

HOME TRANSPLANTS GARDEN

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Transplanting is easy to do. It's enjoyable. It can be a money-maker for you, and it offers several advantages over buying commercially produced plants.

- Plants are available when you need them, so you don't have to wait for commercial plants to become available.
- There is less danger of getting diseased plants if you follow a few simple precautions.
- You can produce newer varieties not yet available from commercial plant growers.
- You can be sure of getting the variety you want.
- Home-produced transplants grow better after being set in the garden, because they are fresher.

VEGETABLES TO TRANSPLANT

Tomatoes, peppers, cauliflower, broccoli, eggplant, collards, cabbage and onions are usually started from transplants. If you want watermelons, cantaloupes, cucumbers, squash and other vegetables to yield earlier, you can start them indoors in peat pots.

CONTAINERS

Seed Flats

You can build these at home out of thin, rigid boards or buy them at your garden supply store. A 12" x 24" x 3" size is easy to handle, and is large enough to grow 250 to 300 seedling plants up to transplanting size without too much crowding.

Peat Pellets

Made of compressed sphagnum peat moss contained in mesh, a pellet expands when water is applied, making the peat pot with soil ready to receive the plant or seed.

Peat Cubes

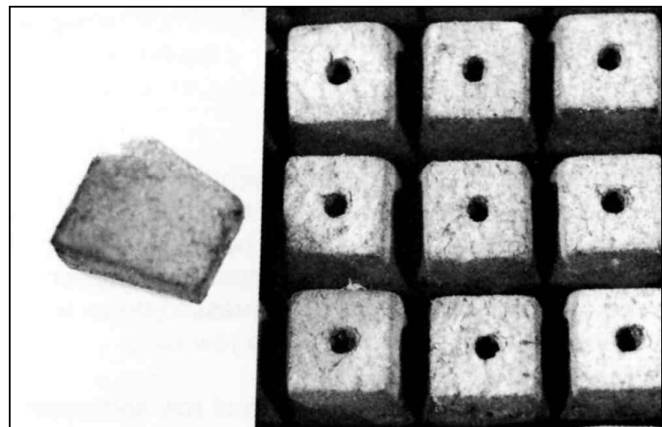
Made of mesh and compressed peat moss, cubes are already expanded to receive the plant or seed.

Peat Pots

Made of peat moss and other fiber, pots must be filled with soil or growth medium before seed or plants are placed in them.



Peat pellets



Peat cubes



Peat pots

SELECT A GROWTH MEDIUM

Topsoil is hard to find, and even good topsoil often contains weed seed and disease organisms. Your plants may die if you use soil that has not been sterilized.

Artificial mixes usually do not require sterilization and are easier to handle. A number of different formulas have given good results. The formulas below can be used in seed flats or pots.

If the peat moss is very dry, dampen it by sprinkling with a gallon of warm water before mixing. Blend the peat with vermiculite thoroughly before adding the dry fertilizer materials.

When all the ingredients have been added, turn the mixture until the ingredients are thoroughly blended. Don't contaminate the mixture with outside soil. Moisten the mixture well.

Material	Amount
Shredded sphagnum peat moss	½ bushel
Horticultural vermiculite (grade 2, 3, 4)	½ bushel
5-10-10 fertilizer*	8 Tbsp.
20% superphosphate	3 Tbsp.
Ground limestone	5 Tbsp.
Chelated iron	½ tsp.

* at least half the nitrogen should be in the nitrate form.

PLANTING

Seed Flats

Fill the seed flat with soil. Press indented rows in the seed flat ¼ to ½ inch deep, depending on the seed to be sown. Larger seed are usually sown a little deeper than smaller seed. The edge of a thin board pressed down on the surface of the mix will make a row deep enough for planting.

Sow two to three seed per inch of row and cover with the soil mixture. Then apply a fine stream of water to settle the soil. Do not soak the mixture, because peat moss will hold nine times its weight in water.

Place the seeded flats in an area where the temperature is fairly constant. Most vegetable seed germinate best at temperatures of 75° to 80°F.

Peat Containers

Watermelons, cantaloupes, squash, cucumbers and other such vegetables can be seeded directly in peat containers. Use three to four seeds per pot, and thin to one or two plants per pot after germination. Moisture and temperature requirements for seeded pots are much the same as those for seed flats. Tear the side of each container before placing the plant (container and all) in the field.

TRANSPLANTING

Tomatoes, pepper, eggplant, broccoli, cauliflower and cabbage are usually started in seed flats, then transplanted to pots so the plants have more room to develop.

Lift the plants from the seed flat when they have developed their first true leaves. At this stage the plant will actually have four leaves. Gently pry the plant up as it is being pulled to help prevent breaking the roots. **Handle the plant by the leaves — not the stem.** If a leaf should break, it will grow back; if you mash the stem, it will interfere with the nutrient transport system and the plant will never recover.

Tomatoes can be transplanted deeper than they grow in the seed flat. Other vegetables should be transplanted at the same depth that they grow in the seed flat.

Water the plants after transplanting, being careful not to knock the plants down with a coarse stream of water. A single fine stream of water directed at the base of the plant is better than sprinkling water over the top.

CARE AFTER TRANSPLANTING

Once they are established and growing, direct-seeded and transplanted vegetables can be cared for in the same way. Water only when the surface of the mix feels dry. Experience will tell you when water is needed.

When the plants reach the stage at which they are to be set out in the garden, "harden off" or toughen them by withholding water and exposing them to lower temperatures.

PLANTING OUTDOORS

Plant transplants as described above, handling the plants by the leaves or tops, not by the stems. Transplants in peat containers can be set out while still in their containers. Growers must make sure that any plant set out in a peat container is set low enough that no part of the container is above the soil line. The peat pot will act as a wick to draw moisture from the roots and dry out the plant. It is best to tear the top part of a peat pot off prior to planting in the field.

Thoroughly water the container holding the plant before it is set out. Prepare a hole deep enough so that when the peat pot is set and soil is placed around it, all of the pot is covered. If any portion of the pot is exposed, it will act as a wick and dry out the entire pot and the plant's root system.

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TEMPERATURES FOR PLANT GROWING

Crop	Temperature (Degrees F)		Time Required to Grow (Weeks)
	Day	Night	
Broccoli	60-70	55-60	4-6
Cabbage	60-70	55-60	4-6
Cantaloupe	80-85	65-70	3-4
Celery*	65-70	60-65	8-10
Collard	60-70	55-60	4-6
Eggplant	70-75	60-65	6-8
Onion	60-65	55-60	10-12
Pepper	70-75	60-65	7-8
Squash	80-85	65-70	3-4
Tomato	70-75	60-65	5-7
Watermelon	80-85	65-70	3-4

* Daily temperature fluctuation to 60°F or lower at night is essential.

SEEDING GUIDE

Vegetable	Approx. Number of Seed/Ounce	Approx. Number of Good Plants/Ounce of Seed	Depth to Plant in Seed Flat (in)
Broccoli	9,000	5,000	½
Cabbage	8,500	5,000	½
Celery	70,000	15,000	1/8
Collard	8,000	5,000	½
Eggplant	6,000	2,500	½
Onion	9,500	4,000	½
Pepper	4,500	1,500	½
Tomato	11,000	4,000	½

* Based on outdoor conditions. A large number of good plants can normally be expected if grown indoors.



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