Transplanting

Transplanting is the shifting of plants from one soil or growing medium to another
Why use transplants?

• You can more closely control depth of planting
  – Important for small-seeded plants like basil
• Make best use of expensive or only a few available seed
• Seeds germinate under ideal conditions
Why use transplants?

• Improves the earliness of the vegetables
  – You can gain 3 to 4 weeks head start
  – Important for large tomatoes or melons that would not mature until late Sept. otherwise

• Avoids problems of seed emerging through soil crusts or in cold soils
  – Soil crusts are a hard layer formed on the soil surface after a rain

Figure 1. Soybeans emerging through crusted soil (left); Corn leafing out under crusted soil conditions (right).
Vegetables Traditionally Transplanted

- Warm season vegetables (gives them a head start)
  - Tomato, pepper, & eggplant
  - Cucumbers, squash, cantaloupe, & watermelon
    - Must avoid damaging their roots
- Early spring vegetables (small seed & allows earlier planting)
  - Cabbage, broccoli, & cauliflower
Commercially Grown Transplants

Advantages

• They are easy
• Inexpensive if you only need a few plants
• They do not require that you commit time and space
• Better (ideal?) growing conditions and care
Commercially Grown Transplants

Disadvantages

• It can be difficult to find good quality transplants
  – Depends on how handled and when purchased

• You may not be able to find transplants of a specific cultivar
  – Especially true of heirloom or unique cultivars

• The transplants may introduce diseases, insects, and weeds into your garden

• You do not know what medium or fertilizers were used
Commercially Grown Transplants

To select quality transplants look for:

• Healthy plants
  – Free of insects or diseases

• Vigorously growing
  – Avoid transplants that already have flowers or small fruit – a sign of stress

• True to type
  – All the plants are actually the vegetable and cultivar that the label indicates

• Properly handled

• Transplants that are not leggy or spindly
  – Leggy refers to transplants that are mostly weak-stemmed with a few leaves

• Purchase transplants early in the season before they are picked over
Producing Your Own Transplants

• Key factor in determining success
  – Having an adequate amount of protected growing space to produce transplants

• Environmental conditions
  – Light
  – Temperature
  – Moisture

• May need:
  • Specialized structure
    • Small greenhouse
  • Supplemental lights
    • Turn area growing transplants into a “mini greenhouse”
Producing Your Own Transplants

Advantages

• Can ensure disease-free transplants
  – Any problem introduced by you

• Transplants available when needed
  – Especially important when needed at unusual time

• Best use of expensive seed

• Produces cultivars that you desire

• Gives you a good feeling
  – See something green at end of winter
Hardening-off Transplants

Hardening-off is the process whereby transplants stop growth and develop greater tolerance to stress so they can survive being planted into a garden.

- A slowing of growth
- Greater cuticle and waxes on leaves
- Build-up of sugars and starch

Steps:
1. Place plants outdoors in a shady spot
2. Bring them back inside at night
3. Continue for 3 or 4 days (keep an eye on the temp)
4. Day 4, introduce to a bit of sunshine
5. Day 7, leave outside full time
6. After about a week they are ready to plant
Transplanting suggestions

• When cloudy or late afternoon

• How to transplant
  – Dig into soil
  – Water + fertilize in hole
  – Set transplant in hole
  – Cover completely with soil
  – Water newly transplanted area

• Do not compress the soil around the roots
Starting vegetables from transplants

• Thought questions
  – What is transplanting?
  – Why use transplants?
  – What vegetables are traditionally transplanted?
  – Why purchase your transplants?
  – How do you select good quality transplants?
  – Why grow your own transplants?
  – What factors should you consider when growing transplants?
  – What is hardening off? What are the steps?