertilizing and Watering Transplants

Transplants should be kept moist but not saturated. Check transplants daily. Make sure containers feel heavy when you lift them at a corner. If a container feels light, apply water.

Transplants should not be fertilized until their first true leaves have developed. The first true leaf is the third leaf that grows immediately above the cotyledons. Follow recommendations on your fertilizer of choice. Vegetables grown in LSU AgCenter trials generally are fertilized with a 20-20-20 (N-P-K) fertilizer at no more than 200 ppm or 2 tablespoons of 20-20-20 per gallon of water once a week until plants are transplanted into the garden.

Transplants should be stocky and dark green prior to placing them in the garden.



Hardening off

Approximately one week prior to transplanting into the garden, remove seedlings from the greenhouse, cold frame or other protective structure and place them in an open area. Reduce watering. Exposure to similar environmental elements is needed to help the tiny transplants acclimate to the new setting.

Troubleshooting

If seedlings are light green and stretching, place them in an area where they receive more sunlight.

If soil around seedlings is forming a green crust or slime, reduce the amount of watering.

If seeds are not germinating, try placing them on a heating mat for no more than 48 hours, making sure the planting media stays moist. Bottom heat will aid in even germination of vegetable crops like tomatoes, peppers and eggplants that prefer warm soils.

If seeds are not germinating, did you plant too deeply? Were the seeds fresh? Are the containers being kept in a protected area out of cold temperatures or extremely hot temperatures? What is the pH of the media? (pH must be between 5.5 and 7.0 for peak germination.)

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