

# Planting outdoors I: Sowing seed

“Sow as soon as the ground is workable,” reads the back of a packet of spinach seeds. The snow has just melted and it’s still cold outside but look around: some wild plants and weeds are already greening the landscape. Now is the time to start thinking about sowing some hardy seed outdoors – and hopefully you remembered to prepare a bed for them last fall!

## Planting dates

Most planting directions are based on the average frost date. Average frost date refers to the expected dates of the last killing frost (-2°C) in the spring and the first frost (0°C) in the fall for a geographic location. The difference between the two average frost dates determines the average number of frost-free days during the growing season (see Figure 1 at the end of this factsheet).

The ability of each vegetable to withstand cool temperatures and frost is known as the ‘hardiness’ or ‘frost tolerance’ of the crop. These factors determine when a vegetable can be direct-seeded outdoors and when transplants can be moved outdoors (Table 1).

Once you determine your local average frost date, you can use the Spring Vegetables Planting Dates worksheet (found in Activity 1 below) to chart the approximate earliest and latest dates for a spring planting of each crop and the average length to harvest for each crop. This is particularly important if you wish to make maximum use of garden space by following one crop with another as soon as the first harvest is complete (succession planting).

**TABLE 1. PLANTING DATES FOR VEGETABLES BY FROST TOLERANCE OF EACH CROP**

CROPS SUITABLE FOR SUCCESSION						
da eek befo e la f o	da eek befo e la f o	On la f o da e	da eek af e la f o	Mid J <sup>une</sup>	Ea l mid J <sup>uly</sup>	La e J <sup>uly</sup>
Broccoli* Brussels Sprouts* Cabbage* Carrot Leek* Lettuce* Onion Parsley Peas Radish Rutabaga/ Turnip Spinach	Beans Beet Cauliflower* Chard, Swiss Dill Parsnip Potato	Celery* Cucumber Eggplant* Pumpkin* Squash, summer* Squash, winter Sweet corn Tomato*	Cucumber* Melon* Pepper*	Beans Cabbage* Carrot Sweet corn Lettuce*	Beets Broccoli* Cauliflower*	



### Soil temperature

Soil temperature has an effect on the speed of seed germination. In the spring, soil is often cold, and the seeds of some plants rot before they have a chance to sprout. Table 2 gives optimum soil temperatures for germination and days to emergence.



### **Broadcast planting**

Crops of spinach, beet, lettuce, and carrot are especially suited to broadcast planting. Sow seed evenly over a wide row or bed, and then rake it in, firming soil over the seeds. Thin young plants.

### **Hill planting**

Larger vegetables such as melons, squash, corn, and cucumbers may be planted in hills. The advantage of hill planting is that the soil is warmer and better drained, hastening germination in cool wet situations.

Mound the soil into a hill, 30 cm (12") or so in diameter, at the recommended spacing. Plant four to six seeds per hill, firming the soil well. Thin the seedlings to three to five plants per hill.

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# Activity 1

### **Calculate spring planting and harvest dates.**

Select four of the direct-seeded vegetables in the following Spring Vegetables Planting Dates worksheet. Use local frost dates, planting dates from Table 1 above, and time to maturity (found in the 'Specific crops' section of this web site) to calculate planting (P) and harvest (H) dates. Mark 'P' or 'H' in the appropriate squares.

To find the average frost dates in your area check with local gardeners and plant nurseries or visit one of these websites:

[www.almanac.com/content/frost-chart-canada](http://www.almanac.com/content/frost-chart-canada) OR [www.veseys.com/ca/en/learn/reference/frost/canada](http://www.veseys.com/ca/en/learn/reference/frost/canada)

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# Activity 2

### **Make a seed tape.**

Most garden stores and seed catalogues offer seed tapes. Seed tape has precisely spaced seeds enclosed in an organic, water-soluble material. When planted, the tape dissolves and the seeds germinate normally. Seed tapes are especially convenient for tiny, hard-to-handle seeds, and they also allow uniform emergence while reducing overcrowding. However, tapes are much more expensive per seed.

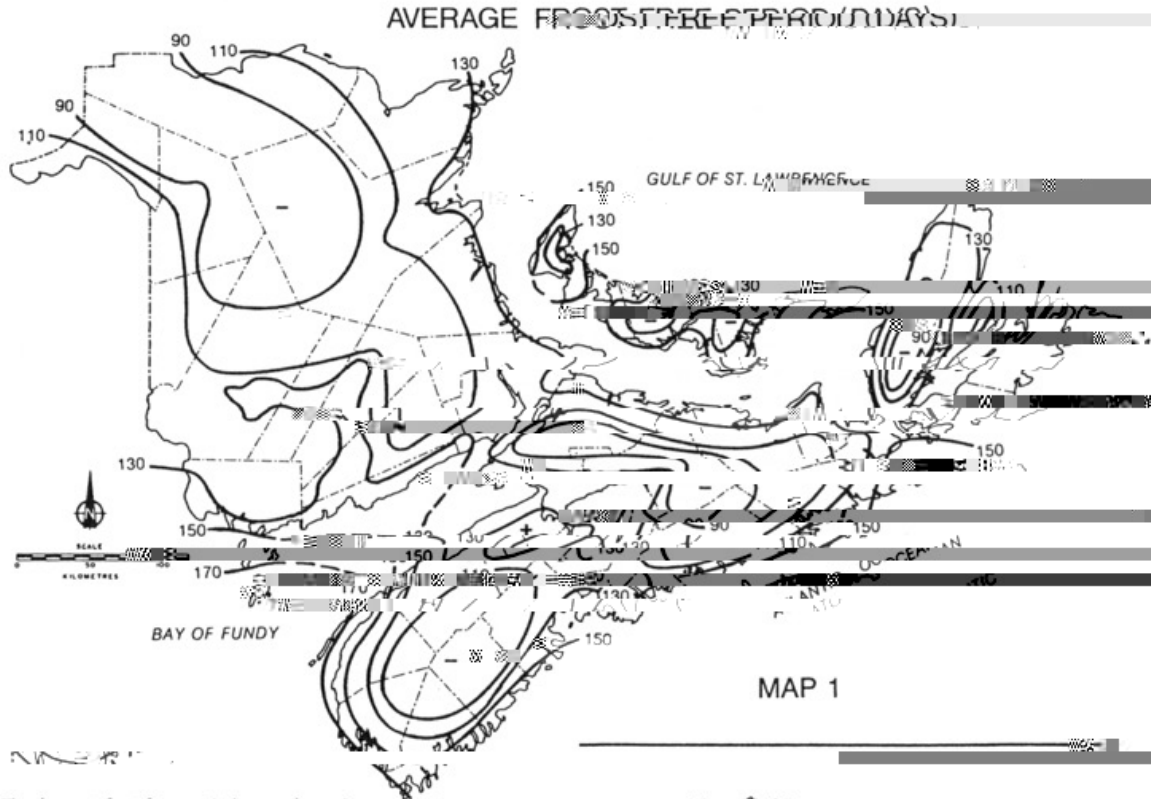
To make your own seed tape, you will need:

- paper towels, cut into strips of 3 inches x 12 inches
- white glue, ruler, and pencil
- small seeds: lettuce, carrot, etc.

With ruler and pencil draw small dots every one inch in the center of the paper towel strip. Place a drop of glue



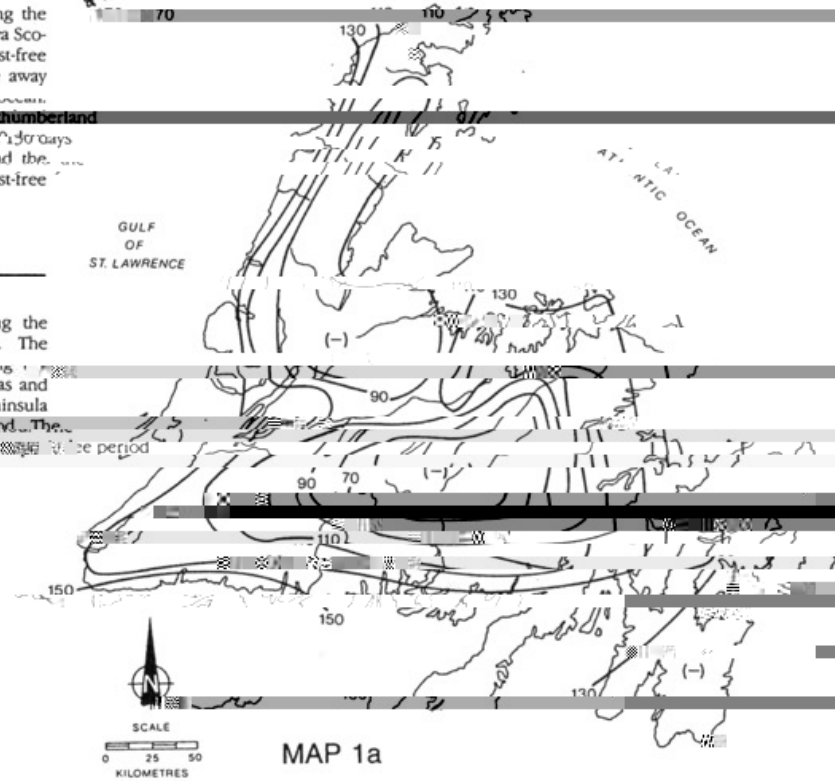
FIGURE 1. AVERAGE FROST FREE PERIOD IN ATLANTIC CANADA. ©APASCC 1992.



The longest frost-free periods are along the southwest coasts of New Brunswick, Nova Scotia and Prince Edward Island. The frost-free period decreases rapidly with distance away from the moderate maritime influence of the ocean.

The coastal area along the Northumberland Strait has a frost-free period of about 130 days very near the water. Inland areas and the higher elevations have the shortest frost-free periods.

The longest frost-free period is along the south coast from Burgeo to Cape Ray. The next shortest frost-free periods are along the south, west and east coasts. Inland areas and the eastern part of the Northern Peninsula have the next shortest frost-free period. The interior of the province has a frost-free period of only 90 days.



**AGRICULTURE EXTENDED LEARNING GARDEN BOX**

23 Sheep Hill Lane, Rm 276 | Haley Institute | Agricultural Campus | Truro, NS  
 Tel 902.893.6666 | dal.ca/extended-learning | extended.learning@dal.ca

**SPRING VEGETABLE PLANTING DATES WORKSHEET**

Instructions: Write the date of your average last spring frost in the space above the 00 column. From there, fill in the dates before that frost, to the left of the 00 column, each 10 days prior to the last. For example if your average last frost date is May 15, write May 15 above 00, then write May 5 above the column marked 10 to the left of the 00 column, April 25 in the next column to the left, etc. Then to the right of the 00 column, write May 25, June 6, June 16, etc. Also make note of the first fall frost date so you will know the dates of the end of harvest for tender crops. (\*USE TRANSPLANTS)


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