When most people think about preserving food, they think about canning. A pantry full of jams and pickles is perhaps the ubiquitous image of home food preservation, and there's just something about the way those filled jars make you feel. It is a tie to our grandmothers and a hedge against disaster — a magical way of preserving the essence of summer in winter.

That said, however, canning is time and energy intensive, and can be expensive if you can't get equipment used. And there are risks to canning that don't apply to most other methods of food preservation. I know many people who put up food who never pressure can. I mention this not to be discouraging, but so because even though our memories of grandmother mean that many of us think that canning is the most important food storage technique, it is just one of many, and one that didn't even exist two hundred years ago. For millennia, people relied on other forms of food preservation and did just fine. That said, however, there are lots of tastes that you can only get by canning, and it is a skill well worth having in your repertoire.

There are two kinds of canning, both of which use high temperatures to create a vacuum seal that prevents air and bacteria from forming on food. First, there's canning in a water bath, which is done by immersing sterile jars filled with high-acid food (more on this in a minute) in enough boiling water to cover them and boiling for

the required amount of time. The second, used for foods that aren't acidic, is pressure canning. That involves a special piece of equipment, a pressure canner (not a pressure cooker) designed to achieve higher temperatures than boiling water can. This is for food that isn't acidic enough to prevent the growth of a particular toxin, botulism, which can kill you.

So given that last bit of information, the very first thing I'm going to say is that I don't want you to be scared, and I don't want you not to try this, but I do want you to swear up and down before you do any canning that you *will* pay attention, read instructions carefully and follow the rules. Because, even if your Mom always did it a different way, you really can die from not being careful with canning. It probably won't happen, but why mess with it? Properly done, canning is easy and safe — just do it properly.

Water Bath Canning

Water bath canning is the appropriate method for canning *only* high-acid foods. Such foods include pickles, jams, jellies and juices made from common, high-acid fruits, rhubarb (which is technically a vegetable but so acidic it can be water bath canned) and all tomato products. Everything else must be pressure canned. The reason for this is that the bacteria that causes botulism, *clostridium botulinum,* is endemic in soil. In most cases it is all over your vegetables and fruits. That's not a problem in an aerobic environment (one where there's plenty of air). Your body can handle it just fine (although babies under one year sometimes have trouble with it — this is why babies aren't supposed to have honey until they are over a year). But in a warm, anaerobic environment like a canning jar, the botulism bacteria goes crazy. And as I said, botulism will kill you and your family. It is not something to mess with.

Now any food with a ph lower than 4.4 is acidic and provides an environment inhospitable to botulism — which is why high-acid foods can be safely water bath canned. But the thing is, most of us don't have the chemist's equipment to confirm acidity. For example, tomatoes can have an acidity level as low as 4.0, or as high as 4.7, if they are overripe

or a low-acid hybrid. And there have been a couple of cases of botulism found in tomato products. This is why following the instructions of a *recent* canning book is essential. Any cookbook written before 1994 is not safe to use. You can use the recipes, but you must follow current guidelines for the canning.

Generally speaking, if your ingredients include anything but fruit, sugar and spices, or don't have a vinegar base, as in pickles, you must follow the instructions for the ingredient in the food that requires the longest and most intense processing. That is, if you are making salsa with tomatoes and hot peppers, unless you know the recipe is safe (that is, you have gotten it from a USDA-approved, recent book or website that specifically says that it is a combination food that is safe to water bath can, *and* you have followed instructions exactly, not adding any more ingredients or changing proportions at all), you would pressure can it using the instructions for hot peppers. For tomato products with nothing else in them, add two teaspoons of lemon juice per pint, or four per quart, or the same amount of vinegar, to ensure their acidity stays below minimum levels. This might also be wise if you are canning very overripe fruit.

Equipment

You need a few things for canning. You need a large pot with a lid — canning kettles with racks are great, but you can use any big pot with a lid, and something to keep the jars off the bottom of the pot so they won't break — a steamer, a baker's rack, anything that will lift the jars off the bottom and allow water to circulate. Ideally, you will also have a canning kit. This comes with a jar lifter (big tongs designed to lift full canning jars), a magnet (for pulling the lids out of boiling water) and a funnel the right size for pouring hot things into canning jars. You don't actually need these things — they are merely convenient — but they are *really* convenient, and nice and cheap, so I recommend them. You can take the jars out with regular tongs — I have done this. I've also had one splash back and send boiling water at me. Your choice. You can fill the jars without the funnel, but why struggle? The stuff is also available used at your friendly neighborhood yard sale.

I have never bought a new canning jar. I get them constantly for a buck a box or sometimes three dollars for five boxes. They usually come in boxes of a dozen pint jars or a half dozen quarts and new they can cost up to one or two dollars per jar. They are one of those things most people seem to have in their garage. Put out requests on freecycle or Craigslist, and see what you can find before you buy them. If you live in a city or if canning suddenly becomes the new black, you may have to buy them, and they aren't cheap new. If I had to buy canning jars, I'd probably can less. The jars and the metal rings that hold down the lids can be reused almost indefinitely, as long as they are not damaged (check carefully for little nicks or cracks that might cause a broken jar or a lid not to seal), but you need new lids every time.

The only canning jars that are really considered safe to use are the newer kind, that have two-piece, screw-on lids. The old ones with the jar rubbers can technically be used for high-acid foods, but they aren't recommended, and can only be used with new rubbers. I'm not going to explain how to can with these, because there's a lot of controversy about whether it is safe. If you have the old zinc lid or wire and rubber canning jars, use them to display stored food, or store dehydrated stuff. Don't can with them.

You also don't need to buy new rings. As long as the rings aren't rusted through, and as long as they fit on the jar (used canning jars often come with the rings), you can reuse them. I occasionally do buy new rings, as not all jars come with them. You also don't need as many as you do jars. Once the jars are sealed, the rings can and should be gently removed and the lids themselves are sufficient. If you don't, the rings can rust on. So you shouldn't need tons of them.

You do need a new lid every time. Because jars come in two sizes, regular and wide-mouthed, you not only need a new lid, but an appropriately sized one. I buy my canning lids by the case, because I do a lot of canning. They store for quite some years as long as they are kept cool and dry, and are much cheaper if you can afford to buy them in bulk. Those who don't do enough canning to justify this themselves might split a case with several friends.

Now in a real crisis, where you could not get any more lids, it is

technically possible, *although not recommended* to reuse lids that have been carefully pried up and checked to ensure there are no dents or damage to the rubber inside—*but only on very high acid foods.* I am telling you this because in a real crisis, it might be useful knowledge. I do not advise it—you do it at your own risk. At a minimum I would use it on pickles and acid fruit jams only—never, ever, ever on any low-acid or even borderline food—and add some extra lemon juice or vinegar to be sure. The best use for used canning lids is for jars of food that you are dehydrating and storing, or for mason jars you fill with beans and grains that aren't canned.

Instructions

So what do you do? Let's say you want to make raspberry jam. You would take fresh raspberries (you really don't want to leave your stuff sitting around too long before you can it—off flavors can permeate your whole batch), add sugar to taste or to meet the requirements of the brand of pectin if you are using any (we use low-sugar pectins only because we find regular ones make a jam that is simply too sweet for us), and follow the instructions for the pectin (there are several kinds, and each one has slightly different requirements, so follow the manufacturer's instructions).

In the meantime, wash your canning jars and lids carefully and check the jars for tiny nicks on the top that can ruin your seal. Then submerge the jars in a pot of boiling water that comes up at least two inches above the top of the jars. Bring the water to a boil and boil the jars. Meanwhile, boil the lids and rings as well, in a separate pot. When your jam is hot and ready to be ladled in, use the jar lifter to take out the jars, and put them upside down on a clean dishtowel to drain. Then flip them, and use a ladle or spoon and the funnel to fill the jars to the recommended level of headspace.

Headspace is the amount of space between the food and the lid that you need to create a good seal. Often it is one inch, but check the recipe every time, because it may be more. When the jar is filled to the appropriate level, wipe the rim of the jar with a clean dishcloth to remove any food that might prevent a good seal, put the lid on, put the

ring on (not super tightly—just enough to hold the lid firmly in place), and use the jar lifter to put the jar in the canning kettle. Process for the amount of time listed for the ingredient—jams are usually 15 minutes. Processing time begins when the water returns to a rolling boil—start timing then.

When you are done, use the lifter to take the jars out of the boiling water bath, and put them carefully (don't bang them around) on a clean, dry dishtowel. You will hear a seal being formed within a few minutes—a "thwuck" sound. Some will seal right out of the kettle, others a few minutes later; this is normal. Allow the food to cool without being disturbed. When the jars are cool enough to touch, press down on the lid. If it is suctioned down and has no give, it is sealed. If you can push down on it and it pops up again, it isn't. If it isn't sealed, you can either reprocess with a new lid for the same amount of time, or you can stick it in the fridge and use that one first.

You may have been taught to can by someone who did oven canning (jars are baked), inverted the jars to create a seal, or did open kettle canning (poured hot food into jars and put on lids and let them seal themselves). These are not safe. *Don't do them!* Or do weird things like putting an aspirin (ugh!) in the jar. Yes, people did this and most of them didn't die. But a few did, and why on earth would anyone risk their lives for something so silly? None of this means that you can't use Mom's wonderful pickled beet recipe that she used to oven can. You just have to use current techniques to can that old recipe.

That's really all there is to water bath canning. It is very easy, and very convenient, as long as you do it wisely.

Pressure Canning

Some of you may read what I just wrote about water bath canning and think, "I've been doing it forever, but just slightly differently, and no one died. She's being so anal about this!" Well guess what—you ain't seen anal yet. With water bath canning, there are a few things that can be dangerous—you might make yourself sick by eating spoiled food but mostly the acidity will protect you from botulism and death. With pressure canning, by definition, most of the foods you will be canning

can support botulism toxin. If you do it wrong, you and anyone who eats your food could die horribly. There are only a few cases of botulism each year, but you definitely don't want to be one of them — or worse, have someone you love be one.

Now I can imagine that some of you are just plain terrified by the heavy repetition of the word "death" here, and don't ever want to pressure can. But if you eat any food from cans, you are eating food preserved with the very same processes. The canned green beans or soup you are eating has precisely the same risks and benefits that home pressure-canned food has (and, in fact, there was a botulism outbreak involving commercial foods in the year I wrote this). So the issue here is not, "I should be afraid of pressure canning?" but, "I should be very wary and respectful of pressure canning, and make sure I do it *exactly* correctly." Because the truth is that properly canned food is safe. What I want to make clear is that cutting corners, or using older techniques your Grandma taught you, or just estimating is not sufficient in this case. I'm one of those estimating type of people who tends to be casual about things — but *not* when I pressure can.

Six Rules and Six Warnings for Pressure Canning

1. No one pressure cans until they have water bath canned. Until you learn the basics of handling jars, filling them, creating a seal, etc. don't start pressure canning.
2. Make sure you are up to date on your canning information. Use only *current* canning instructions. You can use older recipes — or any recipe — but make sure that when you can the food, you can it using currently appropriate techniques for the ingredient that has the *longest* canning time. If you have a family recipe for meat sauce, can the recipe based on the meat, which is probably the thing that requires the longest canning time.
3. You should have a current copy of the Ball Blue Book guide to canning, usually available any place canning supplies are sold or online. Canning books written before 1994 are not safe! I also suggest you take a look at the University of Georgia website (see Bibliography) for up-to-date canning information, but I really want you to get an

actual paper book because I think that when you are in the middle of a big project, with your hands covered with squash and water steaming out of a pressure canner, you might not stop to go online and confirm that it was, indeed, 12 pounds pressure, not 10. This is not acceptable — have the book so you can just look it up. This is not a place to rely on imperfect memories.

4. Please make sure you read through the instructions for pressure canning and genuinely understand them before you do it. Take no shortcuts. Don't just wait until the steam is kind of puffing out, wait until it is steady. Don't estimate times. Don't decide that a lid that doesn't quite fit is good enough. Do what they tell you.
5. Make sure your pressure canner (*not* a pressure cooker — you cannot safely can in a pressure cooker) has an accurate gauge. This is not a big deal if your pressure canner has a weighted gauge (the kind that jiggle and make tons of noise), but it is absolutely essential if you have a dial gauge. Take it to your county extension office and have them check it once a year, and make sure you know your elevation and use appropriate pressure for that elevation. And if you have a dial gauge pressure canner, a study found that the standard should be not 10 pounds pressure, but 11 pounds. If you see a recipe, even a recent one, that says "10 pounds pressure" — put it at 11 pounds.
6. If you buy a used pressure canner (and there are a lot of used ones out there), make sure you get a manual. While old pressure canners are much safer than old pressure cookers, there is still a lot of pressure built up, and if you don't use them as instructed, not only could your food not be safe, but you could get a face full of hot steam or even be injured by flying parts. The companies that make pressure canners will have old manuals available, so if you buy a yard sale canner, the first thing you need to do is call the company and order the manual. The second thing is to have the gauge checked (worth doing once even if you have a weighted gauge) and to make sure that the gasket still fits tightly. If you see or feel steam persistently coming out along the gasket, you need a new one. You can order a kit from the company to fix it, or find a different pressure canner.

Here six things you absolutely must not do when pressure canning:

1. Use no jars larger than one quart. The food can't get hot enough to be safe.
2. Never reuse jar lids when pressure canning — ever. Make sure the bands aren't too rusty and aren't bent, because the jar won't seal. Check the rims of the canning jars very carefully. Nicks or bumps will ruin your seal.
3. Don't use rubber jars or anything other than the two-piece canning lids. *Test your dial gauge canning kettle annually. Don't can until you have tested.* Test a new kettle *before* you use it. Read the manual — details vary a lot by brand.
4. Don't raw pack unless you are sure it is safe. "Raw pack" means putting food in the jars that has not been cooked. There's a general move in canning towards hot-pack only. That means that the food should go into the jars hot. You'll see mixed recommendations about this, but it is *always* unsafe to raw pack beets, greens of any kind, potatoes, sweet potatoes, squash, pumpkin, okra, tomato/okra mixes and stewed tomatoes, and honestly, it is safer not to raw pack at all. Research has found that hot packed foods are often better textured and flavored as well.
5. Make sure that your heat remains even (especially if using a wood stove), that your stove is safe to can on (if using glass-topped stoves), that you don't begin counting time until the steam has been exhausting for ten full minutes and that you are present to ensure that there are no sudden drops in temperature or other mishaps.
6. Remove jars carefully. Don't bang them or tip them. Wait until they are fully cool to test seals.

Honestly, if you find all this too overwhelming, no worries — human beings didn't have pressure canning until fairly recently. You can preserve a lot of food by root cellaring, season extension, water bath canning of high acid foods, dehydrating, lactofermenting, preserving in salt, alcohol and sugar and freezing. I encourage people to pressure can, but if you don't think you can do it correctly, you will be fine without it.

Instructions

Here's how you pressure can.

Most of it is the same as water bath canning—you check the rims, you make sure the jars have been cleaned in scalding water (boiling the jars is necessary if you are pressure canning for less than 15 minutes, and recommended anyway) and that lids have been simmered.

Make sure the food you are canning is really clean and dirt free. This reduces the chance that you are putting a big helping of botulism, which lives in the soil, in your food. Use the recipe you have chosen carefully. You *can* safely reduce salt quantities when pressure canning, but not when water bath canning.

Pack hot food into clean, hot jars—if you put it in cold jars you could have one explode on you. Run a clean spatula (plastic or wood, not metal) along the edge of the jar to reduce air bubbles, and add more liquid if need be to compensate after the air comes out. Wipe the rim with a clean cloth to make sure that no food gets under it. Leave the recommended amount of headspace (i.e., room for the seal to be made)—always a minimum of one inch when pressure canning, unless a current recipe says otherwise.

Put on the hot lid, put the clean, hot metal band on, and screw down firmly, but not so tightly that no air can escape.

Put in the rack and add the relevant amount of water (this varies by the brand of pressure canner, so read the manual) in the canner. Put the filled jars into the canning rack (never put any jars, using any technique, directly on the bottom of the canner). Screw the lid on the canner tightly.

Make sure the petcock valves are open. Turn up the heat—and *pay attention.* This is not something you can do while you do other things. Watch for the steam, and then start timing when the flow is steady. After ten full minutes of steam steadily and rapidly coming out, the air trapped in the jars and canner should be exhausted. If the air isn't properly exhausted, the pressure may be inaccurate and the food may not be safe.

After ten minutes of steady exhausting, close the vent. Watch the pressure gauge until it reaches the correct pressure *for your altitude.* If

you live more than 1,000 feet above sea level *you must adjust the canning pressure* to compensate. Confirm your elevation before you begin canning and refer to the USDA chart for what is appropriate for your canner. If you have a weighted gauge, you can't adjust it finely; this is completely normal. If you have dial gauge, you can, so it matters both where you live and what kind of canner you have.

When you reach the desired pressure, adjust the heat on your stove to keep it at the same level. If it goes over, turn the heat down (or bank the fire) a bit, if it is under, turn up the heat. Keep an eye on the gauge. I do dishes or other light work, but nothing very distracting.

Do not begin timing until your canner is at the recommended pressure, and stay close to make sure that it remains at the same pressure level during the entire processing time. When you have processed for as long as required, take the canner off the heat, and let it cool. Leave the canner alone otherwise — don't vent pressure or do anything else. It will take an hour or so to get down to normal pressure.

Do not open the canner until there is no steam coming out, even when you poke the regulator with a stick (not your hand). A face full of hot steam can seriously burn you. Don't mess with it — make sure there is no more left.

Open the petcock valve *slowly and carefully.* Wait a bit, until the canner is even cooler, then unlock the canner lid and remove it carefully. Leave the jars alone for ten minutes with the canner open, and use the jar lifter to carefully transfer the jars to a clean dishtowel, without tipping them. Allow them to cool undisturbed. You should hear the "ping" as the jars seal.

When the jars are entirely cool, check them for the seal. If you press down on the center of the lid and feel any give or movement your jar is not sealed. You can either reprocess the food (go through precisely the same procedure again *with a new lid*) or you can put it in the fridge and eat it soon. You will lose a lot of nutritional value reprocessing, so I wouldn't do this with anything like greens.

After 18 to 24 hours, wipe off the jars, remove the rings, label them and put them in a cool, dry place.

Check pressure canned food when you open the jar before you eat

any. If there is any reason for you to seriously doubt the safety of the food — if you don't hear the popping sound that goes with a breaking vacuum when you open it, if there is an off smell, bulging around the lid, a vent of gas — throw it out, and not on the compost pile, but in the garbage. *Don't taste it!* Botulism has no taste or smell; it sometimes causes bulging, but can exist simultaneously with other kinds of spoilage. *Throw it out if there is any doubt.* Throw the whole jar out — don't try to reclaim it and don't give the food to animals.

Some things — darkened bottom lids, discolored peaches, a pinkish color on some fruits — are normal. They are chemical reactions to canning and are not signs of trouble. I won't list them all. I reiterate, this is why you should read the Ball Blue Book or recommended websites carefully and several times until you are familiar with the information.

The USDA recommends that you boil any food that has been pressure canned, or anything that might conceivably support botulism (including tomato products without added acid) at a rolling boil in a covered pan for ten full minutes and one additional minute if you are more than 1,000 feet above sea level for each 1,000 feet or fraction thereof (i.e., if you live at 2,200 feet you would boil your for 12 minutes). They recommend that you do this every time, and definitely if there is any doubt about your having used a safe canning technique. It should not be necessary if you have done everything carefully and precisely, but it provides a measure of security. I personally don't always do this, but if I were in the slightest doubt, I would.

Canned food will keep for many years, as long as the seal is intact, although there is a gradual loss of nutrients. Jackie Clay at Backwoods Home regularly tests and uses canned food that is more than a decade old, but the general recommendation is no more than three years. I wouldn't hesitate to eat anything older, as long as the seal seems intact, and there are no problems, but more than five years out, I would boil it for the recommended time, just in case.

OK, I know that was a little scary and overwhelming, but think about it this way — you learned far more rules and regulations when you learned to drive, but you probably do that all the time. So just be careful and wise.

Making Good Use of Canning

Canning is a great technique for some foods, and really rotten for others. Personally, I don't much like canned green vegetables of any kind. I know Americans are crazy about their canned green beans, but they don't do much for me. You can can just about anything, but if you try to can everything, you might make yourself a little nuts. You'd need thousands of jars, which would represent hundreds or thousands of hours of labor to feed a family entirely with canned food. So it makes sense to be judicious about how you use canning, just as it does with any techniques.

The Best Canned Foods

To my mind, the best water bath canned foods are:

- pickles of all sorts
- jams, jellies, marmalades and fruit butters
- some juices (not all juices taste good canned — most berries, rhubarb, peaches and apricots make excellent canned juice; others, like apple cider or orange juice just taste awful)
- fruit sauces (apple, rhubarb, strawberry, cranberry)
- some pie fillings (pie cherries are the best, but blueberries and elderberries can surprisingly well and make a great summer pie in winter)
- tomatoes
- tomato juice

The best pressure canned foods are:

- tomato sauce
- salsa
- meat stocks
- canned soups and stews
- meats if you don't have a freezer

If you don't have a freezer or electricity, canning may be a better option for more things, but generally speaking, most vegetables, taste much better root cellared, dehydrated, fermented or season extended.

Recipes

Crunchy Chicken's Raspberry-White Chocolate Jam with Coffee Liqueur

Deanna Duke who blogs as Crunchy Chicken (thecrunchychicken.com) is a friend and one of the smartest and funniest women I've ever met. She also is one heck of a jam maker. This recipe was originally published at *The Mother Earth News* website. Not being a coffee person, I've experimented with making this jam with amaretto, instead of coffee liqueur, and it is awfully fine that way too. Makes 10 pints.

- 5 cups raspberries, crushed (use a potato masher or other implement to crush the berries)
- 1 cup white chocolate chips (spring for the Guittard or other gourmet chocolate if it's available in your area)
- 6 cups sugar
- 1 pack pectin
- ¼ cup coffee liqueur (Starbucks or Kahlua)

Heat raspberries while slowly adding in the pectin. Once the raspberries are at a full boil that you cannot stir down, add in the sugar. Return to a full rolling boil, stirring for one minute. Take the raspberry mixture off the heat and add in the white chocolate. It will take a while to melt, so be patient (unless you want chunks of white chocolate in your jam). After the white chocolate has melted, add the coffee liqueur and stir until well blended. Because the raspberry jam is quite hot, the alcohol will burn off, so if you want to have more of the alcohol flavor, add it in at the very end. Pour jam into sterilized canning jars and process in a hot water bath for 10 minutes. That is, assuming you haven't eaten half of it already. Yields 10 pints.

Vanilla-Amaretto Strawberry Jam

OK, I realize I'm going to have to send La Crunch a check or something out of the royalties from this book, but this is so good I can't resist including it. Deanna is the goddess of great jam making, and you deserve to have these recipes (there are more at her blog, so go worship at her feet). Makes 4 pints.

- 5 cups crushed organic strawberries, washed and hulled
- ¼ cup lemon juice
- 7 cups sugar
- 1 tbsp quality balsamic vinegar
- 1 vanilla bean, cut in half and split down the middle
- 1 package pectin
- 2 tsp lemon zest
- ¼ cup Amaretto (or Disaronno)

Add the lemon and lemon zest, Amaretto, vanilla bean and balsamic vinegar to strawberries in a non-corrosive pot and slowly add the package of pectin. I use a wooden spoon, but you can use any non-reactive implement you like. Bring the mixture to a boil on high heat and then add the sugar. Bring this mess up to a rolling boil, wherein you can't stir down the boiling action and, most likely, are getting bombarded by spattering molten lava strawberry bits. Boil for one full minute.

This concoction smells absolutely heavenly while on the stove but avoid the temptation to throw yourself into the pot headfirst lest you suffer third degree burns on your face and mouth.

When the jam is finished cooking, take it off the heat and let it rest for about 3 minutes. Stir the Amaretto into the prepared strawberry jam and ladle into hot jars. Seal and hot process jars in a boiling water bath for 10 minutes.

Don't get greedy and eat these right away. The flavors in the jams will mellow out and become quite subtle. Even a few days maturity will improve the flavor of these jams immensely.

Salsa Verde

Tomatillos go crazy in my garden every year. Fortunately, I love salsa verde, the perfect use for the tomatillo. Most recipes call for cooking the tomatillos down on the stove, but I find that roasting them actually gives a wonderful flavor. Makes 6 pints.

- 20 tomatillos, husked
- 12 cloves garlic
- 3 hot Serrano peppers (only if you like things hot)

Throw all the ingredients in a pan together and roast at 400° for 1½ hours. Puree with a blender or run through a food mill. Add ¼ cup lemon juice and 2 tbsp brown sugar, and stir over low heat to dissolve sugar. Pour hot sauce into hot pint jars, with 1-inch headspace and process for 20 minutes in a boiling water bath.

Bestest Everything Pickles

My son Simon gave these their name a few years ago, and they are pretty terrific. Why limit yourself to cucumbers when you can throw everything in the garden into your pickles? Makes 5 pints.

- 2 cups carrots, finely chopped (about 4 large)
- 2¼ cups rutabaga (1 small)
- 4 cloves of garlic, finely chopped
- 8 pickling cukes cut into slices
- 1½ cups cauliflower, finely chopped (about ½ medium head)
- 2 onions, finely chopped (about 1⅓ cups)
- 2 medium apples, finely chopped (about 1⅓ cups)
- 2 medium zucchini (unpeeled), finely chopped (about 1½ cups)
- ½ lb dark brown sugar
- 1 tsp salt
- 4 tbsp lemon juice
- 1½ cups apple cider vinegar
- 1 tbsp mustard seed
- 5 dried chile peppers

Combine all ingredients in a saucepan. Heat to boiling, then reduce heat to a simmer and cook until rutabaga is cooked but still firm, about 1½ to 2 hours. Can in a boiling water bath for 25 minutes. Yields 5 pint jars.

Apple Cider Syrup

We love this on pancakes instead of maple syrup, particularly with a few sautéed caramelized apples on top of them.

- 1 gallon apple cider

Put apple cider in a heavy pot over low to medium heat, and reduce until it is about ⅓ of its original volume. Ladle into hot clean quart jars with 1-inch headspace and water bath can for 20 minutes. It will thicken at room temperature and make a wonderful apple-y pancake syrup.

Canned Meat Broth

Most commercial canned meat broths are disgusting watery things that taste mostly of salt and are made from industrially produced meats. But they are awfully convenient too. My absolute favorite use for a pressure canner is canning stock made from bones. It is just so lovely to have on hand, and so much richer and tastier than the commercial versions. Makes 4 quarts of stock.

- 3 lbs of chicken, turkey or beef bones, ideally with a bit of meat on them
- 4 quarts of water
- 2 stalks celery
- 3 bay leaves
- 1 tablespoon of salt
- 1 tbsp white peppercorns
- 2 onions
- 3 big sprigs of thyme

Combine all ingredients, bring to a boil. Reduce heat and simmer 2–3 hours, skimming foam occasionally. Remove from heat, reserving any meat for other uses, and strain through a fine sieve. Chill, and remove fat from stock. Bring stock back to a boil and ladle hot stock into hot jars, leaving 1 inch of headspace. Put on lid and tighten ring carefully. Process in a *pressure canner* for 20 minutes for pints, 25 minutes for quarts at 11 lbs pressure. Yields 8 pints or 4 quarts of stock.

The Best Beef Stew

This is an adaptation of a recipe for "Slow Cooked Beef Stew" from Sarah Leah Chase's *The Cold-Weather Cookbook.* It is one of the coziest recipes I know of, and after years of making it, it suddenly occurred to me that it could be canned and be around for those days when you need comfort food but don't have time to cook. Makes 7 quarts.

- 4 lbs beef stew meat
- 10 medium potatoes, peeled and cubed
- 5 large cloves of garlic, minced
- 2 tbsp red wine vinegar
- 1 tbsp salt
- 1 tbsp dried thyme
- 1 tbsp brown sugar
- 6 medium onions, chopped
- 12 medium carrots, sliced and cut into chunks
- ½ cup red wine
- 2 tbsp mustard
- 2 tbsp Worcestershire sauce
- ½ tbsp black pepper
- 5 cups V8 juice, or homemade tomato or vegetable juice

Prepare meat and vegetables, removing excess fat from meat. Mix vegetable juice, wine, vinegar, mustard, salt, Worcestershire, sugar and spices together and pour over meat and vegetables in a large, oven-proof pot. Stir to cover and add water if needed. Cook in a 350° oven for 2 hours, until liquid is bubbling hot and meat and vegetables are cooked through. Ladle hot liquid (turn a burner on under it if necessary to keep it sufficiently hot) into hot, clean jars, leaving 1 inch of headspace. Remove air bubbles, adjust lids. Process pints for 75 minutes, quarts for 90 minutes at 11 lbs pressure. Yields 14 pints or 7 quarts.

Old Ways and New

I think there are a lot of us who have become disconnected from our past. We've been so busy living in the modern world that a lot of the time we've barely noticed the passing of old ways. Or perhaps we were glad to see them go—glad to lose the things that marked us as from the old country or as a hick or a country person. Those things, we were told, were of no value to the new people we were. And so what our grandmothers and grandfathers knew was lost. How frustrated they must have been to see generations arise who didn't value their thrift and work, and then, how frustrated we all were when we realized we did need to know these things, and the grandparents who could teach us were gone.

I'm one of those people who waited too long. My grandmother Barbara and her sister Helen lived together for more than 40 years. The two women gardened, cooked, knitted, sewed and tended to their community. They brought over food when a baby was born, or flowers when someone died. They were raised when women learned certain skills. My grandmother had had only sons, and my aunt no children at all, and they pounced on my sisters and I as the recipients, at last, of all this collective womanly knowledge.

When we were small, we soaked it up, the names of the garden plants and the loops of the crochet hook. They spent themselves freely on us, and we wanted to be like them. But when we grew older, nearly ready to begin to really learn from them, other things got in the way. Their notion of what a woman's life should be was caught up with their

desire to pass knowledge along. My sisters and I were determined not to be caught in what we saw as the trap of a too-close attention to femininity.

I was perhaps 12 when I told my grandmother I wasn't going to be a sewing sort of a person and she told me what mattered about this work and why she did it all. She said, "You have to have something that lasts. You cook food and it gets eaten. You wash the dishes and they get dirty again. You tend the babies and then they need the same again. You need something that lasts past the end of the day."

I thought she was crazy. Of course, my life was going to be filled with things that lasted, filled with art and beauty. I was never going to be a woman tied to my home, cooking and cleaning only to do it again. I rejected all the gifts they tried to give me, all the lessons they could have taught. It is too late now to have those lessons back.

Fast forward 22 years or so, and I do make things — words, mostly — that go on past the end of the day. But I also live in a world where the dishes get finished, only to be started again, where laundry piles up, is washed, put away, and the next day the pile is the same. I live, not because I am a woman, but because I have children, in a world of endless repetition. (Unlike them, though, I share the workload with my husband.)

And now, I take great pleasure in the things that last longer than a day. I put away my jars of food on the shelf, and each one takes on a new role when I can say, "And this is what I did today that will outlast the moment." Painfully, and with many errors, I have learned to garden, knit, sew, cook, can as they did. Painfully, and with every error, I have discovered my own failure to understand what they meant and what they were offering me.

I wish more than anything that my grandmother and aunt could have taught me. I wish I had understood that the old ways were not of a piece — that one false piece (the idea that this is only women's work) need not contaminate the gift of skills, and love, and old hands that try and give when they can to young ones.