

Garden Plan I: What to grow and how much

The garden plan section in this series has two parts. This section will help you decide which vegetables to grow and how much of each you will need. The next section (Garden Plan II: Garden layout) gives suggestions on how to arrange your garden space.

What to grow?

Faced with so many tempting choices in seed catalogues and at nurseries, it's easy to get carried away and buy more than you need! Think about the following criteria as you plan what to grow:

PERSONAL PREFERENCE: Start simple. What do you and your family like to eat?

SITE REQUIREMENTS: Choose crops that are suited to your garden. Consider soil pH, nutrient requirements, light and moisture needs.

HARDINESS: Look for crops adapted to growing conditions in Atlantic Canada. Check for frost resistance, hardiness, and number of days to maturity. Some crops will be a challenge, even with short-season cultivars, and may need a hothouse or other special treatment to be successful (e.g. melons, eggplants, and peppers).

SPACE REQUIREMENTS: Some crops take up a lot of space for very little harvest. If you have a small area to work in, stick with space efficient crops like tomatoes, beans, leafy vegetables, carrots, and beets.

DISEASE AND PEST RESISTANCE: Cultivar descriptions usually indicate disease and pest resistance. This is an important consideration if you have had trouble with a particular pest and/or you are planning to avoid using pesticides.

STEADY SUPPLY: Think about when each crop will be ready to harvest so that you can be picking fresh produce throughout the season. Look for cultivars that have different maturity dates (identified as 'early', 'mid-season', 'late maturing'). Consider staggering planting dates.

YIELD AND QUALITY: If you are looking for volume, choose a high yielding cultivar. If your priority is flavor, nutrition, or visual appeal, choose accordingly.

EASE OF HARVEST: Some crops require considerable physical effort to harvest. Are you able to bend over a bed of bush beans for an hour or dig up a row of potatoes? How frequently will you have time to harvest? Some crops, like corn, peas, and snap beans, should be picked daily to get best quality. Others, like lettuce, onions, and carrots, can wait several days between harvests.

STORAGE QUALITY: If you plan to store some of your harvest, look for information on crop freezing, canning, and dehydrating quality.



The optimum mix of vegetables is a balance of many factors. Planning carefully helps achieve this balance!
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ECONOMIC VALUE OF CROPS: Several studies have attempted to determine which crops bring the most value per square meter (or square foot) of garden space. If economics is a priority, Table 1 may help you decide which vegetables to plant and which to buy. Values are based on kilograms produced per square meter (lbs per 10 square feet), retail value per kilogram (pound) at harvest time, and length of time in the garden. (Perennial crops are not listed because the studies were on a one-season basis.)

TABLE 1. ECONOMIC VALUE OF CROPS

Top 15 high-value crops:

Beans (pole, bush), beet, broccoli, carrot, cucumber, edible pod peas, green bunching onion, head lettuce, leaf lettuce, onion (storage bulbs), peppers, summer squash, Swiss chard, tomato, and turnip (greens + roots)

Low-Value crops (not recommended for small spaces):

Corn, melons, squash, and pumpkins

How much to plant?

After a season or two, you will have a much better idea about how much to plant. Here are a few things to keep in mind for now:

Do you plan to use only fresh produce or will you be freezing, canning, or dehydrating?

How much growing space do you have? You can stretch a small space through intensive garden layout, vertical gardening, and succession planting (See 'Garden Plan II: Layout').

How much storage space do you have? Do you have a big freezer? Is your winter storage space adequate for crops like potatoes and onions?

If you have an idea of how many kilograms of yield you want, you can use Table 2 to customize a plan for how many transplants or how much seed to buy. Alternatively, you can use the value given for the number of row meters to plant per person and calculate plant requirements from there. Table 2 also lets you estimate how much space you'll need for your plants. (Note that these space requirements are based on row planting. See 'Garden Plan II: Layout' for space-saving intensive gardening options).



This basil crop would provide an abundant supply of fresh herbs for summer use, but might not be enough if you wish to make pesto for winter use. © Lana Bos, Dalhousie.

TABLE 2. GUIDE TO HOW MUCH TO PLANT

Crop	Yield (kg) per 3 meters of row	# of row meters to plant per person	Transplants OR seed per 3 meters of row	
			# of plants	Amount of seed (g)
Asparagus	1.5-2	4.5-6	7-8 crowns	
Beans, bush	1.2-2.5	6-15		28
Beans, Lima	1.5-2.5	6-15		28
Beans, pole	2.4-4.5	3		3.5
Beans, wax	1.5-2.5	6-15		3.5
Beets	3.5-4.5	3		3.5
Broccoli	2-2.5	3-6	5-8 or	3
Brussels sprouts	1.5-2	3	5-7 or	3
Cabbage	4.5-11	3-4.5	5-8 or	3
Cabbage, Chinese	9-14	3-4.5	8-12 or	5.5
Cantaloupe	6.5-11	2.5-3.5	3-5 or	3.5
Carrot	3-4.5	3-6		6
Cauliflower	3.5-4.5	3-6		6
Chard, Swiss	3.5-4.5	1.3		5.5
Collards	3.5-6.5	3-4.5	5-7 pr	3
Cucumbers	3.5-4.5	4.5-6		3
Eggplant	4.5-5.5	1-2	5-7 or	1
Endive	1.5-2.5	1.5-3	5-10 or	1
Kale	2-3.5	3-4.5	6-10 or	3
Kohlrabi	2-3.5	1.5-3		3
Leeks	4.5-9	1-2		3
Lettuce, bibb	2-3.5	4.5-6		1
Lettuce, leaf	2-4.5	3-4.5		1
Mustard	1.5-2.5	1.5-3		3
Onion (sets)	3-4.5	3-4.5	30-60 or	454
Parsnip	4.5	3		1.5
Peas, garden	1-2.5	12-18		14
Peppers	2-8	1.5-3	5-7	
Potato	4.5-9	20-30		454
Pumpkin	4.5-9	3		1.5
Rutabaga	3.5-5.5	1.5-3		3.5
Spinach	2-2.5	9-12		14
Squash, summer	9-35	1.5-3		3
Squash, winter	3.5-4.5	3		3
Sweet corn	3-4.5	3		3
Tomato	7-20	3-4.5	3-7	
Turnip	3.5-5.5	3		3.5
Watermelon	3.5-18	3-4.5	1-2 or	14

Activity 1

How do your favorites measure up?

Use the following table to list the top three vegetables that you or your family likes to eat. Go through the list of considerations under 'What to plant' and see how each vegetable measures up. You will also find some of the information in the section for 'Specific vegetables' on this web site.

MY THREE FAVOURITE VEGETABLES			
Vegetable			
Fertilizer needs (heavy, moderate, light)			
Preferred soil pH			
Hardiness			
Yield per 3 meters of row			
Efficient use of space? (based on yield/row)			
Maturity date			
Ease of harvest			
Fresh storage (How long? What conditions?)			
Preservation options			
Economic value			



Activity 2

Share some harvest recipes.

If gardening with a group, share recipes that use your favorite vegetable(s) or look up a new recipe to try. Organize a harvest feast!

