MÉTIS NATION BRITISH COLUMBIA

Ministry of Environmental Protection and Métis Rights

Home Garden Program
GARDENING MANUAL

SPRING 2022

Artwork by Métis artist, Carly Nabess

Introduction

Food insecurity has been increasing in recent years and will continue to be influenced in the coming years by climate change, the pandemic, inflation and other factors. MNBC citizens identified food security as a key priority to focus future initiatives. The Home Garden Pilot Project was developed and launched by The Ministry of Environmental Protection and Métis Rights in response to requests for Métis people to be more self-sufficient in food security. The initial project, launched in 2021, was supported through the ISC COVID-19 needs-based funding and included 100 Métis households throughout the province. Due to the incredible success of the program, we launched a second round of the program in early 2022, this time supporting 150 households.

To complement the Home Garden Program, we have put together this gardening manual.

As our 2021 pilot program participants shared, gardening is a way to provide safe nutritious food connect with the land, harvest together and share the bounty, and learn culture. Gardening and being self-sufficient in food production is a part of *miyopimatisiwin*, the Métis way of life. The hope is to continue building a strong, self-sufficient community of gardeners throughout the province – to continue building Métis food sovereignty. This gardening manual is inspired by, and written for, you, our MNBC community members!

Planning and Prepping Your Garden

There are six main factors to keep in mind when choosing a garden site:

1. **WATER SOURCE:**
   The site should be close to a source of water. Plants grow much better when watered with warm water (15 - 25°C). Irrigation is much more efficient than hand watering.

2. **SECURITY:** When possible, a site should be near enough to one's house for supervision. Protecting the site with a fence is a good idea to deter animals from grazing.

3. **SOIL:** The soil must be well drained. The cleared but untilled new site should have a soil depth of at least 12" and cleaned of rocks and roots. Compost, organic matter and fertilizer can be added to soil to improve it.

4. **ELEVATION:** If you have the option, choose higher rather than lower lying land for your garden site. Higher ground is usually warmer with better air circulation and has better water drainage.

5. **WINDS:** Exposure to high or steady winds can ruin an outdoor garden by damaging plants and drying them out. Windbreaks provide protection from winds. Windbreaks can be composed of brush, trees, fences or buildings and should be around 20' away from the site.

6. **ORIENTATION:** Ideally, the garden site should be lined up on a north south axis, with rows planted in a north-south direction (as they have more exposure to sunlight).

Other tips for planning and preparing your garden:

- Consider the space each plant needs when planning your garden: squash and melons go outwards in all directions; corn, broad beans and asparagus grow tall; radishes and carrots don't take up much room; eggplant, artichoke, and tobacco grow tall and wide.
- Keep your garden away from tree roots
- Keep in mind the time you have available to commit to your garden. It is far preferable to have a small successful garden than a large one overrun with weeds or underwatered.
- Plant tall plants (e,g. corn, beans) on north side of the garden so they do not shade other plants
- Plant perennials around the outside of the garden so as not to disturb them when working the soil in the fall and spring
- Soil should be worked to a depth of 8-10" prior to planting (a combination of a shovel, fork and rake can be used to till the soil)

Soil

The most important thing to remember about soil is that it is a living system, complete only with roots, fungi, bacteria, insects, mites, and worms. Good garden soil needs appropriate depth, an adequate supply of the major and minor nutrients, a good supply of organic matter, a healthy community of microorganisms and proper drainage and texture composition.

PORE SPACE: While soil is a living system, it is also made up of minerals (the solid part) and pore space (air and water). This pore space allows for gas exchange between the soil and the atmosphere. The composition of the soil (i.e. high clay content or high sand/loam content) will determine how the soil holds water and circulates air. Clay soils have a high water holding capacity, while sandy or loamy soils have a low water holding capacity (i.e. clay soils tend to become water logged, while sandy and loamy soils tend to dry out quicker).

pH: Most plants enjoy slightly acidic soil, of a pH around 6.5. To increased the alkalinity of your soil, you can add lime, and to increase the acidity of your soil you can add sulfur or peat (all available at garden centers).

FERTILITY: Plants require 16 elements for growth. Carbon, hydrogen and oxygen come from the air. The other most important nutrients, and those needed in the largest amount, are nitrogen, phosphorus and potassium. Household compost and well-decomposed livestock manure are great ways to add these nutrients, as well as organic matter, to the soil. If you are buying a commercial fertilizer, you will find three numbers (e.g. 10-6-4), which indicate the percentage of nitrogen, phosphorus, and potassium. This is called the NPK rating. Someone at your local garden center should be able to tell you which ratio is best for your soil and growing conditions.

TEMPERATURE: Different plants have different required temperatures for seed germination and growth. For example, peas only require 1-3°C for germination, while potatoes require 5-7°C, and both would require an additional 5 to 10 degrees for good growth.

If you know your soil is poor, you will need to enhance it prior to planting. If you have soil particularly high in clay, sand or rock content, a raised garden bed with added soil may be best for you.

A good seed bed should be warm, moist and supplied with adequate nutrients.

Seeds

CHOOSING SEEDS

- Select types with short maturation times, especially if you are in a region with a short growing season
- Use only certified seed potatoes or your own seed potato (rather than grocery store potatoes)
- Plant veggies that you actually enjoy eating!

SOWING SEEDS OUTDOORS

- Consult the back of seed packages for depth to plant seed and distance to space rows
- Plant lettuce, carrots, radish, and beets every ten to fourteen days for continual harvesting throughout the season
- Potatoes need to be hilled: a gradual process of building up soil into a hill around the potato plant. The soil will cover potatoes that form near the surface (potatoes exposed to light will turn green and bitter).
- Watering: keep the soil moist so seeds can germinate, but not soggy as seeds can rot
- A string pulled between two stakes can act as a good guide for straight rows
- Once sprouted, carrots, lettuce, radish, and beets will require thinning
  - Thin in succession as plants grow
  - Thin seedlings once they are 1-2" high

PLANTING SEEDS INDOORS

- You can use store-bought trays and/or peat pellets, or get creative and use cardboard egg cartons (or plastic/Styrofoam egg cartons with holes poked in the bottom), little yoghurt containers or paper cups with holes poked in the bottom
- Use potting soil to start seedlings – it is a light soil mixture that provides good drainage so seeds do not rot

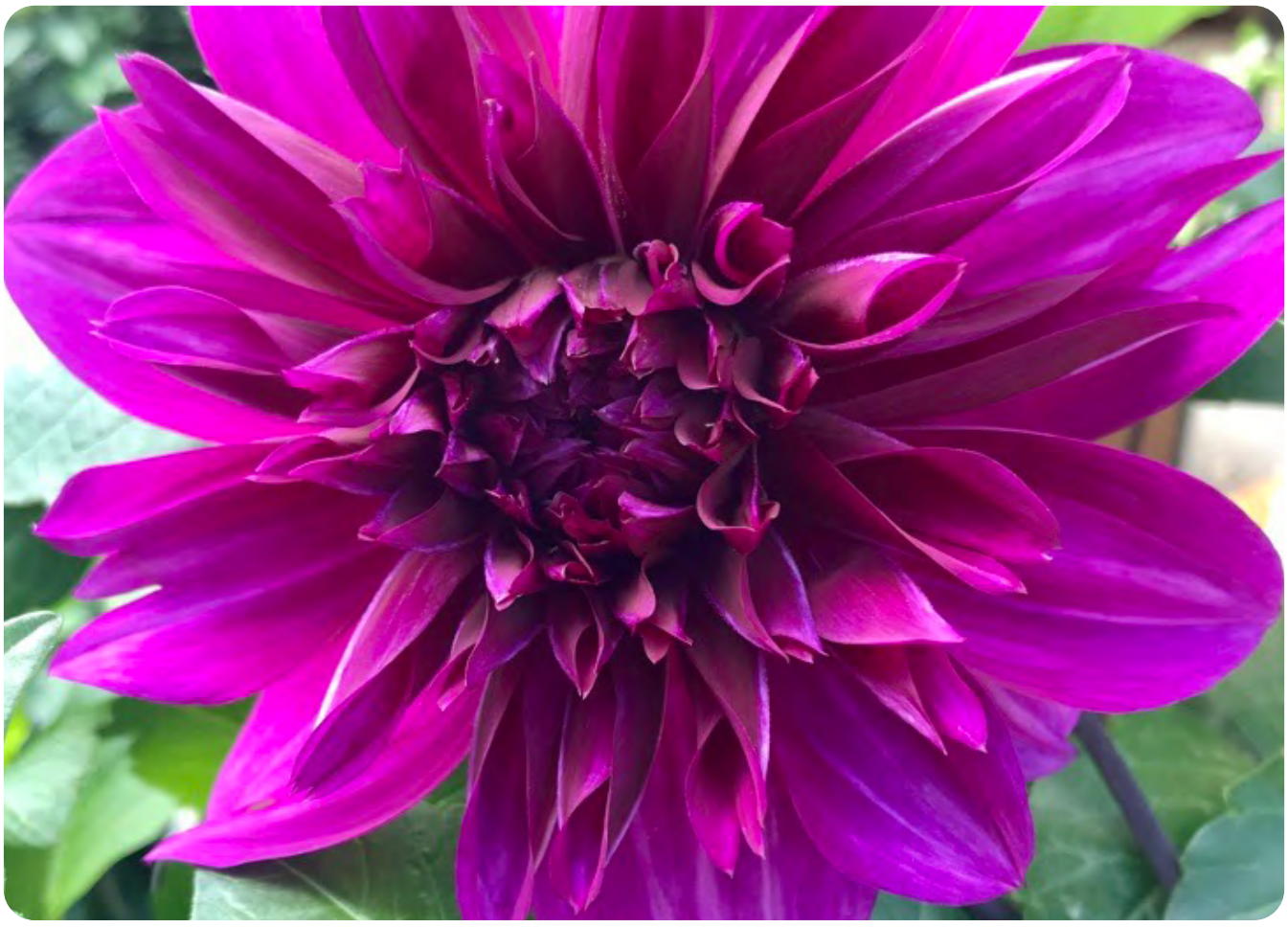
- As soon as seeds sprout, they will bend towards the light, so it's best to keep them in a window with direct sunlight, and to rotate them every couple of days to keep them straight. A grow light will help to prevent this as well.
- Acclimatize your seedings before planting outdoors: start with 1-2 hours outdoor on a sunny day and slowly increase the time the seedlings spend outdoors over a week or so. Once the risk of frost has passed, the seedlings can be planted in the ground.

REASONS SEEDS MAY NOT GERMINATE

- The soil is too cold (check seed package for required temperature)
- The soil is too dry or too moist
- The seeds were planted too deep or the soil had too hard a crust for the seedlings to push through
- The seeds were poor quality
- Pests ate them (rodents, birds, insects)

OTHER TIPS

- Keep a journal of what seed varieties do well in your garden (plus what you found most delicious!) so you can plant more of it following years
- Keep in mind your regional and local growing conditions when selecting varieties (i.e. preferred temperature, length to harvest, type of soil, etc.)



Companion Planting

Companion planting describes planting two or more plant species in close proximity for some type of cultural benefits. These cultural benefits include attracting and/or harboring beneficial insects, releasing nutrients that are advantageous to the growth of other crops, providing a buffer against the elements to fragile seedlings, or providing physical support for other crops.

While there are many guides to companion planting online, Linda Gilkeson, in her book, *Backyard Bounty*, argues that the most important thing to keep in mind is planting plants in your garden that attract beneficial insects that prey on pest insects.

Some examples of companion planting include:

- Planting nasturtiums, marigolds, zinnias, dill, mint or lavender to attract beneficial insects
- Planting cover crops to suppress weeds (for example, buckwheat)
- Using the Three Sisters technique to plant corn, pole beans and squash for a mutually beneficial tri-crop

Watering

- Thorough, deep watering is more effective than shallow watering
  - Aim to water 2-4" deep
  - Mere sprinkling of water encourages plant roots to grow shallow and makes plants more susceptible to drought
- It is best to water in the morning before the heat and/or on an overcast day to reduce evaporation as well as allowing leaves to dry (wet leaves overnight makes plant susceptible to fungus)

LEARN GARDENING WORDS IN MICHIF! • *In English: carrot* • *in Michif: en karot*

Composting

WHAT IS COMPOSTING?
Composting is the a slow breakdown of organic material into a rich dark soil called humus. Most of the decomposing work is done by fungi and bacteria.

WHY COMPOST?
There are numerous reasons why composting is good. It reduces waste in land fills, compost is an excellent soil conditioner, and using compost will cut back on the need for expensive chemical fertilizers.

WHAT CAN I PUT INTO MY COMPOST?
Almost anything can be composted, vegetable peeling, fruit rinds, twigs, grass clippings, leaves, coffee grounds and filters, tea bags, pasta, egg shells, dryer lint, paper, wood chips, and straw. There are some things that are not recommended for compost, things such as: meats, bones, fish, dairy products, peanut butter or oil based products, oil, grease, and pet or human feces.

WHERE CAN MY COMPOST GO?
Your compost can really be piled up almost anywhere. If you choose to put your compost into a bin, it looks neater, and you have better control over moisture and bugs. You also can make a compost pile in the corner of your yard, the results are the same in the end, but the decomposing time is slower.

Pests

APHIDS (MANY SPECIES)
What to look for: tiny, pear-shaped insects (2-4mm long) clustered together on the undersides of leaves or tips of young tips, may be light green to pink to grey

Management: spray aphids with a strong steam of water (they will be blasted off the leaves) two days in a row (to ensure any survivors are knocked off before they can reproduce), squish them between your fingers, or spray with neem oil (note, these methods will also kill any beneficial insects on the leaves), lady beetles, aphid midges, hover flies, and parasitic wasps will also help to reduce aphid populations.

SLUGS AND SNAILS
What to look for: large, ragged holes chewed in leaves and shoots of emerging plants. You will usually see their slime trails left on damaged leaves. Eggs look like perfectly round, translucent masses laid in the soil.

Management: water in the morning to allow the soil surface to dry by evening (when the slugs and snails feed most actively) and pull mulch away from base of seedlings until the plants are well grown (decomposing matter attracts them), and use strips of cooper or zinc mesh around the edges of beds or pots to repel slugs.

NOTE: Floating row covers (e.g. remay) can help reduce a large amount of pests (e.g. moths, leafminer flies, etc.). Covers can be left on for the entirety of the season or removed once the seedlings have established themselves into hardy plants.

Diseases

Plant diseases take various forms, such as molds, rots, spots and skin problems in potatoes. Diseases are caused by various agents such as fungus, bacteria, or viruses. Get help from experienced gardeners if disease problems are suspected.

To protect vegetables from diseases and discourage pests, here are a few simple rules to follow:

- Choose seeds of disease-resistant varieties whenever you can.
- Inspect store-bought plants carefully. Spotty or discolored leaves may be signs of damage, insufficient nutrients, or disease.
- Pull up and throw away any diseased plant. Do not compost it.
- Rotate crops, especially cabbage, its many relatives, and potatoes, to prevent the spread of soil-borne diseases.
- Do not work in your garden immediately after a rainstorm. Wet leaves are more vulnerable to damage and disease.

Tips

AVOIDING OTHER DISEASES AND DISORDERS

- Promote rapid drying of leaves between rain and watering by spacing, pruning and training plants to ensure good circulation between leaves.
- Ventilate greenhouses and coldframes to allow for air circulation

When to Harvest

VEGETABLE	WHEN TO HARVEST
BEANS	Pods are smooth like a pencil but before they bulge
BEETS	Roots are two inches in diameter
CABBAGE	Heads heavy and firm
CARROTS	Roots bright in color and firm
CORN	Tassels brown, prepare/process corn quickly after harvesting (sugars degrade quickly)
CUCUMBERS	Depends on variety and use (i.e. pickles versus eating fresh)
LETTUCE	Tender and mild tasting, continue harvesting until seed stalk appears, excess heat will cause many varieties to go bitter
ONION	For green onions: bulb is 1" in diameter, for large onions: tops turn brown
PUMPKIN	Vines died back and pumpkin deep orange in color, but harvest before first frost
RADISH	Firm and bright but before cracked and pithy
TOMATO	Pink (will ripen indoors) or red, if frost is coming harvest green tomatoes and wrap in newspaper to ripen
ZUCCHINI	5-7" long, dark green to golden yellow depending on variety

Storing and Preparing your Harvest

To enjoy your garden harvest throughout the non-growing season, you can freeze, can, dehydrate or store your food. Ideal storage areas are often difficult to provide in the average home unless space is specifically built to provide the perfect balance of temperature and humidity. The practical way is to identify areas in the home or outbuildings that will offer naturally suitable conditions. For example, a root cellar or basement with a dirt floor for potatoes and root crops, and drier places such as cool rooms and hallways for pumpkins and squash.

Once the storage space is located, these tips should be remembered:

A) ACCURATE HARVESTING IS ESSENTIAL

- Only store fully ripe vegetables (with the exception of green tomatoes)
- Only store produce free of disease and damage
- Handle carefully to avoid cuts and bruising which can increase mold and bacterial decay
- Harvest before frost damage occurs
- Leave an inch of stem on any vegetable that has one to prevent drying out or rot (e.g. beets, squash, carrots)
- Remove excess soil from produce but do not wash with water (can use a bristle brush).

B) TEMPERATURES

- Cool the product quickly to remove the field heat before putting into storage
- Cure (dry and harden) the skins before storing
- Cool temperatures slow down the decay process and tissue breakdown, but do not allow temperatures to fall below freezing. The best range is between 0° and 5° C.

C) AIR MOISTURE (RELATIVE HUMIDITY)

- Since veggies are 85 percent water, if air moisture is too low, vegetables will shrivel, lose quality, and become unusable
- Try to use containers rather than leave veggies exposed to air
- Root crops (e.g. carrots, beets) can be stored in boxes of fresh sawdust, peat moss or sand
- Other vegetables requiring moist conditions can be placed in boxes lined with plastic bags, plastic or metal garbage cans or metal cans lined with cardboard. Cut ventilation holes to avoid mustiness
- An old fridge will also provide cool, humid conditions

D) VENTILATION

- Air circulation is needed to carry away ethylene gases given off by the breathing process of vegetables
- If conditions are cramped, check produce periodically for signs of mold and remove any decayed items
- Keep strong-smelling vegetables (ex: cabbage) away from other vegetables and fruits. Wrap in several layers of newspaper or store separately

E) OTHER

- Keep all produce in the dark, as light speeds up degeneration (except for cabbage that will stay green under artificial lighting)
- Do not reuse packing materials from the previous year as they could harbor molds and disease
- Protect product from rodents, insects, and dust

Storage Humidity

HUMIDITY	VEGETABLES	CONDITIONS
Cool & *Very* Moist (1-4°C) High humidity	Beets, carrots, parsnips, turnips, kohlrabi, rutabaga	Keep in bins of layered damp sand
Cool & Moist (1-4°C) Moist but no free moisture	Cabbage, celery, potatoes	Keep potatoes on slated shelves or crates, bring to room temperature several days before eating to convert sugars back to starch
Dry & Warm (9-14°C)	Winter squash, pumpkin	Will keep until February
Dry & Cool (1°C)	Dried beans, garlic, onions	Will keep 6-7 months

LEARN GARDENING WORDS IN MICHIF! • *In English: sun* • *in Michif: li salay*

Seed Saving

WHY SAVE SEEDS?

1. Select seeds best suited to your specific growing environments
2. Save money
3. Learn more about plants and their life cycles
4. Food sovereignty, independence, and self-reliance
5. Protect & enhance genetic diversity (Indigenous and heritage seeds, etc)
6. Protect subsistence farmers from expensive hybrid seeds

WHICH SEEDS CAN'T YOU SAVE?

Hybrids will not produce offspring identical to parent

CLASSIFICATION OF GARDEN PLANTS

1. Annual: arugula, potato, lettuce, radish, tomatoes, pepper,
2. Biennial: kale, cabbage, broccoli, cauliflower, parsnip, carrot, beets, swiss chard, onion
3. Perennials: parsley, chives, cilantro, rhubarb,
4. Self-pollinated: pollination occurs within each flower, which contains both male & female parts; seeds most often true to type; don't need to save seeds from various plants to maintain genetic diversity
5. Cross-pollinated: pollen from one flower fertilizes another on the same plant or another plant. These require barriers (distance or physical barriers) from other pollen-exchangeable plants to ensure purity; gather seeds from various plants to ensure genetic diversity
6. Open-pollinated: stable varieties produced from genetically similar parents.
7. Monecious plants: plants with both male & female flowers (ie. squash, cucumber, corn)
8. Dioecious plants: plants are either male or female (ie. spinach)
9. Perfect flowers: flowers that contain both stamens & pistils (male & female parts)

SEED SAVING PROCESS

Self-pollinating annuals (aka beginner vegetable seeds): beans, grains, lettuce, peas, peppers, tomatoes. These seeds are easy to harvest, do not require a large number of plants to ensure genetic diversity, and often do not require isolation from other varieties.

- Beans: let dry in their pods, then thrash and pick out the seeds. Lettuce: like a dandelion seed when mature (with fluff), very few heads required for sufficient seeds, seeds remain viable for up to 4 years, may have to start indoors for seeds to mature.
- Peppers: dry seeds, store in labeled container. Peppers can cross-pollinate with other varieties, so for purity, they should be separated.
- Peas: allow to dry on the plant, remove, allow to further dry in the shell. Thrash and separate the seed from the pod. Entire plant can be pulled and dried upside down if rain or frost prevents drying outdoors.
- Tomatoes: remove the pulp and seeds from a very ripe tomato, place in a bucket, and add a little water so the mixture is runny. Put a lid on the bucket and label it. After 3 days you should observe a moldy, fermented brew. The fermentation breaks down a gel that covers the seed. Seeds sink and pulp floats, so you can pour off the water and any pulp carefully while not disturbing the seeds at the bottom. Pour seeds onto a screen or through a strainer to allow any remaining water to drip off. Spread seeds out on screen and let dry. Tomato plants should be separated by 10' to ensure purity. Almost all tomatoes can be grown for seed and will not cross with nearby tomatoes. The only exception is cherry tomatoes, which are a different species that will cross-pollinate and should be isolated from other types of cherry tomatoes.

Cross-pollinated annuals (experienced vegetable seeds): arugula, corn, cucumbers, melons, mustard, radishes, spinach, squash, arugula, chives, and cilantro. These plants are less practical for community and urban gardeners since considerable cross-pollination can occur. They must be grown in isolation from other varieties, and seeds should be saved from a number of plants to ensure genetic diversity.

- Arugula and radish are easier candidates for saving since they won't cross with other members of the cabbage family. For arugula, leave the plants in the ground after the first frost, then harvest pods or whole plants and bring inside to dry. Plants can be left all winter and seeds harvested in the spring.
- Radish seeds should be picked as soon as the pods are dry, since pods will break open and scatter seeds naturally.

Cross-pollinated biennials (expert vegetable seeds): beets, broccoli, brussel sprouts, cabbage family, carrots, celeriac, mustard onions, parsnips, turnips. These plants produce an edible crop the first year, and flowers the second year. In our climate, they need to be harvested, stored indoors, and replanted the following year. Beets and swiss chard will cross-pollinate and must be isolated from each other. Seeds should be saved from a number of plants to ensure genetic diversity.

LEARN GARDENING WORDS IN MICHIF! • *In English: tomato* • *in Michif: en tomat*

Winterizing Your Garden

FALL (SEPTEMBER TO NOVEMBER)

- finish harvesting main warm-season vegetables
- prepare hardy vegetables for winter in the garden (if you live in year-round growing climate)
- cover overwintering vegetables with sturdy tunnel or transplant to greenhouse
- cover any exposed soil with mulch (leaves, straw, seaweed, woodchips) to protect from erosion and control weeds
- *do not add compost this time of year, as rain will leach away nutrients and it's too cold for plants to uptake nutrients

FALL PLANTING:

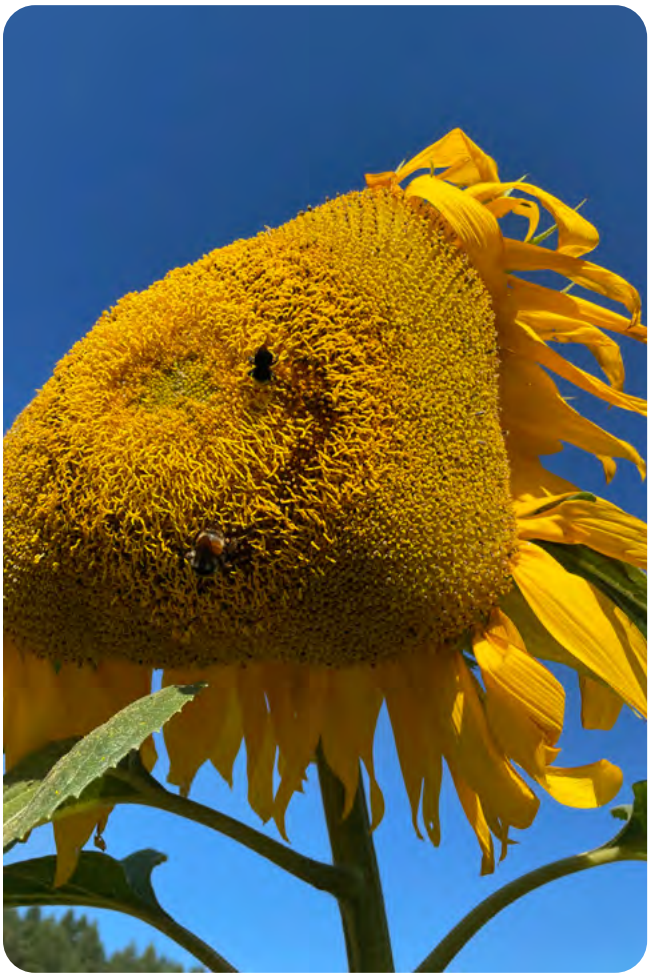
- Garlic can be planted in the fall to give a more robust harvest in the spring
- Prepare new ground for next season's garden expansion by covering with newspaper, cardboard or tarps (make sure to secure with rocks to keep from blowing away in the wind)

FALL HARVEST:

- Winter squash can be harvested when the leaves begin to die back, the skin of the squash feels hard, and the stem is shriveled and drying – cure the squash for 10 days in warm, dry conditions to seal the skin (then can be kept all winter)
- Potatoes are typically ready to harvest when the vines start to die back. Harvest them on a dry day and lay them out on newspaper or cardboard to dry in the sun for a couple hours. Store them in cool conditions in complete darkness.
- Any green tomatoes can be brought inside and stored in newspaper to ripen in a cool room (wrap each tomato in a sheet of paper).

PREPARING FOR WINTER:

- Stockpile leaves for mulch
- Buy straw bales (they are typically cheaper in the fall)
- For overwintering vegetables, provide a 6-inch (20-cm) cover of mulch
- Support overwintering plants with stakes or tomato cages to reduce risk of wind damage



WHAT TO DO EACH MONTH

September

- Harvest squash and potatoes
- Sow winter lettuce (if you live in warm winter areas)
- Start mulching

October

- Dig agricultural lime into empty beds where vegetables will be planted next year
- Plant garlic at by the end of the month (if you live in garlic overwintering zone)
- Clear top debris (decaying plant matter) from the beds and compost it or chop up to use as mulch for overwintering vegetables
- Cover compost and manure piles to protect from rain erosion
- Move tender herbs to protected sites (greenhouse, tunnel, inside home)

November

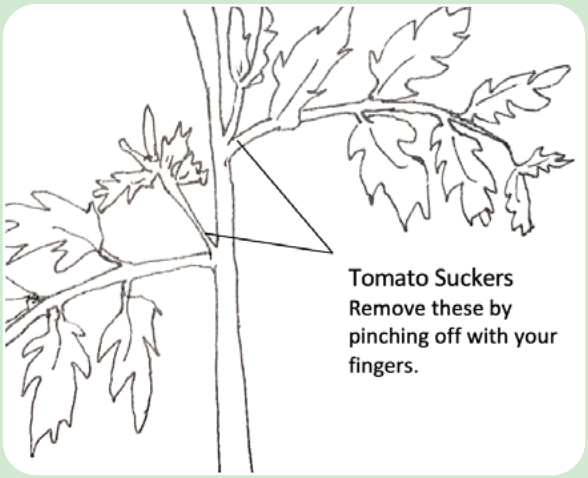
- Plant fruit trees, grapes, blueberries and other fruits so their roots establish before spring
- Finish mulching

December & January

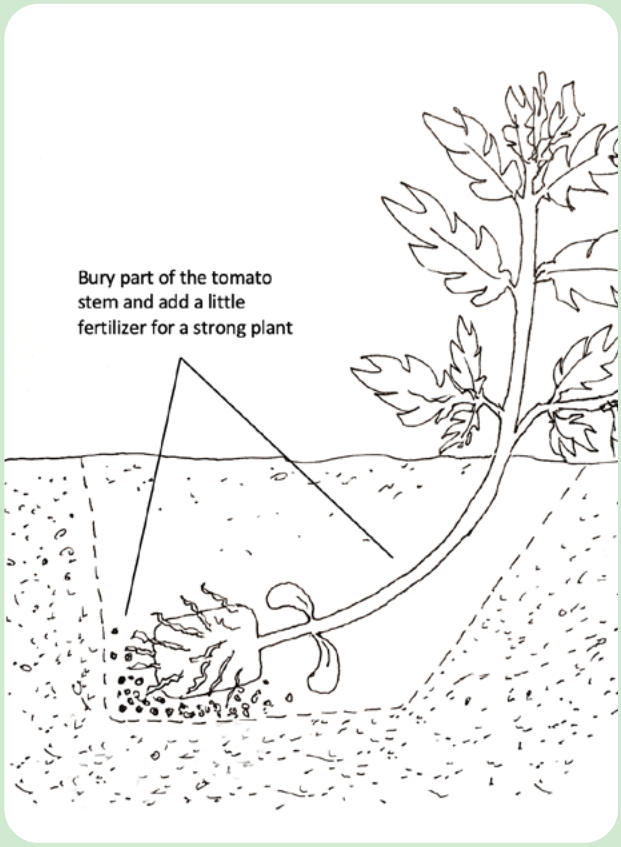
- Add second layer of mulch if needed
- Monitor overwintering crops (cover with mulch and protect from wind and extreme cold)

General Tips

- when adding fertilizer, make sure to work it into the soil and make sure it does not directly touch the roots or foliage of the plant (young plants can be burned by it)
- carrots and radishes need lots of water to prevent cracking and bitterness
- you can eat the tops of the beets as nutritious greens while you wait for the root to ripen (just make sure you leave some of the greens for the growing plant!)
- prune tomato suckers



- to make strong tomato plants: pinch off the bottom branches and bury the plant deeply, covering the stem – tomato will set more roots and develop a stronger stalk.



Perennial vs. Annual

- Perennials are plants that will return year after year, but their leafy material will die back during the winter. Examples include artichoke, asparagus and mint.
- Annuals are plants that live for one year or one growing season and then die off completely. Examples include carrots, lettuce, beans, and squash.

Tips from Pilot Participants

- planting tomatoes, peppers, and eggplants deep with eggshells at the bottom to help avoid blossom end rot
- use vertical trellises for cucumbers, squash, and melons to help gardens with limited space
- dry herbs for winter (mint, parsley, sage, etc.)
- Take a garbage bin and poke holes in the bottom and you can keep growing potatoes in the bucket without taking up much space in the garden box. See How to Grow Potatoes in a Trash Can - City Roots Organic Farm (cityrootsfarm.com)
- Cucumbers can be eaten fresh or used in a greek salad. Beans can be frozen or pickled for storage. Kale is good in soups, quiche, added to one pot skillets, or green smoothies. Zucchini can be added into baking, or is good on the BBQ!
- Use old milk or yoghurt containers to make plant/seed ID tags

Recipies from Home Garden Program Participants

The best part of gardening is eating what you have grown! These recipes were shared by participants of the Home Gardening Program who got creative with their harvests.

TOMATO SAUCE

Ingredients:

3 pounds tomatoes (whole not peeled)

1 large onion

1 tsp garlic

3 basil leaves

Sprinkle tomatoes in olive oil, roast @ 350˚ oven for 30 min.

While they are roasting chop 1 large onion and in a large pot cook in 1/4 cup olive oil for 3 minutes add 1 tsp chopped garlic, cook for another minute.

Add tomatoes including all juices.

Cook with lid ajar for 30 minutes. Add 3 basil leaves torn up. Cook 5 minute more. Add salt and pepper to taste.

With hand bender bend all until smooth.

Place in jars and refrigerate, or freeze.

by Stan Douglas

CHILI

Scramble fry:

1 lbs hamburger or ground turkey

3/4 c onion, chopped

1/2 c celery, chopped

Add:

1/2 tsp salt

1/8 tsp pepper

1 tbsp vinegar

1 tbsp chili powder, or more (make the vinegar amount equal to the chili powder)

1 can kidney beans or black beans, drained

1 can tomato soup

1/2 c water

I usually set this in the crock pot on low in the morning to serve later in the day. This is also good with leftover bean dip, corn etc. added.

by Natasha Mathews

BLACK BEAN DIP

Ingredients:

1 tin black beans, rinsed

1 tin corn, drained

1/4 cilantro, chopped fine

diced red pepper

diced red onion

1/4 c olive oil

5 tbsp lime juice

1 tsp cumin

Chop it all up small, mix and cool. Serve with tortilla chips. You can freeze any leftovers to throw in chili or soup. Popular side dish at parties.

by Natasha Mathews

CROCKPOT COWBOY BEANS

Ingredients:

4-8 slices bacon, browned and crumbled OR chopped cooked ham

1 onion, diced

green, yellow or red pepper, chopped

1/8 - 1/2 c brown sugar (to desired sweetness)

1/2 c ketchup

2 tbsp molasses

1/8 tsp salt and pepper

2 16oz cans baked beans

2 16oz cans beans of your choice, drained: kidney, black, lima, green (can use frozen), whatever beans you prefer

Combine ingredients in crock pot, mix well. Cook on high 2-4 hours OR low 4-6 hours. Also tastes good cold the next day.

by Natasha Mathews

BEAN SALAD

Drain:

1 can green beans

1 can yellow beans

1 can red kidney beans

1 medium onion-rings

1 small green pepper-rings

Sauce:

3/4 c white sugar

1/2 c oil

1 tsp salt

2/3 c vinegar

dash pepper

by Natasha Mathews

ZUCCHINI FRIES

I have a great veggie side dish that's easy, fast and yummy. I call them zucchini fries with dip. I take one med zucchini and cut it in half and then in quarters to make wedge fries. I then take those and shank'n bake them and air fry them for 10 mins @ 425˚ or until they're golden brown. For the dip I take ranch and hot sauce and mix it to the heat level I like.

by Shay Atwood

CILANTRO SAUCE

We blend cilantro with oil or water, sometimes adding other ingredients like sesame oil, garlic, lime, ginger, etc., to make a "cilantro sauce". This can be frozen in ice cube trays and works very well at maintaining flavor (as usually cilantro can only be enjoyed fresh).

by Lindley Granger

Regional Agricultural Profiles

1 - VANCOUVER ISLAND COAST

2 - MAINLAND-SOUTH COAST

3 - THOMPSON-OKANAGAN

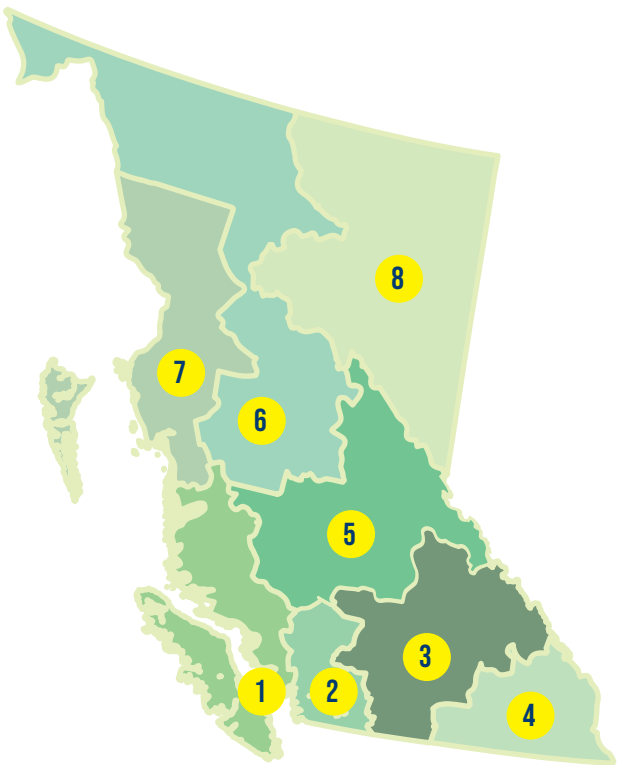
4 - KOOTENAY

5 - CARIBOO-CENTRAL

6 - NECHAKO

7 - NORTH COAST

8 - PEACE RIVER NORTH EAST



Information drawn from "Grow BC: Maps of Agricultural Regions of BC" from https://www.bcaitc.ca/resources/grow-bc-map-agricultural-regions-bc

1 - VANCOUVER ISLAND COAST:

longest growing season in Canada

-temperate climate

-primarily hay, field crops and berries/fruits/veg grown

-suited to growing wide range of crops

-mild, moist climate suitable for long-season specialty crops

-annual precipitation = 873-2123 mm

2 - MAINLAND-SOUTH COAST

highest frost-free days and rainfall of all regions

-suited for fruit and vegetable crops

-most fertile lands of region lie in Fraser Valley

-primarily hay, greenhouses, mushrooms, fruits/berries and nuts

-annual precipitation = 920-1500 mm

3 - THOMPSON-OKANAGAN

extremely diverse terrain and climate varies considerably across region

-good soil and climate suits variety of crops

-mild climate with low annual precipitation

-fertile soil, hot summers and relatively mild winters

-due to semi-arid majority, relies heavily on lake and river irrigation

-environment ranges from dry, hot grasslands to wet areas, rugged mountains and river drainage basins

-annual precipitation = 257-534 mm

4 - KOOTENAY

moderate climae supports a wide range of field and horticultural crops

-rugged terrain: major river valleys, mountains, grassland ranges

-high cost of transporting fresh produce into the region, therefore increasing demand for locally produced produce

-annual precipitation = 370-569 mm

CONTINUED ->

5 - CARIBOO-CENTRAL

relatively short grow season with moderate rainfall

-around Prince George river valley frost-free longer than adjacent upland benches, Williams Lake area has longer, earlier grow season

-river bench soils along Fraser River excellent for producing potatoes, cabbage, cauliflower, and root vegetables

-some areas of ancient glacial bottoms have high clay content but okay with good soil management practices

-majority of agriculture is beef production

-annual precipitation = 250-630 mm

7 - NORTH COAST

wide range of topography with significantly different climatic conditions

-predominantly beef and hay produced

-least populated region of BC

-fertile soil in valleys

-agricultural development limited by transport costs

-annual precipitation = 464-522 mm

8 - PEACE RIVER NORTH EAST

temperatures vary greatly but generally long winters and short grow season

-terrain similar to Prairie provinces

-long daylight hours suit region to prairie crops (wheat, barely, canola, forage)

-several honey producers in the region

-primarily beef, forage crops and honey produced

-early-maturing crops best suited

-Peace River adjacent areas under 800 m can grow potatoes, rutabagas, carrots, beets, cabbage, lettuce, peas and even tomatoes and sweet corn

-soil prone to errosion and some areas suffer lower pH

-annual precipitation = 446-503 mm

BC Metis Chartered Communities Growing Conditions

The following chart provides the growing conditions for each of MNBC's Chartered Communities. The hardiness zone is the standard by which gardeners and growers can determine which plants will be able to survive and thrive in a given geographic location. The first frost date is the date you will need to have your summer produce harvested. The last frost date is the date you can start planting outdoors. The growing season is the number of frost-free days in the season (i.e. how long your annuals will have to grow).

Chartered Community Growing Conditions

CHARTERED COMMUNITY	HARDINESS ZONE	FIRST FROST	LAST FROST	GROWING SEASON	ALTITUDE
REGION 1: VANCOUVER ISLAND AND POWELL RIVER					
Alberni-Clayoquot Métis Society	*Zone 9a, -7 to -4*	*02-Oct*	*11-May*	*143*	*6'*
Cowichan Valley Métis Association	*Zone 8b, -9 to -7*	*19-Oct*	*01-May*	*170*	*452'*
Mid-Island Métis Nation Association (Nanaimo)	*Zone 8b, -9 to -7*	*15-Oct*	*04-May*	*163*	*91'*
Miki'siw Métis Association (Courtney)	*Zone 9a, -7 to -4*	*20-Oct*	*20-Apr*	*182*	*82'*
North Island Métis Association (Campbell River)	*Zone 8b, -9 to -7*	*28-Sep*	*10-May*	*154*	*354'*
The Métis Nation of Greater Victoria Association	*Zone 9a, -7 to -4*	*09-Nov*	*14-Apr*	*208*	*200'*
Métis Nation Powell River	*Zone 9a, -7 to -4*	*23-Oct*	*26-Apr*	*179*	*423'*
REGION 2: LOWER MAINLAND					
Chilliwack Métis Association	*Zone 8b, -9 to -7*	*28-Oct*	*19-Apr*	*191*	*36'*
Fraser Valley Métis Association (Abbotsford)	*Zone 8b, -9 to -7*	*16-Oct*	*30-Apr*	*168*	*193'*
Golden Ears Métis Society (Pitt Meadows)	*Zone 8b, -9 to -7*	*11-Oct*	*27-Apr*	*166*	*16'*
North Fraser Métis Heritage Association (New Westminster)	*Zone 8b, -9 to -7*	*09-Nov*	*28-Mar*	*225*	*449'*
Surrey/Delta Metis Association	*Zone 8b, -9 to -7*	*08-Nov*	*13-Apr*	*208*	*1197'*
Waceya Métis Society (Langley)	*Zone 8b, -9 to -7*	*13-Oct*	*04-May*	*161*	*98'*
REGION 3: THOMPSON & OKANAGAN					
Boundary Métis Community Association (Grand Forks)	*Zone 6a, -23 to -21*	*15-Sep*	*17-May*	*120*	*1742'*
Kelowna Métis Association	*Zone 7a, -17 to -15*	*05-Oct*	*01-May*	*150*	*1145'*
Nicola Valley & District Métis Society (Merritt)	*Zone 5b, -26 to -23*	*19-Sep*	*23-May*	*118*	*1998'*
Salmon Arm Métis Society	*Zone 6a, -23 to -21*	*25-Sep*	*16-May*	*131*	*1729'*
South Okanagan Similkameen Métis Association (Penticton)	*Zone 7b, -15 to -12*	*28-Sep*	*10-May*	*140*	*1128'*
Two Rivers Métis Association (Kamloops)	*Zone 6a, -23 to -21*	*03-Oct*	*03-May*	*152*	*1131'*
Vernon & District Métis Society	*Zone 6b, -21 to -18*	*04-Oct*	*29-Apr*	*165*	*1824'*
Vermillion Forks Métis Association (Princeton)	*Zone 7b, -15 to -12*	*07-Sep*	*05-Jun*	*93*	*2299'*
REGION 4: KOOTENAY					
Columbia Valley Métis Association (Invermere)	*Zone 4b, -32 to -34*	*16-Sep*	*15-May*	*123*	*3051'*
Elk Valley Métis Association (Fernie)	*Zone 5a, -29 to -26*	*03-Sep*	*12-Jun*	*82*	*3730'*
Kootney South Métis Society (Trail)	*Zone 7a, -17 to -15*	*11-Oct*	*26-Apr*	*167*	*1984'*
Métis Nation Columbia River Society (Golden)	*Zone 4b, -32 to -34*	*08-Sep*	*02-Jun*	*97*	*2572'*
Rocky Mountain Métis Association (Cranbrook)	*Zone 6a, -23 to -21*	*14-Sep*	*24-May*	*112*	*3083'*
West Kootney Métis Society (Nelson)	*Zone 7a, -17 to -15*	*27-Sep*	*08-May*	*141*	*1624'*
REGION 5: NORTH CENTRAL					
The Cariboo Chilcotin Métis Association (Williams Lake)	*Zone 5b, -26 to -23*	*07-Sep*	*02-Jun*	*96*	*3080'*
Métis Nation New Caledonia Society (Vanderhoof +Fort St. James & Fraser Lake)	*Zone 4a, -34 to -32*	*03-Aug*	*03-Jul*	*30*	*2267'*
North Cariboo Métis Association (Quesnel)	*Zone 4b, -32 to -29*	*10-Sep*	*04-Jun*	*97*	*1788'*
Prince George Métis Community Association	*Zone 4b, -32 to -29*	*18-Sep*	*20-May*	*120*	*1899'*
REGION 6: NORTH WEST					
Northwest BC Métis Association (Terrace)	*Zone 7a, -17 to -15*	*10-Oct*	*30-Apr*	*143*	*190'*
Prince Rupert & District Métis Society	*Zone 8a, -12 to -9*	*12-Oct*	*03-May*	*145*	*114'*
Tri-River Métis Association (Smithers)	*Zone 4b, -32 to -29*	*07-Sep*	*10-Jun*	*88*	*1709'*
REGION 7: NORTH EAST					
Fort St. John Métis Society	*Zone 3b, -35 to -30*	*08-Sep*	*22-May*	*108*	*2276'*
Moccasin Flats Métis Society (Chetwynd)	*Zone 4a, -34 to -32*	*30-Aug*	*03-Jun*	*87*	*1998'*
North East Métis Society (Dawson Creek)	*Zone 3a, -40 to -37*	*24-Aug*	*08-Jun*	*76*	*2145'*
River of the Peace Métis Society (Hudson's Hope)	*Zone 3b, -35 to -30*	*30-Aug*	*03-Jun*	*87*	*1998'*
Métis Community Society of Kelly Lake	*Zone 3a, -40 to -37*	*24-Aug*	*08-Jun*	*76*	*2699'*