Gardening Without a Garden A Beginner's Guide to Growing Food in Containers

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The Vancouver Island Health Authority defines food security as "a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice".

A sustainable community food system improves the health of the community, environment and individuals over time, involving a collaborative effort in a particular setting to build locally based, self-reliant food systems and economies.

This guide was made possible by funding provided through VIHA's Community Food Action Initiative.

As part of ActNowBC, the Community Food Action Initiative (CFAI) aims to increase food security for the BC population. The specific objectives to accomplish this goal are:

- * increase awareness about food security;
- * increase access to local healthy food;
- * increase food knowledge and skills;
- * increase community capacity to address local food security;
- * increase development and use of policy that supports community food security.

Funding for this specific initiative was obtained by the Blanshard Community Center. The center ran a series of workshops on container gardening to complement this guide, and is also the site of a demonstration patio garden where community members can come to learn more about growing food in containers.

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This guide was created by Matthew Kemshaw.

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Pricing Things Out

This is not a comprehensive price list by any means. Information is presented here to give you an idea of what things cost on average. Shop around, find deals.

Remember: you can build and/or salvage a garden of containers, most of the soil mix can be obtained from free natural sources, and plants give us their seed, year after year.

Planters

ITEM	QUANTITY	PRICE
Soft Plastic 1-gallon	1	\$0.69
Planter		
Hard Plastic 1-gallon	1	\$0.95
Planter		
14"x16"x16" Wood Planter	1	\$39.99
8"x8"x12" Cedar Planter	1	\$8.50
8"x8"x72" Cedar Planter	1	\$33.00
14"x18"x18" Wood Planter	1	\$39.99
10"x12"x32" Wood Planter	1	\$49.99
4.5" Deep Ceramic Pot	1	\$6.99
8" Deep Ceramic Pot	1	\$9.99
48cm Deep Ceramic Pot	1	\$39.99
BIG Ceramic Pot	1	\$99.99
ENORMOUS Ceramic Pot	1	\$199.99

Soil and Seed

ITEM	QUANTITY	PRICE
Finished Compost	20L	\$4.99
Peat	1.5 cu. ft.	\$4.70
Seed Packs	1 pack (25- 100s of seeds)	\$1.99- \$3.00



Vegetable oil tubs like the one pictured at left can be easily salvaged from local bakeries and cafés (just ask!). Punch a hole in the bottom with scissors, a knife or a nail and you're ready to plant.

Troubleshooting (Where to go for help)

This is not a comprehensive list of service providers in Victoria, just some places to help get you started.

Garden Advice

VAN DUSEN PLANT INFO LINE 604.257.8662

CITY FARMER COMPOST HOTLINE 604.736.2250

ENVIRONMENTAL YOUTH ALLIANCE - check out "Local Resources" tab for more places to go for loads of useful information www.eya.ca

Seeds

BC SEEDS - info about seed swaps and local seed distributors www.bcseeds.org

SALT SPRING SEEDS www.saltspringseeds.com - 250.537.5269

WEST COAST SEEDS <u>www.westcoastseeds.com</u> - 1.888.804.8820

STELLAR SEEDS www.stellarseeds.com

FULL CIRCLE SEEDS
www.fullcircleseeds.com - 250.642.3671

Free Compost

FOR COMMUNITY AND SCHOOL GARDENS Contact the Vancouver Landfill 604.257.8631

FOR HOUSEHOLDS Free compost during last weekend in May @ composting facility's open house. Contact 604.940.3211

FREE WOODCHIPS Free Woodchips from the Parks Board. North Side: Drew Gilcrest 604.257.8573 South Side: Dieter 604

Local Food

VANCOUVER FARMERS MARKETS www.eatlocal.org



Finding the Right Pot

PLASTIC POTS

It is easy to buy cheap 1-gallon circular pots, most garden supply and home hardware stores carry a wide variety. Better yet, 1-gallon veggie oil drums can be salvaged from most restaurants and bakeries in town. Punch in a few holes on the bottom for drainage and you're set!

WOODEN TROUGHS

Most garden supply stores carry small wooden troughs, which are ideal for growing many herbs and leafy greens. It is also easy to create your own small trough using salvaged wood and a few nails. ***Be sure to use untreated lumber to ensure food does not become contaminated***

SALVAGING WOOD

Construction sites often have big bins of waste wood; some of this lumber is often perfect for slapping together a small planter. If you are on the lookout, you will notice wood popping up all over the city. All you need is a saw and some nails to make a useable planter.

PURCHASING POTS

Almost every home hardware and gardening shop carries containers for planting. Think about what you want to plant (check out all the information in the following pages) and pick a pot that is suitable to your plants and budget. You can grow a lot of food in planters that cost \$10 or less. Thrift Stores may also have containers, and you can adapt any container to become a planter, just be sure that you punch some drainage holes in the bottom so you don't drown your plant.

HYPERTUFA

This unique building medium is cheap, accessible and fun. Using 2 parts peat, 2 parts perlite and 1 part portland cement you can make a malleable clay like medium that will harden in a mould to make any size and shaped pot you desire. For detailed instructions Google 'hypertufa' and browse the many great sites.



This simple planter design can be adjusted to any size. Metal hangers can be used for smaller pots to hang them from windowsills or balconies, or planters can be placed on the ground or a table.

Finding the Right Soil

Healthy soil is ESSENTIAL to the long-term health of your vegetables. For plants to grow well in pots, you need soil that has **good moisture retention and lots of nutrients**.

You can buy bags of mixed garden soil. Garden stores will carry potting mixes for food production as well as a variety of amendments to help you fill your containers with nutrient rich garden soil.

Finding Soil for FREE

As you are well aware, soil is everywhere! The problem is that most yards are full of soil that is relatively poor in nutrient composition and loam (soft mushyness). For this reason, it will be necessary to add a few things to your back yard dirt before you try it out as a growing medium for containers. The 2 most essential amendments you should add to create rich, healthy soil for container gardening are:

COMPOST: You can make it yourself or buy it in bags. Compost adds nutrients to your soil to ensure your plants have enough food to grow strong and healthy.

PEAT OR LEAF MOLD: Either of these ingredients works to improve moisture retention and increase aeration in your soil. Garden soil tends to be too dense for container growing and can become hard and resistant to holding water and allowing healthy root growth. For this reason it is important to add either peat or leaf mold to your soil so that it is light, mushy and airy.

You can make leaf mold yourself by collecting leaves in the fall and letting them partially decompose over the winter. Chopping them up with a lawn mower help them break down.

Peat can be purchased at any garden supply and most hardware stores.



Caring for Your Plants

PLANNING

- Check the back of seed packs to determine when the best time to plant is (most veggies can be planted outside between April -May)
- Leafy greens can tolerate some shade, and do not like direct afternoon sun (they prefer 3-4 hours sunlight per day).
- Fruiting vegetables such as tomatoes like sunny spots that receive lots of light (south facing windows and patios are best).
- Think about sunny vertical space where you can encourage peas, beans and/or nasturtiums to grow.
- What about the animals? Think about a bird feeder, bee or bat box to encourage more animals to come visit your balcony garden.
- $\ensuremath{\cdot}$ Draw up a rough plan of what you want to plant where (see below).
- When transferring plants from in-door, to out-doors, harden them off by putting them outside for a few hours during mid-day then bringing them in. Over a few days let them stay out a bit longer to adjust to the temperature change. Start leaving them outside after ~2 weeks.

WATERING

- This is SO IMPORTANT. Your plants will need water often.
- Put your fingers 5cm (2 inches) into the soil and feel for moisture. If the soil bed is not evenly moist, they need water.
- On average, plants should be watered **every day** to start, then **every second day** as they develop. (Hot days they will need to be watered more).
- Water in the evening time to ensure water does not evaporate.

FEEDING/FERTILIZING

- Plants in containers need lots of food to keep them healthy. Because there are only so many nutrients in your pot, it will be helpful to give your vegetables some extra food (nutrients).
- Most vegetables will need feeding **every 2-3 weeks** through the summer. Spread a layer of compost around base of plant, or spread an organic fertilizer around plant.
- Herbs do not need as much feeding; you can get away without feeding some herbs. If they look sad, give them a bit of compost.
- Watch your plants. If they start to look wilty, yellowish, or droopy, they may be in need of some compost or fertilizer.



Draw a rough plan of your space. Watch how the sun shines on it each day (rising in the east and setting in the west). Think about how bigger plants will cast shade on smaller ones. Look at the best spots to grow climbing vines. Plan to put your fruiting plants in the hottest spot (against a sunny wall perhaps) and your leafy greens in a shadier one. Return to your old plans year after year and take notes on what worked and what didn't

Best Plants for Containers

*** Seeds for all these plants ban be purchased from local garden stores or seed distributors (See Troubleshooting)***

INDOORS Plant Year Round

BABY GREENS

You can grow fresh greens year round on sunny windowsills (south facing is ideal) in containers only 10cm (4 inches) deep and 25cm (10 inches) wide! Plant the following seeds profusely, scattering wildly over the soil then covering with a light sprinkling of earth.

- Curly Cress
- Red Mustard
- Mizuna
- Arrugula

Once plants sprout from the soil, water regularly and cut off baby plants after ~ 2 weeks (you can start eating cress when 2 inches tall, mustard and mizuna can be harvested when $\frac{1}{4}$ inch leaves are formed).

SPROUTS

Soak seeds overnight in glass jar filled with water. In morning, strain water from jar (larger seeds like beans should sit for up to 24 hours). Use a top that allows water to drain out of jar when resting upside down. Rinse the seeds 1-2 times per day. Google: 'growing sprouts' for more info. Suitable seeds for sprouting include:

- Best seeds: alfalfa, clover, buckwheat
- Best beans: mung, lentil, garbanzo
- Best nuts: RAW almonds, filberts (hazelnuts)
- Best grains: wheat berries, rye

Seeds, beans, nuts and grains are available at local health food stores, or through seed distributers (see troubleshooting).

HERBS

Most herbs can be grown easily on sunny windowsills (again, south facing is best). Placing above the kitchen sink allows for easy harvesting at mealtime. You can grow the following herbs from seed in pots that are 20cm (8 inches) deep.

EASY: Chervil, Chives, Sweet Marjoram, Thyme, Mint, Parsley, Rosemary, Rock Hyssop, Catnip, Lemon Balm, Sage, Oregano
A LITTLE FINICKY: Basil, Chamomile

Herbs can be grown from seed.

You can also grow any of the 'outdoor' plants listed on the next pages in a sunny location inside (they just take more space). Just follow the same directions and be sure to keep your veggies watered (see 'Caring for Your Plants').



Best Plants for Containers

OUTDOORS Plant in Spring

HERB TROUGH

In a pot or trough 25-30cm (10-12 inches) deep you can grow a jungle of herbs. These varieties are drought tolerant and delicious. Plant them \sim 15cm (6 inches) apart. Some may live on you patio for many years.

- Purple Sage
- Parsley
- Thyme
- Rosemary
- Chives
- Dill

Plant seeds or starter plants outdoors in late spring. Follow directions on seed pack for direct sowing.

TOMATOS AND PEPPERS

Both need lots of sun, at least a 1-gallon pot, and lots of nutrients (compost/fertilize every 2^{nd} week ideally).

- Start seeds in small pots in-doors in late March-April. Plants should be in one gallon pot in direct sun by late May.
- Water and fertilize often
- Trim back excessive growth (if two branches try to grow out of one node, trim the smaller)
- Once plants start to fruit trim big leaves to encourage fruit development

Small, cherry tomatoes seem to do better in pots, as do smaller varieties of pepper.

EDIBLE FLOWERS

The following flowers can be grown easily from seed, provide beautiful color, and can be added to salads as a beautiful (and edible) edition.

- Nasturtium: climbing vine with beautiful flowers, both leaves and entire flower head are edible
- Calendula: happy orange/red flowers edible (make good tea). Grows like a weed and can work to protect your tomatoes from pests

Plant seeds outdoors in April in pot at least 20 cm (8 inches) deep.

STRAWBERRIES

Will grow year after year (perennial), and if loved, give you yummy fruit. Can grow strawberries in pot 20cm (8 inches) deep.

- Best to plant small baby strawberry plants (rather than seeds)
- You can get babies from friends who have strawberry patches or purchase them (called 'starts') from most gardening stores.
- Plant babies outside in April

Best Plants for Containers

OUTDOORS Plant in Spring

RED AND GREEN LETTUCES, RADISHES, AND JOHNNY JUMP UPS

Lettuces, radishes and Johnny Jump Ups like 3-4 hours of sunlight per day (mid day baking sun *may* kill these plants). They grow well together, especially in pots or troughs that are 30cm (12 inches) deep.

- Space seeds 5-10cm (2-4 inches) apart
- Cover with 2cm (1 inch) layer of compost/soil
- Plant outside after all danger of frost has passed (May) or start indoors in April
- Plant lettuce, radishes, and Johnny jump ups together in a larger trough or pot for a colorful and yummy planter.
- Harvest lettuce and radishes when 8-12 inches tall.

8 INCH DEEP SALAD BOWL

In a pot or trough 20cm (8 inches) deep, plant baby lemon thyme and parsley plants at least 20cm (8 inches) apart. Once the baby herbs are established, spread loosed leafed greens seeds (see following page) profusely around them. The greens should grow up to form a dense mat of baby greens around the larger herb plants.

- Plant outside after all danger of frost has passed (May) or start indoors in late March-April
- Harvest greens regularly by cutting them down with scissors (they will grow back)
- Do the same with the herbs, making sure to cut back the oldest growth first to encourage new growth

PEAS

You need a pot at least 45cm (18 inches) deep. Most varieties can be planted outside in late February, and you can eat young pea shoots as salad greens or let them develop into big pods. Peas may mature before summer is over, so you can stagger your planting so that peas develop at different times through the summer.

- Plant seeds ~2cm (1 inch) deep, 5-10cm (2-4 inches) apart
- Peas will want to climb, so making sure there is a post, net or trellis above them is key to their growth

BEETS, KALE AND CHARD

Grown best in a pot that is at least 30cm (12 inches) deep. You can start planting seeds outdoors in late March, or indoors in late February to be moved outside in early April.

- Scatter kale seeds profusely over soil in a pot to create a dense mat of baby kale plants that can be regularly harvested
- Plant beets, chard, and/or kale 5-10cm (2-4) inches apart
- Thin plants to 15-20cm (6 inches) spacing once they are partially grown, favoring the most vigorous
- Beets can grow to near maturity in 2 months
- Kale and chard can be continually harvested, take the oldest and lowest leaves to encourage new growth

Best Plants for Containers

OUTDOORS Plant in Spring

LOOSE LEAFED GREENS

You can grow any loose leafed greens in pots 20-35cm (8-10 inches) deep by 20cm (8 inches) wide. Here are some popular varieties.

• Mesclin Mixes, Oriental Greens, Asian Mustards

Sprinkle seeds profusely over soil bed so plants will form a dense mat. Cover with thin layer of compost. After ~40 days you can start chopping and thinning your greens with scissors (cut so that they have ~1 cm of leaf remaining at base). Plants will grow back and provide you with a constant supply of baby greens.

BEANS

Can grow in a pot 25 cm (12 inches) deep. Plant in May, making sure to soak the seed in water overnight before planting in soil.

- Love to climb, so make sure you give them some string, a stake or a trellis to climb up
- Great way to utilize vertical space

SQUASH, BROCCOLI, POTATOES

These plants and their relatives need lost of space (1 gallon pot is too small) and lots of time to mature. They are not ideal for containers, though can work.

- Broccoli is hardest Give it lots of nutrients through development
- Potatoes also need lots of nutrients and time
- Squash needs a REALLY BIG pot, but can grow to be a big plant zucchini or some varieties of climbing winter squash may work if loved

Try these plants only after having some success with others listed in this guide.

TREES AND SHRUBS

Some dwarf fruit tree varietals are designed to grow in large pots. Fig trees usually do really well in big pots. You'll need a large barrel style pot to grow a tree, but it can be a great way to add a canopy and real garden feel to your small patio.

- Buy a dwarf fruit tree or fig at a local nursery, at the Moss St. Market, or Seedy Saturday - happens every February in Victoria
- Talk to the grower about appropriate pot sizes and tree care
- Smaller shrubs can also be grown in 2-5 gallon pots
- Rosemary will grow large if given a big pot, and will grow year round
- Talk to growers at Moss St. about appropriate shrubs for containers