

# GROWING RESILIENCE



## Your own resilient food supply

Start growing some of what you eat at home — before you need to

The COVID-19 pandemic gave us a vivid reminder that food supply chains can be disrupted with very little warning. Supermarket shelves were emptied of some items, purchase limits were introduced, transport and workforce disruptions affected the availability of foods in Australia.

The 2026 Iran war provides another warning. Restrictions on fuel and fertiliser supplies and rising prices raised concerns about diesel shortages and the ability to transport food from farms, warehouses and distribution centres to the shops. Even when food is being produced, a disruption to fuel and transport can make it harder and more expensive to get that food onto our plates.

These events show that food security depends on complex networks of fuel, transport, worker availability, storage, processing and retail. When one part of that system is interrupted, the effects quickly reach households.

A home vegetable garden cannot replace all of the foods we buy. But it can offer a practical measure of resilience: a source of fresh produce at home; less dependence on long supply chains; valuable knowledge about growing food.

Food security crises arrive with little warning. Starting a vegetable garden now is a sensible way to prepare for uncertainty while improving our everyday health, self-reliance and connection with the land.

### Creating a nutritionally balanced diet

A resilient food garden is not simply a collection of vegetables. It is a system of production, storage, seeds and soil fertility. The plants listed here are selected to contribute to a nutritionally balanced diet in circumstances where food availability may be restricted.

Grow some crops for eating now, some for storage, some for seed to plant next season. Plant in succession rather than all at once — plant smaller numbers perhaps a month apart over the growing season for a continual supply. Combine quick crops such as radish and leafy greens with slower crops such as carrots, parsnips, potato and pumpkins.

### What to do with the excess

Any excess can be dried or preserved, given to neighbours or contributed to a food swap or community pantry.



**Food supply chains can break.**

**A productive home garden keeps you fed.**

**fuel shortages... food transport disruption... extreme weather**

PERMACULTURE TASMANIA

## Crops for time of crisis

For cool-temperate Tasmania and southeast Australia, the food resilience garden should focus on energy-dense roots, protein-rich legumes and nutritious greens. Crop selection is based on the season in which to plant the crop and harvest it.

Potato, pumpkin, legumes — the peas and beans — root vegetables like carrot and parsnip, the leafy greens like silverbeet, spinach and kale, the fruiting vegetables like tomato, capsicum and eggplant, onions and garlic bring us a diet that has a healthy mix of nutrients. To this, we add foods with concentrated protein like meat, fish or vegetarian substitutes.

The sowing and harvest times for Tasmania may differ according to region and climatic factors like daytime and nighttime temperature and first and last frost.

## Energy foods — the core carbohydrates

These starchy roots and long-keeping fruiting crops are our bulk energy sources.

### POTATOES

- our main staple in season, producing a high yield per square metre
- mainly a source of carbohydrates; also protein and vitamins
- plant seed potato early spring, September-November
- plant late crop in November
- harvest around November to February, April in Tasmania, depending on when planted, usually around 3 to 4 months after planting
- when foliage dies back and tubers have firm skin, potatoes are ready to harvest

### JERUSALEM ARTICHOKE

- our seasonal backup root staples that can grow in the odd corners of our garden; they are tolerant of different soils; Jerusalem artichoke, like potato, may best be stored in situ in the soil for a time, as they do not keep for long once harvested
- plant late winter to early spring, August to September
- harvest mid-autumn to late winter, roughly May to August
- new shoots of next crop appear in spring

### PARSNIP

- direct sow into soil in September to February
- harvest winter to spring

### CARROT

- sow in Spring to Autumn, in frost-protected areas
- harvest winter to spring

### TURNIP

- sow in September to February
- high yield, store well
- harvest late-autumn and winter, May to August to early spring is planted for successive harvest

## Body building foods — the protein staples

The legumes, the pea and bean family, are our main source of protein. Legumes are important for those following a meat-free diet.

Legumes bring the added benefit of fixing the plant nutrient, nitrogen, in our garden soil.

A crisis-time diet less reliant on bought meat and grain can find protein in two types of beans:

### VARIETIES FOR DRYING AND STORING

- climbing and bush beans such as kidney, borlotti, scarlett runner, navy etc; they provide protein and some calories
- varieties for eating fresh, for freezing and to dry for winter soups

### BROAD BEANS

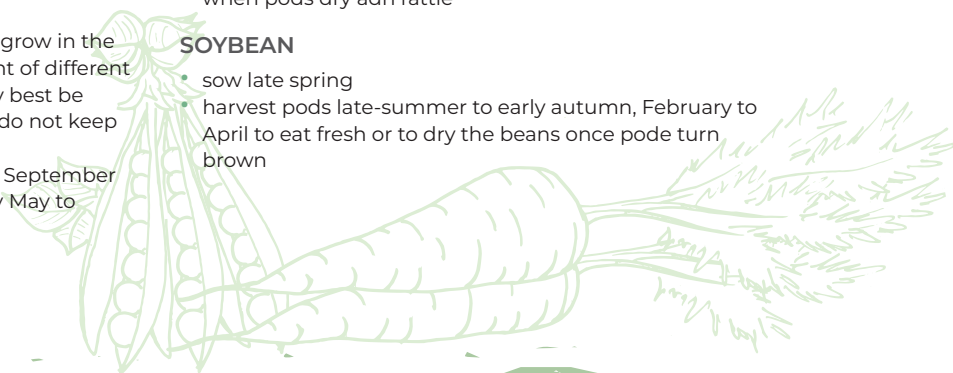
- hardy and prolific cropping
- sow in autumn to early spring in Tasmania for spring protein
- the crop residue, the leaves and stalks, provide organic biomass for composting
- harvest in late-spring to early summer, November to December

### CHICKPEA

- sow after frost risk passes in late spring to early summer; November
- harvest late-summer to early autumn, February to April when pods dry and rattle

### SOYBEAN

- sow late spring
- harvest pods late-summer to early autumn, February to April to eat fresh or to dry the beans once pods turn brown



## Protective foods: sources of vitamins and minerals

Leafy greens and brassicas have less carbohydrate and protein. They are mainly a source of vitamins and minerals to prevent nutritional deficiencies.

### PERENNIALS — PLANTS THAT PRODUCE YEAR AFTER YEAR.

#### FRENCH SORREL

- a perennial leafy green that is available through most or for all of the year, depending on climate
- pluck leaves as needed for cooking

#### WARRAGUL GREENS/ NEW ZEALAND SPINACH

- a perennial leafy green vine that is available through most or for all of the year, depending on climate; growth may slow in winter
- a spreading scrambler native to Australia

### ANNUALS-PLANTS THAT GO THROUGH THEIR SEED-TO-HARVEST LIFECYCLE WITHIN A GROWING SEASON.

#### BROCCOLI, CABBAGE, KALE

- transplant seedlings in autumn March to May
- additional plantings in early spring, August to September, give a summer to autumn yield
- harvest winter and spring

#### SILVERBEET, CHARDS, SPINACH

- plant in autumn, March to April; spinach can also be sown in late winter to early spring, August to September
- harvest winter to spring
- provide hardy cut-and-come-again greens most of the year
- silverbeet has a long growing season and can produce a high yield of leafy greens

#### PUMPKIN, SQUASH

- start under cover in spring; plant out after last frost
- harvest autumn, March to May when vines start to die back
- store in warm, dry conditions
- golden scallopini is a productive warm season squash for the home garden

#### LETTUCE

- can be sown all year

#### TOMATO

- sow under cover in early spring, September
- transplant mid to late spring to November after last frost
- harvest January to March and into April

#### EGGPLANT

- sow under cover in early spring, September
- plant out late spring, November
- harvest February to March

#### CAPSICUM

- sow under cover in spring, September
- transplant late spring, November
- harvest late -summer to autumn, February to April

#### ZUCCHINI

- plant late spring, November after last frost
- harvest around 8-10 weeks after planting, summer to early autumn in Tasmania, January to early April

#### CLIMBING AND BUSH BEANS

- sow mid-spring to early summer. mid-November to January
- start a row every 4 weeks for continuous harvest through the growing harvest around 8-10 weeks after sowing for bush beans
- harvest around 12-14 weeks after sowing for climbing beans
- harvest when young, crisp and tender

#### LEEKs

- sow late winter to early autumn, August to March; transplant spring to early summer; sowspring and summer for staggered harvest

#### ONIONS, GARLIC-THE ALLIUM FAMILY

- garlic: plant autumn, March to May; harvest early to mid-summer. December to January around 7-8 months after planting
- onions: plant autumn to early winter, March to June; harvest late spring to early summer, January to February depending on variety and sowing date
- plant autumn
- harvest mid-to late-summer

#### CARROTS, BEETROOT, PARSNIPS AND TURNIPS

- are a source of vitamins and fibre and offer long storage in the soil and out of it

#### GRAIN

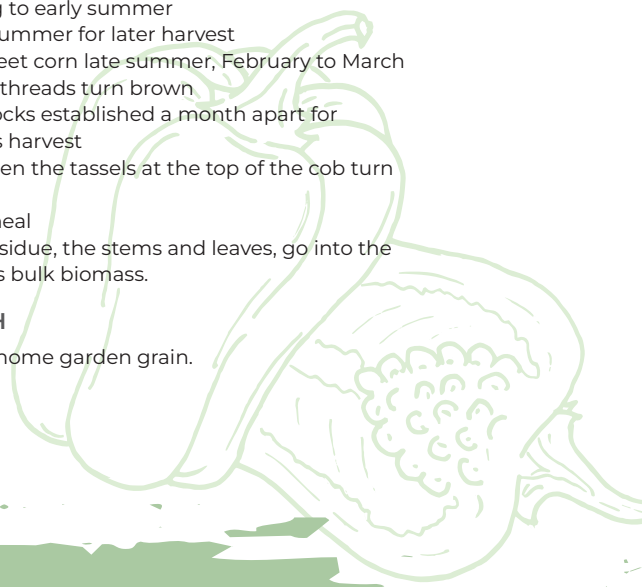
Corn is the easiest grain to grow at a backyard scale. Corn kernels are edible cooked. They can be dried and stored.

There are two main types:

- **SWEET CORN** makes a tasty summer and early autumn crop; to keep, dry the kernels
- **FLOUR OR DENT CORN** is bred for drying; it can be made into tortillas or polenta.
- sow spring to early summer
- sow early summer for later harvest
- harvest sweet corn late summer, February to March when silky threads turn brown
- plant in blocks established a month apart for continuous harvest
- harvest when the tassels at the top of the cob turn brown
- grind for meal
- the crop residue, the stems and leaves, go into the compost as bulk biomass.

#### AMARANTH

- is another home garden grain.



## Summary-plantings for food resilience

### PLANT IN:

- ⌘ Autumn to winter— onion, broad bean, broccoli, cabbage, lettuce, spinach
- ⌘ Late winter to early spring — potato, jerusalem artichoke, brassicas, lettuce, spinach
- ⌘ Spring to early summer —leek, tomato, eggplant, capsicum, corn, squash, chickpea, soybean, climbing and bush beans, chick peas, parsnip, carrot, turnip, kale, silverbeet.

How much to plant. This depends on growing a sufficient range of foods to sustain a nutritionally balanced diet.

What is planted varies with the season.

- ⌘ about half the main beds planted to root crops like potatoes, pumpkins, squash and other starchy roots
- ⌘ around a quarter of the garden is planted to legumes; a mix of drying beans, peas, broad beans, chick pea, soy depending on the season
- ⌘ the remaining quarter planted to seasonally continuous greens; fruiting crops in season such as tomato, eggplant, capsicum, zucchini, cucumber; the alliums (onion plant family); leafy greens, herbs.

Grow 2–3 staggered plantings for continuous harvest through the growing season. Plant a batch early in the season and then another batch a month or so later. Repeat. If available, source early, mid and late season varieties.

Rotate different crop types through the beds to maintain soil fertility and to reduce the spread of soil-borne diseases. Follow:

- ⌘ legumes with leafy greens;
- ⌘ leafy greens with fruiting crops (tomato, capsicum, eggplant etc);
- ⌘ fruiting plants with root crops.

Then repeat the cycle.

Some gardeners leave the bed fallow after the first repetition of the crop rotation cycle, perhaps planting it to a green manure such as a legume. This is cut and turned into the soil to add nutrients like nitrogen and organic matter that breaks down in the soil and prepare the bed for planting to vegetables.

### GROW EXCESS TO STORE

- ⌘ Pumpkin: store in a cool, dry location for 3–6 months
- ⌘ Potatoes: store in a cool, dark, ventilated place
- ⌘ Onions, garlic: store in a dry location with air circulation

Beans, peas: dry and store in sealed containers.

### SEEDS & SOURCES

- ⌘ <https://www.southernharvest.com.au>
- ⌘ <https://www.gathererforager.com/collections/seeds>
- ⌘ <https://tassieseeds.com.au>
- ⌘ <https://www.davesseed.com>
- ⌘ <https://www.provenancegrowers.com.au>
- ⌘ <https://rangeviewseeds.au>
- ⌘ <https://www.thelostseed.com.au>

### PERMACULTURE TASMANIA

...is a member-based, volunteer-managed association bringing together Tasmanians practicing permaculture in their homes and communities.



#### OUR WEBSITE

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