

## Transplanting of Seedlings

Prepared by

Paul L. Smeal, Extension Specialist,  
Floriculture and Nursery Production

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### Introduction

After seeds have germinated, they should be transplanted to prevent overcrowding and to encourage a good root system and plant growth. The transplanting of seedlings comes as soon as the first 2 to 4 leaves have developed and the seedlings are large enough to handle. The earlier, the better, even if the seedlings are not crowded. A seedling should be transplanted, with wider spacing, either into pots, plant-bands, flats, or similar containers.

These materials will be needed: seedlings, light garden soil, peat moss, sand, labels, and containers — either 2 ¼" pots, plant-bands, or flats.

### Steps in Transplanting Seedlings

Mix equal parts of soil, peat moss and sand. The amount of sand may be reduced or entirely omitted, depending on the texture of the soil. If a sandy soil is available, omit the sand in the mixture.

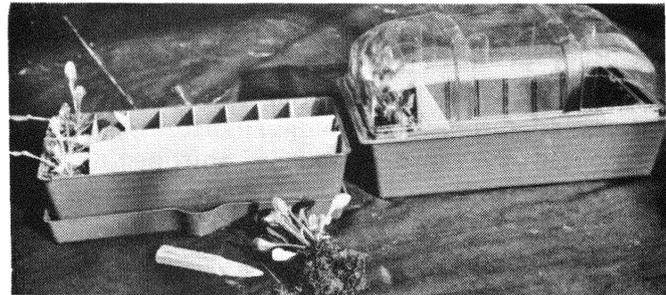
Fill the containers. If wooden flats are used, they must be constructed so that drainage is provided by spaces between the bottom boards. In transplanting into a pot or plant-band, fill it level full of the prepared soil mix. If a flat is to be used, fill it level full and then press the surface down firmly to ½" below the rim. Mark off rows 2" apart with the edge of a ruler or a long, wooden label. The seedlings should be spaced about 2" apart in the rows. However, the spacing will depend both on the character of the particular plants being grown and upon whether they will be transplanted a second time before being transferred outside.

The soil mixture should be sufficiently moist so that the hole sidewalls will not crumble before the seedlings are lowered into them.

In removing the seedlings, care must be taken to avoid injury to the delicate root system. Never pull a seedling from the soil; this will strip it of the tiny, feeding root hairs. To remove the seedlings from the soil, use a transplanting stick flattened to a thin spatula shape at one end and tapered to a blunt point a little larger than a lead pencil at the other. The flat end is convenient for removing a group of a dozen or so seedlings at a time. When these have been carefully separated, the other end

is used to make the holes in which they are inserted. A wooden dibble is often used to transplant seedlings.

Place the roots in the holes at the same depth they were in the seed container. Gently push the soil around the roots to eliminate any air pockets about them.



Immediately after transplanting, give a thorough sub-watering by placing the container in 1" or 2" of water. Leave it until moisture begins to show on the surface, then remove. No overhead watering should be done until the seedlings have become firmly established and can withstand spray from a hose or watering can without being knocked over.

During the first few days after transplanting, the seedlings should be kept shaded from direct sunshine, held at low temperatures, and kept from drying. As soon as they recover sufficiently to show no signs of wilting, they should have all the direct sunshine possible. When the seedlings become well developed or crowded, they are again transplanted to their permanent location in the garden or in pots or other containers.

When plants are moved to the garden, they should be "hardened" prior to their shift. "Hardening" involves a checking of growth resulting in the accumulation of carbohydrates which makes the plant better able to withstand adverse conditions. Withholding moisture, reducing temperature, and gradually shifting to the

environment of their permanent location helps to "harden" plants.

Plants should be thoroughly watered before being moved to the garden. Retain as much soil about the roots as practical to avoid disturbing the root system. After planting, water thoroughly and provide shade if practical.

A fertilizer known as a "starter" solution containing nitrogen, phosphorus, and potassium before or after transplanting is sometimes beneficial in establishing plants in the garden.

#### *Summary*

In summarizing transplanting of seedlings, remember these important steps:

Prepare the soil.

Select only strong healthy seedlings.

Put them in a hole in the soil large enough to give roots room.

Firm soil.

Water.

Shade the plants for a few days, if necessary, to protect them from the hot sun.