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Alberni-Clayoquot

GROW LOCAL GARDENING TIPS AND TRICKS

IN SUPPORT OF RESIDENTIAL FOOD
PRODUCTION

"What's On Your Fork" Grow Local Project Partners:

We gratefully acknowledge the financial support of the Province of British Columbia
through the Ministry of Agriculture.



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The Grow Local Program was a 2-year project funded through the Ministry of Agriculture and various local partners, which ran through 2017/2018.

The program aimed to increase horticultural knowledge and food production within the Regional District by offering garden tours, consultation sessions, hands on learning opportunities, horticultural demonstration events, and a broad media and public awareness campaign.

This booklet is a compilation of some of the educational resources developed and used during the workshops and garden consultations.

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Easy Self Seeding Annuals

Kale
Corn Salad/Mache
Arugula
Mizuna

Edible 'Weeds'

Chickweed
Sorrel
Dandelion
Lambs Quarters
Shephards Purse
Purslane
Miner's Lettuce

Edible Flowers

Daylilies
Carnation
Violas
Nasturtiums
Borage
Rose
Calendula

Perennial Foods

Lemon
Ostrich Fern
Hosta
Asparagus
Rhubarb
Artichokes
Herbs
Horseradish/Wasabi
Onions - Welsh or
Walking
Sunchokes



Useful Plant Lists

Berries

Brambles (Raspberry/
Blackberry/Tayberry/
Loganberry/Boysenberry/
Dewberry/Marionberry)
Currants(Red/Black/White/
Clove)
Gooseberries



Fruits

Dwarf Tree Varieties
Figs
Goji Berries
Hardy Kiwi
Mulberries
Sea Buckthorn

Plants for Sun

Tomatoes
Peppers
Melons
Cucumbers
Eggplant
Zucchini
Grapes

Native Plants

Salal
Oregon Grape
Huckleberry-(Red or Black)
Salmonberry/Thimbleberry

Shade Tolerant Plants

Lettuces, Arugula, Asian
greens (Mizuna, Pac Choi,
Mustards)
Chard/Kale
Pumpkin
Peas
Parsley
Beets
Broccoli
Potatoes
Spinach
Sorrel
Hardy Kiwi
Gooseberries
Currants
Evergreen Huckleberry
Salal
Saskatoon
Hazelnut

Edible Garden Design

Good design of an edible garden creates a long term food source and example of sustainable land use. The aim is to create a stable, productive system that provide for human needs, while harmoniously integrating the land with it's inhabitants.

In a good system work is minimized, 'wastes' become resources, productivity and yields increase, and environments are restored.

Identify Zones (think in terms of zones 1-5)

- 1) Close to the house, navigated frequently (On the way to the car or bike, at the front or back door. Good for salad greens, herbs).
- 2) Daily visits (Easy access to the chickens or compost).
- 3) Weekly (Needs tending but not everyday. Crops like carrots and potatoes).
- 4) Seasonally or infrequently (Fruit trees, berries, wood harvesting).
- 5) Wild spaces (Habitat for bugs and wild creatures).

Determine and Place Main Components

- Elements are multi-functional (chickens/rabbits heat greenhouse and provide eggs/meat/compost; grape trellis provides shade to hot summer patio).
- Functions are supported by many elements (Water harvested by rain barrels, duck ponds, and infiltration swales; fertility provided by chickens, compost, and nitrogen fixing trees and shrubs).



Edible Garden Design Continued

Check Topography and Install Water/Earthworks



- Start at top of water chain.
- Collect, distribute, infiltrate.
- Dig out swales, berms, or terraces. Create rivulets to water gardens.
- Use permanent planting beds and pathways.

Plan for Succession/Soil Fertility

- Don't try to do it all at once. Go slow, see what works, build soil using nature's own processes.
- Plant green manures and dynamic accumulators to fix nitrogen, pull nutrients from soil, and create organic matter for composting.
- Use chicken tractor to till/weed future garden spaces.
- Mulch to reduce weeds, build soil.
- Pile branches to provide homes for snakes who eat slugs, then turn them into hugelkultur garden beds.



Design Considerations Checklist

Scale - Balance height and size of plants and hardscaping to create a sense of unity

Garden Rooms - Divide up the garden to create a sense of interest as you wander through.

Pathways - Well defined pathways are important for cohesion, access, interest and flow. Traffic creates long term compaction, and established pathways also protect garden soil.

Patterns - Repeat patterns of height, color and shape to enhance visual appeal.

Gates - Act as a portal, setting a tone for the garden.

Shelters - Use arbors and pergolas for plant support and a sense of security and privacy.

Borders - Establish boundaries using fences, screens, raised beds, or tall plants.

Patios - Define areas for rest, entertainment, chores and human comfort.

Focal Points - An important component of each 'room'. Leads people in and around the garden.

Water - Consider ease of irrigation, efficiency of use, conservation, and water recycling. Mulch heavily to reduce evaporation.

Materials - Repeat materials for cohesiveness throughout the garden. Reclaim, reuse, repurpose waste materials. Choose local products and get creative. Temporary is ok - make changes as other materials become available.

Efficiency - Focus on using zones, succession planting, multi-functionality, and efficiency.

Sheet Mulch - Simple, low labor method creates long term fertility.

Build Soil - Create garden health for the long term using cover crops, mulch, and green manures. Obtain and store organic matter.

Use what you have - There are no liabilities, only assets.



Crop Planting Timeline

While tradition dictates garden planting on the May long weekend, we can safely extend the growing season in the Alberni Valley. West Coast growers and those with a greenhouse or cold frames can extend the season even further.

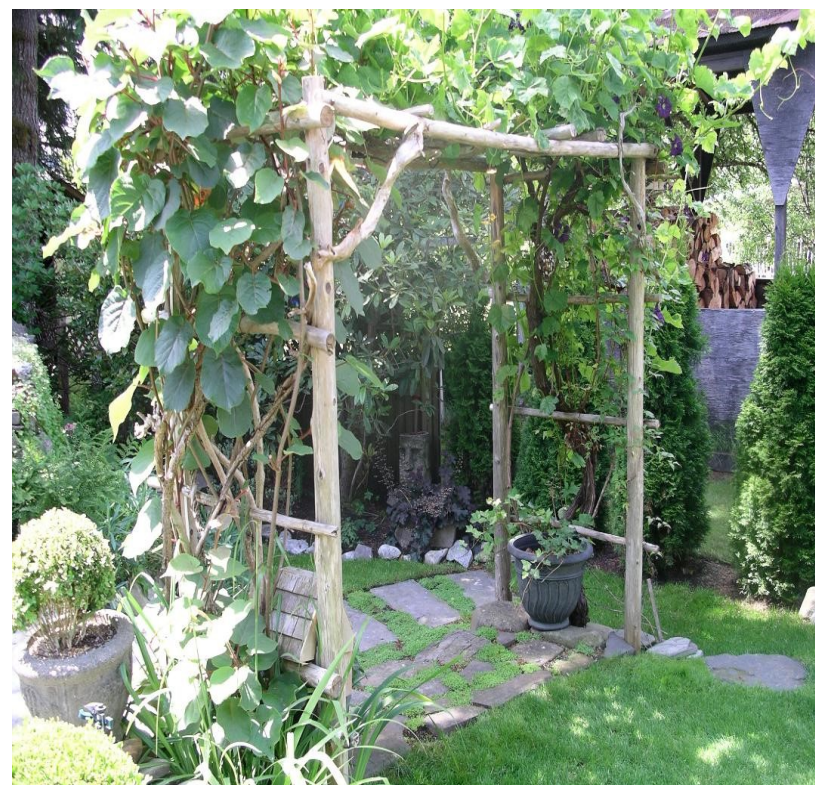
Choose the season, and scroll through the list of what you can plant!

Early (February - April)	Mid (May-July)	Late (Aug-Nov)
Asian Greens (March - Late May)	Basil (Mid-May to mid-June)	Asian Greens (Aug to Sept)
Beets (Mid-April to mid-Aug)	Beans (Mid-May to mid-July)	Beets (Mid-April to mid-Aug)
Broccoli/Cauliflower/Cabbage (March-May)	Broccoli/Cauliflower/ Cabbage (Late June to late July)	Carrots (Late Mar to mid-Aug)
Carrots (Late Mar to mid-Aug)	Buckwheat (May-August)	Clover (mid March - mid Oct)
Clover (mid March - mid Oct)	Celery Seedlings (Mid-May to mid-June)	Corn Salad (Mid Sept to late Oct)
Kale (March to Mid-July)	Clover (mid March - mid Oct)	Fall Rye/Winter Wheat Cover Crop (Mid Aug to late Oct)
Kohlrabi (April to mid-May)	Corn (Late May to mid-June)	Fava Bean (Sept to mid-Nov)
Leeks (April to Mid-June)	Cucumber Seedlings (late May to mid-June)	Garlic (Mid Sept to early Nov)
Lettuces (April to Late August)	Eggplant Seedlings (Late May to mid-June)	Kohlrabi (Mid-July to mid Aug)
Onion Sets (March-April)	Kale (March to Mid-July)	Lettuces (April to Late August)
Parsley (Mid-April to late May)	Leeks (April to Mid-June)	Parsley (Mid-July to late Aug)
Parsnips (Late Mar to mid-July)	Parsnips (Late Mar to mid-July)	Radishes (Late Aug to late Sept)
Peas (Mid-Feb to mid-May)	Pepper Seedlings (Late May to mid-June)	Spinach (late July-late Aug)
Potatoes (Mid March to mid June)	Potatoes (Mid March to mid June)	Swiss Chard (Mid-April to mid-Aug)
Radish (March-May)	Melon (Late-May to mid-June)	
Spinach (March to mid-May)	Squash (Late May to mid-June)	
Swiss Chard (Mid-April to mid-Aug)	Swiss Chard (Mid-April to mid-Aug)	
Turnips (April to Late July)	Tomato Seedling (Mid-May to June 15)	
	Turnips (April to Late July)	

Edible Garden Design

Plant for Diversity

- Use the full vertical horizon when planting, from vines to ground covers.
- Integrate herbs, vegetables, berries to maximize habitat for beneficial insects and use all layers of soil and soil nutrients.
- Plant perennial food plants to minimize labor/inputs and produce year after year.
- Allow plants to self-seed. Flowers provide nectar and habitat for beneficial insects and seedlings provide ground cover and the next year's harvest.



Potting Soil

The best soil for your needs depends on the kind of plants in your garden and the properties of the soil.

Properties

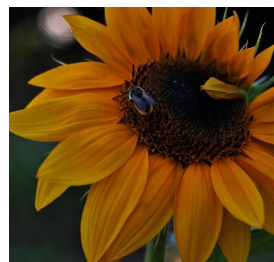
Since most potting soils are used in containers, drainage is most important. Some plants prefer moist roots, while others prefer a dry soil. Most potting mixes use perlite, expanded shale or slate to create air pockets and pores in the soil that improve drainage. For plants needing nutrient-rich soils, worm castings, rice hulls and composted additives are a good choice. In some potting mixes, fertilizer is added to increase the nutrient levels. Organic ingredients such as worm castings and compost also increase the acidity of the soil. A good soil mix indicates whether it is pH balanced for acid-loving plants or is neutral or alkaline.

Common Ingredients

The key to choosing the best potting soil is understanding the ingredients. The main ingredients in most potting mixes are sphagnum peat moss or calcined clay to absorb water in the soil, composted organic ingredients to provide nutrients, and vermiculite or perlite to improve drainage. Some mixes also include lime to balance the pH when a more alkaline soil is needed. Sand is found in some specialty mixes, but sand doesn't hold water or nutrients well and can interfere with drainage. Water-soluble or slow-release fertilizers are included in some premium mixes. Wetting agents are often used in potting mixes for hanging baskets to prevent soil from drying out quickly.

Organic Vs. Conventional Mixes

Both potting mixes are suitable for container gardening. The main difference is that nonorganic mixes use fertilizer to provide nutrients for a single season. For long-term use, organic potting soil contains nutrient-rich organic materials in various stages of decomposition.



Check the weather! Soil temperatures should be to the plants' liking, and it's helpful to have cloud cover or light rain during the first few days after transplanting. Delay transplanting if a heat wave is on the way, or if the soil is clammy and cold. Meanwhile, make sure the patients are well hydrated. Drench them with a weak solution of organic fertilizer the day before transplanting.

To make this bizarre adventure more acceptable to plants, push them out of their containers from the bottom rather than pulling them out by their stems. In most cases, you can place one hand over the container with the main stem between your fingers, tip it over and shake or tap to loosen the root ball. If necessary, pry roots loose using a knife. Handle the freed plant by its root ball (a large spoon is great for this), and avoid touching the main stem. As you set the plant in its permanent home, use the lowest leaves as handles. Should they break off, it's no big deal.

As a general rule, it's best to keep as much soil packed around the root ball as possible. Exceptions are seedlings whose roots have grown into a solid mass. To encourage these frustrated roots to grow outward into surrounding soil, you should use a fork or your fingers to tease out a few outer roots. Finish the transplanting process by drenching the soil with water — an important step that eliminates air pockets around the roots and helps beneficial soilborn microorganisms move into the plant's rhizosphere.

The Seaweed Solution

Many gardeners and market growers use kelp-based fertilizers to help transplants get off to a fast start. Most of these products are made from *Ascophyllum nodosum* — a brown, ribbon-like seaweed. Kelp contains growth hormones that encourage root formation, as well as 60 or more micronutrients. In addition to applying kelp mixed with water to the roots of transplants as they are set out, many gardeners report that drenching plant leaves with seaweed (or combination seaweed/fish emulsion sprays) every three weeks results in healthier, more vigorous plants.

****Remember to wet potting soil before seeding****

Seedling Care: Transplanting & Thinning

Transplanting

Transplant seedlings when they have developed their second set of true leaves. You can thin them in place: just pinch or snip off the excess seedlings, leaving the remaining ones spaced about 2 inches apart. Seedlings in individual pots or cells should be thinned to one plant per pot or cell.

To transplant seedlings, fill each new container with moist planting mix. Loosen the soil around the seedlings (a kitchen fork or spoon is handy for this); then carefully lift them out, one at a time. Or lift a clump of seedlings and gently separate individual plants by carefully teasing apart the tangled mass of roots. Handle seedlings by their leaves to avoid damaging the tender stems. Poke a hole in the new container's planting mix, place the seedling in the hole, and firm soil around it. Water the transplant right away. Keep the containers out of direct sunlight for a few days to let the transplants recover from the move.

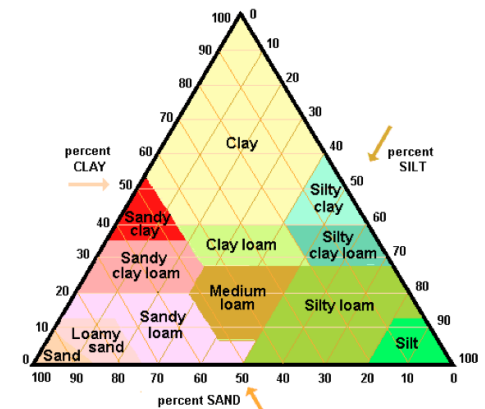
About 10 days before the seedlings are ready to plant outside, harden them off so they can withstand bright sun and cooler temperatures. Stop fertilizing them, and set them outdoors for several hours each day in a wind-sheltered spot that receives filtered light. A cold frame is useful for hardening off seedlings. Over the next week or so, gradually increase exposure until the plants are in full sun all day (shade lovers are an exception; they shouldn't be exposed to day-long sun).

Prepare to Transplant

While your seedlings are hardening off, prepare the planting space by amending the soil with compost and mixing in an appropriate amount of your favourite organic fertilizer. Both additions energize the soil's food web, so that seedlings slipped into planting holes will be met by a welcoming committee of root-friendly fungi, bacteria and water-soluble nutrients. Mixing at least a handful of compost into the bottom of planting holes used for vegetable seedlings helps these partnerships fall into place quickly.

Soil Texture Test Instructions

- 1) Fill a clear quart jar with soil until about 1/3rd full. The soil should be taken from a variety of places and depths in your vegetable (or other) garden.
- 2) Do not include organic matter (leaf litter, wood or stones) in the sample.
- 3) Add cold water to fill the jar to 3/4 full.
- 4) Add 5 Tbsp of liquid dish washing detergent
- 5) Close the jar and shake vigorously for 10-15 minutes.
- 6) Set the jar down quickly and do not disturb it so the soil settles in horizontal layers.
- 7) After 60 seconds the sand has settled out. After 30 minutes the silt has settled. The majority of the clay will have settled within 24 hours, but the water may remain cloudy for weeks.
- 8) You should be able to see the distinct layers in the jar. Measure the thickness of each layer and divide by the total thickness to get a percent of sand, silt and clay.
- 9) Use the following 'Soil Texture Triangle' to get your soil's classification.



- Each side of the triangle is a soil separate. The numbers are the % of soil particles for that type. For example: the bottom line is the % of sand, 0% on the right side to 100% on the left.
- Here's how to use it Example: identify a soil that is 40% sand, 40% silt and 20% clay
- Find 40% on the side for sand (bottom) draw a line in the direction of the arrow do the same for clay (left side) and silt (right side)
- The spot where the three lines come together is the soil texture. In this case the soil is loam.

How To Navigate a Seed Catalogue

Location, location, location

In general, go local. Start with a seed supplier close to where you live. At a minimum, you want a company in a similar climatic zone as you, focused on selling to your area. Even better is a company that *trials* their seed in the same conditions you'll be growing yours. This means that when the seed catalog says a tomato "tolerates cool nights" they are basing their definition of "cool nights" on *your* town and not some island in the tropics.

Organic vs. Conventional Seeds

A seed passes on the adaptations and genetics of the plants it came from (think heirlooms adapting to a certain climate) – so if the parent plants of your seeds did well under organic culture, chances are better that the plants you grow with those seeds will *also* do well when grown organically. Most crops grown for seeds are grown with a lot of help from chemical fertilizers, fungicides and pesticides. When I have the choice, I strongly prefer to grow with organic seeds.

Disease Resistance

A good seed catalogue will list the disease resistance of the varieties they sell. If you plan to grow organically pay attention to this. Various blights and fungal diseases can really ruin your harvest and your day, so stack the deck in your favor with varieties that tend to grow healthy and robust without a lot of chemical help.

Key Words

Beware of phrases like, "does best in a warm, sheltered microclimate," or "well worth the extra time," or "harvest promptly for best quality." Look for phrases like "consistently high producer," or "quick, vigorous germination," or "particularly resistant to bolting," or "excellent quality even at larger sizes." Basically, at any hint that a seed might be a prima dona, drop that varietal like a bad habit.

Open Pollinated Vs. Hybrid Seeds

OP are necessary for seed saving, tend to mature over a longer harvest window and are cheaper. Hybrids (often called F1 in seed catalogs) tend to give you a very consistent, uniform crop (very important for mechanical harvesting of 5,000 heads of broccoli in a day, but possibly less critical for the backyard grower), may show better vigour than OP varieties, are more expensive and cannot reliably be used for seed saving. Hybrid seeds are *not* the same as GMO, and are *totally fine* for the organic gardener.

Heirloom

Okay, this isn't going to be a popular opinion, but be careful getting too swept away by heirloom varieties. First, the good news: heirlooms have proven their worth by being extremely good, tasty, or reliable in *someone's* backyard for a very long time. But that doesn't necessarily mean anything for *your* backyard. Seed adaptation, like politics, is local.

AAS Winner

If you see "AAS Winner" it means that variety was recognized by the basically independent non-profit, All American Selections. For 80 years, AAS has done a great job, and while you have to keep in mind the national (not regional) nature of their assessments, AAS winners tend to be the real deal. Past winners include the now standard Bright Lights Swiss Chard and (way back in 1937) Bloomsdale spinach.



Days to Maturity

If your seed company trials their varieties in a climate similar to yours, days to maturity is a very useful way to judge which seeds might do well for you. If they don't, the information means nothing. If you are a cool climate gardener, shorter maturation varieties of the fruiting crops are a good idea.