

Ethnobotany Lab 3.

Seedlings and keys

February 10th, 2011

Background In the greenhouse, we have now seedlings of (1) pumpkin (*Cucurbita pepo*, Cucurbitaceae); (2) pansy (*Viola tricolor*, Violaceae); (3) dill (*Anethum graveolens*, Umbelliferae); (4) broccoli (*Brassica oleracea*, Cruciferae); (5) marigold (*Tagetes erecta*, Compositae); (6) eggplant (*Solanum melongena*, Solanaceae); (7) basil (*Ocimum basilicum*, Labiatae); (8) beet (*Beta vulgaris*, Amaranthaceae); (9) green beans (*Phaseolus vulgaris*, Leguminosae); (10) red pepper (*Capsicum annuum*, Solanaceae); (11) spinach (*Spinacia oleracea*, Amaranthaceae); (12) sunflower (*Helianthus annuus*, Compositae).

Every seedling is a small plant with 2–4 (sometimes more) leaves. First leaves are *cotyledons*, then *normal leaves* are developing. Seedlings look similar, but size, form and number of cotyledons and leaves, size of plant, color of stem and leaves are among many characteristics which can be used for distinguishing seedlings (important practical skill!).

Observe Visually observe characteristics of every kind of seedling, make notes for each. Use ruler to measure different parts. Try **not to harm** seedlings, they are fragile!

Transplant Wash new pots, dry them with paper cloth and label with your name, name of plant, date of planting and today's date (date of replanting). There will be separate pot for every seedling, so make as many pots as you need **before** you start replanting. Fill the 3/4 of every new plot with soil, make a hole in a center. Carefully take seedling out of pot (use stick), pinch the top of primary root, place roots in a hole of new pot, cover hole with soil, compact the soil **slightly** (see Fig. 1 for graphical explanation). Put all your new pots in new trays (one tray per species). Wash old pots.

Make key For distinguishing our seedlings, make a dichotomous key (**listen for explanations!**)

Part of your key may look like:

1. Cotyledons linear, sharp **Name I.**
- Cotyledons ovate, obtuse 2.
2. Plants big, more than 7 cm tall, already have 4–6 normal leaves **Name II.**
- Plants small, less than 5 cm tall, have only 1–2 normal leaves **Name III.**

Figures

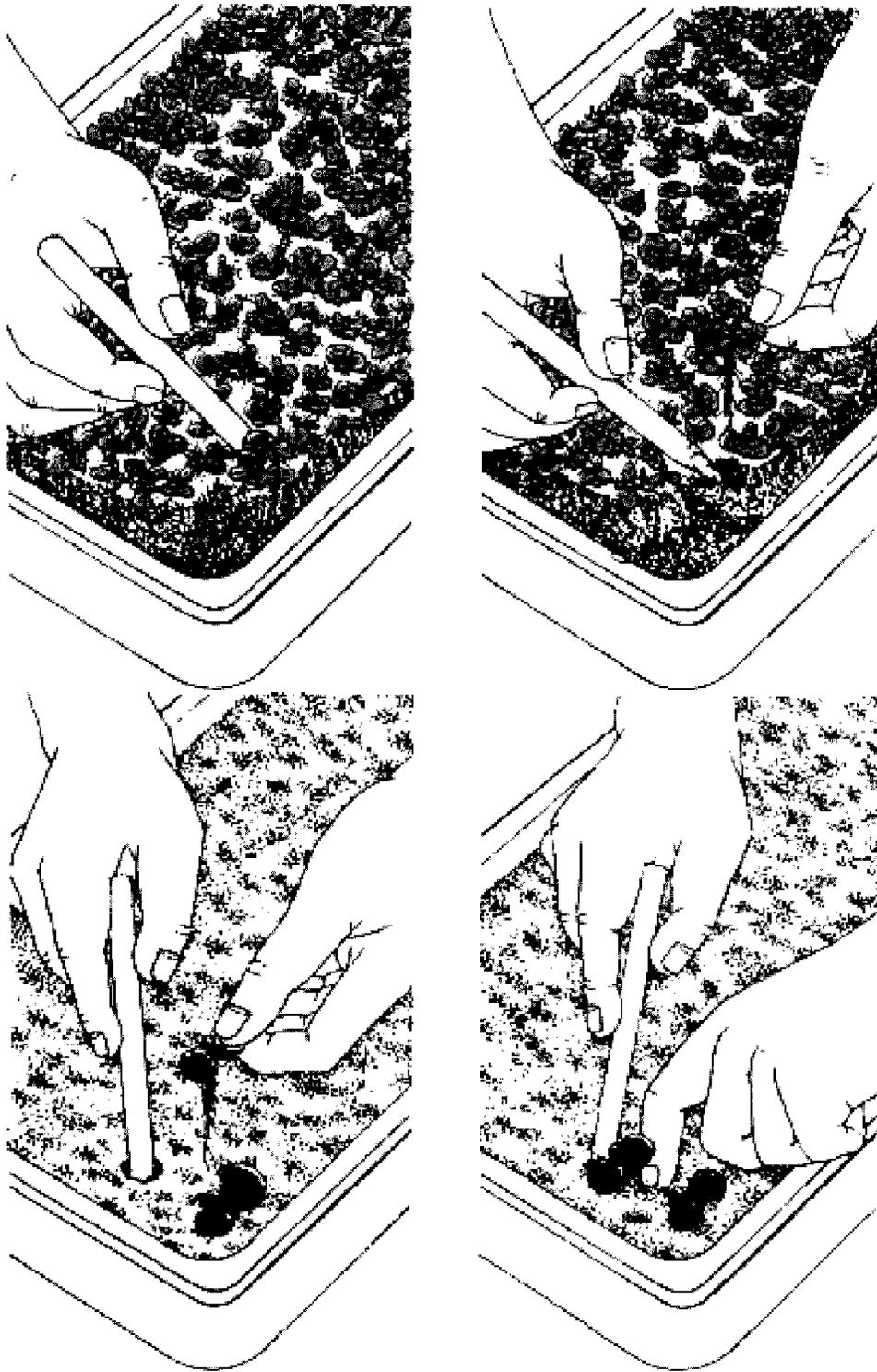


Fig. 1. How to transplant seedlings.