



**COLLEGE
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TRANSPLANTING VEGETABLE CROPS

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Many vegetables do not grow well when seeded directly into the garden. They may require special care during the first few weeks following seeding. Vegetables that are usually transplanted rather than direct seeded include tomatoes, peppers, eggplants, onions, lettuce and certain members of the cabbage family.

BUYING TRANSPLANTS

For a small backyard garden, it is easier to purchase a few healthy transplants (locally known as slips) than trying to grow your own. However, when you buy living plants, use the same care you use when you buy fresh produce. Buy only plants that appear dark green and healthy. Don't buy diseased or damaged plants. Examine the underside of the leaves for insects and insect eggs. Leaves with white tunnels running between the upper and lower leaf surface are infested with leaf miners. If the plants were grown in ground beds or seed flats containing field soil, ask if the soil was fumigated to kill nematodes and other plant pests. Plants grown in artificial soil or soil-less mix will be free of nematodes.

Good transplants will have strong, thick stems. Tall, spindly plants may not withstand the shock of transplanting. A good tomato transplant should be as wide as it is tall. If you are not satisfied with the appearance of the plants, don't buy them. There is probably something wrong.

GROWING YOUR OWN

Although growing your own transplants is not difficult, it does require some skill and practice. Check Gardeners Factsheet No. 3 for instructions.

PREPARING THE GARDEN

Remove all weeds and debris from last year's garden. This simple step will help reduce disease and insect problems considerably. The plot should be fertilized with either 4 lbs. of 10-10-10 garden fertilizer or 4 bushels of decomposed cow manure per 100 square feet. The fertilizer should then be turned down to a depth of 6 inches with a roto-tiller or garden fork. Decomposed cow manure may also be dug into a hole directly under each plant. If you use fresh manure, wait at least 4 weeks before planting.

If you have had problems with yellowing of young plants due to our alkaline soil, you may want to add the trace elements iron, manganese and zinc. These are available in mixtures such as Peters Soluble Trace Element Mix or Master Green. They may be applied as a foliar spray or directly to the soil.

Drenching the soil with an insecticide, such as diazinon, before or immediately after transplanting may reduce infestation by soil insects. This is especially important if manure has been applied or if you have had insect problems in the past.

If the soil is heavy and poorly drained, the plot should be banked and the plants put on top of the ridges.

SETTING OUT

It is critical to cause a little root injury as possible when setting out young plants. Even minimal damage to delicate feeder roots may cause a delay in growth which will decrease the likelihood of success. Plants grown in individual containers will have much less root injury than those pulled bare-root from a ground bed.

Most plants can be set in the ground slightly deeper than they were growing in the container. This will provide extra support and promote faster root growth.

Tomatoes can be set in much deeper than they were in the original container. Root growth will be stimulated by burying the stem up to the second set of leaves.

STARTER SOLUTION

After setting the plants out, soak the roots with water or a starter fertilizer solution. Starter solution is a soluble fertilizer with more phosphorus than other nutrients. Phosphorus is important for promoting root growth. A typical starter solution analysis is 10-55-10, 10-52-17 or 15-30-15. If these are not available, a standard 20-20-20 house plant food will suffice. No other fertilizer application should be made until transplants are firmly established and beginning to grow.

PRUNING TRANSPLANTS

Pruning transplants to reduce water loss is a very poor practice. Although pruning may reduce the extent of wilting after setting out, it will also reduce the rate of new root growth. When a plant is set out, food energy stored in the old, large leaves will be translocated downward to promote root growth. If these leaves are removed, root growth will be delayed.

Wilting following field setting is a very natural protective measure against extreme water loss. The wilted plant is not sick or dying but demonstrating a quite healthy response to water loss. A plant that wilts during the hottest part of the day will usually regain vigor in the evening. Transplanting on cloudy days or in the late afternoon will help reduce wilting.

SUN VS. SHADE

All vegetables grow best in full sun. Vegetables grown in shade will require less water but will also be less productive. It is always better to plant your vegetable garden in full sun and provide adequate water.

Transplants that were grown in partial shade should be acclimated to full sun in successive steps. Place them in partial sun before planting them out in full sun.

VEGETABLES THAT SHOULD BE TRANS-PLANTED:

cabbage	cauliflower	broccoli
lettuce	tomatoes	peppers

VEGETABLES THAT SHOULD NOT BE TRANS-PLANTED:

beans	carrots	corn
radish	okra	

Products and suppliers mentioned by name in this publication are used as examples and in no way imply endorsement or recommendation of these products or suppliers.

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