Planning your vegetable garden

Winter is the perfect time to plan your garden.
Mapping your garden now will help determine how many seeds and seedlings you need, where they will be planted, and how you can keep the plot producing all through the growing season.

Before you begin, review the list of crops you want to grow, deciding roughly how many plants of each vegetable are needed. Check the seed package, or catalogue, to see how much space each plant takes up.
Make a sketch of the garden plot showing the dimensions. This can be done on a computer program or simply sketched out on graph paper. 'One graph square equals one square foot', is a good method.

Start plotting your garden with the crops you consider essential. For example, tomatoes, peppers, onions, and garlic may be important if you are preserving pasta sauce.

Next. place roaming plants that send out vines - melon, squash etc. These need to be situated so their broad leaves don't cover other plants.
Place remaining plants, paying attention to the following considerations.

## Things to consider when

 planning the garden
## Crop Rotation

It is beneficial to rotate plant families from one garden spot to another each growing season. Vegetables that are in the same family use similar nutrients and are vulnerable to the same pests and diseases. Planting different crop families from year to year helps to avoid depleting the soil and prevents crop specific pests and diseases from building up from one season to the next.

There are several approaches to crop rotation and it can be confusing. Here are some examples to consider.

A three year rotation based on 3 plant families, according to their nutrient needs and bio-feedback.

Some plants are heavy feeders - tomatoes, broccoli, cabbage, corn, eggplant, beets, lettuce, and other leafy crops.

Some are light feeders - garlic, onions, peppers, potatoes, radishes, rutabagas, sweet potatoes, Swiss chard, and turnips.

Some are soil builders - peas, beans, and cover crops such as clover.

Rotating these three groups of crops makes the best used of nutrients in the soil.

A simple crop rotation would plant heavy feeders in a dedicated spot the first year, followed by light feeders in the same spot the second year, followed by soil builders the third year.
A four year rotation based on 4 plant families, as shown in the chart below.
Alliums and roots - beets, carrots, celery, etc.
Eggplant, peppers, potatoes, tomatillo and tomatoes

Brassicas - broccoli, cabbage, cauliflower, collards, kale, kohlrabi, mustard greens, radish, rutabaga, spinach, and turnip.

## Beans and peas

The plants in each family are grouped together, so they can be easily moved to a different spot the following year. Other vegetables such as lettuce and herbs are worked in where there is room, but don't plant them in the same spots two years in a row.


## Growing Vertical

Tall trellised plants such as peas, pole beans, and indeterminate tomatoes should be limited to a spot where they don't shade other plants.
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## Succession Planting

Quick growing crops such as spinach, lettuce, and other various greens can be planted in spring. Once the warmer weather arrives, spring greens usually turn bitter and bolt. Remove them and use the space to grow bush beans. Once the bush beans are finished producing, a fall crop of spinach, lettuce, and other cool-season crops can be planted once again.

## Companion planting

Even though you will be grouping plants of the same family, a few may not always thrive planted right next to each other. For instance, parsnips may not do well next to carrots.
Check out the companion planting guide in the DID newsletter, Spring 2019.

## Grow insectary plants

There are a number of well-known flowers that attract beneficial insects (ladybugs, hoverflies etc) that will naturally control pests.

Borage is believed to help almost any plant increase its resistance to disease and pests.

Dahlias may repel nematodes.
Four O'Clock flowers will attract and kill Japanese beetles

Lavender is an excellent pest repellent for fleas and moths.

Marigold is probably the best known for repelling insects. French marigolds repel whiteflies and kill bad nematodes.
Nasturtiums planted near tomatoes and cucumbers can fight off aphids, whiteflies, squash bugs, and cucumber beetles. The flowers, especially the yellow blooming varieties, act as a trap for aphids.

Petunias can repel asparagus beetles, leafhoppers, aphids, tomato hornworms, and others.

Sunflowers might be the largest flower you have in your garden, and what a better beacon to say "come on over" to beneficial pollinators.

## Seeds and supplies

Here is a partial list of Canadian seed suppliers. Most will mail you a seed catalogue if you apply online. Catalogues are wonderful sources for growing instructions and gardening tips.

## Greta's Organic Gardens

www.seeds-organic.com
Hawthorn Farm
www.hawthornfarm.ca
Hope Seeds
www.hopeseed.com
McKenzie Seeds
www.mckenzieseeds.com
Ontario Seeds Company
www.oscseeds.com
Richters Herbs
www.richters.com

## Seed Bank

www.seed-bank.ca
Seeds of diversity
www.seeds.ca
Urban Harvest
www.uharvest.ca
Veseys Seeds
www.veseys.com
West Coast Seeds
www.westcoastseeds.com
W. H. Perron
www.dominion-seed-house.com
William Dam Seeds
www.damseeds.ca

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