



SPROUTING CHOI

A BEGINNER'S GUIDE
TO GROWING CHINESE
VEGETABLES





GROWING CHOI THEN & NOW

From Canada's earliest days, Chinese immigrants have been growing food on this land. The many immigrants in the 1800s and early 1900s came from farming villages in southern China. The fertile land of Southwest British Columbia and their extensive farming knowledge resulted in market gardens throughout the province, catering to grocery stores and restaurants in many neighbourhoods.

In 1921, Chinese immigrants produced 90 per cent of BC's vegetables. The success of Chinese farmers, however, triggered the Vegetable Marketing Act, which curtailed Chinese farmers' rights to sell and market their produce without approval from the Provincial board. Determined to preserve their livelihoods, Chinese farmers established a separate supply chain for 菜 (Chinese for **vegetable**, pronounced **choi** in Cantonese and **cai** in Mandarin).

Chinese immigrants were forced to create their own farmers' associations in order to protect whatever rights they could hold on to. As a result, a separate food supply network emerged for unregulated, non-marketed Chinese vegetables.

The tradition of Hua (ethnic Chinese) people farming in the Lower Mainland continues. In Richmond, Vancouver, and Burnaby, Chinese greengrocers still source most of their vegetables, or **choi**, locally. The "Big Bend" area in Burnaby is dense with market gardens. So are Surrey and Langley.

You could argue that Hua farmers pioneered a local and sustainable food movement in BC. By growing your own choi, you are continuing this tradition and supporting a healthy local food system.

If you wish to be happy for a few hours, drink wine until your head spins pleasantly.

If you wish to be happy for a few days, get married and hide away.

If you wish to be happy for a week, roast a tender pig and have a feast.

**If you want
to be happy
all your life,
become a
gardener.**

—CHINESE ADAGE



GETTING STARTED

Growing Chinese vegetables, or **choi**, doesn't require any special tools or materials. Follow the instructions on your seed packets, and with some TLC, sun and water, you'll have local, healthy choi in no time.

SOIL: Most experienced gardeners will tell you that healthy soil is the key to success in the garden. The type of soil or amendments (i.e. compost or fertilizer) you'll need depend on where and what you're growing.

Some crops such as mizuna and mustard greens are not too fussy and only need relatively shallow soil and a moderate amount of nutrition. Broccoli and cabbage, on the other hand, need deeper soil and more sunlight, time, and nutrition.

These nitrogen-hungry plants can use the help of compost and organic fertilizers when you transplant them as seedlings and mid-growth.

All Asian greens grow best in moist, fertile, and well-drained soil with a pH between 6.0–6.5. Work the soil well so that it's fine, loose, and porous. If you're growing from seed, try sifting the top inch of your soil through a mesh screen.

If you're unsure about whether or not you have soil that's healthy enough to grow choi, consult a gardening book (we recommend Peter Chan's **Better Vegetable Gardens the Chinese Way**) or a local greenthumb to learn more about soil preparation.

SPACE: If you can find a big garden bed, you can grow your vegetables using the Chinese raised-bed method. Essentially, a raised bed is a mound of good soil about 6 inches high and whatever length and width your growing space is. This method keeps soil loose and your feet off the roots of your plants.

For many cities dwellers, finding space to grow can be a challenge. Nonetheless, from Vancouver to Hong Kong, city farmers are finding ways to grow in unique spaces, from roofs to abandoned lots. Many choi can be grown in containers on your apartment balcony or in a community garden.

Faced with similar space constraints in the past, farmers in southern China developed ingenious techniques to grow more vegetables on limited space by using three levels: underground, on the ground, and in the air.

Next to vegetables like Chinese cabbage or lettuce, they plant root vegetables, and next to that, a crop that grows up, which helps shade the ground.

Planting this way uses less water and less work, and keeps the soil healthy and fertile. After thousands of years of farming, farmers in China are still innovating new ways to grow food for more people with limited space.



PLANNING

A bountiful choi garden starts with planning and knowing how much time and space you need to grow. Start your garden by making a list of all the veggies you'd like to eat. Then write a few notes about on how much space, care, and attention each crop needs.

Once your chart is completed, you'll have a good idea of what you can realistically plant and care for.

CHOI I WANT TO EAT	MAINTAINANCE FACTOR	SPACE CONSIDERATIONS
BAK CHOI	AVERAGE	PLANT CLOSE TOGETHER
KALE	AVERAGE	10-12 INCHES APART

WHAT TO GROW FOR THE FIRST TIME

What should you plant if you don't know a shovel from a hoe? These crops are great for beginners' first plots:

Kale

Green onions

Watercress

Spinach

Chives

Napa cabbage

Tatsoi

Mizuna

Mustards

Gai lan

Choy sum

Bak choi

Cherry tomatoes

Peas



PLANTING

Plant where your crops will get full or partial sun, using **row cover*** to shelter plants from heat and pests.

You can plant seeds fairly close together (0.5–2 inches), and thin your crops over time to give them enough room to breathe and grow.

USING POTS AND CONTAINERS: In theory, you can grow just about any choy in containers — baby bak choy, tatsoi, mustard greens, vining plants, and mizuna grow well in pots. On the plus side, you can move your vegetable garden wherever the sun is; on the other hand, container growing requires a bit more care when it comes to watering. For root veggies, containers aren't your best bet.

* **Row cover** is fabric or plastic sheeting used as a covering to shield plants from cold, wind, and pests.

CARING

PREVENTING BOLTING (FLOWERING): In general, Asian greens bolt (flower) in hot weather. Once bolted, the plant is more pest-resistant, but the leaves are too bitter to eat. When the weather heats up, try to find a cool spot for your choy and/or cover them, and harvest them regularly and frequently.



FERTILIZER: Nitrogen is the nutrient growing choy needs most. To apply nitrogen, give your plants store-bought organic fertilizer, like Gaia Green, or any nitrogen-rich compost.

WATER: Water every 2–4 days, depending on the weather. Most Asian greens are shallow rooted, so frequent light watering is best, and prevents too much moisture in the garden, which gives the weeds, pests and bugs a good place to live.

Water your plants early in the morning when aphids and small worms are out: the cold water gets rid of the pests. In colder weather, water helps wash the frost away and saves the plants. In the hottest months, you can do a second watering in the late afternoon. Aim for the soil at the base of the plant, not the leaves, to prevent fungal growth.

PESTS & DISEASE: Potential threats include downy mildew, aphids, slugs, snails, green cabbageworms, and caterpillars. Try planting brassica crops (plants in the mustard family, including broccoli and cabbage) alongside beets, chamomile, radish, tomatoes, onion, or garlic. Covering seeded beds protects crops from pests, or you could grow garland chrysanthemum (also known as **tong ho**), which is a natural pest repellent. Broken egg shells along the side of a raised bed will help to keep slugs out.

Using the traditional raised bed method, you can plan your crops and rotate where you plant each family. Pests tend to stick with one family of vegetables, so if you can move your cabbages to where the onions were last year, your pests will have a hard time following them.

HARVESTING

TIMING: Leafy choi will be ready in 3–8 weeks. Crops such as carrots, cucumbers, and kohlrabi can take up to several months.

TECHNIQUE: About three weeks after planting, you'll have many seedlings close together and the seedlings of **leafy greens** need a little breathing room. Leave a 6–12 inches between seedlings you'll leave to mature (see the seed package for more details), and harvest the ones in between as microgreens.

Once mature, there are some plants you get to harvest once (e.g. cabbage, bak choi, carrots, gai lan) while others you can harvest from more frequently (e.g. mizuna, mustard greens, tatsoi). See your seed package to know when to harvest the specific vegetable you've planted. Early in the cycle, leafy choi, such as as bak choi, will be great for salads. More mature plants are a little sturdier and great for stir-fries and sautéing.

For when to harvest **other vegetables**, consult a gardening guide or website for more details.

TIPS ON TIMING

Knowing when and how to get your garden started is important: some crops need some time indoors before they're ready to brave the great outdoors.

Choi can be grown and harvested year-round in the Lower Mainland. In fact, many chois thrive in colder weather and don't need full sun. For an all-year garden, ask a seasoned gardener or farmer to help you plan and design one.

MARCH – APRIL: Sow in early spring once soil can be worked. Asian greens grow best in the cool weather of spring and fall, so plan for a mid/late summer planting, too. Cover your spring crop with row cover to protect from pests.

LATE MAY: For quick growing greens like baby bak choi or mustard, stagger plantings every 2–3 weeks to ensure continual supply.

MID-LATE JULY: A second crop can be sown about 12 weeks before last frost, as garden space opens up where summer crops die off.

AUGUST: Leafy greens like mizuna and mustard will regrow 4–5 times if cut 3 centimetres from the base.

人勤地不懶

If the people work hard then the earth won't be lazy.



PLANTING CHART

Use the chart below to plan your gardening calendar. The text in grey is a guideline for a summer garden.

	WINTER (DEC.-FEB.)	SPRING (MAR.-MAY.)
START INDOORS	BROCCOLI CABBAGE CAULIFLOWER CELERY LETTUCE	CAULIFLOWER CELERY CUCUMBERS EGGPLANT TOMATOES
DIRECT SEED		SOYA BEANS BROCCOLI CARROTS CELERY CORN CUCUMBERS KALE KOHLRABI LETTUCE ONIONS GREEN ONIONS BAK CHOI CHOY SUM

SUMMER (JUN.-AUG.)	FALL (SEPT.-NOV)
KALE	
CARROTS KALE KOHLRABI LETTUCE ONIONS GREEN ONIONS BAK CHOI CHOY SUM SPINACH	SPINACH (MAKE SURE TO COVER) GARLIC KALE BAK CHOI CHOY SUM*



LEARN MORE

For more information about traditional Chinese growing, you'd be hard-pressed to find a source better than **Better Vegetable Gardens the Chinese Way: Peter Chan's Raised-Bed System** (1985) by Peter Chan. This classic book covers the elements essential to happy, organic farming: soil, seeds, correct planting and spacing, fertilizer, water, tools and management, and protection against disease and pests.

To find out more about growing diverse crops in Canadian cities, see:

- **Red Pocket Farm** (Toronto – redpocketfarm.com)
- **Fresh Roots Urban Farm Society** (Vancouver – freshroots.ca)
- **West Coast Seeds** (Lower Mainland – westcoastseeds.com)
- **Grow Local, Taste Global** (thestop.org/eat-local-taste-global)
- **Victory Gardens** (Vancouver – victorygardensvancouver.ca)
- **Abundant City** (Vancouver – abundantcity.net)

To learn more about choy grown in Southwest British Columbia, see hua foundation's **Seasonal Choy Guide**: bit.ly/choiguide

GREAT ORGANIC GARDENING SUPPLIERS

- **Figaro's Garden** offers a 10% discount to all community gardeners on everything in their store except seeds. (1896 Victoria Drive, Vancouver – figarosgarden.ca)
- **Victory Gardens** (victorygardensvancouver.ca)
- **Salt Spring Seeds** (saltspringseeds.com)
- **West Coast Seeds** (westcoastseeds.com)

RECOMMENDED SOIL + FERTILIZERS

- **POTTING SOIL:** SEA SOIL potting mix
(Find it at Figaro's Garden)
- **GARDEN/RAISED BED SOIL:** SEA SOIL garden mix
- **ORGANIC FERTILIZER:** Gaia Green
- **COMPOST SOIL** can be purchased from the City of Vancouver at the Vancouver Landfill
(5400 72nd Street, Delta)



Sprouting Choi is part of **The Choi Project**.

Share and download this guide at:
huafoundation.org/TheChoiProject

Hua foundation thanks its community partners for their generous support of The Choi Project.

GREENEST CITY FUND



vancouver
foundation



**TD Friends of the
Environment
Foundation**



Layout, design, and text by Megan Lau.

Part of this text is adapted from **Eat Local, Taste Global** (2012) a project of The Stop Community Food Centre. This work is licensed under the Creative Commons Attribution-Non Commercial-Share Alike 3.0 Unported License.

Photo credits: inside cover (top to bottom): "Produce Trucks, 1940s - 60s," courtesy Gail and Ken Yip; "Mr. Dong waters his produce plants on his farm in South Burnaby," courtesy Vivian Dong Chow; "Lum Law and his brothers building a green house on their farm in Cloverdale in 1971," courtesy Linda Law. Other images from Dreamstime.com.

Special thanks to Rebecca Cuttler, Kevin Huang, Winnie Kwan, Ilana Labow, Joey Liu, Philip Liwei, and Bard Suen.



© 2015
hua foundation
418 East Hastings St.
Vancouver BC V6A 1P7

