GROWING NATIVE PLANTS FROM SEED

WHAT YOU’LL NEED
- Plastic trays or pots
- Large plastic bags (large enough for your pots to fit in; gallon-sized is usually sufficient)
- Commercial seed starting mix (this is finer in texture than potting soil and has no added fertilizer)
- Shallow tray without holes
- Possibly: plastic wrap, clear plastic humidity dome, and fertilizer

1. STORING
Store seeds in an airtight jar in the refrigerator until you are ready to sow.

2. SOWING
See sowing instructions by germination code on the next page.
- During the growing season, there are some seeds you’ll need to stratify, or expose to the equivalent of winter conditions. You can do this in the fridge (see codes 2 and 6), or wait until winter to sow outside.

3. WATERING
Always water seeds and small seedlings by this method!
- Place entire pot in a shallow tray of water. When the soil mix surface is moist, remove pot from the tray of water and allow it to drain.
- After sowing (and after stratification, for species that need stratification) check pots on a regular basis to see if they need watering. They should not dry out or be kept soggy.
- Monitor seeds regularly; this early stage is important to survival.

4. TRANSPLANTING
- Transplant seedlings into separate pots when they are large enough to handle (usually after two or three pairs of true leaves emerge).
- Plant seedlings in their permanent garden locations after roots are established but before they are potbound. For very slow growing species, it may take several years before this happens.

5. FERTILIZING
- Fertilizing is not necessary until seedlings emerge and have at least two pairs of true leaves.
- Fertilize seedlings with routine applications of an organic, water-soluble fertilizer such as fish emulsion at 1/4 to 1/3 the recommended strength during the active growing season.

ADDITIONAL RESOURCES
In a pinch, many seeds will germinate at a low percentage even if you ignore every rule (except the one about keeping them moist). Looking for further information? You’ll find a list of our recommended books for seed germination and perennial gardening at ncbg.unc.edu/resources.
SOWING NATIVE SEEDS

Code 1: No pre-treatment necessary
- Sow as early as March or April, or anytime during the growing season, in plastic pots filled with a commercial seed-starting mix. Water as described above.
- Place pot of sown seeds in a well-ventilated, warm spot with bright, indirect light. Protect pot from digging animals and direct rain.
- Germination should occur in 15 to 45 days, depending on the species.

Code 2: Cold, moist stratification
- Between January and May: Sow seeds in a plastic pot filled with seed-starting mix, water as described above, and allow pot to drain for at least 12 hours.
- Place pot in a sealed plastic bag and store in the refrigerator for 1 to 3 months. It is not necessary to remove the pot to water it during this time. Time refrigeration period so you can remove the pots during the growing season.
- After 1 to 3 months, take pots out of refrigerator, remove plastic bag, place them in a warm, bright spot, protected from digging animals and direct rain. From this point, it may take several weeks up to a couple of months for germination to occur.
- Alternatively, you may sow any seeds needing cold, moist stratification in a pot in late fall or winter and leave the pot outside.

Code 3: Soak seeds in warm water for 8 hours before sowing
- If the species doesn’t need stratification (codes 2 or 6) after soaking, sow as early as March or April, or anytime during the growing season, in plastic pots filled with a commercial seed-starting mix.
- Place pot of sown seeds in a well-ventilated, warm spot with bright, indirect light. Protect pot from digging animals and direct rain.
- Germination should occur in 15 to 45 days.

Code 4: Very fine seeds: do not cover with soil when sowing
- Instead of soil, cover seeds very lightly with sand or cover the pot with plastic wrap or a clear plastic humidity dome.
- Sow as early as March or April, or anytime during the growing season, in plastic pots filled with a commercial seed-starting mix. Water as described above.
- Place pot of sown seeds in a well-ventilated, warm spot with bright, indirect light. Protect pot from digging animals and direct rain.

Code 5: Sow seeds directly in garden
- These species do not do well in pots or do not transplant well.
- You can sow these any time of year, but some species may take up to a year to germinate.

Code 6: Warm and then cold stratification
- These require 1 to 3 months of warm, moist stratification followed by 1 to 3 months of cold, moist stratification.
- Sow seeds in a plastic pot filled with seed-starting mix, water as described above, and allow pot to drain for at least 12 hours.
- Place pot in a sealed plastic bag. Store in a warm, dark location (~70°F), for 1 to 3 months.
- Move the plastic bag with the pot into the refrigerator for 1 to 3 months. Time the warm / cold stratification period you can remove the pots during the growing season.
- Take pots out of refrigerator, remove plastic bag, place them in a warm, bright spot, and protect pot from digging animals and direct rain. From this point, it may take several weeks up to a couple of months for germination to occur.
- Alternatively, you may sow any seeds needing stratification in a pot outside and wait for germination to occur naturally, keeping in mind that it may take up to a year or longer.