



“Using Cold frames & Hoops to Extend Your Season”

Thursday, April 11th, 2013

Host: Elizabeth Crawford Thurber

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REFERENCES: **THE YEAR-ROUND VEGETABLE GARDENER** by Niki Jabbour
FOUR-SEASON HARVEST by Eliot Coleman

GROWING SEASON: Fredericton Zone 4b -5: May 22nd to Sept 22nd

Outdoor growing season: 4 months = approximately 17- 20 weeks = 120-140 days

Cool, warm, cold – each range of vegetables can thrive in its climate conditions, some overlap between the seasons, most often the cool season veggies are very adaptable. Match vegetables with the time of year when they grow best.

FALL PREP: It’s important to get the garden ready in the fall. Incorporate compost, aged manure, shredded leaves and lime.

EARLY SPRING: Planting in spring will be easy. Direct seed as soon as the snow is melted. Add a few simple season extenders, row covers, tunnels and cold frames. Starting plants indoors gives an additional boost to, broccoli, cauliflower, cabbage, leeks.

TIMING IS EVERYTHING - when to start, transplant, harvest, restore:

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| <p>Start Indoors: Mid Feb Celery, leeks, broccoli, cabbage, kale, mustard, endive, green onions March 1-15 Tomatoes, peppers, lettuce, fennel, parsley, Asian vegetables, more broccoli (early, mid-late types) Brussels sprouts, cabbage, kohlrabi Early April Cucumbers, zucchini Mid April Corn, squash Mid May – more cukes for 2nd harvest Mid June – broccoli & kale to plant out late July (keeps all winter) needs protection from heat to harden off and then mulch</p> <p><u>You can start garden seedlings in coldframes!!</u></p> | <p>Transplant outdoors after hardening off into soil pre-warmed by mini hoops, row covers or using black plastic mulch</p> <p>May 15: peppers, tomatoes, eggplants, corn squash</p> <p>Overwinter tall crops in Hoops or straw bales: Transplant out into hoops: broccoli, kale, kohlrabi, leeks Mulch after plants are established with straw or shredded leaves</p> <p>Overwinter crops under row covers: (12” straw or leaves + row cover) Carrots, parsnips, beets, turnips, leeks</p> | <p>Direct Seed outdoors: Mid-late April with row covers <u>(7-8 wks before last spring frost)</u> Mustard & Asian vegetables “mizuna, mibuna, mache” April 15th Radish, spinach, lettuce’s, endive, claytonia, carrots, beets, arugula, spinach, scallions, peas <u>2-4 wks before end May</u> carrots Peas need 5°C/40°F soil temp Parsnips - 13°C/55°F soil temp Summer Planting outdoors for fall & winter consumption in Cold Frames or direct seed in garden – all COLD WEATHER CROPS August 1 – 15th – Direct Seed: lettuce – provide shade by planting near taller crops like corn, tomatoes, pole beans Swiss chard, lettuce, baby turnips, carrots, radishes, spinach</p> | <p>Coldframes: Late Feb – add compost – bunching onions, spinach, arugula, endive, Mache, other cold tolerant salad greens March – hardy lettuce, pak choi, mizuna, salad greens Late may – Shut them down: add chopped leaves, compost, lime, green manure crop in preparation for early August: leek transplants, winter carrots seeds end August: add thyme, parsley plants transplants Late August: plant winter lettuces, mache, spinach, Swiss chard bunch onions, all cold crops</p> <p>spinach, arugula, all lettuces, all salad greens harvest late October, or throughout winter with protection over them</p> |
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Extending the Growing Season with Row Covers - economical & effective

Light weight – Protection from insects, birds. Helps warm the soil. Protects seedlings from wind. Helps trap the moisture.

Medium Weight- Traps daytime heat – restricts light

Protect from frost – spring & fall. Remove for air circulation. Remove for pollination.

Material should not rest on plants

Heavy Weight -Restricts lighting. Extends season for heat loving crops like tomatoes/peppers.

Late-season protection to cool & cold weather crops. Ongoing winter protection, carrots, beets, parsnips.

Season extender for mini hoop, cold frames

Extending the Growing Season with Cloches & Hot Caps

Plant incubators. Temporary weather protectors. Gallon milk jugs, soda bottles Plastic bowls

Water filled cloches (Wall-0-water). NOTE: Remember to pre-warm soil before setting out tomatoes/peppers

Extending the Growing Season with black plastic

Black or clear plastic can be laid down on soil to attract heat. Cutting small holes in the plastic and planting into the plastic means heat is captured throughout the season. Watering can be a challenge. Covering your transplanted seedlings with a row cover adds an additional protection, don't forget to vent though, heat can build up even under a row cover.

Extending the Growing Season with Mini Hoops and Cold Frames:

MINI HOOP TUNNELS 1.5 – 2 ft tall: Inexpensive to construct - miniature greenhouse Spring, Summer, Fall to protect crops.

Quickly moveable. Can be used for shade. Use ribs for row covers + plastic.

TO CONSTRUCT RIBS: use 9 gauge wire with 1 ft sunk into ground on both sides OR PVC pipe (½" or ¾") slipped over two 2ft lengths of rebar that have been pounded 1ft into ground. Tunnels can be used throughout winter for wide array of winter vegetables. Add row cover inside. Additional cover outside on cold nights

MINI/QUICK/LOW HOOP TUNNELS: Must be vented, watered and compost or rotted manure added regularly. Can string lights in them for winter. Snow removal required – winter tie down of plastic and ribs

COLD FRAMES: Suggested size 6 ft x 3 ft.

Cover: Old window or glass door with twinwall polycarbonate .

Design: Back taller than front (Back 18", front 12")

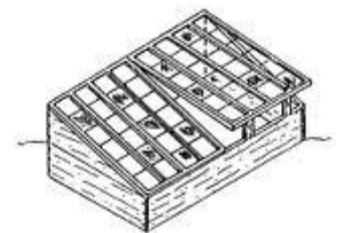
Remember to put weed barrier in the bottom before filling with rich soil.

Top that can be raised and vented 2" board for construction, non treated wood (hemlock is good).

Bury in ground, use Styrofoam 2" around outside perimeter

Location: Locate close to wall, basement or protected area – good drainage. Must have full sun - the place that melts first in your yard.

Plant winter crops around mid August. Theory is to allow crops to freeze. Harvest them when inside temp above freezing. Add additional covers over frame in coldest weather. Could bury heating coil in soil or thermal collectors like water jugs, concrete blocks. Snow must be removed. Needs soil enrichment, watering & venting. Screen to keep critters out when lid is raised



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