

FAST PLANTS CARE

MATERIALS

- water or nutrient solution
- scissors or forceps
- 10" bamboo skewers (available at grocery stores)
- thread or twist-ties for tying up plants
- pollination supplies (beesticks, etc.)

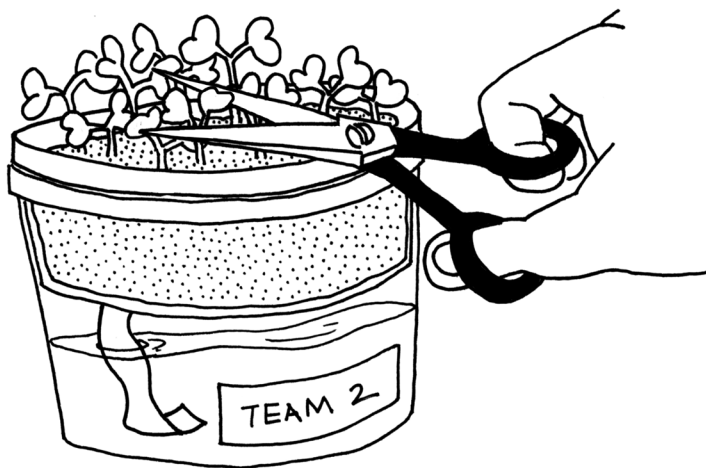
EVERY DAY

Make sure your reservoirs are adequately filled with water or nutrient solution (if you are using nutrient solution rather than the slow-release pellets). **Be sure to fill the reservoirs fully before weekends or school holidays.** As the plants grow, they will use more of the water or nutrient solution each day. By Day 10 in the life cycle the plants may use a full reservoir every 2–3 days.



5–7 DAYS AFTER SOWING

Thin to 1–2 plants per square inch by cutting off extra plants with scissors just above the planting mix level.

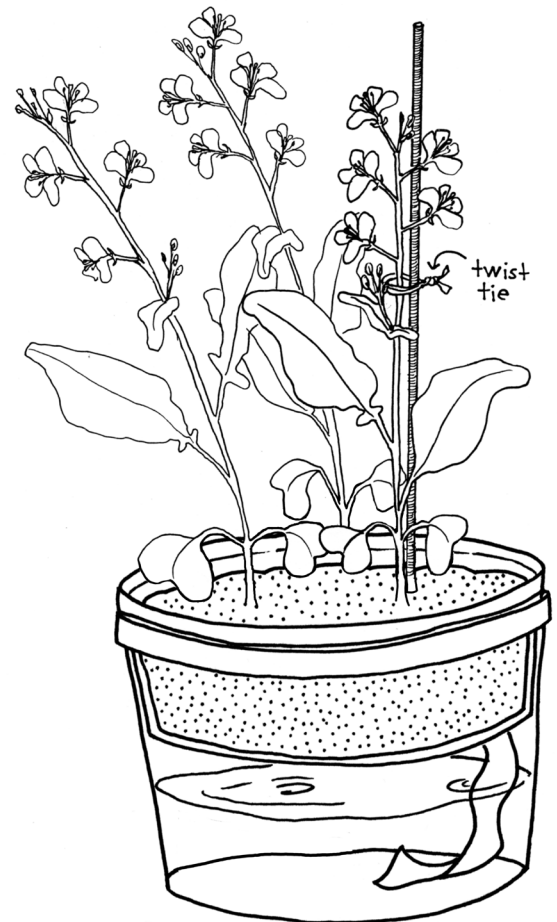


7–14 DAYS AFTER SOWING

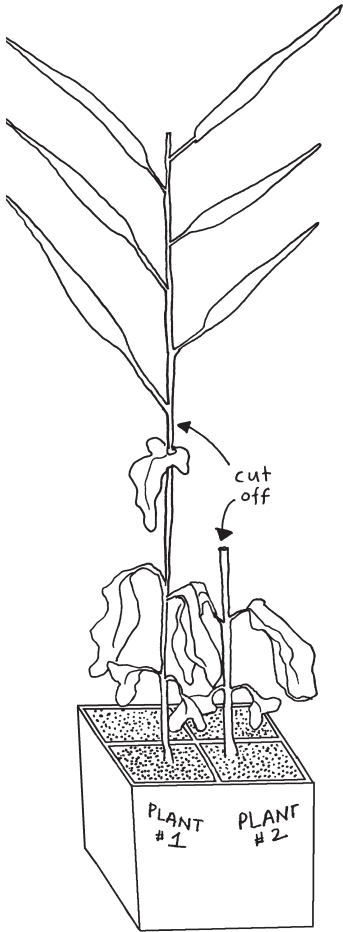
Some plants may need to be staked up with bamboo skewers to keep them from falling over. Place a skewer next to the plant stem, press it down through the planting medium to the bottom of the wickpot, and secure the plant to the skewer with ties or a small piece of tape.

15–18 DAYS AFTER SOWING

Plants must be pollinated to produce seed.



Harvesting Fast Plants



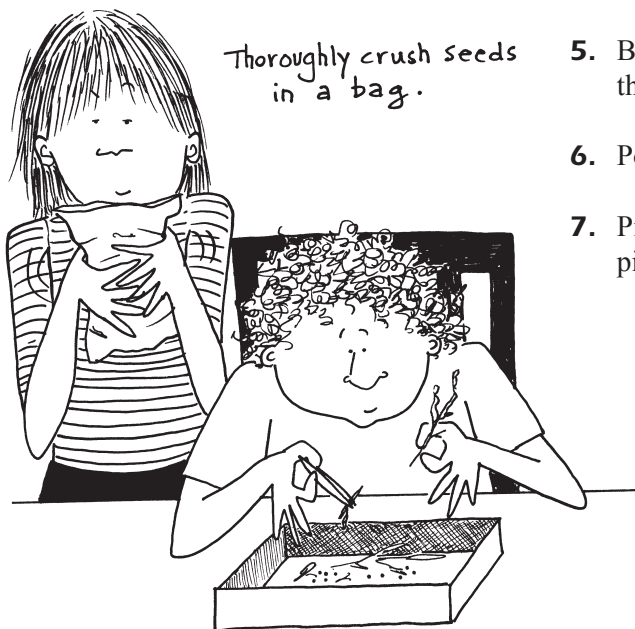
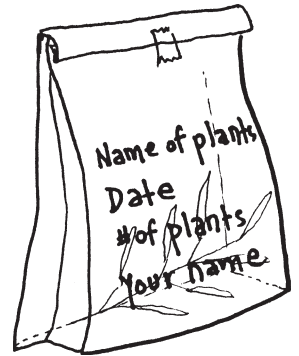
MATERIALS

- scissors
- brown paper bags
- pencil
- shallow plastic tray or metal pan
- seed envelopes (coin envelopes)
- stapler
- zipper-type plastic sandwich bags
- indicating silica gel drying compound

PROCEDURE

1. Approximately 20 days after last pollination, when the ends of the pods are changing from green to brown, remove the water reservoir.
2. Let plants dry for 7 days until the pods are crisp and brown.
3. Cut the plants off and place them in a paper bag. Label the bag with the planting and pollination information.
4. If pods are not crisp, let them dry further in bag. Staple the bag shut.

Note: If you plan to start your next Fast Plants unit with pods rather than seeds, you may choose to keep the pods attached to the mother plants. If not, proceed through the next steps.

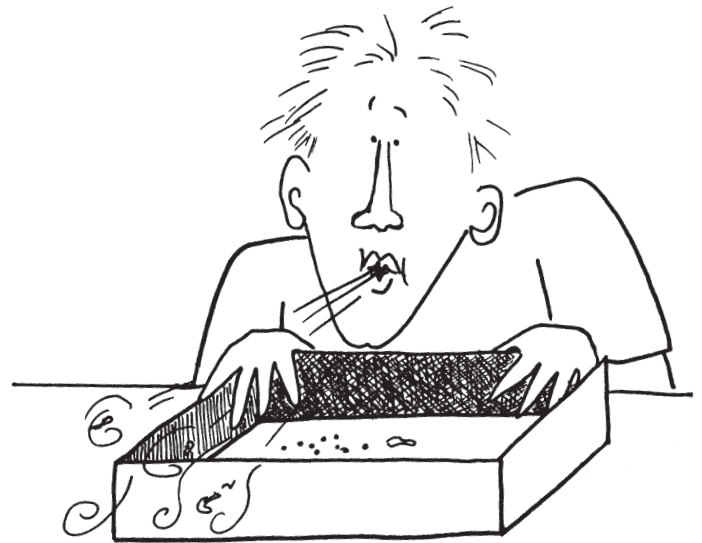


Thoroughly crush seeds
in a bag.

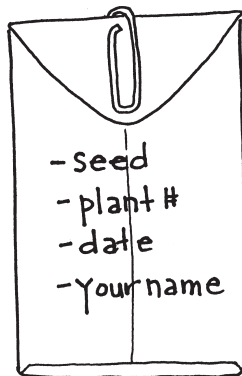
5. Break up the pods thoroughly by crushing them in the bag to release the seeds.
6. Pour seed and chaff into the shallow tray.
7. Pick out the large pieces of stems and leaves, and the remaining pod pieces.

Pick stems from seeds.

8. Gently blow on the remaining mixture. The chaff should blow away, leaving clean seeds. You may wish to do this outside.
9. Place your clean, dried seeds into a labeled envelope.
10. Store your seed envelopes in a zipper-type sandwich bags in a refrigerator. For optimal long-term (12-month) storage, add silica gel in the bag to remove any remaining moisture. Seeds stored under these conditions will remain viable for many years.



Blow off chaff.



Label
envelope

Label envelope of clean seeds.

Cleaning Up and Reusing Materials

All growing systems can be reused. Do not reuse planting medium.

To clean your planting materials:

1. Rinse off as much of the residual planting medium as you can.
2. Soak all materials in a 10% bleach solution for at least 20 minutes.
3. Rinse well and let air dry.



Troubleshooting and Tips

The most commonly reported problems are listed below, along with their possible causes.

Poor germination (no seedling emergence)

- Seeds planted too deeply.
- Planting mix compacted or too wet.
- Not watered sufficiently after planting.
- Seeds washed out.
- Student planted fertilizer pellets instead of seeds (it happens!).
- Room temperature below 15.5°C (60°F).

If seedlings do not appear by Day 4, start over.

Plants growing slowly

- Lower temperature in school than normal on weekends and holidays.
- Insufficient light. Plants not grown under recommended lighting conditions.
- Plants growing at lower temperature due to location near window in winter.
- Poor capillary action between plants and reservoir.



Plants look spindly

- Lights too far away from plants. Ideally, the plant growing tips should be 5–10 cm from lights.
- Wrong number of fertilizer pellets or seeds placed too close to fertilizer pellets.
- Poor capillary action between plants and nutrient reservoir.

Plants wilt

- If the worst happens (you forgot to fill the reservoir) and the plants are wilting but not yet crispy, you may be able to save them. Water the plants gently from above for several minutes. Be sure that the wicks are dripping and the planting mix is moist. If the planting mix has completely dried, it may be difficult to remoisten.

Plants die

- Wicks not placed correctly in bottom of planting medium.
- All air pockets not removed when watering system was set up.
- Water in reservoir ran out over weekend (always check water on Fridays!).
- Plant damaged during thinning (handle gently).
- Plant damaged during movement (as plants grow taller, stake and secure them with twist ties or a small piece of tape).

No seed production

- Pollination not adequately performed.
- Too much heat in the classroom during pollination period. When temperatures are above 29°C (85°F), Fast Plants will lose the capability of producing pollen.