

Squirrel away your backyard produce to enjoy local food year-round.

BY CHERYL MORRISON

Hoarding the Harvest

It's the end of a good growing season: The cabbages are bigger than a rock star's head, the tomato vines are so heavy with fruit that the stakes can't hold them upright, and the zucchini just keeps on coming. What to do with this overabundance? And what do you eat six months from now, when the only "fresh" produce in the stores lost much of its flavor as it was shipped from the other side of the world?

Fortunately, the produce you grow, pick or buy from local farmers can be preserved for months or even years. A bumper crop need never go to waste, and the strawberries that perfumed the spring air at the local farmers' market can still be savored in December.

The idea of putting food by conjures images of rural life in times past. Indeed, the same methods your great-great-grandmother might have used to store a winter's worth of food for an extended family can be adapted to suit busy professionals living in city apartments—or any situation in between. What's more, today's food preservationists have access to modern tools and techniques that could have lightened Granny's workload considerably.

Preserving food from the harvest doesn't have to mean spending the end of summer in a steamy kitchen sterilizing scores of jars and filling them from bubbling pots; although, canning is still one of the three most popular food-preservation methods, along with freezing and drying. Which method to use depends on several factors: What kind of produce you are preserving, how long you want to keep it, how you intend to use it, and the amount of time and effort you want to expend. All food-preservation methods have the common goal of killing or inhibiting the growth of bacteria and other organisms that spoil food. Ideally, this is done without destroying the food's flavor, texture or appearance.

Food plants acquire bacteria from the soil in which they grow. Most soil-borne bacteria are harmless or even beneficial, but others can pose health hazards. Foods can also pick-up airborne spoilers as well as those that can flourish on kitchen counters, sinks and cutting boards. All it takes to put food by safely is common sense and strict cleanliness. With any preservation method, follow these guidelines:

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Where to Put It All?

The shelf life of foods depends a lot on how they're stored. Old farmhouses typically have attics, pantries and root cellars that can easily accommodate preserved food under ideal conditions, but most urban farmers must be creative about finding food-storage space in tighter quarters. Don't overlook places that aren't usually associated with food. You might find unused spaces where you can install racks or shelving in closets and under stairwells, for example. You can also stash dried and canned foods in boxes under beds, stairs or computer tables, on bookshelves, or behind desks. Any locale will do if it provides the right conditions.

The easiest preserved foods to store are dried fruits and vegetables. They will maintain their quality for months in any place where they can stay clean and dry. Caution: If you're storing plastic containers of dried food any place where rodents or insects might be present, stow them in metal cans with tight lids.

Food that you've canned keeps best when it's away from heat (which destroys vitamins), light (which causes color loss) and moisture (which corrodes jar lids). If the only space you have is in kitchen cabinets, stack the jars on shelves as far as possible from the stove and the sink.

Frozen foods should be kept at temperatures of zero degrees F or lower for long-term storage. Foods vary in how long they will keep their shape, taste and texture in the freezer, but most frozen vegetables last well in subzero

storage for up to eight months, and frozen fruits can be kept for up to one year with little deterioration. Food stored in most refrigerator freezers, which cannot maintain subzero temperatures, will deteriorate faster.

Proper storage conditions are also required for fresh foods. It's wise to keep a thermometer in the refrigerator and check the temperature often, especially in hot weather. According to the American Egg Board, the ideal conditions for eggs—organic or otherwise—are temperatures that don't exceed 40 degrees F with a relative humidity of 70 to 80 percent.

- ❑ Refrigeration slows the spoilage of fresh vegetables and fruits. Wrapping greens in moisture-proof bags will prevent wilting.

- ❑ Potatoes, onions and other root vegetables don't require refrigeration, but they keep best in a well-ventilated place at 50 to 60 degrees F. Carrots, radishes and beets stay firm longer if you remove their tops to slow the loss of moisture.

- ❑ Refrigeration can rob some fruits and vegetables of their flavor. Tomatoes, for example, continue to ripen after they're picked and should be kept at room temperature.

A trove of food-storage information, including recommended storage times for fresh and preserved foods, is available at www.fda.gov/food/resourcesforyou/consumers/default.htm. You can learn more about preservation and storage at www.hobbyfarms.com/canningsteps and www.hobbyfarms.com/canningfood.



A small house means limited storage space. Get creative.

- ❑ Start by wiping counters and cutting boards with a 1-to-9 solution of bleach and water.

- ❑ Soak the fruits and vegetables in small lots, with several changes of tap water, to remove any soil. Lift them from the water so that the dirt you remove stays behind.

- ❑ Use the hottest water possible to wash equipment such as cutlery, spoons, ladles, funnels and rigid containers. If you're canning, sterilize the jars and lids in boiling water just before you fill them.

In addition to the recommended safety measures, these guidelines will help ensure successful food-preservation efforts:

- ❑ Preserve only fresh produce that is ripe but still firm.

- ❑ Preserve no more than you can use before it begins to deteriorate. Most frozen foods start to lose texture and taste after a few months, and even canned goods and dried foods don't keep their appeal forever.



Photo: © J.B. CARDOLLO

□ Choose a preservation method that's well-suited for what you're storing. Some fruits and vegetables lend themselves to a variety of methods, but others are more particular. Berries, for example, can be frozen with beautiful results, but they shouldn't generally be canned unless they're first made into jams or other cooked preserves.

DRYING

The oldest and simplest way to preserve food is to dry it. If homemade granola or trail mix has ever tickled your taste buds, you know how delicious dried fruits can be. Unlike other preservation methods, removing the water from fruits and vegetables concentrates their sweetness and flavor as well as their nutrients.

Dried foods also require less storage space than canned or frozen produce, which is an important consideration for urban farmers who don't have attics, pantries or root cellars. Removing the water from fruits and vegetables may reduce its volume by as much as 80 percent. A bag of dried peach halves will hold as much nutrition as a shelf

full of canned peaches or a dozen containers in the freezer, and the flavor of the dried fruit will be more intense.

Peaches, plums and other stone fruits are excellent candidates for drying, as are apples, tomatoes and herbs. Cabbage, green beans, broccoli and other vegetables can also be dried safely, but the results can be brittle or tough; there's a

Clockwise: You can purchase or build a dehydrator for drying your food in limited space.

You can never keep up with basil by trying to consume it all fresh. Dry it, and use it year-round.

You can leave beans in their pods to dry, or shell and spread them out.



*Clockwise:
Store frozen
fruit in
labeled, plastic
freezer bags.*

*Window
screening can
be fashioned
into outdoor
drying trays.*

*Any location
will do for
storage, as
long as it
provides the
right
conditions.*



reason that the traditional name for string beans hung from attic rafters to dry is "leather britches."

Dehydrating food successfully requires moving air that is dry and warm—but not so hot that it cooks the food. A well-ventilated attic provides an ideal atmosphere for drying food, but you can also purchase or build a dehydrator or use the oven on your gas or electric range (not a



Photo: © JAMES CRAWFORD

microwave). If you live in a dry, sunny place that's far enough from highways and other sources of air pollution, you can even let outdoor sunshine do the work. The dehydration process takes longer than other preservation methods, but it requires about the same amount of effort as freezing and less effort than canning.

Before drying most fruits and apples, remove their stones, pits or seeds. (For tomatoes, seeding is optional.) Slice apples into rings, and cut tomatoes in half. Plums, pears, nectarines and other large fruits should be halved, quartered or cut into smaller wedges. The smaller the pieces, the faster they dry. For cherries and other small fruits, no cutting is needed. Beans can be dried in their pods or shelled and spread out to dry.

Apples, peaches and pears can turn unattractively dark when exposed to air. To prevent this, soak them first in a solution of 6 tablespoons of pickling salt and 1 gallon of water or 2 tablespoons of ascorbic acid and 1 quart of water.



PHOTOS BY DIANNA TRACER



You can dry tomatoes and many other fruits and vegetables by spreading the pieces on racks and putting them in an oven at its lowest setting for four to 12 hours. Use an oven thermometer to monitor the temperature, which must not exceed 145 degrees F. Unless your oven is vented, leave its door slightly ajar to permit air circulation. Salting vegetable pieces before drying, which is optional, adds flavor and shortens the drying time by drawing out moisture. At the end of the process, the produce should be pliable.

If you live in a warm, sunny, dry climate, you don't even need an oven for drying food. Place fruit pieces on a new, sterilized window screen or framed plastic screen, skin-side down for tomatoes and unpeeled fruits. Drape cheesecloth over them to protect against insects; arrange the cloth so that it doesn't touch the fruits and stick to them. Place the fruit in the sun, but keep the frame off the ground so that air can circulate under it. Sun-drying takes a few days, but bring the frames inside before sunset and keep them in

overnight, or use a heavier covering at night so that dew doesn't collect on the fruit.

With any drying method, occasionally check for doneness. When done, the pieces should be soft and pliable but not moist. When you think the drying is done, cut in to one piece; if its center is still moist, more drying time is needed.

Storing dried fruits and tomatoes requires only that you keep them clean and dry. You can store dried produce in plastic bags, rigid plastic containers or jars. As long as they're clean and dry, their quality will be maintained for months.

To oven-dry fruit:

1: Remove stones, pits or seeds from fruit and slice.

2: Slice apples in rings, and quarter, wedge or halve plums, pears, nectarines and other large fruits. Place on an oven rack for four to 12 hours at the lowest setting.

3: Check for doneness: Fruit should be soft and pliable but not moist.

Left: Canning doesn't have to be an exhaustive exercise. It can be done in small, manageable batches.



Right: Store dried fruits and vegetables in rigid plastic containers or glass jars.



LEFT: JERRY WILLY, RIGHT: KAREN K. ACTIVEDO

Dried fruits add flavor to muffins and quick breads. They're essential in homemade granola, and they can serve as the basis for chutneys. Dried tomatoes can be cut finely and added to salads or reconstituted with water or oil for use in cooking.

FREEZING

For berries, broccoli, cauliflower, asparagus, okra, and many other fruits and vegetables, freezing is the best way to preserve their flavor, texture, shape and color over time, and freezing is safer than canning for low-acid vegetables such as peas and carrots. In other foods, including potatoes, celery and cucumbers, freezing produces undesirable changes in texture.

When freezing produce, guard against enzymes and air as well as bacteria. Enzymes break down the flavor and color of food, but blanching cut produce in boiling water or steaming and then plunging them into ice water will inactivate the enzymes before packing and freezing. (Blanching in a microwave oven does not inactivate all enzymes and is not recommended.)

Some foods, including peaches and other fruits, can turn brown in the freezer. To prevent

discoloration, dip the pieces in an ascorbic-acid solution before packing.

Exposure to air can cause freezer burn, which makes food dry and unappetizing. You can keep air away from food by immersing it in liquid. If you're using rigid containers, add wads of crumpled wax paper (which can compress as the food expands during freezing) to keep the food from bobbing to the surface.

Freezing foods as rapidly as possible will help maintain their quality by preventing large ice crystals from forming in them.

Frozen foods last longer at zero degrees F or lower, which requires a free-standing freezer. Refrigerator freezers are opened too frequently to maintain subzero temperatures, so they're only good for short-term storage. Rule of thumb: A freezer is cold enough for long-term food preservation only if it keeps ice cream too hard to scoop.

You can pack fruits for freezing with or without liquid. Wet-packing in the fruit's own juice or simple syrup works better for halves or slices of peaches, plums and other large, moist fruits. Vegetables are generally packed dry for freezing. With wet or dry pack, it's important to remove as

Always write the date on food packages before putting them into the freezer, and use the packages with the oldest dates first.

much air as possible before sealing the container.

Before freezing strawberries, blueberries, blackberries, currants and other small, stone-free fruits, wash them gently and drain. After removing stems and leaves, spread the fruit on a baking sheet in a single layer and put it in the freezer uncovered. When it's frozen solid, transfer the fruit to heavy plastic freezer bags and return it to the freezer. This flash-freezing method, which preserves the shape of the berries, can also be used for rhubarb that's been cut into 1-inch chunks.

Always write the date on food packages before putting them in the freezer, and use the packages with the oldest dates first. If you don't know how long food has been frozen, smell it when it thaws; the nose knows when food's been kept too long.

Freezing suspends the activity of bacteria but doesn't kill them; their activity resumes when the food thaws. Fruit that thaws prematurely—in a power outage, for example—can be refrozen safely, but refreeze vegetables only if their packages still have ice crystals throughout. Spoiling bacteria can spread more rapidly in vegetables, which generally contain less acid than fruits; when in doubt, throw them out.

CANNING

Canning requires more work and equipment than the other preservation methods, and the output takes up more storage space than produce

you dehydrate. Still, many foods are better preserved by canning than by other methods, and canned foods keep their quality far longer than frozen foods.

A favorite reference for many home canners is the book *Putting Food By*, by Ruth Hertzberg, Beatrice Vaughan and Janet Green (Plume, 1992), first published in 1973 (Stephen Greene Press) but updated several times since. It provides detailed instructions and comprehensive information about canning as well freezing and drying. It also covers other food-preservation methods, such as pickling, curing and root cellaring. Another go-to reference is *Ball Blue Book of Canning and Preserving* (Alltrista Consumer Products; 100th Anniversary Edition, 2004).

Although many canners measure their yearly output in scores of jars, canning can also be done in small quantities that urban farmers can manage in small kitchens, after work and on weekends. In the introduction to her book *Well-Preserved*, Eugenia Bone says she has found that small-batch canning is manageable in the limited kitchen space of her Manhattan apartment, with a busy schedule. "You don't need a big country kitchen, or an orchard out back, to can with enthusiasm," adds Bone. (To read more about Bone's book, see "Urban Feast" on page 92.) ■

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