

Techniques for Year-Round Gardening

Many gardeners at Agnes Street Gardens engage in some form of year-round gardening. There are many reasons to support this practice. A year-long supply of fresh vegetables that you have grown and harvested is a strong incentive. Gardening during the colder months requires much less maintenance. There is much less of a need to water, deal with garden pests and deal with weeds.

This treatise is an attempt to describe some of the basic principles associated with successful year-round gardening including: what vegetables to grow and when; amending your soil; starting your own seedlings in your home, your greenhouse or under grow lights; intensive gardening techniques; and crop rotation; and using season extenders such as cold frames, row covers and hoop tunnels.

The Three Growing Seasons

We are familiar with vegetables grown in the cool and warm seasons. Cool season crops started in the early spring include lettuces, spinach, peas, chard, carrots, kale, radishes and asparagus among others. Warm season crops include eggplant, tomatoes, pole beans, summer squash, onions, basil, cucumbers, cauliflower, cabbage and broccoli to name a few. Many vegetables can also be grown successfully and harvested during the cold season including broad beans, Brussel sprouts, parsley, kale, leeks, lettuce, parsnips, carrots, scallions, beets, spinach and hardy brassicas.

Planning Your Gardening Year

I have relied on several authors; most notably Niki Jabbour and her 'The Year-Round Vegetable Gardener', Storey Publishing, 2011; for the writing of this section. She provides a month by month plan describing how she gardens year-round. She lives in Nova Scotia, so earlier starts to the season are possible for the west coast.

February Start seedlings indoors in warm sunnier locations or use grow lights for broad beans, arugula, spinach, hardy lettuces, celery, leeks, broccoli, kale, endives green onions and cabbage.

March Start seeding tomatoes, peppers, lettuces, fennel, Italian parsley, more brassicas, Brussel sprouts and kohlrabi.

April Start seeding cukes and zucchini.

Mid-May As many of these seedlings are hardened off outside in part sun and shade and then transplanted, start the second round, such as lettuces, under grow lights or in your home or greenhouse. It is also time to direct seed into your garden. West Coast Seeds produces an excellent planting chart to assist gardeners here.

June Hardened off plants are transplanted.

July Seed fall crops such as kale, hardy broccoli varieties, cabbage and kohlrabi. Cold season crops should be almost mature by the time cold weather comes in the late autumn. If you are direct seeding during the summer remember that the seeds of many crops won't germinate when the soil temperature reaches 85 degrees F or 29 degrees C.

August Seed salad crops. For later plantings add a week or two to 'Days to Maturity' on your seed packages

September Seed herbs such as rosemary, basil, thyme and additional greens.

October and November This is a great time to amend your soil. Most cold season crops can be grown or at least harvested during a large part of the year, especially with the use of season extenders such as cold frames and hoop tunnels.

December and January In the coldest, darkest months earlier plantings might not grow but they remain harvestable.

Amending Your Soil

Your soil can be amended during anytime in the year although the fall is often considered an ideal time to add **manure, compost, leaves and other organic material**. Amendments can also be dug in early spring and late summer when portions of your garden are empty.

Many soils on the west coast are **acidic (less than 7)**. Soils with a ph that is +7 are **alkaline**. Most garden veggies like soil in the 6.5 to 6.8 range. Agricultural lime is the best way to raise soil ph. If you use **dolomite lime** it also adds magnesium which is a **secondary nutrient** for plant growth along with calcium and sulphur. To raise soil ph a full 1.0 add 1 pound per square yard. A suggestion is to check the ph of your soil every 4 to 5 years. Another tip is that potatoes grow better with lower ph soil.

Primary nutrients for plant growth include:

- N Nitrogen** for rapid leaf growth
- P Phosphorus** for flowering fruit stems and roots
- K Potassium** for disease resistance (root veggies need more K)

N Nitrogen sources Bloodmeal is an excellent nitrogen source. For leafy greens add 4 to 8 pounds per 100 sq. ft. Add less for fruit and root crops. Soils with a good supply of organic matter should receive bloodmeal only if necessary. Other sources include alfalfa meal and composted manures. A sign of nitrogen deficiency is stunted growth and leaves turning pale yellow. Too much N will make lush leaves at the expense of fruits and roots

P Phosphorus sources Bonemeal is an excellent source of phosphorus. Apply 10 pounds per 100 sq. ft. Signs of deficient P are stunted plant growth, less fruit and often purplish streaks or patches on the undersides of leaves.

K Potassium sources Wood ash and greensand are good sources of K. Deficient K manifests as smaller, woodier plants with leaves that can show yellowing or browning at the tips, brown spots on leaf edges, loss of colour and leaf curling.

Micronutrients beneficial to plant growth include iron, manganese, chlorine, zinc, boron, molybdenum and copper. These can be plant toxic if your soil is really acidic. Seaweed and wood ash are good sources of micronutrients.

Source Backyard Bounty, The Complete Guide to Year-Round Organic Gardening in the Pacific Northwest

Linda Gilkeson

New Society Publishers, 2011

Intensive Gardening

Niki Jabbour, in the above mentioned book, describes intensive gardening as the key to nonstop crops. It was initially developed by farmers in France in the 1800's who were preparing to harvest and sell for market days. The benefits that accrued were increases in crop yields and varieties over time. She lists two key tenets:

1. Plant vegetables close together.
2. Amend your soil often with compost, aged manure and other organic material.

Crop Rotation

Some families of vegetables provide benefits to the soil that later plantings of other vegetables thrive on. A wonderful resource for crop rotation and additional garden information is provided by Dr. D. G. Hessayon in his book titled 'The Green Garden Expert', printed by Expert Press in 2009.

Season Extenders

Again, Niki Jabbour, my primary resource, describes cloches, cold frames, row covers and hoop tunnels as 'season extenders'. If utilized, these devices will extend your growing season. At the present time a few Agnes St. gardeners employ these techniques.

Our present 'Terms and Conditions' have limits on what structures can remain over winter. Greenhouses for example must come down. It is much less clear what can remain and what heights and dimensions we can except as an association. This includes cold frames, hoop tunnels, and bean and berry support heights. Input in this regard would be most appreciated.

Jeff Diekmeier

July, 2015

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MAIN MONTHS FOR SOWING INDOORS

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This chart is based on the salad seasons and gives a brief outline of the best times to sow different salads with number of weeks from sowing to planting out.

	LATE JAN or FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
VEGETABLE	WEEKS TO PLANTING							
<i>Basil</i>				10	6 to 8	6 to 8		
<i>Chard</i>		6	5	4	3 to 4	3 to 4	3 to 4	
<i>Chervil</i>							5	
<i>Chicory</i>				5	4	3 to 4	3 to 4	
<i>Coriander</i>		6	5	4	3 to 4	3 to 4		
<i>Dill</i>		6	5	4	3 to 4	3 to 4		
<i>Endive</i>				5	4	3 to 4	3 to 4	
<i>Kale</i>						2 to 3	2 to 3	
<i>Lamb's lettuce</i>							4	5
<i>Land cress</i>							3	3
<i>Lettuce</i>	7 to 8	6 to 7	6	5	4	3 to 4	3 to 4	
<i>Mizuna</i>	5						2 to 3	2 to 3
<i>Orache</i>		6	6	5	5			
<i>Oriental leaves</i>						2 to 3	2 to 3	2 to 3
<i>Parsley</i>	11	9	8	7	6	6		
<i>Peas</i>	5	4	3	2 to 3	2 to 3	2		
<i>Radicchio</i>						4 to 5	4 to 5	
<i>Rocket</i>						2 to 3	2 to 3	2 to 3
<i>Sorrel</i>	7	6	5 to 6	5	4 to 5	4		
<i>Spinach</i>	5 to 6	5	4 to 5	4	3 to 4	3 to 4	3 to 4	
<i>Spring onions</i>	8 to 9	7	6	4 to 5	4	4		
<i>Winter purslane</i>							3	3

These numbers are a guideline only, and will vary from year to year and according to the warmth of your propagating facility and size of pot or module used.

Source **Salad Leaves for All Seasons**
Sowing, Raising, Sustaining ⁴⁹
 - Charles Dowding
 Green Books
 2008

**BEST OUTDOOR SOWING DATES
 FOR OUTDOOR GROWING**

MAR	APR	MAY	JUN	JUL	AUG	SEP
(from mid-month)	Lettuce	Lettuce	Lettuce	Lettuce	Lettuce	(All before mid-month)
Lettuce	Spinach	Spinach	Chards	Spinach	(after mid-month for over-wintering only)	Mizuna and some other oriental leaves
Spinach	Chards	Chards	Certain varieties of endives, leaf and heart	Chards	Spinach (until mid-month)	Rocket
Chards	Peas	Orache	Leaf chicory	Any endive	Chards (until mid-month)	Lambs lettuce
Peas, for shoots	Orache	Certain varieties of endives	Certain varieties of Radicchio	Any radicchio	All endives (until about 10th)	Winter purslane
Orache	Parsley	Leaf chicory	Chicory for forcing	Sugarloaf chicory	Leaf endive (until about 20th)	Land cress
Parsley	Coriander	Chicory (for forcing next winter)	Kale	Kale	Leaf chicory (until about 20th)	
Coriander	Dill	Parsley	Parsley	Chinese cabbage	Kale	
Dill	Sorrel	Dill	Dill	Rocket (better at month's end)	Rocket	
Sorrel		Sorrel	Sorrel	Basil	Oriental Leaves	
			Basil	Amaranth	Lambs lettuce (better at month's end)	
			Purslane	Purslane	Parsley	
				Parsley	Dill	
				Sorrel	Chervil (better at month's end)	
				Chervil	Sorrel (early in month)	
				(better at month's end)	Chervil (early in month)	
					Winter purslane	
					Land cress	

Source

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BACKYARD BOUNTY

- Linda Gilkerson

New Society Publishers, 2011

TABLE 8.1. Year-round planting schedule for the south coast of British Columbia and Washington and Oregon west of the Cascades.

Dates	In the garden	Indoors or in greenhouse
February	Sow broad beans in garden.	Sow leeks, onions (from seed), celery, celeriac.
March	Sow peas. Plant onion sets, potatoes. Plant strawberries, fruit bushes & trees	Start indeterminate (tall) tomatoes, peppers, eggplants Summer broccoli, cauliflower and cabbage.
April to early May	Sow peas, lettuce and other salad greens, carrots, beets, parsnips, summer turnips, potatoes, radishes, scallions, Chinese cabbage and other leafy greens, Swiss chard, parsley. Set out summer broccoli, cauliflower and cabbage transplants and/or sow seeds. Transplant leeks, onion seedlings	Start melon, cucumber, summer and winter squash, pumpkin, sweet basil, determinate (bush) tomatoes. Start sweet corn for first planting. Pre-sprout beans.
Mid- to late May	Transplant tomatoes and zucchini. Transplant peppers, eggplant, cucumbers, other squash and pumpkin if soil is warm (or wait till early June). Sow Brussels sprouts, fall cabbage in garden beds or in seedling flats. Plant out sweet corn and bean seedlings.	Sow sweet corn, beans (outdoors if soil is warm)
Early June	Transplant melons, sweet basil to garden. Sow more sweet corn, beans. Sow summer cauliflower.	
Mid- to late June	Sow purple sprouting broccoli, winter cauliflower, quick maturing winter cabbage, parsnips.	
Early July	Sow carrots, beets, rutabagas, endive and radicchio, Swiss chard/leaf beet, kohlrabi.	
Late July to early August	Sow last of summer lettuce, radishes, summer cauliflower. Sow winter crops: arugula, fall and winter lettuce, leaf turnip/mizuna, collards, kale, daikon and winter radish, leaf mustards, Komatsuna/mustard spinach, Chinese cabbage and other hardy greens, spinach, sweet onions and scallions, broccoli raab.	
Late August to mid-September	Sow corn salad, cilantro, arugula, winter lettuce.	
October	Plant garlic. Sow broad beans.	

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Saturday, July 25: I will be giving 2 food preserving workshops at the Steveston Community Centre in Richmond. 9:30-11:30 Fresh Storage and Easy Freezing (reducing food waste, when to harvest, how to store onions, garlic, winter squash, potatoes, apples and other fruit; quick methods for freezing food). 1:00-3:00 Preserving Fruits and Vegetables (dehydrating, boiling water bath canning). The workshops are free but you must pre-register: 604-276-4300 or <http://www.richmond.ca/register>

See my web/site <http://www.lindagilkeson.ca> for hundreds of colour photos of pests and diseases to help you identify problems. All of my previous gardening messages are archived on my Gardening Tips page: http://lindagilkeson.ca/gardening_tips.html

My teaching and talk schedule for 2016 is rapidly filling up, so check my schedule on my web site for talks, workshops and gardening classes in your area.

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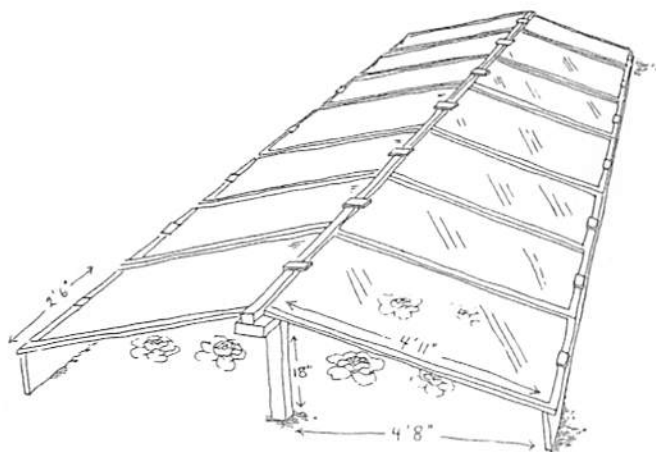
Source 'Winter Gardening in
the Maritime Northwest'
- Binda Colebrook
Cloches and Coldframes 49
Maritime Publications
1984

through some of the coldest winters we get. They also provide easy access to crops beneath them. The one disadvantage is that when set up in the tent form, the plants closest to the edge are a bit crowded by the inward leaning glass. If the panes break you can reglaze them with fiberglass. Fiberglass panes are lighter and always need guying systems in windy periods.

DUTCH LIGHTS

In the nineteenth century the French and then the Dutch market gardeners evolved the most practical and cheap modular structures for frame gardening. I don't think anyone has really improved on them for commercial scale growing.³

Dutch lights consist of low wooden rims or boards with the northern ones a few inches taller than the southern ones. These boards are the supports for long panes of glass which are fitted into treated or painted frames held in place by points or blocks of wood. No putty is used as it does not last well in the weather and makes glass replacement an unnecessarily tedious job.



Dutch Lights: Ends are closed off with boards and held in place with stakes.



Source 'The Green Garden Expert'
- Dr. D. G. Hessayon
Expert Books, 2009

Organic Fertilizers

These materials are of animal or vegetable origin. They are generally slow-acting, providing plants with a steady supply of food over a long period. Not likely to scorch leaves. Nitrogen is released by bacterial activity, so speed of action depends on soil conditions.

Mineral Fertilizers

These materials are obtained from neither plants nor animals – they are minerals mined from the earth. Some of them (e.g. gypsum and chalk) provide calcium. The others supply nitrogen, phosphorus and/or potash – they may be quick- or slow-acting.

Chemical Fertilizers

These are manufactured materials and have earned the titles of 'synthetic' or 'artificial' fertilizers. They are generally quick-acting, providing plants with a boost when used as a top-dressing. Examples include sulphate of ammonia and superphosphate of lime.

Organic & Mineral Solid Feeds

Fertilizer	Nitrogen % N	Phosphates % P ₂ O ₅	Potash % K ₂ O	Speed of action	Application rate	Notes
Blood meal	12	trace	trace	fq	35 g-70 g/m ²	Use as a top-dressing around growing plants in spring/summer. Quick-acting under glass
Bone flour	1	20-28	0	fq	70 g-140 g/m ²	Lower in nitrogen and dustier than Bone meal, but it acts more quickly
Bone meal	4	20	0	s	70 g-140 g/m ²	Apply at soil preparation or planting time. Use a 'heat-treated' grade for safety
Chilian potash nitrate	15	0	10	q	35 g-70 g/m ²	Use as a quick-acting top-dressing in spring/early summer – not generally available
Fish meal	6-10	6-12	1	s-fq	70 g-140 g/m ²	Apply at soil preparation or planting time in winter or spring. Potash is usually very low
Fish, blood & bone	3½	8	trace	fq	70 g-140 g/m ²	The most popular organic compound fertilizer. Apply just before planting or around growing plants
Hoof & horn meal	14	2	0	s-fq	70 g-140 g/m ²	A good source of organic nitrogen – slower than Blood meal. Apply in spring or early summer
Poultry manure (dried)	4	3	2	s-fq	70 g-275 g/m ²	High rate is used at soil preparation time – low rate is for around growing plants
Rock phosphate	0	30	0	s	275 g/m ²	Slow release source of phosphates – lasts for about 3 years. Good for acid soils
Rock potash	0	0	10-12	s	275 g/m ²	Slow release source of potash – lasts for about 3 years. Good for light soils
Seaweed meal	3	trace	2	fq	70 g/m ²	Expensive, but a good source of trace elements. Use around plants in spring or summer
Shoddy	10	trace	trace	s	550 g/m ²	Waste wood and/or cotton. A poor humus maker, but provides nitrogen over a period of years
Soot	3-6	0	0	q	140 g/m ²	Must be weathered before use – no longer popular & not recommended as toxins are present
Wood ash	0	trace	5-10	q	140 g-275 g/m ²	Use young wood – keep in a dry place. Not recommended for chalky soils

s = slow; fq = fairly quick; q = quick

Garden Friendly

Garden Friendly

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CHOOSING COMPANION PLANTS

Garden Friendly

A companion plant is a variety or species which will help a vegetable which is growing nearby. Flowers, shrubs etc may also benefit – Victorian gardeners planted Chives next to Rose bushes and Apple trees. But companion planting is usually a feature of the allotment or home vegetable plot, and gardeners continue to debate its value.

It is claimed that these companion plants can work in various ways – vital nutrients may be supplied, root secretions may attack underground pests, and so on. In many cases, however, no explanation is offered for the benefits claimed for them.

There is little scientific evidence in support of companion planting, but it is part of age-old country wisdom and has become a feature of green gardening. For the believers, companion planting is a desirable technique as one or both plants benefit, but some combinations are claimed to be harmful. Examples are Cucumbers and Potatoes, or Brassicas and Beans.

Asparagus



Tomato

Companion plant	Vegetable
BEAN	Crop : Lettuce Reason : Unknown
CARROT	Crop : Lettuce, Tomato Reason : Unknown
CELERY	Crop : Pea Reason : Unknown
FRENCH MARIGOLD	Crop : Various Reason : Pests including eelworms, cabbage white butterflies and aphids are deterred. There is some scientific evidence for this effect
LETTUCE	Crop : Strawberry, Cucumber Reason : Unknown
MINT	Crop : Brassicas Reason : Cabbage white butterflies are repelled by the smell
NASTURTIUM	Crop : Various Reason : Beneficial hoverflies are attracted
ONION	Crop : Carrot Reason : Carrot root flies are repelled
PARSLEY	Crop : Carrot Reason : Carrot root flies are repelled
POTATO	Crop : Bean, Pea, Brassicas Reason : Unknown
RUE	Crop : Various Reason : Aphids are repelled by the smell
TOMATO	Crop : Asparagus Reason : Asparagus beetles are repelled
TURNIP	Crop : Pea, Bean Reason : Unknown

Source 'The Green Garden Expert'
- Dr. D.G. Hessayon Expert Books, 2009

CARING FOR VEGETABLES

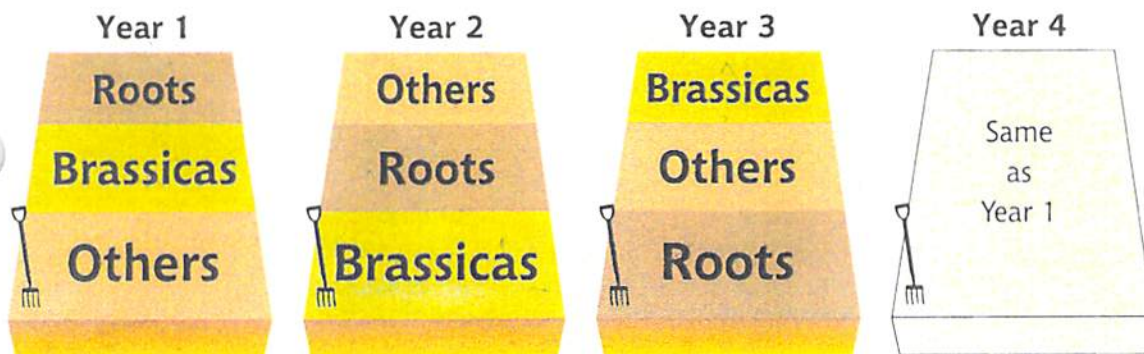
The vegetable plot is at the centre of the organic gardening movement. For millions of people the ornamental garden is somewhere to be treated with standard fertilizers and modern sprays – lawns and paths receive their weedkiller and Roses are sprayed with fungicide to prevent mildew and black spot. For an increasing number of these people the vegetable plot is rather different – here the plants or their produce are eaten. For this reason a natural growing system is sought. Their worries may not all be based on scientific fact, but they are all understandable.

Plan your sowings and plantings before the start of the season. You should not grow a vegetable in the same spot year after year. If you do then soil pest and nutrient imbalance problems may increase. The answer is to follow a crop rotation plan – see below.

CROP ROTATION

Garden Friendly

Traditional Rotation



Roots

Beetroot • Carrot • Chicory
Jerusalem Artichoke • Parsnip
Potato • Salsify • Scorzonera

- Do not add manure if soil has been enriched previously
- Do not lime

STAR
NEED

Rake in an organic fertilizer about 2 weeks before sowing or planting

Brassicas

Broccoli • Brussels Sprout
Cabbage • Cauliflower • Kohl Rabi
Kale • Radish • Swede • Turnip

- Add some well-rotted manure or compost at digging time if soil is known to be short of humus

STAR
NEED

Lime the soil unless you are sure it is already alkaline

STAR
NEED

Rake in an organic fertilizer about 2 weeks before sowing or planting

Others

Aubergine • Bean • Capsicum
Celeriac • Celery • Cucumber
Endive • Leaf Beet • Leek
Lettuce • Marrow • Onion • Pea
Spinach • Sweet Corn • Tomato

STAR
NEED

Add a liberal amount of well-rotted manure or compost at digging time

- Lime only if the soil is known to be acid
- Rake in an organic fertilizer about 2 weeks before sowing or planting

Simple Rotation

Grow a root crop this year where an above-ground vegetable was grown last year, and then back to an above-ground vegetable next year.

There are two extra points. Do not grow Potatoes on land which was limed last year, and if a vegetable has done badly this year then never follow it next year with one from the same group shown in the table above.

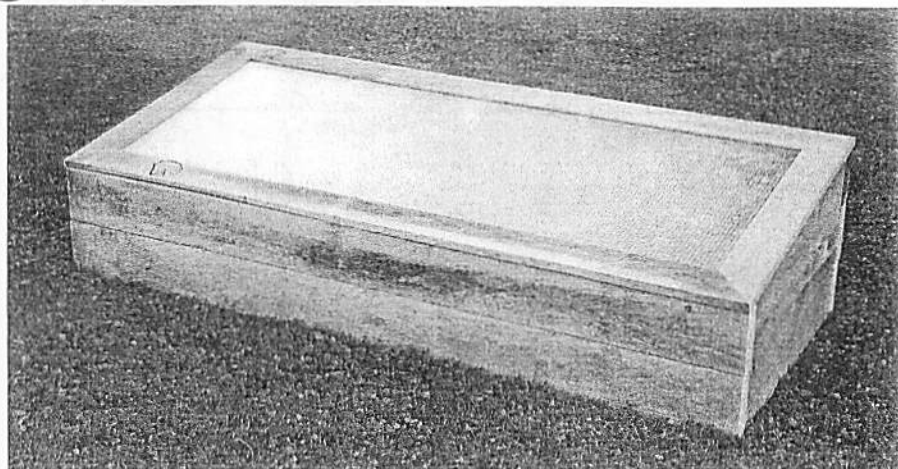
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Building Dany's Cold Frame

Source
'The Year-Round
Vegetable Gardener'
- Niki Jabbour
Storey Publishing, 2011

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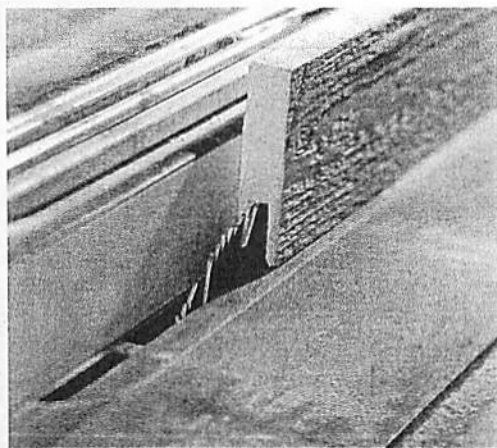


AT ITS MOST BASIC, a cold frame is a box with a transparent top. Yet this simple structure can transform your garden from a "one-season wonder" to a four-season mini farm after just a few hours of work. A cold frame is easy to build and can be constructed, placed, and planted in just a short amount of time, making this an ideal weekend project. To speed up the building process, gather all of your tools and materials beforehand, and grab a partner to lend a helping hand.

THE SASH

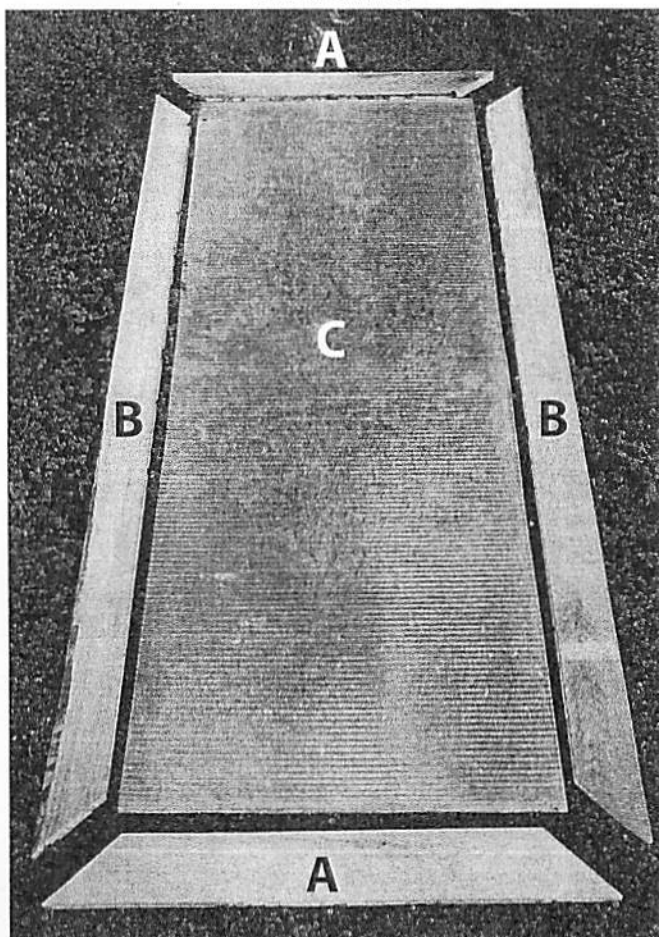
- ♦ Four L brackets, to reinforce the corners of the sash
- ♦ Two hinges, to fasten the sash to the box
- ♦ $\frac{3}{4}$ -inch wood screws, to secure the L brackets and hinges
- ♦ Three $\frac{1}{2}$ -inch deck screws, to secure the frame of the sash

- A. Two pieces of 6-inch-by-1-inch-by-3-foot lengths of wood, with the ends cut at a 45-degree angle, for the short sides of the sash
- B. Two pieces of 6-inch-by-1-inch-by-6-foot lengths of wood, with the ends cut at a 45-degree angle, for the long sides of the sash
- C. One sheet of Lexan twinwall polycarbonate, cut to size



We sawed slots in the wood for the sheet of polycarbonate to slide into.

THE SASH



THE BOX

- ♦ Three ½-inch screws, to fasten the wood frame together

SIDES

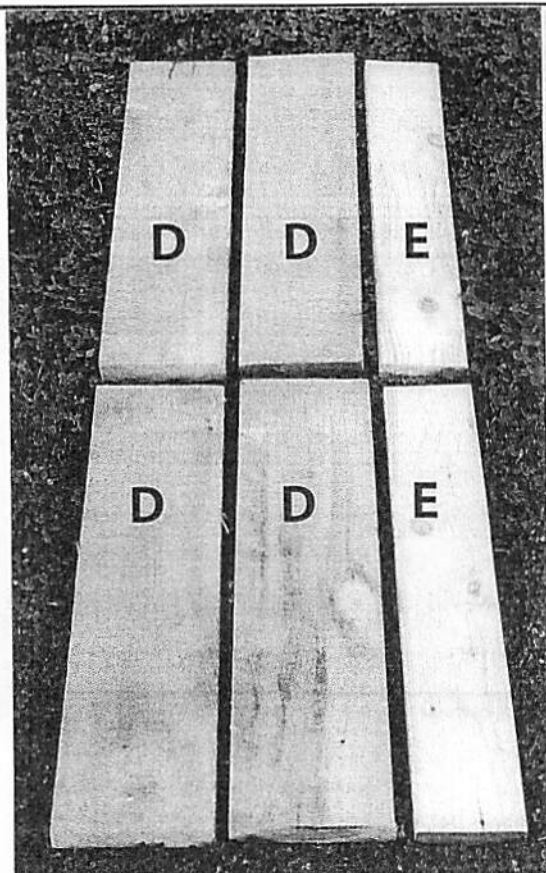
- D.** Four pieces of 6-inch-by-2-inch by-3-foot lengths
- E.** Two pieces of 4-inch-by-2-inch-by-3-foot lengths of wood, for the sides of the cold frame

FRONT

- F.** Two pieces of 6-inch-by-2-inch-by-6-foot lengths of wood (we used hemlock), for the front of the cold frame
- G.** Two pieces of 6-inch-long scrap, to stabilize the corners of the frame

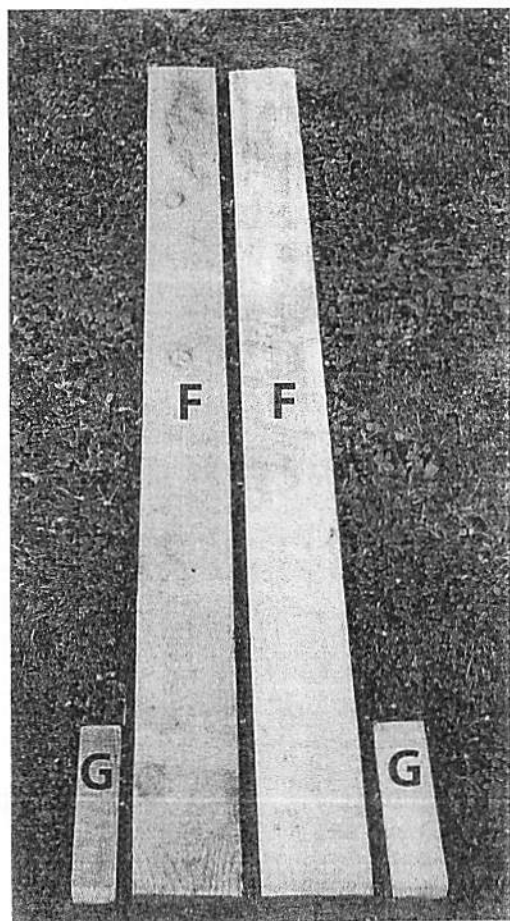
BACK

- H.** Two pieces of 6-inch-long scrap, to stabilize the corners of the frame
- I.** Three pieces of 6-inch-by-2-inch-by-6-foot lengths of wood, for the back of the cold frame

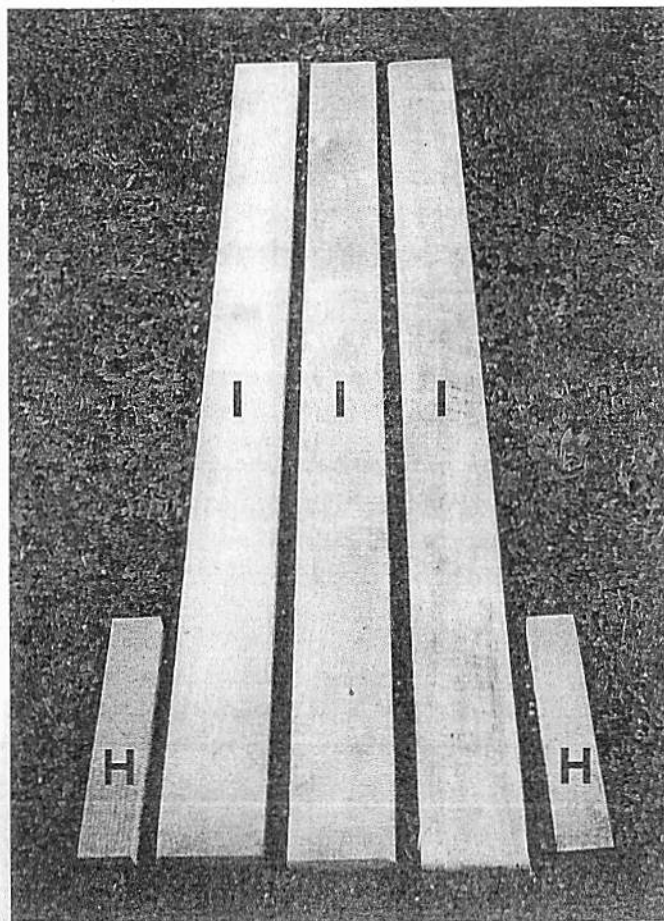


THE SIDES

THE FRONT

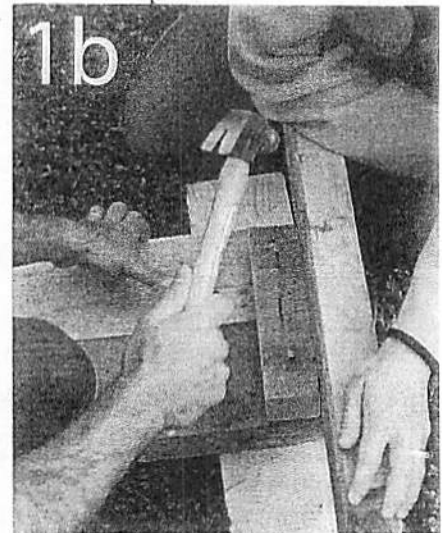


THE BACK

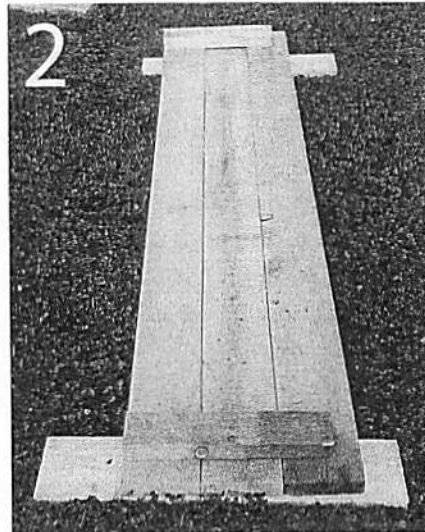


Building Dany's Cold Frame (continued)

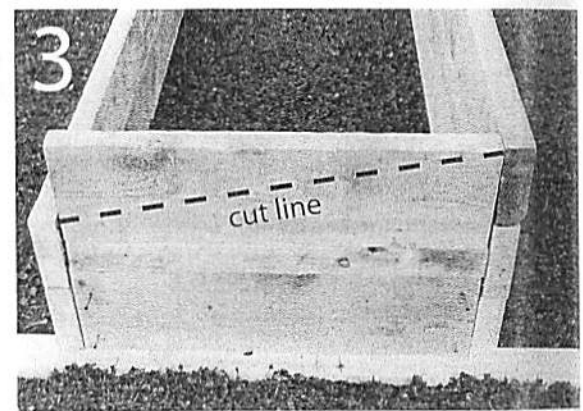
1 a) Nail together the lumber for the front of the box, using a scrap piece of wood at either end to hold the boards in place. b) Leave a board's width (2 inches) from the end to fit the side pieces of the box.



2 Repeat for the back of the frame, using the three boards.



3 To get the measurement of the slope, Dany temporarily nails the end piece onto the scrap wood and notches the side where it meets the front.



4 He then takes off the top board, measures the diagonal from his notch to the back corner, and cuts the slope.



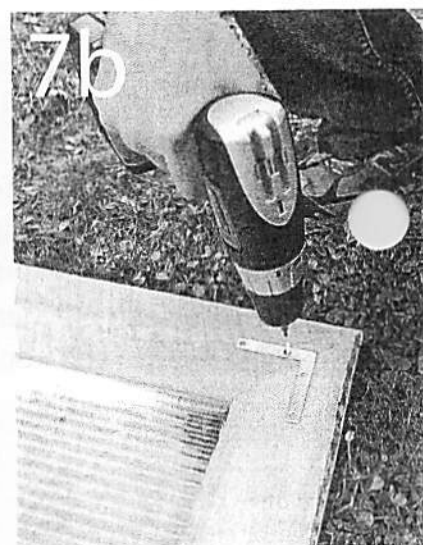
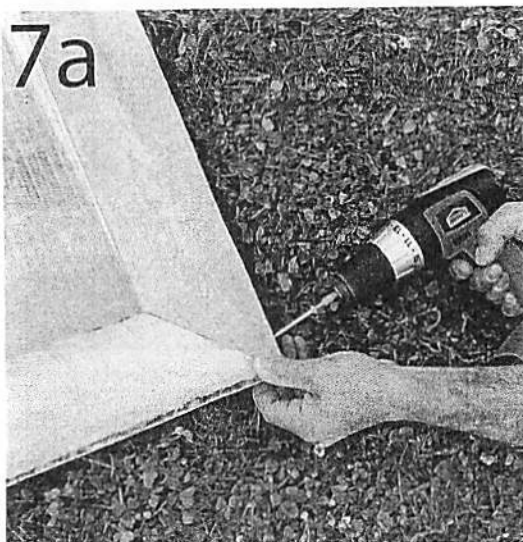
5 After the sides of the frame are nailed on, the box is done and it's time to build the sash.

6 The polycarbonate slips easily into the grooved boards.



7 a) Dany secures the sash frame by screwing the 3½-inch deck screws at the corners.

b) He then attaches the L brackets.



8 The last step is to add the hinges, joining the box and sash. The cold frame is now ready to be moved to its new location and put into year-round production.



SUCCESION PLANTING

Vegetable Crop	From Seed or Transplant	Average Days to Harvest*	Single Harvest or Repeated	Planting Season	Time between Plantings	Type of Succession Planting**
Arugula	seed	21 to 40	repeated	late winter to mid-autumn	2 weeks	Keep on seeding, pick and sow
Beans, bush	seed	50 to 60	repeated	late spring to midsummer	2 weeks	Keep on seeding, pick and sow, different maturity dates
Bean, pole	seed	60 to 90	repeated	late spring to early summer	2 to 3 weeks	Different maturity dates
Beets	seed	40 to 70	single	late winter to late summer	3 weeks	Keep on seeding, pick and sow, different maturity dates
Broccoli	both	58 to 70	single, + sideshoots	early spring to midsummer	4 to 8 weeks	Pick and sow, different maturity dates
Broccoli raab	both	40 to 60	single or repeated	early spring to late summer	4 weeks	Keep on seeding, pick and sow
Brussels sprouts	both	82 to 100	single or repeated	early to midsummer	N/A	Different maturity dates
Cabbage	both	65 to 100	single	early spring to midsummer	4 to 8 weeks	Pick and sow, different maturity dates
Carrots	seed	50 to 70	single	early spring to midsummer	4 weeks	Keep on seeding, pick and sow, different maturity dates
Cauliflower	both	50 to 80	single	mid-spring and midsummer	4 weeks	Pick and sow, different maturity dates
Celeriac	transplant	95 to 110	single	mid- to late spring	N/A	Different maturity dates
Celery	transplant	80 to 100	repeated	mid-spring and early summer	4 to 6 weeks	Two plantings (4 to 6 weeks apart for quality)
Claytonia	seed	40 to 60	repeated	late summer to mid-autumn	4 weeks	Keep on seeding, pick and sow
Collards	both	55 to 75	single or repeated	early spring and midsummer	8 to 10 weeks	Pick and sow, different maturity dates
Corn	seed	58 to 90	single	late spring to early summer	2 weeks	Keep on seeding, different maturity dates
Cucumbers	both	45 to 65	repeated	late spring to early summer	3 to 4 weeks	Two or more plantings (3 to 4 weeks apart)
Eggplant	transplant	60 to 80	repeated	late spring	N/A	Different maturity dates
Endive	both	35 to 50	single or repeated	late winter to mid-autumn	2 to 4 weeks	Keep on seeding, pick and sow, different maturity dates
Kale	both	30 to 65	repeated	late winter to midsummer	3 to 4 weeks for baby	Pick and sow, different maturity dates
Kohlrabi	both	40 to 50	single	late winter to late summer	3 to 4 weeks	Keep on seeding, pick and sow, different maturity dates
Heading lettuce	both	55 to 70	single	late winter to late summer	3 to 4 weeks	Keep on seeding, pick and sow, different maturity dates
Leaf lettuce	seed	40 to 60	repeated	late winter to early autumn	2 weeks	Keep on seeding, pick and sow, different maturity dates
Leeks	transplant	90 to 100	single	early spring to midsummer	4 to 8 weeks	Two or more plantings for longest season
Mâche (corn salad)	seed	45 to 50	repeated	late summer to early winter	3 weeks	Keep on seeding, pick and sow
Melons	transplant	68 to 90	single	late spring	N/A	Different maturity dates
Mesclun greens	seed	30 to 45	repeated	late winter to early autumn	2 weeks	Keep on seeding, pick and sow

*Depends on variety — early, mid, or late and desired maturity — and baby or fully mature

**According to the succession section on page 24.

SUCCESSION PLANTING (CONTINUED)

Vegetable Crop	From Seed or Transplant	Average Days to Harvest*	Single Harvest or Repeated	Planting Season	Time between Plantings	Type of Succession Planting**
Mibuna	seed	21 to 40	single or repeated	late winter to early autumn	2 to 4 weeks	Keep on seeding, pick and sow
Mizuna	seed	35 to 45	single or repeated	late winter to early autumn	3 weeks	Keep on seeding, pick and sow
Mustard	seed	21 to 45	single or repeated	late winter to early autumn	3 to 4 weeks	Keep on seeding, pick and sow
Onions, bulbing	both, plus sets	90 to 120	single	early to mid-spring	N/A	Different maturity dates
Onions, bunching	both	55 to 70	single	late winter to early autumn	3 to 4 weeks	Keep on seeding, pick and sow
Pak choi	seed	40 to 55	single or repeated	late winter to early autumn	3 to 4 weeks	Keep on seeding, pick and sow
Parsnips	seed	95 to 120	single	mid- to late spring	N/A	N/A
Peas	seed	50 to 60	repeated	early spring to early summer	4 to 6 weeks	Two or more plantings and different maturity dates
Peppers	transplant	65 to 100	repeated	late spring	N/A	Different maturity dates
Potatoes	seed potatoes	65 to 110	single or repeated	early spring to midsummer	3 weeks	Pick and sow, different maturity dates
Radishes	seed	21 to 30	single	late winter to early autumn	2 weeks	Keep on seeding, pick and sow, different maturity dates
Radishes, daikon	seed	50 to 70	single	late winter to midsummer	4 to 5 weeks	Keep on seeding, pick and sow, different maturity dates
Rutabagas	seed	35 to 50	single	early spring to late summer	3 to 4 weeks	Keep on seeding, pick and sow, different maturity dates
Spinach	seed	30 to 55	single or repeated	late winter to early autumn	2 weeks	Keep on seeding, pick and sow
Squash, summer	both	40 to 60	repeated	late spring to early summer	2 to 4 weeks	Two or more plantings and different maturity dates
Squash, winter	both	80 to 105	single	late spring	N/A	Different maturity dates
Sweet potatoes	rooted cuttings	90 to 110	single or repeated	late spring	N/A	Different maturity dates
Swiss chard	seed	30 to 60	repeated	late winter to late summer	3 to 6 weeks	Keep on seeding, pick and sow
Tatsoi	seed	21 to 45	single or repeated	late winter to early autumn	3 to 4 weeks	Keep on seeding, pick and sow
Tomatoes	transplant	55 to 85	repeated	late spring to early summer	N/A	Different maturity dates
Turnips	seed	35 to 50	single	early spring to late summer	3 to 4 weeks	Keep on seeding, pick and sow, different maturity dates