

## growing sprouts in your kitchen

Sprouts represent the point of greatest vitality in the life cycle of a plant. During sprouting, vitamin and enzyme content increases dramatically. The sprouting process predigests the nutrients of the seed, making it easier to assimilate and metabolize: starches are converted into simple sugars, proteins into free amino acids, and fats into free fatty acids. This explains why grains and legumes, many of which are common allergens, often do not cause allergies when sprouted.

The rich nutrient content of alfalfa sprouts includes protein, carotene, calcium, iron, magnesium, potassium, phosphorus, sodium, zinc, vitamin K, bioflavonoids, and abundant chlorophyll. These popular sprouts also contain 8 enzymes which help assimilate protein, fats, and carbohydrates. Their diuretic properties benefit the urinary and intestinal systems.

One word of caution about alfalfa: this seed has higher than usual amounts of an amino acid called canavanine, which has been associated with worsening of chronic inflammatory conditions including rheumatoid arthritis and lupus. Individuals with these conditions may want to limit consumption or avoid alfalfa sprouts altogether.

Broccoli sprouts are packed with cancer-protective compounds. Sulforaphane in particular has been shown to improve the liver's ability to detoxify carcinogens and other toxic compounds. Three-day-old sprouts of broccoli or cauliflower contain 10-100 times higher levels of sulforaphane than do the corresponding mature plants.

SEED (dry measure)	SOAK (hours)	READY (days)
2 tbsp alfalfa or red clover	4	5-6
2 tbsp broccoli	6	5-6
¼ cup radish or mustard	6	5-6
½ cup lentils or fenugreek	8	3
½ cup mung bean	8	3-5
1 cup wheat or rye	12	3
1 cup aduki beans	12	3-5
¼ cup sunflower seeds *	12	2-7

\* To grow tall, sweet sunflower greens for snacks and salads, soak seeds, drain, then rinse for 1-2 days. When seeds have germinated, plant thickly in one inch of sterilized potting soil which has been spread in a seed flat or large tray. Gently press seeds into soil. Keep moist but not wet, and place tray so it doesn't receive direct light. Sprouts will be ready to harvest after about 5 days, when they're 4 or 5 inches tall. Cut greens close to soil surface.

This method also works well for growing buckwheat greens and wheatgrass.

- Make your own sprout combinations using seeds which have similar sprouting times.
- Cover the mouth of the jar with screen or cheesecloth and tie on or secure with an elastic or canning jar ring. After soaking seeds (use filtered water), drain well and keep at room temperature, away from direct light.
- Rinse 2 or 3 times a day. Keep jar tilted mouth down for better drainage – thorough rinsing and complete draining improve sprout flavor. You can save the nutrient-rich rinse water for cooking, animals, or plants.
- After 3 days place the smaller-seeded sprouts (alfalfa, clover, broccoli) close to a window, but away from direct sunlight (which may cook them!) to induce chlorophyll formation. Continue rinsing twice daily until sprouts are ready.
- For best flavour, do not allow the larger-seeded sprouts to grow too long or develop long roots.
- Remove hulls from sprouts before storing in frig. To remove the hulls, place the sprouts in a bowl of cold water and agitate them to loosen hulls. Lift sprouts out of the water, without disturbing the sunken hulls.
- Drain sprouts well and refrigerate immediately. Sprouts will keep up to one week in a plastic bag or covered container. Some sprouts, such as lentils, will continue to grow in the frig. To maintain freshness, rinse sprouts every day.

## Resources

- *extending the season*: Coleman, Elliot, [Four Season Harvest](#)
- *Creston Grain CSA*: <http://urbanworkbench.com/creston-grain-csa-farm-tour>
- *Creston Valley Food Action Coalition*: (good links): <http://crestonfarmfresh.ca/?p=resources>
- *Deconstructing Dinner*: <http://www.kootenaycoopradio.com/deconstructingdinner/101107.htm>



**Fernie Community Eco Garden**  
**Workshop Series 2008 - Keeping Food Real**

For more information:  
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## Cycles of Food

Think of winter food and your mind conjures up images of thick vegetable soups and steaming stews. When the days are colder you need the warmth provided by these types of meals where everything is cooked in one pan, so no nutrients are lost, and warming spices are added to increase metabolic rate and send heat round the body.

With air conditioning and central heating and travelling by car from door to door we may need this less than in the past but the principles are the same. This is also not an excuse to throw all your summer healthy eating out the window just because it's cold outside. We simply adapt our menus to take advantage of all the seasonal vegetables available.

Eat simple combinations. It may be tempting to stick as many things as you can into a stew but you are making it hard for your body to digest them all. Eating simply also give you the chance to appreciate the individual flavours.

### Good Winter Foods

**sweet potatoes and yams**  
**pumpkins and other squashes**  
**turnips and swedes (rutabaga)**  
**parsnips**

Go for the orange varieties of squashes. All of these are high in Vitamins A and C which will help build the immune system and ward off illness. **Garlic** is another good vegetable to eat at this time of year as it has proven anti-viral and anti-fungal properties and could just help you stave off that cold.

**adzuki (or aduki) beans**  
**black beans**  
**lentils**

Pulses have been called the "perfect health food." Low in fat, high in protein, complex carbohydrate and fibre, they also contain a range of vitamins and minerals and are low on the glycemic index. They will add welcome bulk to any soup, stew or vegetable side dish and are an excellent source of protein and Vitamin B. To avoid side effects of these high fibre foods cook with fennel or cumin and make sure you follow the preparation instructions regarding soaking if they are dried.

**oats**  
**quinoa**  
**brown rice (short grain)**

These are warming grains. Other grains are more cooling so if you are making or buying wheat bread try not to make it the staple of your winter meals.

Other warming foods, herbs, spices & flavorings:

**cooked and dried fruits**  
**cabbage**  
**Coconut**  
**tomato sauce**  
**avocado**  
**tempeh**  
**potatoes**  
**kasha (buckwheat)**  
**barley**  
**cornmeal**  
**nuts and seeds**  
**butter**  
**egg yolk**  
**fish, beef and poultry**  
 (organic, wild or free-range)

**garlic**  
**ginger**  
**cumin**  
**caraway**  
**basil**  
**thyme**  
**oregano**  
**bay leaf**  
**black pepper**  
**coriander seed**  
**cinnamon**  
**cloves**  
**vanilla**  
**salt** (holds heat)  
**miso**

Try to avoid eating too much dairy product (but do choose organic when you do). In general these are mucous forming and won't help if you are prone to colds or chesty coughs. You can still get good quantities of calcium from beans and nuts, dark green vegetables (kale, broccoli, collards, dandelion, parsley), sea vegetables (kombu, kelp, etc.), sesame seeds and tahini, canned salmon and sardines with bones, and soups made with bones (fish, fowl or beef) with one tablespoon of wine vinegar added (this draws out the calcium and makes it available in the broth).

Sugar is a cooling food and an anti-nutrient. Sugar negatively affects the body's systems, especially the immune system. A low glycemic and nutrient rich alternative is agave nectar.

Try to reduce use of refined salt and replace with whole natural sea salt. This is good advice any time of year and even more so during the winter when your lymphatic and immune systems and liver are busy trying to keep you healthy. Further, try to avoid any chemically altered or highly refined foods. These will have almost none of the nutrients of fresh foods and could actually be more difficult for your body to deal with.

It goes without saying that you should choose foods from good sources and organic whenever possible. Traces of chemicals found in non-organic foods often cannot be removed simply by washing and over time can build up in your body tissues to unacceptable levels.

## Other system boosts

You may find that you are feeling a little down as the nights draw in. Do try to get outside, especially in the mornings as the sun comes up. Natural light will help your pineal gland to switch off its night-time melatonin production. Artificial light is not as powerful as sunlight at switching off the pineal and this why you may feel more sleepy in the winter time.

If you are still not feeling 100% you might want to try a multi-vitamin and mineral supplement. Try to buy the best quality you can and make sure it is in the best form for your body to assimilate it.

Just because it is cold and you might feel more inclined toward hot drinks, don't forget your body still needs at least 1.5 litres of water a day, best drunk at room temperature. It is more rehydrating this way as the body doesn't have to expend energy heating it. If you want the comfort of a heated drink try herbal tea instead of caffeine beverages..

## Seasonal Eating: How to Eat Local Food All Year Round

Often our bodies ask us for seasonal foods: fresh crunchy salad greens in spring and a warming rich stew as the first frosts arrive in fall. Base your meals around local foods which are, by definition, always in season. Expand your definition of seasonal. Many foods store well. A food need not be growing in the field to be in season.

Find foods that are always in season. Animal-based foods, like eggs, dairy, and meat are always in season. Dried herbs, mushrooms, potatoes, apples, and other storage vegetables are available all year round.

Local foods frozen at their peak of freshness may maintain a higher quality than the same food picked and transported, fresh, across the continent.

Do the math. Foods in season are often significantly less expensive than they will be when not in season. Buy in bulk with the intention of storing and preserving food while it's at the peak of availability, taste, and nutritional quality. Freezing, canning, pickling, and drying vegetables is not that daunting a task. Grow your commitment over the years as you learn new food preservation skills.

Find a great cookbook, or search the web for seasonal recipes and tips. Examples include Eating by the Seasons, published by the Ecology Action Centre, and Simply in Season (found at <http://www.worldcommunitycookbook.org/>).

## winter gardening

**rooting cuttings** - snip off a 4" (10cm) section measured from the tip. Strip off the lower leaves and insert the stem into a moist soilless mix such as perlite or vermiculite. Humidity is essential, so cover with glass or clear plastic to keep things moist.

**transplanting** - avoid diggin up too big a clump unless you have a big pot to fill. Be careful to shake off as much soil as possible from the roots to avoid bringing any soil borne diseases indoors. Keep fresh transplants separate from your other houseplants for at least a week while acclimatizing the transplants to the indoors. If they look healthy and insect-free after this quarantine, then bring them on in to get cozy with their winter neighbours.

**watering** - as a rule, herbs like to be well-watered but get grumpy when their feet stay wet. Water fast and furious whenever the top of the container feels dry or when the pot feels light when you pick it up. when water starts coming out the bottom, you're done. Don't leave water in the saucer. Remember, no wet feet! For quicker drainage add some sterilized sand, vermiculite or perlite to the potting soil.

**feeding** - avoid over-feeding through December. An occasional watering should be all your herbs need, especially if you add compost to the soil in about mid-January. When the days get longer your plants will start to dry out more often and will appreciate a little liquid seaweed every fourth watering.

**chives** – dig up a small clump from your garden – be sure you have at least four or five bulbs – and transplant them into a pot. Set them on the deck until the first frost. When they've died back bring them indoors and keep in a dark, cool place for one or two weeks, then place them on your sunniest windowsill and soon fresh green sprouts will appear.

**oregano** – the best way to restart oregano is to take a tip cutting from a plant in your garden. Once it has rooted, place the pot in a south-facing window.

**parsley** – dig up a piece from your garden in late fall. Be sure to trim it back after potting it up to encourage lots of fresh growth. Parsley will grow well in a south-facing window; move to another window if it produces too much for you.

**rosemary** – in our climate, rosemary will not survive outdoors in winter. Bring the potted plant indoors after the first killing frost. With its coniferous-like leaves, this plant is not only delectable but can also stand in as a mini-Christmas tree.

**sage** – take a tip cutting from an outdoor plant to give sage a new life indoors. Sage is well suited for dry indoor air, but it is imperative that it gets a spot on the south windowsill.

**thyme** – you can either restart thyme by rooting a soft tip cutting or by digging up and potting a plant from your garden. Thyme appreciates full sun but will grow well in an east or west-facing window.

## eating locally and food security

A study cited by the David Suzuki Foundation website estimates that a basic North American meal travels 2,400 km from field to table. On the other hand most local produce has been picked inside of 24 hours. Close-to-home foods can also be bred for taste, harvested at the opportune time and delivered fresh, rather than bred for durability to withstand long distance travel.

When it comes to fresh food, local is most often a much more nutritious choice. For example, 24 to 48 hours after harvest, 50% – 89% of vitamin C is lost from leafy vegetables. Bagged spinach loses about half its folate and carotenoids after being stored in refrigeration for just four days.

In light of food contamination issues, providing a direct link from producer to consumer has helped to ease anxiety over tainted products. However, food safety is a small part of the global food security issue.

According to the UN's World Food Summit (1996), "food security exists when all people at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

Local food production helps to ensure consistent, stable food access while bolstering local economies. Supporting local food initiatives helps to reduce the impact food consumption has on the environment. The Sierra Club of Canada estimates the CO<sub>2</sub> emissions attributed to the food consumed by a family of four are eight tonnes a year; further evidence that the switch to support small-scale local producers has the potential for big global gains.

When shopping for groceries or dining out, look for food and beverages grown and produced closer to home. Supporting BC's food and beverage producers means strengthening our local food system and ensuring a supply of fresh, healthy food for your family—now and for future generations.

Choosing to buy a food product that is processed locally, even if the ingredients are imported, also helps our economy. Ask questions about the products you regularly buy and find out how knowledgeable the processor is about their ingredients and where they come from.

Eating locally grown food supports our farmers and protects our precious farmland by keeping it in production. We need to protect our farmland from development and we need to "grow" farmers. In British Columbia, the median age of a farmer (in 2007) is 57 years. This means that opportunities are needed to engage the next generation of farmers.

**banishing bugs** - it's tempting to use regular garden soil when potting up plants for the winter – cease, desist and resist! Don't do it. Use compost or sterilized potting soil instead. Without all the elements of the great outdoors working their circle of magic, diseases and pests will thrive in the confines of the indoors. When potting up plants remove as much of the garden soil as possible without disturbing the roots.

**keeping plants healthy** - a healthy herb can shrug off the odd nibbler, so do your best to make sure your plants aren't weakened by hot dry indoor conditions. When a plant starts to stress it begins to build nutrients in its leaves that make it taste like candy to spider mites, whiteflies and aphids. If a herb starts to turn yellow or fails to thrive, the best thing to do is quickly give it a crew cut, ridding it of its leaves before the bugs move in. Try to figure out what made the herb so unhappy in the first place. Not enough or too much water, light, nutrients may be factors to check.

**growing under lights** - maintaining garden plants throughout the winter months by using fluorescent grow lights will encourage growth and health of the plants and are practical if your home doesn't have wide sunny windowsills. These lights provide the right spectrum for growth and do

not produce excessive heat. Properly placed, they can provide illumination for your needs as well and are energy-efficient. They can be mounted on racks or suspended over shelves - do some research! Keep grow lights on 10-12 hours daily.