

PROPAGATION

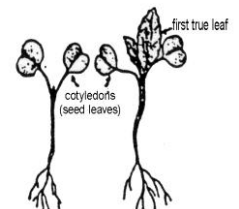
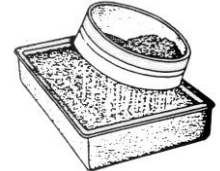
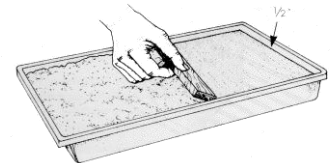
BY SEEDS

HUMBER NURSERIES 'GREEN THUMB GUIDE'



GROWING PLANTS FROM SEEDS INDOORS

1. Start early to be ready for May 24. Follow instructions on seed packet on when to begin propagation, as some seeds need more time to germinate than others. Propagation for tender plants is usually started before the first day of spring, March 20th/21st (eight weeks before the suggested planting date, May 24th, which is the last expected frost date). Start with new, clean flats with drainage holes. DO NOT use old flats for starting seeds, as they may harbour fungus, spores, or diseases. Use sterile soil mix or a peat moss based soil-less mix such as PRO-MIX. PRO-MIX cannot be used dry. Add water to PRO-MIX in a sink, tub or bushel and work through with your hands, until it is moist (but still light and fluffy).
2. Fill your new flats to within 1 cm from the top. Make the surface as level as possible, pressing down slightly to get rid of air pockets.
3. Water thoroughly (but gently) with a fine nozzle on your hose or watering can.
4. Draw furrows in the soil with a pencil or impress them with a ruler or other straight edge. Make furrows 3 – 5 cm. apart. Use a seed dispenser to place the seeds with regular spacing along the rows. Label each row or flat with plant labels using a water-proof marker.
5. Cover the seeds lightly, using a sieve, with moistened PRO-MIX or vermiculite to a depth three times the size of the seed. Be sure to check the seed packet for instructions as some seeds (such as impatiens) need light to germinate and should not be covered.
6. The new soil surface should be gently sprayed or misted until moist. Cover the seed flat with a plastic cover or sheet of glass. Place in a warm room (about 22°C). A heating mat or cable can be used. When the seeds begin to germinate, prop open the cover. When most seedlings are up, remove the cover entirely. As soon as the seed leaves appear, they need light. When using grow lights, make sure that the seedlings get at least 14 – 16 hours per day. Be sure to keep the lights 5 – 8 cm. away from the seedlings. If the seedlings do not get enough light, they can grow long, weak, stems. Aluminum foil can be used to help reflect and provide a brighter area. If you are growing using natural light, make sure to protect the seedlings from direct sun by covering with one or two sheets of newspaper. Provide good air circulation by leaving a small fan on near the seedlings all day. This will help minimize the chance of disease, such as Damping Off. The fan will also help make the plants stronger, preparing them for the move outdoors.
7. Transplant the seedlings when the first TRUE LEAVES appear. Prick out each plant with a pencil point or fork and transplant into cell-paks of moist PRO-MIX. Seedlings should be handled by their leaves and not their stems.
8. HARDENING OFF – Your tender house-grown seedlings need to be gradually prepared to go outdoors. Starting in mid-March, perennials and hardy annuals that were seeded in February and then transplanted into cell-paks can go outdoors for 15 minutes if the temperature is above freezing. Increase the exposure by 15 minutes each day until you are bringing them in only at night. Put them in a sunny, sheltered spot. Your mid-March seedlings of more tender plants (e.g. peppers, tomatoes, etc.), will have been transplanted at least once and will be ready for hardening off by mid-April.



A stand with several tiers of fluorescent lights.

ONE-STEP METHOD

Sow seeds, two at a time, directly into plastic pots, peat pots, growing blocks, or Jiffy pellets. Water thoroughly and place on a tray in a plastic bag. They will be ready to transplant when about 6 inches high.



DAMPING OFF

Damping Off disease is the most serious seedling complaint, especially under glass. It is encouraged by the use of unsterilized soil, over-watering and sowing too thickly. The symptoms are a blackening and withering at the base of the stems and the collapse of the seedlings. This can even happen when using new trays and a sterile mix. For prevention and control, water the propagating soil with a diluted solution of Chamomile Tea before sowing and repeat after seedlings have germinated. Good air circulation around the seedling is important. Do not leave the plastic cover on too long, and leaving a small fan on all day helps with circulation.

STARTING VEGETABLES & HERBS

Propagating indoors will give you a head start on the growing season. Sow dates range for each crop. Check the days to maturity, then count back the number of days from the first expected fall frost, then start seeds 6-8 weeks before the date calculated.

Seeds to start early: Brussel sprouts, broccoli, cabbage, cauliflower, tomatoes, eggplant, leek, celery, head lettuce, onion, squash, peppers, melons, rosemary, and lavender.

Later varieties: Beans, corn, cucumber, basil, chives.

STARTING PERENNIALS

Starting perennials from seed will save you money with your landscaping but you will have to wait two seasons for blooming. Sow at least 8 weeks before the last expected frost.

Some seeds need special treatment (purple coneflower and cardinal flower need to be exposed to cold before they will break dormancy).

STRATIFICATION – Layer the seeds between damp sphagnum moss in a covered container. Label the containers with seed names. Refrigerate 1-4 months or as directed on seed package. For smaller seeds, mix them with damp peat moss or fine vermiculite and place in a plastic bag closed with a twist-tie. Other seeds may only need to be chilled for 2 weeks (eg. Asters, Rudbeckia) or only one week (eg. Delphiniums).

STARTING ANNUALS

Starting annuals from seed is a great way to get hundreds of plants for your garden and containers at a low cost. Sow at least 6-8 weeks before the last expected frost. Lupines, Morning glory, Sweet pea, among other seeds need special treatment by softening up before germinating.

SCARIFICATION– The seed coat should be nicked so the seed will absorb water. Use a knife for the larger seeds. Smaller seeds can be rubbed between sandpaper or shake in a jar lined with sandpaper until seed coats wear down. Soak in lukewarm water for several hours before planting.

Seeds to start early: Geraniums, impatiens, begonias, pansies, snapdragons, petunia, and balsam

STARTING TREE SEEDS

For the avid gardener, collect seeds in the fall from the trees and shrubs you wish to propagate. Most seeds require a cold period and/or storage period. Germination can take anywhere from 2-4 weeks (Bottlebrush, Oak) to 5 months (Euonymus, Pine) Many need stratification followed by warm temperatures to break dormancy. Starting tree seeds has been made easy. You can purchase ready-to-grow seeds for Maple, Birch, Flowering Dogwood, Spruce, Fir, and Pine. Just follow the easy directions on the package.

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