

TIPS ON GROWING ANNUALS FROM SEED

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Growing annuals has always been a popular form of gardening in Newfoundland. Many people limit their use of annuals to nursery-raised plants. While growing annuals from seed certainly does require more work, it does have its advantages. Not only is it more economical to grow plants from seed but there is usually a wider selection of seeds to choose from. Sometimes the variety of plants offered by local nurseries is somewhat limited. In addition, there is a wonderful sense of satisfaction as you tend your seedlings through our long, cold spring and finally enjoy their wonderful blooms throughout the summer.

Because all annuals do not grow at the same rate, you should always check the seed package or catalogue for information on when to sow seeds. Keep in mind that generally in Newfoundland annuals should not be planted outside until mid to late June.

Sowing Seeds

Most growing media consists of perlite, vermiculite, peat, sand or any combination of these. Any media will work as long as it is sterilized.

Garden soil is not a good choice for sowing seeds indoors as it contains many fungal spores. While these fungi will not normally harm a mature plant, they can cause the dreaded seedling disease, damping-off. This fungal disease attacks the seedlings at the ground surface, causing them to collapse and die.

Unfortunately, even sterilized soil is not immune to this disease. Overwatering, overcrowding, poor light and poor air circulation can all lead to an outbreak of damping-off.

Individual pots, jiffy-pellets, flats or cell-packs may be used as containers when sowing seeds. With cell-packs, plants undergo the least root-shock when transplanted to the outside.

Prior to sowing, ensure that the growing media is thoroughly moistened. A heavy watering after sowing will dislodge most seeds, resulting in irregular germination. Very fine seeds need only be pressed into the surface. Larger seeds may be covered with soil to approximately three times the seed's width. Mist the surface of the seeds and/or soil layer over the seeds.

Care and Maintenance

One of the biggest problems with growing seed indoors is maintaining moisture. It is imperative that the seeds not dry out while they are germinating. To help guard against this, you can place a pane of glass over the pots or place the pots in sealed plastic bags. Either method will slow evaporation and keep the soil moist. Remember to remove the glass or plastic as soon as the seeds sprout.

Temperature is another important factor to keep in mind. Most seeds will germinate readily under normal household conditions, but some require very warm (25 degrees C.) temperature, while others germinate better under cooler (15 degrees C.) temperature. Other seeds may require pre-chilling prior to sowing. Most seed catalogues or seed packets will note which temperature is best for germinating a particular annual.

Light is the next critical factor. Some seeds require exposure to light if they are to germinate. Such seeds should not be covered with soil. On the other hand, other seeds require absolute darkness with exposure to light preventing their germination. For those seeds which require darkness, you can place newspapers over their pots to block the light. Be sure to remove the newspapers as soon as the seeds sprout.

Once the seeds germinate, they will require high light levels if they are to grow into sturdy plants. Too often the home gardener cannot supply sufficient light to keep plants healthy. In Newfoundland, our lack of sun in spring only worsens this problem. A way to overcome this problem is to grow plants under artificial light.

Another way to encourage sturdy plants is to grow them under cooler temperatures. Too much heat will result in soft, spindly growth. Another factor contributing to spindly growth is overcrowding. When seedlings are large enough to handle, make sure you thin them. Cell-packs make this easy since only one seedling is placed in each cell. In flats, make sure there is about 2 ½ inches between plant (or more if they are large-growing varieties).

If seedlings were sprouted in just vermiculite or perlite, they need to be planted in an organic soil mix once they are large enough to handle. This mixture could include one part peat, one part loam and one part perlite or you can buy pre-mixed planting soil.

Since the flats/cell-packs contain such a small volume of soil, the growing seedlings will quickly exhaust any nutrients dissolved in the growing media. The application of fertilizer can help compensate for this. A liquid fertilizer or water-soluble powder is the best. A balanced fertilizer, such as 20-20-20 is a good choice. Always follow manufacturer's instructions when fertilizing.

Transplanting

Before transplanting from your relatively warm growing area indoors to the cool and windy outdoors, you need to harden-off your plants. This process will gradually acclimatize your plants to the rigours of outdoor life.

Initially, expose your plants to a couple of hours of outdoor conditions. Avoid exposing them to full sun for the first couple of days. As the week progresses, gradually increase their exposure to outside light conditions, including more direct sun (remember to expose them slowly to full sun or their leaves will scorch).

When your plants are outside they will dry out very quickly, so be sure to check the moisture levels regularly. If the weather is dry, they may require daily watering.

When you are ready to transplant, make sure the plants are well watered. If your plants are growing together in a flat, the best way to separate them is to use a sharp knife and cut between each plant as you would cut a cake. The end result is each plant having its own block of soil. This method will cut many roots, but new roots will quickly grow and help establish the new transplants. Plants in cell-packs need only be punched-out of the cells.

It is best to transplant on cool, cloudy days. ***Never transplant on a hot, sunny day!*** Remember to properly space the plants to ensure they spread to their full potential. Water well. The application of a transplant fertilizer may be beneficial at this stage.

- **Seeds That Require Light For Germination**

| | |
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| <i>Ageratum</i> | <i>Salvia</i> |
| <i>Coleus</i> | Shirley poppy |
| <i>Impatiens</i> | Snapdragon |
| Livingstone daisy | Strawflower |
| <i>Nicotiana</i> | Sweet alyssum |

- **Seeds That Require Dark For Germination**

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|----------------------|-----------------------|
| <i>Calendula</i> | Pansy |
| <i>Chrysanthemum</i> | <i>Phlox</i> (annual) |
| Cornflower | <i>Salpiglossis</i> |
| Globe amaranth | Sweet pea |
| <i>Lavatera</i> | <i>Verbena</i> |