

Winter Gardening

The serious gardener will want to consult *the Four-Season Harvest*, by Eliot Coleman, who gardens in Maine. This sheet borrows from that book, as well as from the experience of gardeners in England and the Pacific coast, including Southeast Alaska.

Choosing the Right Crops

This collection of vegetables is a good start. Eat seasonally; the vegetables of winter will be different from the beans, corn and tomatoes of summer. Any crop where you eat the seed or fruit will not be available in winter—all winter crops are either leaves or roots. For many people, the big hurdle is learning to work more leafy greens into their meals—which will benefit your health as well as your budget and the planet. Check the library or the internet for tasty recipes for cabbage, kale, and other greens, or concentrate on winter salad crops. Within each type of vegetable, some varieties are better for winter. Of course cold hardiness is one trait to look for in catalog descriptions. In rainy climates, rot-resistance, tolerance for mildew and mold, and tolerance for low light levels are important. Dry, windy climates like the Rockies require drought-tolerant varieties. (Consider misting your plants with water to form an ice barrier in very dry windy weather.)

Siting the Garden

It is important to site your winter garden in a place best for the plants, but even more important that it be where you will remember to use it. Try to find a good place close to the door so you can check your plants as you come and go. It's a good plan to harvest dinner as you come home from work—you won't have to bundle up and go back out after you are busy indoors. Avoid low spots where cold air collects, areas the low winter sun doesn't reach, and areas that get waterlogged. If you can't choose a site sheltered from wind, it is very important to provide some shelter. A temporary fence, some branches, or straw bales can help. Good soil preparation is also key—plenty of compost will encourage good growth that is also hardy. Make sure there is plenty of potash, (greensand, ashes, or seaweed are good sources) This adds both cold-hardiness and disease-resistance. Seaweed increases cold hardiness and disease-resistance by supplying several other substances besides potash, and is a valuable supplement for winter gardens, either as mulch, as a soil amendment, or as foliar spray.

Timing—When to Plant

If you live in an area where the soil does not freeze (or not very often) and winter daytime temperatures are often in the 40's or above, your crops probably will make some growth in winter, and you can sow in cold frames anytime, though growth may be slow, and some day-length sensitive plants may bolt. In most parts of the country, however, plants will not be in active growth. Instead, you will plant and grow crops in the summer and fall which will live through the winter. It is important to plant when the vegetables can get big enough to eat before winter but not so early that they get over-mature and lose eating quality. A long-season vegetable like **leeks or cabbage** will grow for 100 days before maturity—so plant it 100 days before your first-frost date in fall. Root crops like **carrots** should be sown to be mature(or baby-carrot size) at first frost; they will be mulched, covered with plastic sheet or a cold frame, and dug out a few at a time all winter. **Lettuce and spinach** are more hardy as baby greens than they are as full-grown plants (in the wild they sprout in the first cold days of spring and go to seed in summer heat). A good strategy is to plant **lettuce** early enough to make nice heads for

fall and early winter use, but also to make fall sowings throughout August (September if days are warm) for baby greens during winter. The very hardy salad greens (**arugula, miner's lettuce, mizuna, minutina**) are planted at weekly intervals throughout August for winter use. The hardiest green of all, **mache or corn salad**, can be sown with them, and sowings may continue through September (October in warmer-fall areas). **Kale** is sown mid-summer, and overwinters as a mature plant. It can also go into salad mixes, in which case it is sown with the baby greens.

All of these dates are for coastal New England: in many places frost and cold days will come much later and the planting dates can be adjusted accordingly. **A good plan would be to look up your first-frost date and make your first plantings of baby greens a month before it. Then sow new seed every week or ten days until frost comes. If you live in a climate where days are warm after frost, keep making small plantings until days drop to 40 degrees, or the ground freezes.** You can find your first-frost date on the internet (try the National Weather Service) Or you can ask your local garden center, your local county agriculture department, or the Cooperative Extension Service of your State University in your county.

Each sowing of seed need not be large. A short row or two square feet will be fine. Remember that baby greens can be thickly planted, but don't just throw the seed in. Plant individual seeds at 2" spacing for healthy plants and economical use of seed.

Protection—Row Covers, Cold Frames, Greenhouses, and Fleece

You needn't make a huge investment in a greenhouse. Start small. A plastic row cover (like a clear plastic tunnel 1 ½-3" high) will extend your season and go together cheaply and easily. You can even get them ready-made with built-in wire supports. For a really sturdy row cover that will resist wind, rain, and snow loads, use longer supports (flexible pvc pipe works well) and place them in an X pattern (as seen from above), tying them where they cross. My method is to push flexible branches around the garden bed, bend them over, tie or twist them together, and cover with clear plastic, weighted with rocks or pipe. In heavy snow areas, sturdy endposts and ridgepole of metal pipe or lumber can support the conventional wire, plastic, or sticks that hold the tunnel's shape

The next level of protection, and the most versatile, is a cold frame. This is a wood box with no bottom and a slanting glass or hard-plastic top. It is placed over the planting area, protects from wind and extreme temperatures, and can be propped open to vent on sunny days. It is easy to open the hinged lid and harvest food. Snow on the rigid lid can be left to provide insulation in very cold weather, or swept off with a broom. You can glue foam insulation on the box for extreme climates, and add plastic or fleece for cold spells.

Fleece, also called floating row cover, and often trademarked as Reemay, requires no support (it "floats" on the leaves) and gives enough protection for spring and fall frosts. It admits enough light that it can be left in place. Fleece is a good choice for someone who doesn't want to have to do the venting or watering that greenhouses and other covers may need, but it can be crushed by snow and gives little shelter from excessive wind or rain.

You can "stack" protection as weather gets colder—fleece inside a coldframe or greenhouse for example. An extra sheet of clear plastic thrown over any of these covers will increase their effectiveness, especially if there are spacers to keep the layers from touching. It is also surprisingly easy to make a hotbed: dig a hole 3'x4' and 2'

deep. Fill it with manure or garden waste like grass clippings and straw. Then cover with 8-12" of dirt, sow seeds, and cover with a cold frame or plastic tent. The composting process will generate heat over a long period, enabling salad crops to grow all winter. This works well for spinach, lettuce, and the hardy greens, and was the main source of salad crops in Europe before the era of cheap oil.

Plans for row covers, cold frames, greenhouses, and root cellars can be found in *Four-Season Harvest*, or check your public library.