

Ethnobotany Lab 8.

Seedlings and keys

March 24 and 26, 2015

Background In the greenhouse, we have now seedlings of different cultivated plants. Every seedling is a small plant with 2–4 (sometimes more) leaves. First leaves are *cotyledons*, next are *normal leaves*. Seedlings look similar, but (a) size, form and number of cotyledons and leaves, (b) size of plant, (c) color of stem and leaves are among many characteristics which can be used for distinguishing seedlings (this is an important practical skill!).

Observe Visually observe characteristics of seedlings of at least 3 different species, make notes. Use ruler to measure different parts. Try **not to harm** seedlings, they are fragile!

Transplant

1. Wash 3–5 new black pots, dry them with paper cloth and add a label with your name, name of plant, date of planting and today's date (date of replanting).
2. If you have less than 6 seedlings, replant all that you have. If you have more, plant 2 seedlings per pot for large plants (> 5 cm), or 4 per pot for small plants, if not instructed otherwise.
3. Fill the $\frac{3}{4}$ of every new pot with soil, water it a bit, make shallow hole(s) with finger or pencil. Carefully take seedling out of the pot (use plastic spoon or spatula).
4. *If instructed*, pinch out the very top of primary root with scissors (see the figure below).
5. Place roots in a hole in the new pot, cover with several pinches of soil, compact the soil **slightly**.
6. Put all your new pots in designated space. Wash old germination pots/trays if directed. Clean the working space and floor.

Make key For distinguishing seedlings, make a dichotomous key. This is your **report**.

Part of your key might look like:

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

