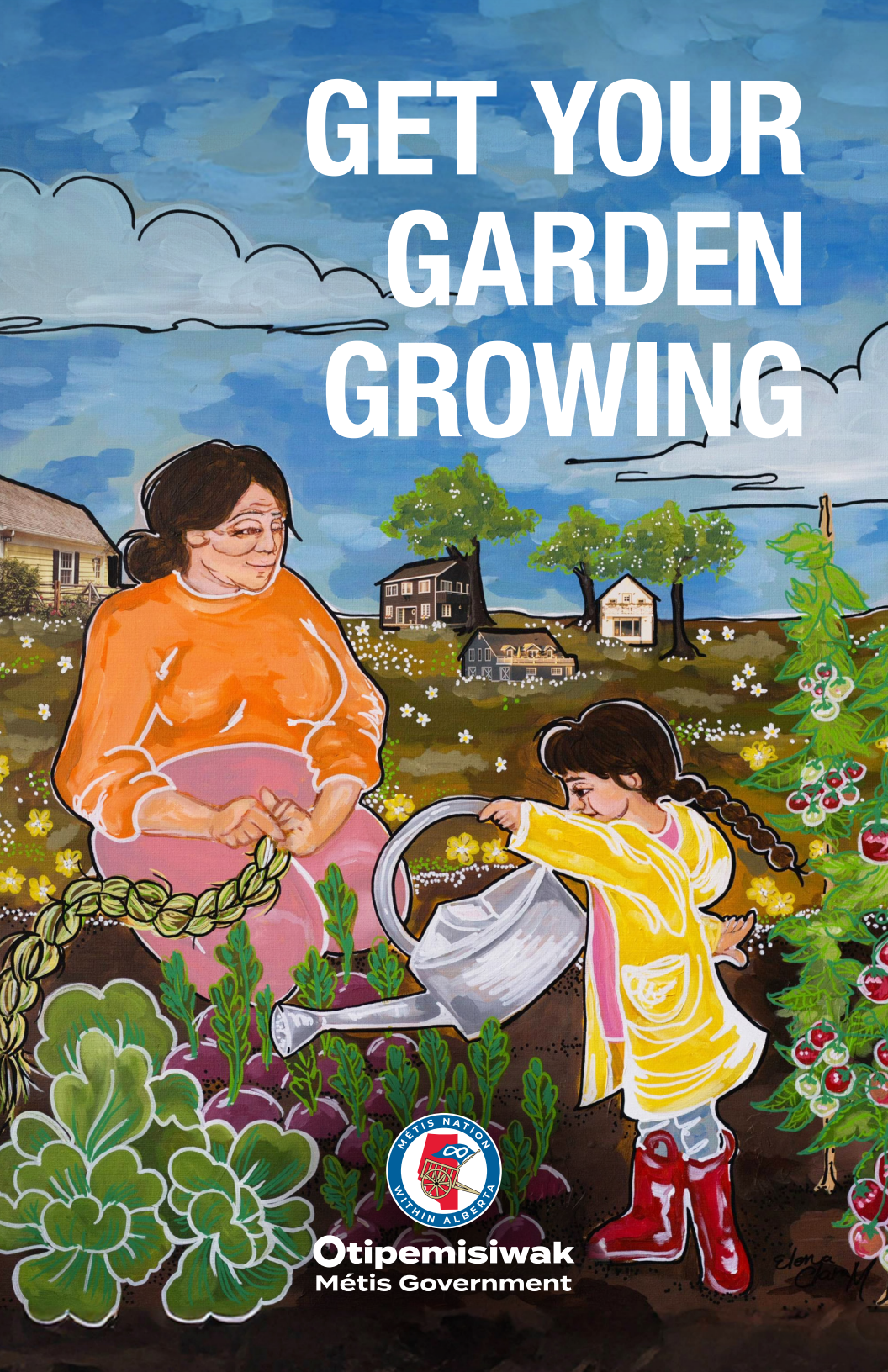
GET YOUR GARDEN GROWING



Otipemisiwak
Métis Government

ACKNOWLEDGEMENTS

We would like to extend a warm thank you to every Citizen—those whose names are shared below and those who contributed anonymously—for graciously sharing their knowledge, experiences, stories, and photos. Your valued input and feedback throughout the process made this guide possible.

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Renee Jensen
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Hailey Mills
Wendy and James Cox
Keith Grant
Jody Swanson
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Eileen Coons
Patti Shenfield
Olivia Warren
Ellen May Sayers
Shelbey Poirier
Heather Bellerose
Marilyn Dumont
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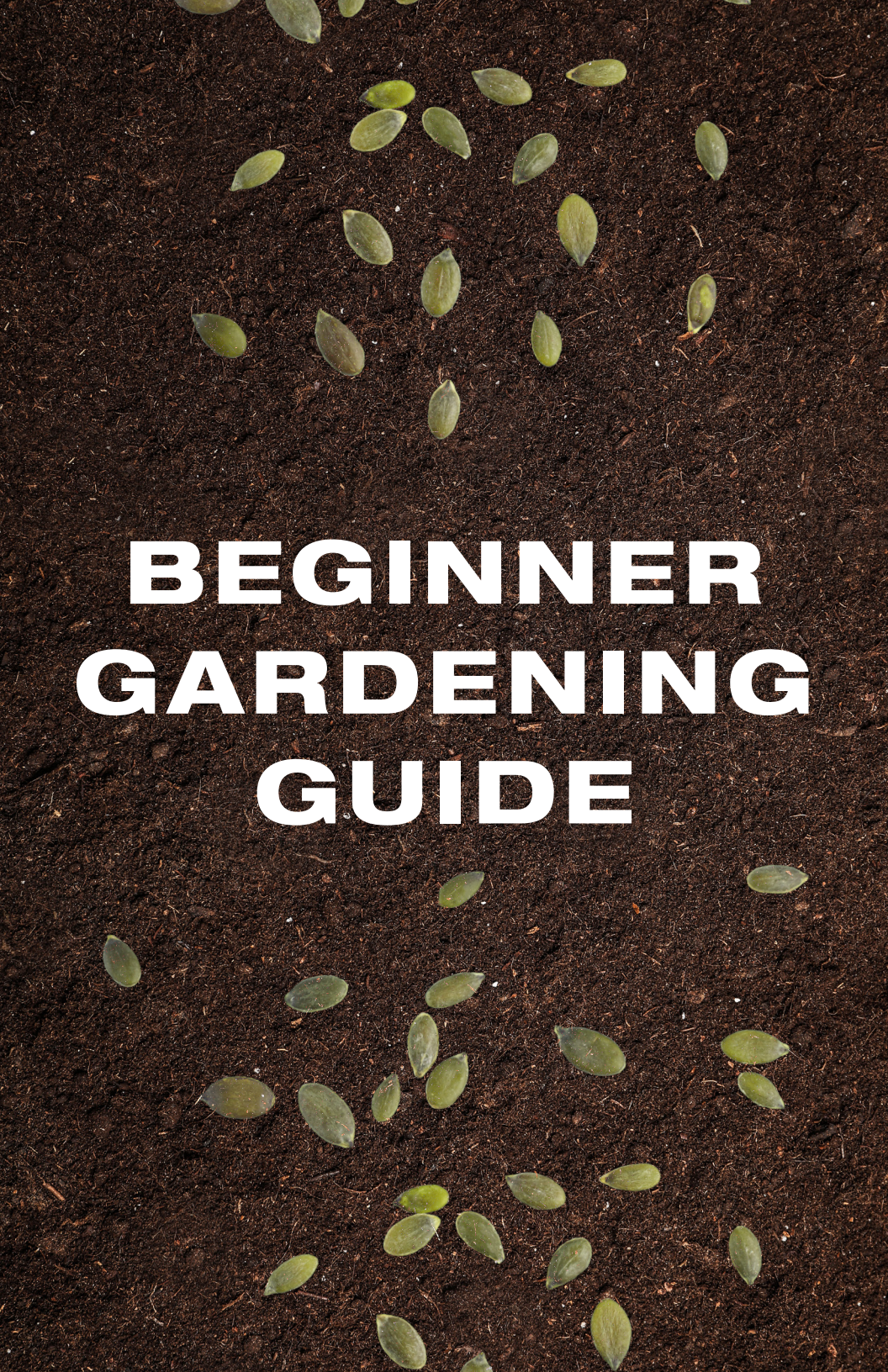

BEGINNER
GARDENING
GUIDE

WHAT IS THIS GUIDE?

This guide is a beginner-friendly resource designed to help you start gardening and grow your own produce to support your family. It covers the basics of planning and maintaining a garden, giving you the foundations to grow food at home.

However, this guide is not:

- An exhaustive reference for every gardening topic.
- A troubleshooting manual for specific gardening problems.
- A comprehensive guide to food security.

Instead, it focuses on helping you start gardening at a manageable level, ensuring you can grow your own food without feeling overwhelmed.

VOICES FROM THE COMMUNITY

"TAKE PLEASURE IN YOUR **EFFORTS** TO ENJOY THE **BEAUTY AND BOUNTY**, AND **SHARE PRODUCE** WITH OTHERS TO **CULTIVATE COMMUNITY** AND **MENTAL WELL-BEING.**"

- DAVID DESPINS

"**START WITH A SMALL GARDEN** AND MAKE SURE YOUR **SOIL IS GOOD.**"

- LORRAINE CYR

"GARDENERS ARE VERY WILLING TO TALK AND **SHARE THEIR KNOWLEDGE.** IF YOU SEE SOMEONE GARDENING, STOP AND TALK TO THEM. **GARDENING IS A GREAT WAY TO CREATE COMMUNITY**, IT CAN ENCOMPASS **ALL AGES AND ABILITIES.**"

- RENEE JENSEN

"**GET IN THERE** AND GET **DIRTY!**"

- SHERYL HROMINCHUK

PLANNING YOUR GARDEN

“**BOX GARDEN IS THE WAY TO START.** WAY LESS WEEDS AND YOU CAN DO IT EVERYWHERE. SMALL PLACE, PATIO.... CHANGE WHAT YOU PUT IN THE SQUARE EVERY YEAR TO **HAVE GREAT VITAMINS IN YOUR SOIL.**”

- CLAUDE-MIREILLE OLSON

“**START SMALL.** STARTING SMALL ELIMINATES THE **POSSIBILITY OF BEING OVERWHELMED** BY THE UPKEEP DURING THE SUMMER.”

- KEITH GRANT

Start small

- We get it—when you get started, it's tempting to try growing everything, and a lot of it! However, it's important to start small to avoid becoming overwhelmed by the demands of a garden and a bountiful harvest. You can always expand your garden next year.

Consider containers

- You don't need a backyard to try gardening! Containers and raised beds can be used to transform small spaces like apartment balconies into thriving gardens. If a lack of space is a significant barrier, start with small containers.

Take notes

- Use a gardening journal to note which plants are growing best and which ones you want to grow again. These observations will help you plan your future gardens.

Remember that learning is a process.

TOOLS OF THE TRADE

“WEAR PROTECTIVE CLOTHING ESPECIALLY LONG SHIRT SLEEVES, GLOVES, SHOES AND A BROAD BRIM HAT, AVOID OVEREXPOSURE TO SUN AND USE SUNSCREEN, AND KEEP HYDRATED.”

- DAVID DESPINS

The great thing about gardening is that you don’t need a lot of tools to get started! Many items are nice-to-have rather than strictly need-to-have. That said, the following tools are recommended and will simplify the start of your gardening journey.

Gloves

- Gloves aren’t just for keeping your hands clean! They protect your hands from getting scraped or punctured while you’re handling plants or working soil.
- Look for thick gloves that are made of real or synthetic leather. While thin cotton gloves feel lightweight and comfortable, they do not offer much in the way of protection.

Hand trowel

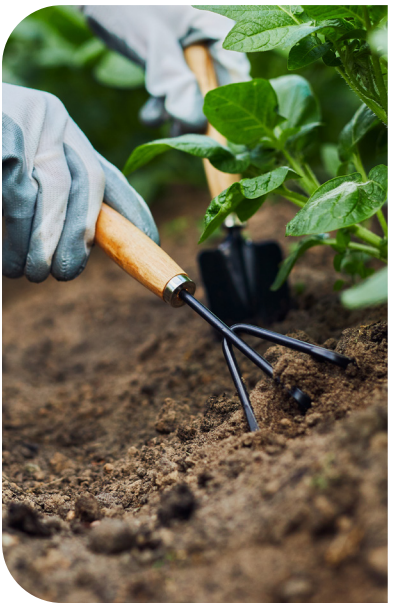
- A hand trowel is possibly the single most indispensable tool for a gardener! It protects your hands and makes it easier to dig holes or move your plants.
- Look for a trowel that is hefty and that either has a one-piece structure or has its handle welded to its blade. You can often hold the handle and blade in separate hands and test whether the joint feels wobbly or sturdy.

Garden fork

- A garden fork isn't just for potatoes! It can be used to loosen soil, mix in compost, and spread mulch.
- Look for a garden fork with stainless steel tines that is of a manageable weight for you. If you get a fork with a socket that goes over the wooden shaft and the shaft eventually breaks, you can replace it with a new one.

"GET PROPER TOOLS FOR THE JOB AND TAKE CARE OF THEM BY CLEANING, STORING AND SHARPENING WHEN NEEDED."

- SHELBEY POIRIER



SUNLIGHT

“DON’T BE DISAPPOINTED WHEN THINGS DON’T WORK OUT. KEEP TRYING, PLANTS HAVE SPECIFIC NEEDS AND A LIFE SPAN TOO. READ UP ON WHAT YOU WANT TO GROW, WHERE IT LIKES TO GROW, TYPE OF SOIL, SUN, PART SUN, SHADE. EVERY ZONE (AREA) HAS PLANTS THAT GROW BEST.”

- SHELBEY POIRIER

Through photosynthesis, plants transform sunlight into carbohydrates, which fuel their growth.

For the most part, you want your garden to be in the sunnier parts of your yard. This is especially important here in Alberta, as our sunlight hours can be limited. Some plants are more shade-tolerant than others, but as a rule, more sun is better when it comes to vegetable gardening in the northern hemisphere.

That said, it is helpful to understand what exactly a full or partial sun plant needs.

Symbols such as these are commonly found on seed packets and plant tags, but what do they mean in practical terms?

- **Full sun:** The plant needs 6 or more hours of direct sunlight each day.
- **Partial sun/shade:** The plant needs between 4-6 hours of direct sunlight each day.
- **Full shade:** The plant needs less than 4 hours of direct sunlight each day

These do not have to be consecutive hours; as long as the plant receives the total number of hours it needs, it'll be okay.

At this point, you might be wondering how much sunlight your yard gets.

To determine your gardening space's sun exposure, consider which way it "faces," which is typically relative to your home. If you look out of your home into your gardening space, which direction are you facing? A south-facing garden will generally get the most sun exposure, although existing structures, bushes, or trees will still cast shadows across your space.

- **North-facing:** The garden's sun exposure may be limited, especially if it's close to your home, and remains shaded all day. Consider more shade-tolerant species.
- **East-facing:** These gardens get gentle morning sunlight that tapers off as the day progresses.
- **South-facing:** These gardens get sun exposure throughout the day and are great for sun-loving plants.
- **West-facing:** These gardens get bright afternoon sun exposure and are great for sun-loving plants.

“IF YOU HAVE A **SUNNY SPOT** THAT GETS **TOO HOT IN THE AFTERNOON,** CONSIDER USING A **SHADE CLOTH OR TRELLISES TO CREATE AREAS OF PARTIAL SHADE** FOR PLANTS THAT NEED IT. THIS ALLOWS YOU TO **MANAGE THE SUNLIGHT EXPOSURE** MORE PRECISELY. **OLD BED SHEETS CAN BE REPURPOSED** IN MANY CREATIVE AND PRACTICAL WAYS, INCLUDING AS **SHADING MATERIAL.** WHEN USED FOR THIS PURPOSE, THEY CAN **HELP BLOCK OUT SUNLIGHT, COOL DOWN OUTDOOR SPACES,** OR EVEN PROTECT PLANTS FROM **HARSH SUN EXPOSURE.”**

- TAMATHA WATSON

CHOOSING PLANTS

"GROW WHAT YOU LOVE TO EAT."

- JENNIFER

It's easy to overwhelm yourself by starting off with a huge garden. Start small so that your first year is successful.

When choosing what to grow, consider produce availability at local grocery stores. Homegrown herbs can be far less expensive than those at the grocery store and are a great option for a beginner gardener or a gardener with limited space. Additionally, some vegetables, such as leafy greens or tomatoes, are much more flavourful when they're grown at home.

Here are some considerations for small spaces:

- Many veggies can be grown in a pot or planter, including tomatoes, peppers, many herbs, and even onions and potatoes! Check the seed packet for how much space your preferred produce requires.
- A bonus of growing plants in pots is that they can easily be moved indoors during cooler or stormy days. Not only does this protect your plants, it also extends your growing season!

"EVERYTHING CAN BE PLANTED IN CONTAINERS. SAVE YOURSELF MONEY AND USE ALL YOUR EXTRA RECYCLING BAGS TO PLANT IN. RECYCLING BAGS ARE GREAT FOR POTATOES BECAUSE YOU CAN RIP THEM OPEN SO BOTH DIRT AND POTATOES COME OUT."

- HAILEY MILLS

We get it: you can't help if your space has limited sunlight. Don't fret! Some plants, especially leafy greens, are more shade-tolerant and forgiving.

Additionally, even if your growing space does not get the ideal amount of sun exposure for your selected plants, you can still grow a successful garden. Your produce just might grow more slowly or be on the smaller side compared to plants that grew under their ideal conditions. Manage your expectations and do your best!

SHADE-TOLERANT PLANTS	SUN-LOVING PLANTS
THINK: Leafy greens, root vegetables, smaller fruits, or non-fruiting	**THINK:** Vegetables that produce showy flowers and large colourful fruits
Arugula	Tomatoes
Beets	Peppers
Bok choy	Cucumbers
Broccoli	Squash
Cabbage	Corn
Carrots	Melons
Cauliflower	Carrots
Chard	Strawberries
Chives	Apple
Cilantro	Apricot
Dill	Cherry
Green onion	Plum
Kale	Pear
Kohlrabi	Haskap
Rhubarb	Raspberry
Blueberry	

INCORPORATING NATIVE PLANTS

Including native plants in your garden has several benefits for you, your garden and even the environment!

Native plants grow well because they have evolved and adapted alongside our climate. Additionally, their deep roots feed microbes, control erosion, and improve the soil's water-holding capacity, improving soil quality. Finally, they encourage biodiversity by creating a habitat for local insects, birds, beetles, bees, moths, butterflies, flies, wasps, and hummingbirds.

A diverse garden is a resilient garden!

Consider incorporating diversity in one or more of the following ways:

- Plant native plants in and around your vegetables.
- Grow vegetables in pots and place them among native plant beds, or vice versa.
- Overseed your lawn with native plant mixes, making sure to choose a mix that is suitable for your area.

NATIVE FLOWERS	NATIVE TREES/SHRUBS
Brown-eyed Susans	Alberta wild rose
Buffalo beans or golden bean	Chokecherry
Canada anemone	Dwarf birch
Clematis	Highbush cranberry
Fireweed	Honeysuckle
Fleabane	Juniper
Giant hyssop	Raspberry
Goldenrod	Red osier dogwood
Great flowered gaillardia	Sagebrush
Sage	Saskatoon
Prairie crocus	Silverberry or wolf willow
Wild mint	Willows
Yarrow	

UNDERSTANDING SEED PACKETS

“BE AWARE OF INVASIVE SPECIES, MANY GARDEN CENTERS SELL PLANTS THAT ARE INVASIVE TO ALBERTA. THESE PLANTS CAN BE DETRIMENTAL TO OUR ENVIRONMENT AND ECOSYSTEMS. JUST BECAUSE A FLOWER IS PRETTY DOESN’T MEAN IT CAN OR SHOULD BE GROWN HERE. THESE PLANTS CAN INVADE PAST OUR GARDENS ON TO OUR VALUABLE AGRICULTURAL LAND.”

- COMMUNITY MEMBER

Seed packets, depending on the brand, can be a wealth of information—or frustratingly vague!

Information may vary between seed packages, and they should therefore be read closely.

Here are some key terms that you may encounter:

Certified Organic: These seeds were grown by a farm that’s in compliance with Canadian Organic Standards, which are set by the Canadian Food Inspection Agency. These standards stipulate that Certified Organic seeds must be collected from plants grown without synthetic pesticides or fertilizers. Generally, these seeds are durable, as they have been grown without reliance on synthetic pesticides and fertilizers. In Canada, all Certified Organic seeds are also non-GMO.

GMOs: Genetically modified organisms, or seeds, are typically created when genes from bacteria, animals, or other plants are added to their own. These added genes increase the seeds' disease resistance, yield, growth rates, or nutritional value. Note: In Canada, GMO seeds **are not** available to the public.

Non-GMOs: Seeds that are not genetically modified through insertion of genes. Non-GMO seeds are not always organic.

Heirloom seeds: A seed variety with a long genetic history that has been passed on through multiple generations. This title is not regulated, but it generally indicates that the variety has a long and successful history in a region. They are, by definition, non-GMO and open-pollinated. Heirloom seeds are not necessarily organic.

Open-pollinated: This means that you will be able to collect seeds from your plant at the end of the season and use these to grow more plants. Not all open-pollinated seeds are heirloom seeds, but all heirlooms are open-pollinated.

Hybrids: A seed variety resulting from intentional cross-pollination of different plants. This process is identical to plant hybrids that can occur in nature. Saving and planting seeds from a hybrid plant won't grow another hybrid plant. Instead, it results in a plant that takes after one of the original parent plants. Because hybrid seeds can only be produced by successfully cross-breeding the parent plants again, these seeds tend to be more expensive.

PET SAFETY

The table below indicates which fruits and vegetables are toxic or non-toxic to most domesticated mammals, including cats and dogs. Always double check if a vegetable or fruit is safe to give to your pet.

If a plant is toxic to pets, that doesn't necessarily mean you can't grow it; you may just need to make the plants inaccessible to them. At the end of the day, you know your pet and garden best!

Please note: any excessive amounts of these plants (or anything!) are dangerous to feed to your pet. The non-toxic side serves as reassurance that if your furry friend gets into them, they will be fine. Alternatively, you could mix these in with their regular food in small amounts or give a small piece as an occasional treat.

NON-TOXIC	TOXIC
Cooked potatoes	Raw potatoes
Ripe Tomatoes	Tomato plants and unripe tomatoes
Carrots (cooked are better)	Onions
Celery	Garlic
Zucchini	Grapes and raisins
Beans (better if cooked)	Chives
Cucumber	Fruit cores (apples, peaches etc.)
Pumpkin	Rhubarb (leaves are not recommended for humans either!)

Don't season your vegetables before giving them to your pets—keep them nice and plain.

Compost tip: Cover your compost! Though many vegetables are a good source of vitamins for your pets, composting vegetables can cause illness due to the presence of mold or pests.

SOIL

> **WORK TOWARD HEALTHY, WEED FREE SOIL. YOU'RE BETTER OFF PUTTING A $5 PLANT IN A ($50) HOLE, THAN A $50 PLANT IN A $5 HOLE. LOOK AFTER THE SOIL AND IT WILL LOOK AFTER YOUR PLANTS."**
>
> **- HEATHER BELLEROSE**

> **READ UP ON SOILS AND AMENDMENTS FOR THEM. LEARN HOW TO MAKE GARDEN "TEAS" AND HOW TO COMPOST TO FEED YOUR PLANTS."**
>
> **- SHELBEY POIRIER**

Did you know soil is alive?

Healthy soil is home to beneficial bacteria, fungi, and protozoa, which play an important role in the creation of digestible nutrients for plants.

As a beginner gardener, focus on these key areas to keep your soil happy and healthy:

- Nutrients and organic matter
- Drainage, or how well water flows through the soil
- pH levels

If you are using containers to create your garden, you can buy soil that's specifically made for them, which is also known as potting soil. It's looser and allows for more airflow. Potting soil is slightly more expensive than garden soil, but it'll get you the most bang for your buck as it is premixed to improve drainage.

Avoid mixing potting soil and garden soil or using them interchangeably:

- Garden soil in a container can be prone to compaction and lead to root rot.
- Potting soil in a ground garden does not contain as many nutrients for your plants.

Don’t forget to check if your containers have drainage holes! If they don’t, you can drill holes if needed.

KEEP YOUR FOOD SCRAPS, CRUSH EVERYTHING UP, MIX IN WITH YOUR DIRT. BRINGS NOURISHMENT BACK TO YOUR SOIL, (WHILE) PROVIDING YOUR PLANTS THE EXTRA NUTRIENTS THEY NEED."

- HAILEY MILLS

Overuse of fertilizers can harm healthy soil microbes, lead to run-off, and cause a build-up of salts in the soil that can damage and hinder root development. The following information is provided to help better understand fertilizers. However, it comes with the caveat that **garden soil is best kept healthy through crop rotation and small additions of organic fertilizers such as compost and compost teas.** Less is more.

Plants, just like people, require nutrients. If you've ever looked at fertilizer, you've probably seen three numbers separated by dashes somewhere on the label, like this:

12-12-12

12% Nitrogen – 12% Phosphorus- 12% Potassium

Different fertilizers offer these macronutrients in different ratios to account for more specialized uses and each macronutrient's unique absorption rate.

- **Nitrogen:** Healthy leaf growth; production of chlorophyll
- **Phosphorus:** Development of roots, stems, flowers and fruits
- **Potassium:** Root growth; drought resistance; turgor (firmness)

Fertilizer labels will often describe what use they are intended for, such as foliage or flower production.

ORGANIC VS INORGANIC FERTILIZER

The difference between organic and inorganic (also referred to as synthetic or mineral) fertilizer is largely how accessible they are to your plants.

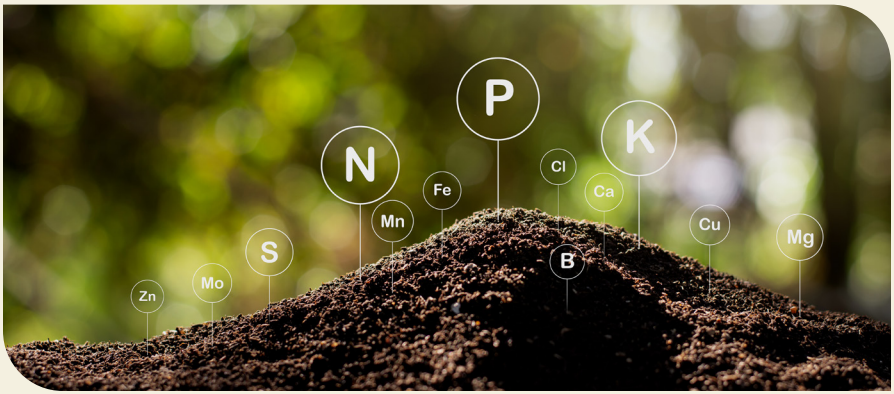
Organic fertilizers stay in the soil and continue to feed your plants long-term and contribute to a healthy soil microbiome. This is because they can't immediately be absorbed by plants—they first must be broken down by microorganisms into a useable form through a process called mineralization.

On the flip side, inorganics are directly available to plants as soon as you put them in the soil. They are more like a quick boost of energy to your plant, like an energy drink.

When **used responsibly,** neither fertilizer type is strictly better than the other in all situations. They bring different strengths and weaknesses to a garden.

However, due to their high concentration, it is easy to accidentally overuse inorganic fertilizers. This can cause harm to the bacteria, fungi, and other microorganisms that contribute to a healthy soil microbiome.

To keep things simple, stick to organic fertilizers, and the soil microorganisms will thank you!



	ORGANIC	INORGANIC
STRENGTHS	∞ Often contain healthy microorganisms ∞ Long lasting in the soil ∞ Also adds organic matter to soil which can improve soil texture	∞ Readily available in stores ∞ Less bulky
	∞ Slow releasing ∞ Lower dosing	∞ Fast releasing ∞ Higher dosing
WEAKNESSES	∞ May attract insects or pets depending on type	∞ Nutrients inaccessible to other organisms ∞ Higher risk of run-off ∞ Highly concentrated so there's higher risk of burning roots

You'll notice that the release times and dosages for organic and inorganic are both strengths and weaknesses. This is because, depending on your garden's needs, one or the other may better serve you.

pH

pH is a measurement of acidity. In gardening, low (acidic) or high (alkaline) pH can restrict the absorption of important nutrients.

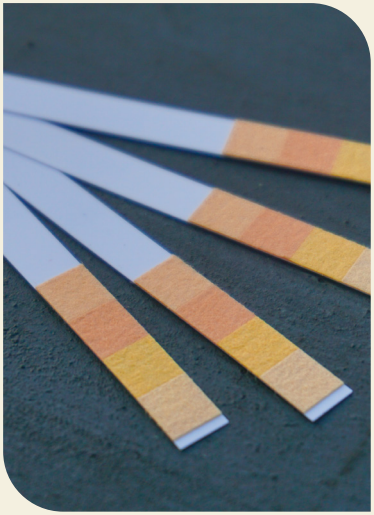
Unless you are experiencing gardening issues and need to troubleshoot, **it's likely you can garden without worrying about pH.**

If you have concerns, you can purchase a simple pH test—litmus paper—to check whether your soil acidity falls between 6.0-7.0 pH.

Be sure to test a few locations in your garden as local acidity can vary. For example, pine needles falling on the ground can increase the acidity of the soil. Consider how the plants you find in a spruce forest are different from those you find in a leafy forest—part of this is because different plants tolerate different levels of acidity.

"USE **STICK MONITORS** PURCHASED AT ANY PLANT STORE WHICH **MEASURES LIGHT/MOISTURE/ SOIL PH LEVELS.** THIS HELPS **PREVENT OVERWATERING** AND CAN **INFORM YOU ABOUT SOIL PH AND LIGHT EXPOSURE.** EXCELLENT FOR NEW GARDENERS."

- MARILYN DUMONT



TILL VS NO-TILL

“THE BENEFITS OF **NO TILL** IS PRESERVING THE INTEGRITY OF **THE SOIL** OVER A LONG PERIOD OF TIME. THERE IS LESS NUTRIENT EROSION AND LESS DISRUPTION TO **THE MYCELIUM.** IT CAN ALSO **REDUCE LABOUR WHEN PLANTING SEEDS** AND PREVENT WEEDS. THE DOWNSIDE IS THAT THE PLANTS DON’T GET A BIG YEAR 1 BOOST IN PRODUCTIVITY THAT YOU SEE WITH TILLING. IT ALSO MEANS THAT **SOME SEEDS HAVE A HARD TIME** GETTING ESTABLISHED INITIALLY CAUSE THE SOIL HASN’T BEEN SOFTENED FOR **THEIR MORE TENDER ROOTS.**”

- ALEXANDRA HENDRIKS

“I USE THE **NO-TILL METHOD.** THIS METHOD BUILDS THE SOIL UP FROM THE GROUND. I LAYER SOIL, COMPOST AND MULCH REPEATEDLY EACH YEAR. I **DON’T DIG DOWN INTO THE GROUND** OR TURN THE SOIL, THIS **ENSURES** THAT THEY **HEALTHY ROOT SYSTEMS THAT CARRY WATER** AND **NUTRIENTS**, STAY UNINTERRUPTED.”

- AMY LORIAN BARTON

Tilling simply means turning over soil to introduce air pockets. It can provide looser and more workable soil, especially if you are establishing a soil bed on compacted ground for the first time.

However, tilling also increases soil erosion by loosening dry soil particles and exposing them to air and water erosion.

While they may take more patience to establish, no-till gardens offer the following benefits over a conventional tilled garden:

- Maintain natural soil structure
- Protect soil from erosion
- Help retain moisture and reduce watering requirements
- Nurture healthy microbial and fungal systems in the soil

> **NO DIG GARDENS ARE EXCELLENT FOR KEEPING IN MOISTURE AND THE MULCH HELPS FEED THE SOIL AND KEEP DOWN WEEDS."**
>
> **- JACQUELINE ZAJES**

What is mulch?

- Mulch is a protective layer of organic matter that creates a protective barrier between the soil and the air. It can help soil retain moisture, hinder the growth of weeds, and protect the soil from erosion.
- Mulch can be made up of wood chips, raked leaves, dry grass cuttings, straw or hay.

COMPOSTING

CAN COMPOST	CANNOT COMPOST
Vegetables and fruit scraps	Oil and grease
Bread, pasta, etc.	Wood and charcoal
Eggshells and nutshells	Pet waste (poop!)
Tea bags and coffee	Dairy products
Paper filters, paper towels	Plastic
Fur and hair	Baked goods
	Meat and seafood

A compost bin doesn't need to be anything fancy. You can pile up your compostables, build a small compost bin yourself or buy one from the store.

Note: Meat and seafood are compostable. However, they are not recommended unless you are experienced as they take much longer to decompose and can introduce pathogens to the soil.

"IF YOU ARE COMPOSTING, **DO NOT COMPOST OLD POTATO PEELS.** POTATOES OFTEN **HAS DISEASES** THAT AFFECT HOW NICE THE SKIN LOOKS, IF THESE GET INTO YOUR SOIL, THEY CAN LAST FOR YEARS."

- ZACHARY CUNNINGHAM

PLANTING YOUR GARDEN

> **ENSURE YOU ARE IN A HEALTHY AND GRATEFUL MINDSET WHEN PLANTING, OFFER GRATITUDE TO THE PLANTS AND SOIL, AND WATER AND SUN."**
>
> - AMY LORIAN BARTON

> **CARROTS, LETTUCE, TOMATOES, POTATOES, STRAWBERRIES, HERBS, PEAS, YELLOW & GREEN BEANS ALL ARE EASY TO GROW IN CONTAINER POTS ON YOUR DECK."**
>
> - KELLY MONTPETIT

CONTAINERS:

Container gardening is a convenient way to garden, as well as a fantastic way to garden in smaller spaces.

By planting individual plants in small containers, you can easily move rearrange your garden and protect it from colder days or stormy weather. Make sure to pick containers with drainage holes and a tray to catch water that runs through. One drawback to container gardening is that the soil is warmer and therefore dries out faster, so you'll need to water these plants more often.

Many different containers around your home can be used for container gardening—get creative!

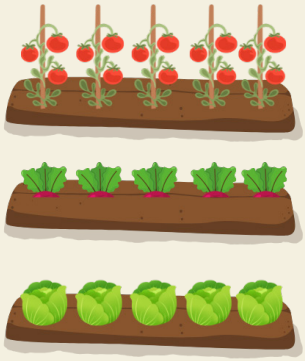
Here are some suggestions we heard from the community:

- Recycling bags, especially for potatoes
- Large Rubbermaid containers for potatoes and root vegetables
- Food containers such as ice cream pails, fruit baskets, yogurt or margarine tubs
- Garbage pails
- Pet food bags
- Milk jugs and cartons
- Paper or plastic cups for herbs or starting seeds

LARGER BEDS:

If you are planting in the ground or in a larger raised bed or container, there are a few different layouts you can consider:

Conventional Rows



Companion/wide rows

STRENGTHS

- Familiar
- Ease of access

- More efficient use of space
- Supports companion planting
- Ease of access, still has walkable rows, just narrower

WEAKNESSES

- Less efficient use of space
- Originated in commercial farming, not catered to home gardening needs
- Bare ground provides opportunities for weeds

- Less efficient use of space
- Bare ground provides opportunities for weeds

	Squarefoot	Mixed beds
		
STRENGTHS	• Efficient use of space • Easy, simply make a grid and designate plants to spaces • Clusters of the same vegetable species make it easier to identify “out of place” weeds	• Natural appearance • Supports companion planting • Naturally controls for weeds
WEAKNESSES	• Cramped beds, not great for larger sprawling plants like squash, pumpkins	• Some plants may become less accessible

COMPANION PLANTING

> **COMPANION PLANTING** NOT ONLY CAN BE **HELPFUL IN POLLINATION** BUT **ALSO PEST CONTROL.** I USED TO HAVE **CONSISTENT PROBLEMS WITH WORMS IN MY CARROTS** UNTIL I PLANTED MY ONIONS CLOSE BY, MADE A WORLD OF DIFFERENCE.”
>
> - JENNIFER

> COMPANION PLANTING **HAS ENORMOUS BENEFITS** TO IMPROVING GROWTH, FLAVOUR, AND PEST PROTECTION.”
>
> - ALEXANDRA HENDRIKS

Companion planting is planting specific species of flowers and vegetables close together so that they can benefit each other. These benefits can include pest control, increased pollination, soil health, and more!

A well-known example is the three sisters: squash, beans, and corn love to be planted together!

Companion planting is not an exact science but more a trial-and-error process. It depends on other existing factors such as the health of your plants and soil, time of year, weather, and so on. However, these tips can be a good starting point.

- Scented plants and flowers can repel pests and animals from eating your veggies. They can also attract pollinators and helpful insects.
- Certain veggies, especially legumes, are not only delicious but also improve your soil health, as they reduce your soil's reliance on fertilizer by increasing its nitrogen content. This allows your other plants to grow even better.
- Crop rotation, or planting different crops in different places over time, can keep soil nutrients from being depleted.

"TAKE PHOTOS OF YOUR GARDEN SO THAT YOU CAN SEE WHERE YOU PLANTED EVERYTHING WHEN YOU ARE READY TO START THE NEXT YEAR."

- KELLY MONTPETIT

Research the plants that you want to grow and see where they would best fit. For example, carrots and tomatoes normally don't grow well together, unless you plant the carrots near the beginning or end of a tomato plant's lifespan.

Try to find a good balance between following the space requirements specified by seed packets and keeping the plants as close together as possible.

PLANT	GOOD COMPANIONS	PLANTS TO AVOID
Asparagus	Oregano, asters, dill, coriander, tomato, parsley, dill, basil, borage, marigolds	Allium, potatoes
Basil	Tomato, peppers, asparagus, oregano	Rue, wormwood, sage
Beans	Green leafy veggies, corn, Brassica, radish, strawberry, squash, beet, cucumber, potato	Allium
Beetroot	Lettuce, Allium, Brassicas, carrots	Pole and runner beans
Brassica	Viola, white flowers, nasturtium, dill, sage, Allium, celery	Nightshades, mustards, strawberries
Carrots	Beets, peppers, lettuce, Allium	Tomatoes are iffy
Celery	Beans, Brassica, Allium, nightshades	Corn
Cucurbits	Corn, beans, sunflowers, beets, radish, carrots, dill, nasturtium	Sage, potatoes, rue
Lettuce	Good with all!	None to avoid!
Parsley	Asparagus, carrot, chives, onions, tomato, roses	Mint
Potato	Beans, cabbage, carrot, celery, corn, onion, marigolds, borage	Asparagus, gourds, root vegetables, sunflowers, fennel, tomato
Sage	Brassica, rosemary, carrots, strawberries, rosemary	Gourds, rue, Allium, basil, cucumbers, fennel
Strawberry	Beans, lettuce, spinach, thyme, borage	Brassica
Tomato	Asparagus, beans, basil, celery, chives, gourds, lettuce, marigold, onion, nasturtium, peppers, broccoli, garlic, carrot	Corn, kohlrabi, potato, Brassica
Peppers	Basil, onion, garlic, spinach, tomatoes	
Yarrow	Brassica, oregano, sage, rosemary, fireweed	

FAMILY	EXAMPLES
Cucurbits	Gourds, pumpkin, zucchini, squash, cucumber, watermelon
Nightshades	Tomato, potato, eggplant, okra, tobacco, peppers

GENUS	MEMBERS
Allium	Onion, garlic, shallots, chives, leeks
Brassica	Turnip, radish, cabbage, kale, cauliflower, broccoli, bok choy, Brussels sprouts, mustards, arugula

Scientific names and taxonomy:

In the previous table, you may have noticed that we've sometimes listed a genus or a family instead of individual plants. A **genus** is made up of closely related species, while a **family** is a broader grouping that includes multiple genera. Both represent closely related plants that share similar characteristics—think of them like a last name that they share. Understanding these groupings can help you choose plants with similar growing needs and companion benefits.

"IF PLANTING LETTUCE/SWISS CHARD AKA LEAFY VEGETABLES BE SURE TO PLANT MARIGOLDS NEXT TO THEM. IT WILL KEEP SLUGS AND ANIMALS AWAY!"

- CAROLYN MCLEOD

MAINTAINING YOUR GARDEN

TREAT PLANTS LIKE A FRIEND THAT YOU ARE VISITING. **PLACE IT SOMEWHERE IT WILL BE HAPPY.** VISIT IT EVERY DAY AND **BRING IT GIFTS OF WATER OR NUTRIENTS** AS IT NEEDS. **GET TO KNOW YOUR FRIEND."**

- ALEXANDRA HENDRIKS

Everyday maintenance checklist:

- Does your garden need to be watered?
- Does your garden need to be weeded?
- Are there visible pests or signs of pests such as holes in leaves or curled yellow leaves? Diseases?
- Is your garden clean?
- Are your veggies ready to be harvested?

Stop the spread of disease:

- Work from the bottom up!
- Check the underside of your plant's leaves, your stems, and if possible, your roots for pests and growths. Do this especially before moving plants or bringing in new ones to avoid spreading infections.
- Keep your tools clean. This can further prevent the spread of harmful bacteria and diseases in your fruits and veggies.

Weed management:

> **AFTER I PLANT MY SEEDS, I LAY NEWSPAPER BETWEEN MY ROWS SO THE WEEDS DON'T TAKE OVER.** IT SAVES SO MUCH TIME."

- TERRY RUDYK

> IN EARLY SPRING, **PLACE THICK BLACK PLASTIC OVER YOUR GARDENING AREA** AND WEIGHT DOWN EDGES AND THE INSIDES. **REMOVE JUST BEFORE PLANTING.** THIS WILL **KILL ALL THE WEEDS THAT START EARLY IN THE YEAR** AND WARM UP THE SOIL FASTER."

- TRISHA NEWBY

Identifying and removing weeds can be difficult even for a seasoned gardener.

Learning to identify your vegetables is a more manageable approach, as it's easier to start by noting what shouldn't be uprooted.

The way you plant your seeds can also help distinguish your plants from the weeds, such as:

- Planting seeds in distinct perpendicular swathes across your rows
- Planting in a grid pattern within your rows, beds, or planters
- Mounding your rows or leaving them slightly troughed

These methods make your seeds distinct from the weeds, which will be more randomly dispersed.

“REMEMBER **GARDENING IS A LEARNING ADVENTURE** AND AS SUCH DO NOT BE DISCOURAGED BY FAILURE! **THERE ARE NO FAILURES IN GARDENING,** BECAUSE EVEN IF YOU DO NOT AT FIRST SUCCEED YOU WILL LEARN FROM YOUR EXPERIENCES.”

- JENNIFER TIMMS

WATERING

“LETTING BEDS DRY OUT IS IMPORTANT! ROOTS GROW WHEN THE SOIL DRIES OUT A BIT AS THE PLANT SEARCHES FOR WATER, THIS MAKES A HEALTHIER PLANT. OVERWATERING = DEAD/WEAK PLANT.”

- ZACHARY CUNNINGHAM

It’s not just underwatered plants that droop—overwatering can cause drooping, too! It’s best to err on the side of underwatering, as a thirsty plant can bounce back. An overwatered plant is at risk of root rot, which is difficult to fix.

Watering best practices:

- Water when the top two inches of soil are dry. Check daily to find out exactly what sort of schedule your plants need. Additionally, if it's especially hot outside, be prepared to water your garden more often.
- Water in the morning, late afternoon, or evening.
- Water seedlings more often and more gently—use a fine spray nozzle or watering can spout. In a pinch, pouring water down the curved side of a gardening trowel can help disperse water.
- Water the soil at the base of the plant. Getting the leaves of a plant wet can put it at risk for fungal diseases.
- Water during plant transplants—water the hole that the plant will be moved into, and water it again immediately after.
- Water container plants and raised planters more frequently, as their soil will be warmer and dry out faster.
- Apply a thin layer of mulch—wood chips—around your plants once they have sprouted to help keep the soil cool and retain soil moisture.

POLLINATORS

Pollinators are an important part of helping your garden thrive. They pollinate many of your fruits and veggies, allowing plants to reproduce. Below are some tips for attracting all kinds of pollinators to your yard.

- **Mix it up! Plant a variety of shapes, colors, sizes, and scents.** Why? Different pollinators are attracted to and able to pollinate different types of flowers! Bees have different tongue lengths and are drawn to shades of blue, purple, white, and yellow, butterflies and hummingbirds are attracted to red… By diversifying your garden and including colorful flowers, you can attract all kinds of pollinators.
- Create water sources like shallow dishes or small bird baths. Include stones as perches!
- Don't cut the heads off flowers like sunflowers and black-eyed Susans (and more) because the seeds work as a food source for birds in the winter.
- Set up a bee hotel. If you cannot afford to purchase a bee hotel, one simple way to create one is to drill holes of varying sizes in dead trees that are still standing in your yard.
- Create a sheltered, sunny spot for butterflies to rest and lay their eggs.
- Don't overclean your yard in the summer and wait a bit to clean up in the spring. Solitary bee species, butterflies, and other pollinators spend their winters in dead plant material.

WINTERIZING YOUR GARDEN

Winterizing soil:

To winterize your soil, level the surface of your garden bed and cover it with a layer of leaves or compost. Their nutrients will be absorbed, setting you up with nutrient-rich soil for the next spring.

If you're looking to grow a winter crop, look no further than garlic! Garlic cloves should be planted in September at about two inches deep. In October, cover the garlic with leaves to help regulate the soil temperature.

"EXPERIMENT WITH YOUR WINDOWS. I ONCE HAD A TOMATO PLANT THAT WAS STILL PRODUCING FRUIT IN THE LATE FALL. I BROUGHT THE WHOLE BIG POT INTO THE HOUSE AND PLACED IT IN THE SE FACING WINDOW, IT CONTINUED TO PRODUCE FRUIT FOR ALMOST 2 YEARS THERE!"

- CINDY BRIGGINS

Winterizing plants:

- Pull annual plants or those affected by disease.
- Cut down perennial plants to soil level. Your seed packs or plant tags should tell you which type your plants are. Depending on the hardiness of your perennials, you may consider covering them for the winter.
- Place dead plants and soil from containers in a compost bin to reduce waste and help kickstart your spring soil health.
- Place hardier potted plants in a garage, shed, or basement. If they must remain outdoors, cover them in 2-3 inches of mulch, bunch the pots together, and surround them with wraps, straw, or bark. Potted plants are more prone to having their roots freeze, so protecting these is the best way to guarantee a spring bounce back.
- Take a moment to tag your plants, and record what went well and what could be improved for next year.
- Start growing veggies like carrots and kale indoors over the winter.

Decor and tools:

- Keep hoses, decor, watering cans, terracotta, and other pots and containers indoors over the winter as they are easily breakable.
- Turn your open rain barrels upside down over winter and remember to divert water away from your house's foundation.

What should I do with the leaves?

There are a few options on how to handle leaves on your lawn and garden before winter. Some prefer to rake and bag their leaves because they can smother grass, lead to snow mold, and attract rodents or pests to the yard.

Others choose to leave the leaves on the lawn over winter and clean them up in the spring because many insects and animals use leaf litter as shelter to get through the cold.

Fun trick:

- For a composting and insulation win-win, put a wire up around your plant and fill the space with leaves. The leaves will help keep your plant warm and provide it with nutrients as they decompose. Other options include adding straw, hay, or wrapping a blanket around the base.

STORING YOUR HARVEST

> **“(I LAY) TOBACCO DOWN FOR MY FRUITS AND VEGGIES OR HERBS WHEN I TAKE SOME EVEN THOUGH I PLANTED THE PLANT IT IS STILL PROVIDING ME A GIFT AND I’M THANKFUL FOR IT AND WANT TO GIVE BACK TO THE PLANT.”**
>
> **- OLIVIA WARREN**

It is important to harvest your plants at the right time. Your seed pack will indicate when its specific plant should be harvested.

When harvesting, try to be careful not to bruise your veggie or fruit. They can rot faster when they are not handled with love. Once you’ve picked up your produce, bring it indoors to keep it from overripening, as this’ll make them soft to the touch and potentially unpleasant to cook with or eat. If you accidentally pick something too soon, you can always keep it close to a window while it finishes ripening.

Clean off your veggies as best as possible without rinsing before storing them. The moisture can also lead to quicker decay. If needed, gently scrubbing is better than storing a dirty vegetable.

SHORT-TERM STORAGE:

If you intend to eat your harvest in the next few days or weeks, the recommended places to store them are as follows:

IN THE FRIDGE	Asparagus, squash, green beans, broccoli, cauliflower, brussels sprouts, berries, cucumbers, etc.
ON THE COUNTER	Tomatoes and most other fruits can be kept on the counter.
IN THE PANTRY	Potatoes, squash, and onions should be kept in the pantry—cold and dark. Avoid storing potatoes and onions close together, as they can push each other to rot more quickly.

TIP FOR TOMATOES: IF YOU WIPE THEM DOWN, TAKE OFF THE STEMS AND PLACE THEM IN LARGE ZIP-LOCK BAGS IN YOUR FREEZER, THEY ARE EASY TO TAKE OUT AND MAKE A PASTA SAUCE ANY TIME YOU WANT FRESH TOMATOES THROUGHOUT THE WINTER."

- KELLY MONTPETIT

LONG-TERM STORAGE:

Certain vegetables keep well long-term when stored in a cool, dry place with good ventilation. For root vegetables, it's good practice to wrap them in a plastic bag or paper with sand, sawdust, or even moss to maintain moisture.

Examples include: carrots, turnips, beets, radishes, and squash.

Potatoes, onions, pumpkins, cabbage, and Brussels sprouts can be stored for several months.

PRESERVATION METHODS

There are multiple ways to preserve different kinds of produce. Choose the one that fits your needs and makes the most sense for you.

However, not all plants are suitable for curing, canning, dehydration, and so on. Some should be eaten right away, some will last without being preserved, and others can be preserved in a variety of ways. It's best practice to look up which preservation methods make the most sense for your harvested plants.

Curing:

Curing is the process of letting the outer skin of a veggie or fruit harden or letting a vegetable dry out before placing it in storage. This helps keep your harvests edible longer and at peak deliciousness!

When you're planning on curing a harvest, don't apply water to it—gently brush any dirt off.

Keep your veggies apart and well-ventilated so they get good air circulation.

Find a dark space in your home where you can best control the temperature and moisture in the air. Each plant has slightly different conditions at which they will best cure, so you'll need to determine which produce to cure together and for how long. The average time for a veggie to finish curing is 14 days.

Canning:

Canning is the process of cooking fruits and vegetables before placing them in an airtight container to maintain their optimal flavour year-round. Because you may want to can a wide variety of foods, it is important to note that you may need to change up your canning method depending on the acidity of your produce. High-acid foods can be processed using either pressure or water-bath canning, but low-acid foods must **always** be processed using pressure canning.

For water-bath canning, you can either get a specially designed pot or simply get a pot big enough to fully immerse your cans of food in water with the lid on, as well as one that can fit a rack for stabilizing.

1. Fill sterile jars with food, leaving some space to ensure optimal sealing. Make sure to clean the jars' exteriors properly.
2. Place the jars in the water with a jar lifter (looks like a pair of tongs), making sure they are completely immersed.
3. Cover the jars with the pot lid and bring the water to a boil.
4. Then, take the jars out with your handy jar lifter and allow them to cool for 12-24 hours.
5. If there is a popping noise as they cool, they have likely been secured properly, and you are ready to place them in a cool, dry place for year-round use. If there is any indication that they are not properly sealed, don't store them long-term—just place them in your fridge and enjoy them now.

For pressure canning, you'd complete this process with a specialized pressure canner, which is more of a financial investment than other preservation methods. Jars in the canner are heated to a much higher temperature than those canned via the water-bath canning process. This heat kills off all the harmful bacteria, molds, etc. that cause your food to go bad.

Dehydrating:

Dehydrating is the process of removing moisture from food to prevent the growth of microbes like bacteria and yeast. Most veggies and fruits should be sliced prior to dehydration, and some also need to be peeled.

There are a few methods of dehydrating. Use the one that feels right for you depending on the produce and your finances.

- **Oven dehydrating:** Set your oven to around 150 °F and keep the food in there for 6-8 hours.
- **Toaster oven dehydrating:** Set your toaster oven to its lowest temperature, leave its door slightly open, and let the food dehydrate until it looks ready.
- **Dehydrating in the sun:** Place your produce on parchment paper and leave it in the sun for up to a few days (depending on how warm and clear it is outside). Remember to place something over top of it to keep bugs and animals away!
- **Air dehydrating:** Place your produce on a tray or parchment paper outside, but keep it out of the sun. This works best for delicate produce such as tea leaves.
- **Dehydrator:** You can always buy an actual dehydrator to dehydrate your food. Do some research and see which one works best for you!

Pickling:

Pickling is the process of preserving food by sticking it in a mixture of vinegar, salt, and water. You can pickle more than just cucumbers!

1. Chop your produce into your desired shape and divide it into jars.

   Tip: For vegetables like carrots, peppers, and green veggies like green beans and Brussels sprouts, their colour and flavour will be at their best if they're blanched or roasted first. After they've been blanched, cool them in an ice bath, drain them, and then jar them.

2. Spice it up by adding some sugar, chili powder, dill, parsley, or whatever mix you want. It comes down to the flavour of pickled veggie you want to eat.

3. Store your sealed jar in the refrigerator for a few weeks or can it (see canning section) and keep your pickled veggie for up to a year!

General tips:

- Avoid storing ethylene gas-producing produce (e.g., tomatoes, onions, and peppers) with produce that's sensitive to it, like potatoes and carrots.
- Wash your produce when it's ready to be eaten.
- Dry your produce before freezing it—wet fruits and veggies can mold.

HARVESTS ACROSS THE DISTRICTS

PC: NAYA ANSUWAN

PC: LEILA BROSSEAU

PC: JAMES & WENDY COX

PC: KRISTEN EDDY

PC: KEITH GRANT

PC: ALEXANDRA HENDRIKS

PC: NIKKI OLSZEWSKI

PC: PATTI SHENFIELD

PC: SHAUNA TAYLOR

PC: JODI SAUCIER

PC: SHIRLEY BRUNEAU

PC: JANICE CHAPMAN

PC: RACHELLE FISHER

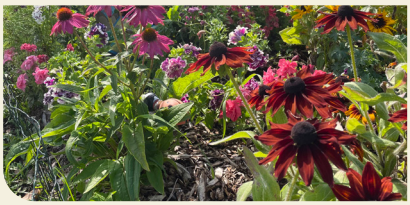
PC: BELINDA FUCHS

PC: DAWN LOGAN

PC: DEBBY KERYCHUK

PC: TERRY RUDYK

PC: ELLEN MAY SAYERS



PC: JACQUELINE ZAJES

PC: PENNY YOUNG

ABOUT THE COVER ARTIST

Elena Mercuri is an emerging artist based in Edmonton. She is a recent graduate of MacEwan University's Bachelor of Fine Arts program, specializing in Studio Arts. Her practice often concerns themes of girlhood/ the female experience, social media memes, and pop culture references. Elena works in 2D, creating diaristic-feeling artwork informed by her family's roots in Alberta, Canada, and Calabria, Italy.

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