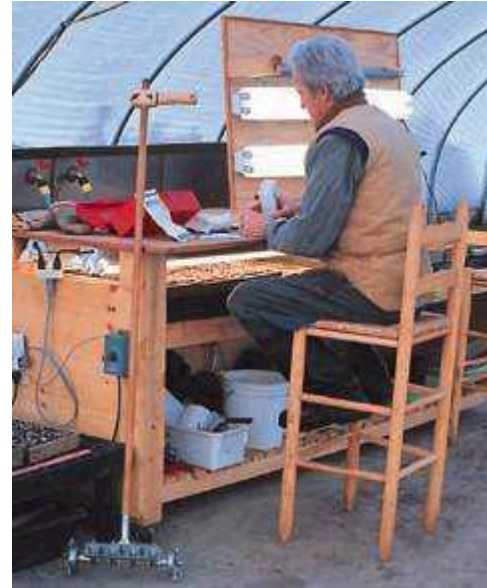


The Contrary Garden



Market welcomes year-round produce





They make it sound so simple. Gardening doesn't have to end in October or

December or even February. It doesn't begin in March or May. With the eloquent passion of Down East preachers, Eliot Coleman and Barbara Damrosch are trying to convince the cold world to just say no to the standard gardening calendar. The proof is in the vegetables they harvest at their Harborside home every day of the year, just as Eliot has done at his previous homes in northern New England for the past two decades.

Last fall, Coleman and Damrosch took their 12-month gardening to an even greater level. Having constructed a pair of 30-by-100-foot unheated hoop houses, covered in just a single layer of plastic with an interior layer of agrifabric over the crops, they set out to prove their techniques were beneficial beyond the home garden. Their goal was to produce vegetables of enough quantity and quality to keep their local market supplied from October to May.

Think about it. A large supply of garden-fresh vegetables would be grown in Maine during the coldest months of the year. Consider the economic potential. Commercial growers who traditionally shut down through Maine's winters could now have viable cash crops to sustain them all year.

If the public's reception to the vegetables is any measure of success, they seem to be onto something. "We just can't seem to get enough of their stuff,"

said Lynn Arnold of the Blue Hill Food Co-op. "People really loved the winter greens mix. It was a letdown when the season passed."

People, Places & Plants met with Coleman and Damrosch last fall at the start of their historic first attempt at year-round market gardening and the result was an article last January titled "Winter Gardening: I don't understand why everyone's not doing it." Eager to hear their results after a full season of market gardening, we visited Coleman again in July. Predictably, he was more enthusiastic than ever about his discoveries.

PPP: Well, what did you find out?

Coleman: "Does it work with no heat? Absolutely. That was the most startling thing of all. We only stopped deliveries of vegetables for three weeks in late January, not because the system didn't work, but because it worked too well. We got carried away at Christmas when all the restaurants wanted the stuff and we cut too far ahead into our supply."

PPP: You harvested without heating the greenhouse all winter?

Coleman: "We knew the temperature had to be above freezing inside the hoop houses on harvest days, so as a precaution we put in a gas-fired

salamander heater like the contractors use. We only had to use that once all winter. It was a mild year, but I think on an average winter you'd probably only use the heater three or four times. The temperature inside the plastic house warms up quickly as soon as the sun comes up.

"It wouldn't exactly get toasty on many of the days we harvested. We would kid that this was a unique kind of farming where your greatest problem wasn't heat prostration, it was frostbite. Harvesting moist salad greens at 34 degrees is hard on the bare hands, but we wore kayaking gloves on the worst days."

PPP: Did the economics pan out?

Coleman: "The goal is \$5 per square foot in return, or in a 3,000 square-foot greenhouse you would want to gross \$15,000 during the course of the year. That's three or four crops in rotation. In the summer we have peppers, eggplants, melon crops and sweet potatoes in there. I actually think \$5 is a modest figure; we can do better than that once we research all the best varieties. Red oakleaf lettuce, for example, was exceptional. Others didn't grow quickly enough.

"You should be able to put up a hoop house and cover it with plastic for \$2 a foot, and you're not adding in any heat. So you can make that \$2 back in the

first year and more. That's a pretty good way to start a business when you can get a one-year return on your investment."

PPP: Tell us more about what worked well for you.

Coleman: "There were times last winter when we had six different crops on the shelves of the stores. Our salad mixes of lettuce, spinach, arugula, mâche, minutina, chard and claytonia, and then there were candy carrots, radishes, water cress, scallions and either pure arugula or pure spinach. We're putting up two new houses this year which will be totally experimental. We want to test the full range of hardy crops.

"We're on another planet here. I am not aware of any standard research into varieties or vegetable types that has ever looked at what will survive in the cold of an unheated system in the middle of Maine. We're almost reevaluating every cold-tolerant crop."

PPP: Are there any magic keys to success?

Coleman: "We discovered it ourselves, and then saw it confirmed in the notes of a British researcher back in the '30s, that the 10-hour day is the point at which either growth stops or growth starts. In Maine at this latitude we get down to a 10-hour day on Nov. 7 and plants just sit there. You've got to have

your plants up to a harvestable size by that time or it won't work. That phase continues until the seventh of February. It's almost like someone turned on a switch. The plants seem to say, 'No, sorry, I don't work for less than 10 hours of sunlight.'"

PPP: Do the leafy crops that you harvest rejuvenate themselves during those three months?

Coleman: "Some rejuvenation occurs in plants that have established roots, but very little growth occurs on anything you start from seed."

PPP: You make this sound so simple.

But there are people whom you and I both respect that still aren't convinced. Number one, most farmers aren't going to have your level of enthusiasm. Number two, most farmers aren't going to have your level of knowledge. And three, no one else is Eliot Coleman with the contacts to engineer these hoop houses to the exact specifications.

Coleman: "First of all, we'll give away our information freely to anyone who wants to try this, so they can learn from our mistakes. We'd love to have more people try this, because more people would lead to a greater dialogue. When anybody is doing something that hasn't been done before, the first reaction is to say it can't be done. There seems to be this furor among those

people ecologically interested who like to find fault in almost everything."

PPP: It's sort of the reverse of the snow-on-the-mountain scenario for skiers. If there's grass in the backyard, you don't think of the white mountain. If there's snow on the lawn, you don't think of gardening.

Coleman: "I can see why people feel that way. This is the contrary garden. Gardening is not the first thing you think of when you step outside in January in Maine. But I'm in awe every day in the winter when I walk into these greenhouses and see what's going. Under the agrifabric (that covers the crops), it's perpetual spring. It's a mind game. You cannot possibly believe this could work, but it does."

Text by Paul Tukey; Photos by Lynn Karlin

Winter Gardening at a Glance

MATERIALS NEEDED – A hoop house covered with a layer of plastic (for homeowners, a hoop house can be as simple as cut saplings tied together and bowed, then covered with plastic); agrifabric to cover the crops such as Pro-17 sold by Johnny's Selected Seeds; a selection of hardy crop materials such as many varieties of carrot, minutina, radish, lettuce, spinach, mâche, claytonia

and arugula that will survive freezing.

KEYS TO SUCCESS – All crops should be in full production by Nov. 7, so planting dates are critical. Cover the bottom of the plastic with dirt to keep wind out, but allow a means of ventilation. Avoid allowing the temperature inside the hoop house to exceed 60 degrees. Only harvest when the temperature is above 32 degrees inside the hoop house.