

# W elcome!

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## Let's get started!

1. Welcome to this class on food preservation! My name is Cousin Kim, from middle TN. I have been involved in gardening, commercial dairy farming, and have been canning off and on since approximately 1978. In the last few years, I have added dehydration and back yard raised bed gardening to my background in a large farm garden and even a little bit of row crop farming.
2. This information is not all inclusive, but should be enough to get you started on your journey of food preservation. This will include basic information, along with information that may or may not be approved procedures by USDA, so please use at your own risk. This contains information that has been used by others, found on homesteader and prepper websites, YouTube, Facebook groups, standard approved canning practices, and my personal canning experiences and practices. The most important thing you can do in these last days is to learn to preserve food, and to begin, or begin again, whatever that looks like to you.
3. The theme I want everyone to remember is USE WHAT YOU HAVE, or whatever you can afford. Food preservation should be geared to saving money, time and resources.
4. I would only ask if anyone has something to add, or have a question, please understand that all of our time is limited and should be used wisely. I respectfully ask that comments and questions be orderly and come quickly to the point. It is critical that we all are quickly prepared as I personally believe we are on a very limited time schedule.

## 5. Food Preservation Overview

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### 6. What is food preservation?

7. Food preservation is a way to take advantage of the land's plenty and safely store it to use when you need it. This can be done by water bath canning, pressure canning, electric canning, steam canning, dehydrating, freeze drying, freezing, curing meats, fermenting, root cellaring, rendering lard, and even making soap and candles.
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### 8. Why preserve food?

9. Biblical. Joseph installed grain silos in every city, due to his interpretation of Pharaoh's dream of famine. Joseph was able to feed Egypt and his family when other nations starved.
10. Wise. Proverbs 21:20 calls those wise who store up choice food and olive oil and points out that fools gulp theirs down.
11. Healthy. Since you did it, you know what's in it.
12. Quick meal prep. Dump one or several jars together and you have a meal. Take a jar of soup to work, or if you're tired, dump in a bowl and heat it in the microwave, its quick and nutritious.
13. To be food independent. Most merchants operate today using the "just in time" inventory method. Made popular by Toyota in WWII, it was found that if parts were not kept in the stock room, but ordered only when needed, it increased a company's liquidity and efficiency. Today, groceries and big box stores order just enough to replenish what you see on the shelves, resulting in a large variety. The modern day grocery stock room is constantly on the move, in the back of a truck, and the old stock room has been converted to a receiving area. Since this method relies on trucks, and trucks rely on gas, and many food items come from another state or country, you can see how easy this well-oiled chain could break. Never mind inflation and food shortages.

## 14. Caveat

15. Don't cast your pearls among the swine. Don't expect unbelievers or even unenlightened Christians to think you're wise if you share that you're preserving food. You may be labeled a hoarder, prepper, or some may comment if anything happens, they're coming to your house to get your food. Listen to that still, quiet voice. Ask the Lord. Share knowledge if you feel led to, and keep quiet if you don't.
16. Some of what I am telling you is not USDA approved. My great grandmother canned meat and everything else, of course not USDA approved recipies, with a water bath canner and raised 13 healthy children. Most folks in the UK still waterbath their foods.

## 17. Jars, Lids and Rings

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### 18. Jars

19. Glass jars can be used for all canning and dehydration. Also for general food storage.
20. Mason. This is a glass jar with the words Mason marked on the glass of the jar or written on the box. It is said they are a little thicker to withstand the high temperature and pressure of canning. Invented by a guy named Mason. Also means it has a standard screw top.
21. Bail jar. This is like the old-timey jars that come in two parts with a wire that comes over the top to close. New ones are still made and are rather expensive initially, but they come with a rubber gasket that can be reused many times.
22. Standard canning jar. Will usually say Mason and have a standard lid and screw on ring. New jars are made by Ball or Kerr (owned by same company), Golden Harvest, or others.
23. New or used? Many reuse jars that have been handed down through generations. Can be a vintage jar (you will probably notice a slight difference in shape, writing or color) that may or may not be valuable. Used ones can be found by asking family members, auctions, flea markets, or online. A new case of 12 Ball wide quarts were around \$10 at Walmart as of this writing.
24. Repurposing commercial jars? If you buy used, you will find some jars that take a standard lid and ring that have no markings. Typically they are old mayonnaise jars.

I have pressure canned in them. If you get tomato sauce, look for Classico in the Atlas jar. They are pint and a half and will take a standard lid and ring. It is said they aren't really Mason jars, but I have pressure canned in them with no issues (yet). I bought some moonshine jars cheap at the flea market that look the same and they work great too. Pickle jars with the lug lids (see lug lids below) olive jars (great for asparagus), basically any jar will work pressure or water bath. Also repurposed jars are excellent to store dehydrated food if you're not comfortable canning in them.

25. Breakage. No matter if a new Mason or a repurposed jar, all glass jars will chip, crack, and break. If it happens, it's not the end of the world. If it happens in the canner, remove the intact jars out of the canner, sit them on a towel, put on some gloves and get the big broken pieces out of the canner. Pour the water from the canner into a colander or strainer to catch the rest of the glass. You may not know one has broken until you open the canner and find jars laid over.
26. Wide mouth or regular mouth? Meat fits better in a wide mouth jar. Regular jars and lids are cheaper though, and are perfect for vegetables, fruits, soups. Use what you have!
27. Cleaning. A dishwasher is fine. If you hand wash, it's better to use dish pans or put something in the bottom of the sink to prevent breakage. A bottle brush is good for the regular mouth to reach inside to clean. If you find some used jars that are cloudy, don't be afraid! They aren't damaged, just soak in vinegar to remove the hard water stains.

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## **28. Jar Storage**

29. Storing empties. It's best to store empty jars, CLEAN, with new lids and rings so they will be ready to fill at a moments notice, and to protect the lip of the jar from nicking. Jars won't seal if there is a chip on the lip! Keep them in their boxes as long as the boxes last, next best is milk crates, or just plain boxes.
30. Storing full jars. Always store filled jars with the rings OFF. That way, you can tell if a jar has lost a seal. If you store with the ring on, a bad seal will unseal then seal as the temperature fluctuates. Store in their boxes or in crates, always in the upright position. Crates can stack on top of each other. Jars can be stacked two high on a shelf, when in a box. If not in a box, place a cardboard on top of a row, and stack jars on top. It's better to have the jars in their original case or in crates so they can be easily moved if they need to be quickly relocated. If emergency situation, stack those jars! Do what you need to do!

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31. Temperature. Not too hot, and not freezing. Frozen jars will burst and jars too hot can lose nutritional value. Not in the sun, as the sun will discolor and degrade the food (make it hot). Best not damp, as the lids will rust. These are best practices only!
32. Light. Light is an enemy to jars of food. A quilt over a window or simply over the jars will keep the jars happily in the dark.
33. Shelving. Heavy duty shelving should be used that won't tip, will be stable, and the shelves will hold the jars without swagging. It would be heartbreaking to find all your hard work broken in the floor. Look for heavy duty metal shelves, or build some good sturdy shelves. If heavy, sit the feet of the shelves on a board. To keep it from tipping, bolt or nail the frame to the wall.
34. Innovative storage. So you don't have a place for shelves? You can store them in a chest, under the bed, crates in the closet, crates stacked along the walls, in cabinets. Not best to stack but stack if you must! Just make sure they are stable. Someone even cut out the sheetrock between the studs, slid the sheetrock to the back, and made recessed shelves, trimmed the ragged sheetrock. Google how to build shelves between studs. Very innovative and sturdy.
35. FIFO. That just means, first in, first out. Stack your jars with the newest canned in the back, oldest to the front. It's sometimes hard to do if your shelf backs up to the wall. However, if you are canning in bulk, it works to have the same date, or same year, in a single row, or in a box.
36. Labeling. Most people use a Sharpie permanent marker and write directly on the lid. Item, month and date. I have written on the glass, too. If you need to remove the markings, either olive oil or alcohol will work. You can also mark over the lettering with the Sharpie and then wipe with a paper towel to remove the prior labeling. Labeling is also handy for all store bought goods. Instead of searching for the expiration date, just write on the top with a sharpie when you purchased them. That will be close enough so you will know when to rotate, as the best by date is sometimes smeared or obscure.
37. How long does food last? Food stored in jars eventually lose some flavor, nutritional value, and even some color, but may take years and years. Seeds in tomatoes will turn black, but it doesn't mean they aren't good. They just aren't pretty. Pintos sometimes have black on the inside of the lid but it's just a chemical reaction and nothing to be concerned about. As long as the lid is sealed, and there is no mold (only happens when the seal is broken) it should be good and always sniff! *Some*

say to ALWAYS boil/cook the contents for about 10 minutes before eating, others say its totally safe to eat right out of the jar. (See Botulism) I have a jar of pear preserves from 2015 I'm going to eat. I have eaten preserves that are 10 years old that are still good. If fruit jam or preserves have a bit of white mold on the top, dip it out and discard, and eat the rest.

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### 38. Lids and Rings

39. Standard lids and rings. Most new jars come with lids and rings. Some don't, though. Lids are recommended for one-time use. I recommend picking up a box of new lids regularly when you get your groceries, when you find them. If you don't need them now, you will later, or someone else will.
40. Reusing Lids for canning? Even though all lids manufactured today are recommended for one time use, they can be reused several times for pressure canning and/or water bath canning with CAUTION. Simmer the lids in a small pan to soften the sealing compound, then can as usual. Rubber should soften up when simmered. Any lids that are rusted or scratched down to the metal inside, best to not use unless emergency, as rust will eventually rust through. Just know if you can't find lids, this is an option. Used lids are perfect to use for dehydrated foods too. Used regular lids are a perfect fit for storage in a Pringles sleeve. Also see Lug Lids below.
41. How to remove a lid without bending it? Take a butter knife and a old time bottle cap opener. Lay the butter knife on the edge of the lid, and slide the bottle cap opener under the edge of the lid. The butter knife provides enough stability so that the lid won't be bent. You can also hold the jar in the crook of your thumb and first finger, and use a canning ring to pry off the lid, if you don't have a way of opening.
42. How to know if the lid sealed? Once you take the jars out of the canner, once cool, take off the band and lift the jar with your fingers by the lid to test it. If the lid lifts off, reprocess the jar or refrigerate to eat later. Also I just read that even if the lid looks to be sealed, tap your fingernail or a spoon on all the jars in succession and if you hear one that has a hollow sound, it will be suspect of not being sealed. Sealed jars have a high pitch sound when tapped.
43. Lug Lids? A one-piece lid, like comes on a Classico jar, jelly jar, pickle jar, etc., can be reused numerous times. As long as the sealing compound is intact and there are no scratches on the inner surface or rust spots, they're good to go. Just simmer them in hot water to plump the sealing compound back up. I have heard they can

be reused at least 5 times, maybe more. They can be used for both water bath and pressure canning. Most lug lids have a button in the center that pops up when first opened, so you can tell immediately after canned. The button should be down after canning. Those that didn't seal, either reprocess or refrigerate. Lug lids and their matching jar are also perfect for storing dehydrated foods. Also, if you have a stinky pickle jar, you can make a paste from baking soda and water, coat the inside of the lid, especially the rubber seal. Leave on for 24 hours, and it should get rid of the pickle smell.

44. Rings/bands. Used interchangeably. When you've finished a canning session, you will take the rings off the jars for routine storage. You will find if you buy new jars, you will soon have an excess of rings. I store them in a tote and keep some in a plastic zip lid bag for immediate use. They will rust some over time, probably due to using vinegar in the water when canning. I don't can with severely rusted bands, especially rust on the inside of the ring. You can tell if it makes it hard to tighten down the lids, they will grind.
45. Tattler and Harvest Guard lids. A relatively new type of reusable lid has come on the market that is a takeoff on the old bail jar. They consist of a composite BHA free plastic lid and a separate rubber gasket that fit separately in two parts under the band to seal. These still require a metal band. They are initially a little more expensive, but do away with the idea of having enough lids, as they last until the rubber gasket wears out. A heads up, it has been shown that instead of buying their composite plastic lid, a regular mason jar lid can used on top of the rubber gasket. So you can just purchase the rubber gasket by itself. (See Rose Red Homestead on YouTube.) Tightening the lids to make sure they seal are a little different, though. Gasket, lid, ring on the jar, then finger tight as normal, but when you take them out of the canner after processing, you must tighten them down again firmly to have consistent seals. YouTube has great videos on these if you're interested. Harvest Guard are a little cheaper and supposed to be a little better, but both are owned by brothers. Tattler was invented first. Order on [tattler.com](http://tattler.com), [harvestguard.com](http://harvestguard.com) or [lehmans.com](http://lehmans.com).

## 46. Canning

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### 47. Miscellaneous Canning Terms and Tips

48. Water bath canner. Any pot that is tall enough to hold jars of food under boiling water with at least 1" water above the lids and room to add an inch or two more for good measure.
49. Water bath basket or rack. Off the shelf water bath canners usually come with a basket or rack to hold the jars off the bottom of the pot to prevent them from cracking. The off the shelf basket has handles that prop on the sides of the canner, so you can sit all the jars in it and let it down by the handles, or raise the whole basket up out of the water by the handles. Just know it is heavy doing it like that. Also a towel can be placed in the bottom to keep the bottom of the jars off the bottom of the pot. Or metal rings/bands can be used in the bottom of the canner to hold the cans up off the bottom if you don't have a canning rack or basket. Just connect the rings together with wire twist to fit in the bottom of the canner. Simple and cheap.
50. Pressure canning rack. This is made of aluminum and has holes, to allow water flow, and will also raise the jars off the bottom.
51. Stacking the jars vertically. If you have a larger pressure canner, you can stack the jars on top of each other if it's tall enough. You will need a rack on the bottom, and another rack to sit on top of the jars. Note that the jars need to be the same size on the bottom for this to work. Regular pints are taller than wide mouth, for instance, so one type on the bottom. Or adjust the different sizes so they won't rock in the canner
52. Canning different sized jars in the same canner. Anything pint and below, can for pint times. Anything above pint, for instance, pint and a half, can for quart times. So you can mix pints, half pints, and quarter pints. You can mix quarts and pint and a half. This is a rigid requirement for safety.
53. Boiling. When speaking of water bath canner, this should be a rolling boil, not a necessarily a hard boil. Note: Most electric stoves will not generate enough heat for a hard boil if it's a large, wide pot, as the edge of the pot may be wider than the stove eye. Just keep an eye on it and adjust accordingly. Boiling hard won't hurt the product, the water will just evaporate faster.



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54. Steam canner. There are steam canners available and times are the same as water bath. It uses a smaller amount of water on the bottom and uses steam to heat, rather than the jar be covered with water. It also operates in much the same way. Most pressure cookers have a steam function. **THIS IS NOT PRESSURE CANNING.**
55. Water bath canning in an Insta Pot. The steam function of the Insta Pot or instant pressure cooker works to with steam to basically “water bath can”, usually holds 4 pints. Follow instructions for steam function and recipe for the number of minutes to process.
56. Head space. Most recipes call for 1” for pressure canning, 1/2” for water bath. Jellies may call for 1/4” head space. Head space is measured from the rim of the jar downward. The first thread on a jar is usually 1”, the second thread is 1/2”, the third thread is 1/4”. Ball makes a plastic debubbler that has notches on the other end, so that you can measure, if you want to get it exact.
57. Electric canner. Newest on the market are the electric canners. Presto, Insta Pot Max (look to make sure it has a button that states specifically “canning”, otherwise **IT WILL NOT CAN**), Nesco NPC-9 (replaces the Nesco Carey). The Insta Pot holds 4 pints. Nesco holds 5 pints or 4 quarts. The Presto canner appears to be the same size as the Nesco. All three are not government approved, but Red Rose Homestead did a test with a module to see how long they stayed in the kill zone, all these passed. Either one of these are good. The Insta Pot is the most economical at this time, and runs around \$145 at this writing. It will also double as a regular pressure cooker.
58. Sterilize for pressure canning. If you’re pressure canning, today’s standard is if you’re using clean jars, you don’t have to sterilize. However, if you’re pressure canning hot liquids, put the jars into the oven on 200 degrees on the oven rack to warm and get them out when heated with the jar lifters. It won’t hurt to leave them in longer. Put lid and rings in hot tap water in a bowl. Or you can boil. Or you can run through the dishwasher and take them out when hot or warm.
59. Sterilize for water bath. If you’re water bath canning, while you’re making your product, put the jars in the canner as it’s heating to a boil, and take them out with the jar lifters one at a time when you’re ready to fill. Lids and rings in a small pan on the stove at a simmer, not boil. Get them out with a magnetic ring/lid thingie. Or 200 degrees in the oven for 15 to 20 minutes. It won’t hurt to leave them in longer.
60. Partial load. Whatever size your canner, never do a partial load. The jars will fall over rather than stay upright. If you can fit 8 pints in, and you only have 5 filled,

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always keep a jar or bag of pintos or whatever dried beans you like, and put 1/2 cup of dried beans, 1/4 t of salt, bacon/bacon grease/fat back, ham if desired, fill up with water, wipe the lid and place in the canner. I put the dried beans in the jar with some water, shake good while covering with my palm, to wash them, then drain the water. Beans cook the same time as meat, pint 75, quarts 90. If you don't want to can beans, you can- can water (always have use for sterile water for flushing wounds, baby formula, for use until water comes back on) or just have open jars, no lids, fill with water, to fill the canner. I always try and run a full canner of food, I don't want to waste an opportunity.

61. Wipe the rim. Take a paper towel moistened with vinegar, to cut any grease on the lid and/or remove food product prior to lidding. If you don't have vinegar, wipe well with a dish towel moistened with water. Any rim that feels rough when wiping, usually indicates a jar that won't seal. Visually inspect the rim and discard if nicked or chipped.
62. Vinegar. Best is 5% acidity. White or Apple Cider Vinegar, but white is usually used as it is cheaper. It's a great disinfectant and degreaser. NOTE: Never use vinegar when canning milk, as the milk will sour. Also cuts hard water spots and cleans and prevents cloudy jars. Good to cut grease and food from the rim of the jar.
63. Finger tight. If you use your thumb, and your bird finger and ring finger only, and tighten as much as you are able, that is finger tight. You shouldn't "wrench" the lid down. It must be just tight enough, but loose enough that liquid can escape in the canner. Basically don't use your wrist when tightening.
64. Hot product to warm/hot jars, cold product to cold/room temperature jars. This is to keep the jars from cracking from temperature change.
65. Cooling down the canner. Never pour cold water on a pressure canner to cool it down (it can warp and may interrupt the canning process). It's not the best practice to move a canner off heat when it's done, but recommended to let it cool naturally where it sits. However, if you need to move the canner to use the stove before the canner has cooled, try your best to keep it level when you are moving it. And know a full canner is HEAVY.
66. Hot pack. Some recipes call for "hot pack". This is simply boiling/cooking whatever you are going to can, putting it into hot jars and canning. Hot jar to hot canner.
67. Cold pack. This is mostly interchangeable with raw pack or vegetables blanched, cooled, then canned.

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68. Raw pack. Packing raw product, could be raw meat, raw vegetables, into a jar and letting it cook in the canner. Water may be added or may not be added to the product. It is quick and easy to raw pack chicken breasts, thighs, roast, etc. without water, with or without seasoning. Pack the meat in tight as it will shrink.
69. Meal in a jar. Cut up a roast, chicken or some type of meat. Cut up a potato, add a carrot, onion, and add some Montreal steak or chicken seasoning. Delicious! Also raw chicken to the jar, potatoes, mix up stuffing according to box instructions and place on top! Make up some meatloaf, raw pack into a wide mouth jar (easy to get out), and stick a hole in the middle, add ketchup when you get ready to serve. Burrito in a jar, strips of beef or chicken, onions, peppers (peppers get stronger so not many), add McCormick's Burrito seasoning, put in a jar to eat for later. Green beans, potatoes, meat. Only limited by your imagination! 75 for pints, 90 for quarts, if it even has a speck of meat included.
70. Dry canning. Raw vegetables, fresh or frozen, placed in a jar, with no liquid, or with butter only and sometimes spices. Some say that dry canning produces a better flavor as the product cooks in the canner in its own juices. Green beans with a little fat or butter, potatoes with a dab of butter, carrots, broccoli, etc.
71. Paraffin seal. Hot product to hot jars. This may be done with jams-jellies-preserves. It is usually done with melting paraffin and pouring it over the top to preserve. Paraffin can be reused. Do not can.
72. Pressure canner. A large aluminum pot with a lid that seals with either screws or a rubber gasket. Uses a combination of time, heat and pressure to preserve food.
73. Pounds of pressure? This relates to pounds of pressure needed to safely pressure can and is determined by the elevation above sea level at the location that the canning is taking place. This can be found by searching the internet for correct elevation at your location then consulting the Ball canning book or internet. After you find your elevation, the recommended pounds of pressure won't change no matter what you can. 0-1000 feet is 10 pounds of pressure. 1001 and above is 15 pounds of pressure.
74. Constant pressure. Pressure must remain consistent throughout the canning cycle. Pressure is raised by increasing heat, decreasing heat lowers pressure.
75. Jiggler. This is a piece of metal that is balanced to sit on a nipple of the pressure canner that will give an audible sound so you can make sure the correct pressure is maintained just by listening. Some older canners don't have jigglers, but only a nipple that is designed to be folded over to build pressure. If it's a round jiggler, it

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will have three holes, one will be 5, 10 and 15. This is what determines the pressure. Presto has a jiggle that does the “hoola” dance, basically it rocks gently back and forth and a little bit of steam coming out, to let you know it’s within pressure, usually adjusted by removing successive pieces of metal. See altitude above for correct pressure.

76. Gauge. This is a regular gauge on a pressure canner that reads from 0 up to 25 pounds or so. You can visually look at the gauge to see how many pounds of pressure and adjust the heat up or down. Not all canners have gauges and a gauge is not really needed, but is nice if you are using a large canner, as it takes a longer time to come to pressure. Gauges can be checked for accuracy on an older canner by contacting your local extension office.
77. Pressure release valve. Most all canners except the antique ones, have a pressure release valve, made of either metal or rubber. If the pressure is exceeded above the safe level, the valve will pop out and sound terrible, but better than cleaning green beans off the ceiling.
78. Gasket. Some pressure canners have gaskets, it is recommended to have an extra. Some say to oil them very lightly with vegetable oil, but follow your canner’s instruction manual. Replacements can be found online (see below, Parts).
79. Parts. Know the brand and find the model number, usually stamped on the bottom. You can find parts on eBay or I’ve bought parts successfully from [pressurecooker-outlet.com](http://pressurecooker-outlet.com), they actually have a phone number, 1-800-251-8824.
80. Brands of pressure canners. All American: expensive, all have gauges, but will last forever (screws down, no gasket, newer ones have jigglers, older ones have bendy part, but you can update the bendy for a jiggle and parts are readily available). Presto: has gasket, newer ones can be had at Walmart or most anywhere canning supplies are sold and are excellent, smaller ones don’t have gauges. Older Presto may not have jigglers, and may screw down but are reliable. Mirro: older ones may have trouble finding gaskets but are reliable, newer ones are supposed to be good too.
81. Headspace. This is how far to fill a jar, and will be in your recipe. If it’s one inch headspace, and you’re using a regular Mason jar, that will be to the first screw on ring indentation, if you want to eyeball it and not really measure. Most pressure canning requires 1” headspace. Waterbath Jams, jellies, and preserves are usually 1/2 or 1/4” headspace. If you use a jar debubbler, it will have notches on the end that you can rest on the rim to measure.

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82. Debubble the jar. Filling the jar with product will create air pockets between the food. Always “Debubble”. Ball makes a debubbler which is a plastic wedge that will fit around the inside of the jar without damage, to release air pockets. If air pockets are not removed, the food will settle and the jar will not be full once it’s canned.
83. Siphoning. If you see a jar that has liquid missing, it could be due to siphoning. This usually happens if you tilted the jar removing it from the canner. Gradual temperature change is your friend. It’s always a good idea to let the jars “rest” before removing them from the canner. It can also happen by letting the canner come up to heat too quickly and/or too hot then cooling down too quickly. If water bath canner, let the jars rest after the time is up, at least 5 minutes. If a pressure canner, let the pressure come down all the way to 0 if using a gauge, if using a jiggle, there will be no more hiss at all. Unlock the lid and let it sit on top of the canner for 15 minutes. Remove the lid for 15 minutes. Then remove the jars from the canner. This is gradual cooling to prevent breakage and siphoning.
84. Overnight. If you had a late night canning session, it’s ok to leave the jars in the canner overnight and take them out the next morning. Don’t stress.
85. Shoulder of the jar. This is just the side of a regular jar, where it bends to go to the first seam where the ring goes.
86. Taking jars out of the canner. If you tilt the jar, you could actually keep the lid from sealing by letting food run under the lid. So take the jar lifters and carefully lift the jar straight up and straight back down on a towel.
87. Turning jars upside down. Older recipes call for turning jars upside down and modern protocol is that you never turn jars upside down. This is usually done when water bath canning to make sure the product is sealed. I have done it.
88. Cover jars with a towel after they come out of the canner. It is not recommended to cover the jars with a towel, as it is said that a towel over the jars can sour the food. I do place a dish towel on top, because cool air can crack a hot jar. I’ve never had it to sour the food so far.
89. Measuring cups. You will need something to measure with. If you don’t have measuring cups, most Mason jars have measurements up the side, and they work really well, when you need to measure several ingredients and keep the ingredients separate. It’s quick and easy.
90. Used pressure canner issues. When buying a used pressure canner, make sure the bottom is not warped, but if it is, you can probably buy it cheap as it can be fixed.

You can visually inspect the bottom or the best way I know is to run your hand along the bottom, you can feel a bow. No worries! Get it home. Heat the bottom of the canner on the stove with a little water or a heat gun, then lay the canner face down on the floor on some carpet or a towel. Hit the bottom, on the part that is bowed out, with a rubber mallet. Run your hand over the bottom and you will feel if it's level or not. Heat it again on medium heat with a little water, and see if it bows out again. Repeat until the bow is gone. How you can tell if a canner is warped, it will rock on the stove or on a level surface. Most likely, this has happened due to running the canner with no water or letting it run dry. This method is also good for saving aluminum, stainless, or copper pans that have warped. Look to see if the parts are there. Look at the serial number to see when it was manufactured. Parts can be found for most older pressure canners online. It's ok not to have a guage, but highly recommended to get one with a jigglers.

91. Ball canning book. This is a great book to get started with, highly recommended, even for seasoned canners.
92. Stocking up. Best one book on all types of food preservation!
93. Foxfire books. This is a whole collection of books covering many homesteading skills, including food preservation. Pick out the ones you like, they can be still found on Ebay, look for the best deal.
94. Sure jell, pectin: Sure Jell is a brand of pectin that thickens jams, jellies or preserves. Sure jell comes with great recipes and simple to follow. Sure Jell comes in low to no sugar and regular which may require up to 6-8 cups of sugar.
95. Clear jell. Is a cannable form of corn starch. Thickens recipes for canning. It has been said that flour or corn starch can't be canned successfully but many Rebel Canners disagree.
96. No-fail method to measure water in any pressure canner. If you're using Ball jars, it's easy. Put your jars in the canner, then fill with water to the bottom of the "a" in Ball written on the jar. Works every time, no matter what size of canner!
97. Dishpans. Not expensive, they can be used to hold large amounts of food that you're preparing and they nest to store. And they hold scraps from your canning session (if you don't have a compost, you can bury most scraps straight in your garden). Also dishpans are good in the sink, as you can catch the clean water to pour in a rain barrel or buckets, to economically water your garden. They also catch the sometimes greasy water from the canner, otherwise it may stop up your drain.

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98. Stopped up drain. Periodically run hot water with some degreasing dishwashing detergent down the drain to keep it unclogged. It's not a matter of if but when. A small crank snake from the hardware store is better and usually quicker than chemicals.
99. Rebel canning group. This group on Facebook is highly recommended for both new and seasoned canners. They think outside the box on their canning methods and can all sorts of things. Also Red Rose Homestead on YouTube. She's a professor who does all types of food preservation. I personally love Old Alabama Gardener, he packs okra and squash in a brine, water bath cans it. Rinse it off when you're ready to eat, batter and fry and its just like fresh!
100. Dropped below pressure while pressure canning? If by accident the canner gauge drops below the recommended pressure, stop the timer and begin from the beginning. Use your discretion.
101. Lost the boil when water bath canning? Stop the timer when you lost the boil, and resume the timer when boil is reached. Use your discretion.
102. Opening the lid on a canner. Just like a stock pot, open it away from you to prevent burns.
103. Venting. When a pressure canner is heating, steam will begin to come out from the top. It is desirable for the canner to "steam" or vent for 10 minutes. The steam will be intermittent at first, then should convert to a steady stream. When it's steady is when to start timing. This is to make sure there are no air pockets inside the canner, so that the canner will heat evenly. It will also ensure that the canner valves are working properly prior to canning.
104. Sanitizing jars for water bath canning. Some say jars must be sanitized, and others say that hand washing or dishwasher is all you need to do. The main thing is they are clean. However, most often you will be heating up the food for water bath canning anyway, so always remember, hot food, hot jars, to prevent breakage. There are two ways to do this. (1) Place jars in oven and heat to 200 degrees for 15 to 20 minutes; OR (2) Place jars in the canner while the water is heating to a boil, and let them boil to sanitize. If removing from hot water, tilt the jar to the side with the jar lifter to pour out the water. ALWAYS place a towel to the side of the stove, and place the hot jars on the towel, to prevent temperature shock. Use your own judgement. -see city water vs other water.
105. Sanitizing jars for pressure canning. Standard protocol these days is that if you're pressure canning, you don't have to sanitize the jars, but they must be clean.

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Cleaning can be done by washing. However, remember, hot product, hot jars. So I had rather place the jars in the oven on their sides if I'm pressure canning, directly on the oven rack, to heat as it is less messy. Heat them enough so the jar won't break when adding the hot food, not necessarily for the full 15 minutes. Remove the jars carefully from the oven with the the jar lifter, since they will be hot. Or use a dishwasher and take out when still hot.

106. City water vs well water, spring, cistern, etc. Sanitizing the jars and lids IS RECOMMENDED when you WATER BATH and have any other water besides city water. Some sanitize regardless.
107. EMERGENCY ISSUE WITH THE WATER. If for some reason there is an issue with the city water, boil the jars, lids and rings or use some bleach to sanitize them in your rinse water prior to filling.
108. Sanitizing lids and rings. It is recommended that modern lids should not be boiled or simmered prior to lidding. You may feel better placing them in hot tap water in a pan just to warm them up so you won't shock the jars.
109. Eating straight out of the jar. When the food has been pressure canned according to recipe, you can eat the food out of the jar.
110. Salt. Iodized salt can be used but may make the product cloudy, but not harmful. If its a brine, it will make the brine cloudy. Canning salt, kosher salt, or pink salt works well.
111. Botulism. If you think there could be an issue, boil the food for 10 minutes. Boiling food for 10 minutes kills botulism spores. Botulism these days is rare.
112. Where to put all this stuff? I personally have a rolling cart, like a baker's cart, where I put my canner, and a case or two of jars. New lids are stacked on the next shelf, along with rings, in a Ziploc bag. Surejel, citric acid, and other things related specifically to canning is on the next shelf. The jar lifter, lid lifter, and little things fit in the drawer. I keep the cart in the kitchen, but since it rolls, you can find an out of the way place for it. I like the cart because it gives me extra counter space, and I can roll it near to where I'm working. But you can keep the everything in a plastic tote, too! Whatever works for you!
113. Creative canning. By the term creative canning, I mean, you stick roast in a jar and decide to add some potatoes, carrots, and onions. Then you decide to add some cream of mushroom soup (thinned according to the back of the can). How long would you can that? ALWAYS REMEMBER, whatever product you put in the jar that



needs the longest amount of time, is the time you use. For instance, meat takes the longest, so set your time for meat times. Always, when pressure canning meat, for a pint jar, it's 75 minutes and 90 minutes for a quart jar. Always, when water bath canning, it would be 3 hours. Any meat EXCEPT FOR FISH, which takes longer.

114. Canning thick products.

115. Aluminum canner is pitting inside or discolored. Pitting is not pretty but shouldn't affect the functionality. Different water may discolor aluminum.

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### 116. Water bath canners

117. General information. Most any pot can be used to water bath, the jars just need to be immersed upright fully in water. Water bath canners come in varied sizes, shapes, metals and finishes that fit on a heat source and come with a lid and some type of rack or basket. Deep stock pots can also be used, or even You can also use an electric pressure cooker, a brand name is Insta Pot, to "water bath", for smaller jars on the steam function, and vent only. You can also use a pressure canner to waterbath, just don't put on the jigglers, and don't use the gasket, so as to not build pressure. That way the canner lid will work as a regular lid.

118. Stock pot. The pot must be tall enough to hold comfortably whatever size jars you want to use, PLUS at least 2-3" of water above the jar lid, AND considering you will be using a rolling boil. You will also need a lid for the pot. Also something to put in the bottom, so the jars will not come in direct contact with the hot bottom of the pot. This can be a basket insert you buy specifically for water bath canning, something you make out of rings (see above under rings) or even a towel folded in the bottom to keep the jars off the bottom so they won't get too hot and crack.

119. Water bath canner. They still make old-fashioned black speckled pots (enamelware) or a stainless steel water bath canner, both come with a wire rack and a lid. Look for one at Walmart, Tractor Supply, Lehman's (online).

120. Amish water bath canner. The Amish have a large stainless rectangular one that sits across two stove eyes, expensive, available at Lehman's.

121. Electric water bath canner. Walmart locally and online. Boils water, has a timer, and cuts off.

122. Electric jam and jelly maker. Ball makes an electric jam and jelly maker which automates stirring and has a timer for perfect jam.

123. Water bath with InstaPot. You can water bath can with the steam function on a InstaPot pressure cooker or one similar.
124. Pressure canners. There are a lot of selections and used ones can be had at auctions, Facebook marketplace, thrift stores, neighbors, and family, friends. Some have gaskets, some screw down with no gasket. Some are electric. Some are made for a glass stovetop. Some have gauges, some have weights, commonly called “jigglers.” Most all have a safety valve that pops in case it runs dry. Really old canners didn’t have a safety valve, which was usually the cause of the horror stories you heard...like, “Aunt Jane’s pressure canner blew up and she cleaned green beans off the ceiling for a year, she thought a bomb went off!” Some of the older canners have metal safety valves and the newer ones have rubber valves. Pressure canners sound loud and hiss steam. But once you take the plunge and get past that first time of canning, you will probably give it a name and pass it down to someone in your family tree!
125. NOTE: A pressure cooker is NOT the same as a pressure canner, but pressure canners can be used as pressure cookers!

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## 126. Heat Source

127. A standard electric stove. This must have at least one large heating element to sit your canner, water bath or pressure.
128. A standard gas range. This is preferred by everyone I know, but use what you have!
129. Glass top stove. A glass top range requires cookware that will disburse the heat, otherwise it will crack. Presto makes a canner specifically for glass top stove as well as All American. Make sure when purchasing that it is approved. OR: Use a hot plate, see below.
130. Hot plate. Don’t waste your money buying one at a big box store, most are 750 watts. You will need 1500 watts and one that is heavy duty. What has been recommended by many canners is the brand Broil King, Cadico PCR-15 Professional Cast Iron Range at \$163 at this writing on Amazon, perfect for those who want to use a large canner but have a glass top stove
131. Outside propane stove. Recommended is Camp Chef. It comes in two burner, available at Walmart. NOTE: In order to use these camp stoves and not warp your canner by getting it too hot, you must use them with a heat diffuser. They make a

“flame tamer” and you can get it on Amazon. If you can't buy or can't find a “flame tamer”, an alternative homemade heat diffuser is simply a cast iron skillet turned upside down, just sit the canner on top of the skillet.

132. Turkey cooker, propane. Follow recommendations as above, make sure you use a heat diffuser.

133. A wood cook stove. Not for sure if a pressure canner can be consistently regulated, but water bath would be fine.

134. Regular wood stove. Not for sure if a pressure canner can be consistently regulated, but water bath would be fine.

135. Rocket stove. This would probably heat enough to work to can on, never tried it but it is promising. Can be built out of about 20 bricks or about 10 cinder blocks. Would be excellent to cook on outside, cheap and easy to build, easy to start a fire, control the fire, and quickly extinguish.

136. Dakota pit. This doesn't produce a lot of smoke, would be covert, but not for sure it would work for canning. More for camping.

137. Open campfire. This would be my last resort, as would need some type of metal stand over the fire to sit a heavy canner on for stability. As above, not for sure if a pressure canner can be consistently regulated, but water bath would be fine.

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### **138. What you will need to get started**

139. A recipe. I recommend a Ball canning book if you're just starting out.

140. A canner (whatever you're going to use).

141. Jars. Lids. Rings. Or just a case of jars that contains the jars and rings.

142. Jar lifter, looks like tongs, to lift hot jars out of a canner. Debubbler (you can use a wooden spoon for this - don't use metal, will weaken or crack the jars). Magnetic lid and ring lifter, not necessary, but good to have. HINT: A canning kit, which includes a jar lifter, magnetic lid lifter, debubbler can be obtained at Walmart or any store that has canning supplies.

143. Jar funnel. May come in a kit listed above.

144. Wooden spoon (always good).

- 145. Ladle, but a large coffee cup works, or sturdy measuring cup, something with a handle.
- 146. Sieve or strainer, and a Colander.
- 147. Timer (or there's a timer on your phone).
- 148. Large pans or bowls - dishpans work great for handling lots of food for processing, and for holding lots of scraps.
- 149. Saucepan. Either for simmering lids, or simmering water to add to waterbath canner due to evaporation. Or teakettle.
- 150. Measuring cups (can use canning jars with markings). Measuring spoons (can use regular spoons)
- 151. Potholders. Dish towels, dish cloths, and/or bath towel.
- 152. Vinegar. (1.) Vinegar, to wipe the rims with, cleans off the grease, but you can also use a wet, clean corner of a towel. (2.) Add a dollop of vinegar to the water in your canner prior to closing it to prevent cloudy jars.

### **153. What can you “can”?**

- 154. Standard protocol for high acid foods. USDA rules state high acid foods, fruits (tomato is a fruit), or vegetables that contain a salt and vinegar brine can be water bathed. Also highly sweetened preserves, jams and jellies can be water bathed. Lemon can be added to tomatoes to raise acid content.
- 155. Standard protocol for low acid foods. USDA rules state that low acid foods, such as most vegetables, meats, must be pressure canned.
- 156. Meat, water bath. Meat, or anything including meat, can be water bathed if done for 3 hours, fish is always longer, at 4 hours.
- 157. Meat, pressure can. Pressure canning meat or anything containing meat, ALWAYS 75 minutes for pints and 90 minutes for quarts, across the board.
- 158. Caveat: Modern USDA rules say you can't water bath meats, and so will many naysayers, but people in UK do it all the time. The modern USDA is not involved in testing canners or recipes, testing has now been delegated to extension offices. Approvals come when officials run controlled tests, of course, that is dependent on funding. I personally pressure can meats due to the length of time required to water bath, and knowing pressure canning is more of a controlled environment, but in an

emergency, it is good to know this can be done. Antique canning books, such as the 1919 War Garden Home Canning and Drying, Kerr canning in the 1940 and 1950's, lists many things that are approved for water bath canning.

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### 159. Water Bath Canning - Let's Begin!

160. Read your recipe to get in mind what you need to do and to get together. Sometimes you may want to prepare your food one day, and can the next. Sometimes, little steps on separate days are best. Don't stress! Use what you have!
161. Put the recipe in front of you, so you can see it, hands free, and won't fall down.
162. Get together: Clean or sterilized jars, lids, rings. Funnel. Ladle, jar lifter, spoons, and anything else the recipe may call for. Stock pot or water bath canner. Rack. Lid. Sauce pan or tea kettle filled with water, to simmer. Place clean jars on clean towel. Canner to the stove, rack on the bottom. Timer. Dishpans.
163. Fill the jar, hot product. If it's preserves-jams-jellies that you're cooking, place the jars in the oven to heat before you pour the product into the jar. (Hot to hot.) Using the jar lifter, remove a jar from the oven and place on the towel to prevent temperature shock. You will need a ladle, or a coffee cup to dip and pour the hot product into the jar with a funnel, they will be very hot. Debubble. Most preserves-jams-jelly recipes call for water bath some may not.
164. Fill the jar, cool product. Using a funnel, fill the product into the clean jar.
165. Wipe the rim. Wipe the rim with a paper towel with a little vinegar, or the edge of a clean towel with the edge wet. Put the lids on (hold with a towel or pot holder, if jar is hot) and rings. Finger tight.
166. Jars to the canner. Place jars gently into the canner, either with your hands or with the jar lifter. Run water into a pan (I use a smaller dishpan) to fill the canner. Always: Cool jars, add cool water to the canner. Hot jars, hot tap water to the canner. Fill to 2-3" above the lids.
167. Turn it up. Turn heat on high, wait for boil. When the water reaches a boil, put on the lid and leave it on.
168. Checking the water. An easy way to measure the water above the jar is to take a wooden spoon before you start and mark the number 1 at the 1", 2 at the 2", and 3 at the 3" mark. Then you can sit the spoon vertically on top of the lid every so often and add water when it gets low. That will be your official measuring spoon!

169. Maintaining the water level. Water must cover the lids at all times. The best way to increase the water level back to 1-2" or above and to keep it boiling is to have a pan of water or a tea kettle heating on simmer and add directly to the canner. It's better to not to let it get to 1", as that's the minimum. Check water level every 15-20-30 minutes or so.
170. Note: If you've lost the boil, stop the timer. Resume the timer when it reaches a full rolling boil and continue to time.
171. Time's up. Turn off the heat. Let the canner sit for about 30 minutes with the lid on, it should stop boiling. Open the lid away from you and let the water drain off the lid back into the canner. Lay the lid face up to keep the water from getting everywhere. Use the jar tongs and lift the jar STRAIGHT UP, and out of the canner, and place on the towel to cool, away from any drafts. The next morning, take the lids off the jars and wash lids and jars in warm, soapy water, dry and label. That's it!

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## **172. Pressure Canning - Let's Begin!**

173. Read your recipe to get in mind what you need to do and to get together.  
Sometimes you may want to prepare your food one day, and can the next.  
Sometimes, little steps on separate days are best. Don't stress! Use what you have!
174. Put the recipe in front of you, so you can see it, hands free, and won't fall down.
175. Get together: Clean or sterilized jars, lids, rings. Funnel. Ladle, jar lifter, spoons, and anything else the recipe may call for. Pressure canner. Rack. Jiggler and/or gasket, if it has one. Place clean jars on clean towel. Canner to the stove, rack on the bottom. Timer. Dishpans.
176. Fill the jar, hot product. Place the jars in the oven to heat before you pour the product into the jar. (Hot to hot.) Using the jar lifter, remove a jar from the oven and place on the towel to prevent temperature shock. You will need a ladle, or a coffee cup to dip and pour the hot product into the jar with a funnel, they will be very hot. Debubble.
177. Fill the jar, cool product. Using a funnel, fill the product into the clean jar.
178. Wipe the rim. Wipe the rim with a paper towel with a little vinegar, or the edge of a clean towel with the edge wet. Put the lids on (hold with a towel or pot holder, if jar is hot) and rings. Finger tight.

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179. Jars to the canner. Place jars gently into the canner, either with your hands or with the jar lifter. Run water into a pan (I use a smaller dishpan) to fill the canner, according to your canner's directions.
180. DON'T FORGET THE WATER! Always: Cool jars, add cool water to the canner. Hot jars, hot tap water to the canner.
181. Lid on. Put the lid on the canner. Leave off the jiggle. Close the lid until it locks. This can be turning it to the "lock", or locking the top with screws.
182. Turn it up. Turn heat on medium high, not high.
183. Vent. Vent "steam" for 10 minutes. IF IT DOESN'T VENT WITH MOISTURE, YOU FORGOT TO ADD WATER! I call it "spitting" because it will spit out some water first prior to beginning to vent. THIS IS AN IMPORTANT STEP!
184. Jiggler. After the 10 minutes venting, put on the jiggle.
185. Begin timing. Once you put on the jiggle, it's time to start the timer, according to the recipe. DON'T FORGET TO BEGIN THE TIMER. Many times I've forgotten and had to do an educated guess.
186. Bring the canner to pressure. If it is a jiggle only, it will rock and make a small noise every so often. Some jiggles do the "hula", gently rocking back and forth. Either of these you can hear. If you're new to canning, you will be counting or listening hard to make sure it's right. After a while, you will be able to hear it in the background and know automatically if the heat needs to go up or down. Always be in hearing range of the canner.
187. Time's up. Turn off the heat. Gradual temperature change is your friend. It's always a good idea to let the jars "rest" before removing them from the canner. Let the pressure come down all the way to 0 if using a gauge, if using a jiggle, there will be no more hiss at all. Unlock the lid, and let it sit on top of the canner for 15 minutes.
188. Lay the lid face up to keep the water from getting everywhere.
189. Remove the lid, by opening away from you, for 15 minutes. Use the jar tongs and lift the jar STRAIGHT UP, and out of the canner, and place on the towel to cool, away from any drafts. This is gradual cooling to prevent breakage and siphoning. The towel will also absorb any grease or liquid, rather than being on your kitchen counter.
190. Place the jars on a towel. There may have been some siphoning, sometimes it just happens no matter what you do. USDA states to eat the jars first that have

siphoned, but best I can tell siphoned jars aren't dangerous. Canned meats may leak grease into the canner, just clean out the canner with some good, soapy water. Wash and label. Let the jars sit overnight. Remove the rings, Wash the rings and jars in hot soapy water and dry. Label with a sharpie.

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### **191.Small batch canning**

192.If it's just you and maybe one other, and you've got a dollar or two saved up that you can invest (yes - it is an investment, food these days is a valuable commodity!), I highly recommend you buy an electric pressure canner. It is an easy way to get your feet wet, and also a way to not waste leftovers. It's also great to be able to pop open a can of soup, stew, roast, or even some hamburgers (think hamburgers smothered in white gravy with some biscuits!) and be able to have a meal ready just in a minute, when you've had a hard day. You can soon have a tremendous amount of food security by just canning 4-5 pints of whatever you found on sale for the week, plus anytime you have leftovers. The newer electric pressure canners are press a button or two, enter the time, then they turn off by themselves.

193.The second easiest is to buy a small canner. Presto currently makes a 16 quart and modern recommendations state anything below that is unsafe. The 16 quart holds 7 quarts and runs about \$85 to \$100 or so. If you do get an older, smaller canner, be careful of canning fish as the smaller canners have a shorter heat up and cool down. Otherwise, you should be fine.

194.The third is to water bath can. Just make sure to extend the time to compensate for the difference in pressure canning and water bath canning. MEATS ARE 3 HOURS. Fish is more time.

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### **195.Some favorite Rebel Canning recipes**

196.Ground Beef. Fry ground beef until not pink. Drain well. Season with some salt, pepper, keeping in mind regularly seasoned hamburger can be used with many recipes. Pack tightly into jar, 1" headspace. Wipe rings with vinegar to cut grease and lid. Pressure can 75 minutes for pints. One pound will fit into one pint jar. Wide mouth is easier to remove from jar. 80% is good.

197.Hamburgers. Pat out the ground beef, then use a wide mouth jar to cut out into patties. Throw in some onions. Fry patties until not pink. Drain well. Stack into wide mouth jars. Wipe with vinegar. Can for meat times. 80% is good.



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198. Okra for frying. 2 quarts cut okra, 3/4 non-iodized salt, 4T Apple Cider vinegar, 3 1/2 c water, heat jars @200 for 20 minutes, pint or quart jars. Bring water, vinegar, salt to a boil (this is brine). Add okra, cover, bring back to boil for 8 minutes. Add okra to hot jar (use strainer), letting water continue to boil. Shake okra to settle - do not pack down, to about 1/2" head space. Add brine to 1/4 head space. Debubble. Wipe rim with vinegar, add ring and band, pretty tight. Let set overnight, then remove rings. -Do not waterbath or pressure can- This is a brine recipe. When ready to use, place okra in colander, rinse with cold water, batter and fry as normal. Tastes just like fresh.
199. Squash for frying. 1 quart squash, cut lengthwise and remove as many seeds as you can, cut into cubes. Or cut like you usually do to fry. 1-1/2 T canning salt (non-iodized), 4T vinegar (ACV works best), 7c water. Jars to oven, 200 degrees for 29 minutes. Bring water, vinegar, salt to boil. Add squash. Bring back to boil for 10 minutes. Dip out squash with strainer, add to hot jars, to about 1/2 head space. Add hot brine to over squash. Debubble. Wipe rim, add lid and ring, tighten. Turn jar upside down until cool and lid seals. Once jar is cool, remove ring. Do not waterbath or pressure can, this is a brine recipe. When ready to use, place squash in colander and rinse with cold water. Batter and fry as normal. Tastes just like fresh.
200. Fried potatoes. Wash potatoes well. Golden or red potatoes work best. Cut into fries, fried potatoes, or planks, whatever shape you want. If you want to leave the peel on, wash really well with a brush. Soak for 20 minutes to remove some starch and rinse. Pack into jars raw, dry can (no water). Salt and pepper or some seasoning salt as you desire. Pat of butter on top. Pressure can, 35 minutes for pints, 40 minutes for quarts. NOTE: If you use Russet potatoes, soak another time or two, or blanch, they seem to discolor and have more starch, not as pretty, but it doesn't affect the taste. Rinse off the starch if you want prior to cooking. Add peppers, onions, or anything else you want to the can. When you're ready to eat, pop the jar and prepare as normal. Fry, bake, or whatever you want, just like fresh.
201. Bacon. Fry to 90% done, drain and blot. Lay out on parchment paper (2 feet per pound) and lay out the bacon, then roll it up, fold in two. Stick it into the jar, standing up, don't worry about head space. Cut off excess paper if needed. Process meat times. You can also just put it into the jar raw, but will come out more like bacon bits. Either way will have bacon grease when cooked, to make gravy with. Works great for wide mouth pints.

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202. Banana Bread. 4 c overripe bananas (10), 4 eggs, beaten; 1c melted butter; 4 c unbleached flour; 1-1/2 c brown sugar, packed; 2 t baking soda; 1/2 t salt. Mix wet ingredients first. Separate bowl: Add brown sugar, soda, salt, mix; then add flour, then add both together. Grease wide mouth pint jars with butter. Fill to 1/2 full, wipe rims. Set on cookie sheet, bake 1 hour. Take out one at a time, and put on lids quickly. Good for 2 years (so they say). The recipe calls for 1 c walnuts and 1 c raisins or raisins, which I don't use as nuts become rancid, and I like plain banana bread. When ready to eat, pop out of the jar and slice. Also same instructions apply using a box cake mix, no icing.
203. Juicy juice jelly. 5 c juice of your choice, Apple Pear, Welch's, etc. 1 T butter; 7c sugar; 8T pectin and a little extra. In large pan, pour in juice, heat to medium high. Pour 1/4 c sugar in bowl, add pectin and mix well. Add to juice, continue to stir on medium high until it reaches a boil that can't be stirred away. Add remaining sugar. Add butter (to reduce frothing). Bring back to boil, continue to stir, sit for 1 minute and turn off stove. Quick way to make jelly.
204. Recan #10 cans you got on sale. Includes: BBQ sauce, salsa, tomato sauce. Separate and pour into jars, pressure can for 20 minutes. Not recommended to recan soups and beans, but these can be incorporated into a recipe and canned, but know that beans may be mushy.
205. Chicken breasts, thighs, etc., bone in or boneless. Boneless, pack into jars, raw. Bone in, thighs work great in pints or quarts. Stand up legs and stack into jar. Basically pack whatever you can get in the jar. Can at meat times. When the bone is left in, the meat cooks on the bone and slips right off. The gelatin at the bottom of the jar that's left can be poured out into a skillet and add flour for gravy. Serve with rice or potatoes.
206. Sausage. Cook to lightly brown, to retain shape, drain. Stack into jars. Usually 5 patties to a jar. Wide mouth works best. Process for meat times. Will have grease for gravy. Or pat out to about 1/2" thick, take wide mouth jar and cut out (like a cookie cutter) to fit the jar. Fry as above.
207. Barbecue. Not had good luck with canning barbecue as it's pretty greasy. But if you want to try, it would be meat times.
208. Clarified Butter. 1 lb butter=1 pint. Melt butter over low heat to keep from scorching. Simmer for 10 minutes to remove moisture. Pour melted butter into hot jars. Clean rims with water. Lid. Pressure can for 30 minutes. Turn off heat and let pressure drop. Milk solids may clump to bottom of jar so you will need to shake,

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shake, shake the jars as they cool to disburse. (Only recipe I know that says to not let the jars set to cool.)

209. Ghee. 1 lb butter=1 pint. Melt butter in heavy pot, over medium heat. Cook until you see 3 clearly separated layers. Foam on the top, melted clear in the middle, solids at the bottom. When the solids turn brown, its done. Takes about 30 minutes. Skim the foam off with a spoon, make sure to get it all. Ladle through strainer lined with a paper towel, coffee filter, or cloth into hot jars. Wipe rims with water. Water bath for 15 minutes. Save the browns off the bottom for meat or veggies.
210. Milk. Cold milk, cold jars, cold water. 2% will make whole milk, whole milk after canning will taste more like evaporated. Can also can chocolate milk, half and half, and whipping cream. Cold pressure canner. Slowly bring canner to temperature. Vent 10 minutes. Then raise pressure. Once pounds of pressure is reached, turn off heat and allow pressure to come to 0. Stores 1 year. NOTE: DO NOT USE VINEGAR AT ALL, IT WILL SOUR THE MILK.
211. Tomatoes. 53 lbs of tomatoes = 1 bushel. Score skin of tomatoes in quarters (to make skin easy to remove but you don't have to). Add tomatoes to boiling water until skins slip (1-2 minutes), this is called blanching or scalding. Cut into half, quarter, or leave whole. Pack tightly in jars with your hand or gently with a wooden spoon, use the end of the spoon to Debubble. To each quart jar: 2 T lemon juice or 1/2 t of citric acid; 1 t salt. Add to water bath canner, process for 35 minutes pints, 45 for quarts. Pressure can for 10 minutes. NOTE: a lot of the newer tomatoes are low acid so that's why to add lemon juice or citric acid. Also Ball has many tomato recipes.
212. Fried green tomatoes. Green tomatoes, cut into pieces or slices. 1/4 t citric acid; 1/8 t calcium chloride. Boil water in a saucepan. Heat jars and heat canner. Wash and slice green tomatoes to 1/4" or so thick. Pack tomatoes into pints. Citric acid and calcium chloride. Fill jars with boiling water to 1/2" headspace. Wipe and lid. Pressure can for 10 minutes. Open jar, batter and fry.
213. Homemade cellar. (1) Dig hole into ground big enough for a trash can. Cover with lid. Place vegetables your intending to store, such as potatoes, cabbage, etc. (2) Storage containers into hillside, cover around them with dirt, cardboard, leaves on the top.

## 214. Dehydrating

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### 215. The Low Down

216. Anything can be dehydrated. If you have a small garden, if you don't have time to can, or you don't have enough to can, you can still preserve food quickly and easily by dehydrating.

217. Electric dehydrators. Nesco makes awesome dehydrators for the money and are available at Walmart for around \$65. It has a temperature dial that has what types of food in the temperature range, so it's simple to use. There is no timer, but a timer is really not needed. If you need a timer, pick up a cheap timer locally. The price of dehydrators go up from there.

218. Oven dehydration. If you have an oven, you can dehydrate. Just put the food items on a cooling rack and the cooling rack on a cookie sheet. Set the temperature to 200 degrees. Prop the door open.

219. Dehydrating outside. There are several ways to dehydrate outdoors, and it will need to be warm weather. You can use a plain window screen. Lay the food items on top of the screen and cover it with cloth, or another screen. Lay it so that it can get air flow. In the past, some have laid things to dehydrate on top of the roof. It is said to bring the food in every evening. If it is cooler weather, the inside of a car will also work, if there is no electricity.

220. Things to dehydrate. Dehydrating is a good way to quickly build up your food storage if you don't have a garden and it is a space saver. One of the easiest things to dehydrate is mixed frozen vegetables in the freezer section. Buy a couple of large bags of mixed vegetables, empty the frozen vegetables on the trays, and turn on the dehydrator. Great to add to soups or any recipe. Cabbage, greens, onions (will smell up the house), apples, blueberries, basically, anything you can think of.

221. Times and temperatures. Fruits and vegetables, 130-140F, and should be tough and crisp. Meats and fish, highest setting. Herbs and spices, 90-100F for 1-2 hours. Overdried foods lose quality in texture, nutrition and taste. To test, remove a piece of food, allow it to cool, and feel it with your fingers. Fruits should be pliable and leathery with no pockets of moisture. Tear a piece in half and watch for moisture beads. If there aren't any, it's sufficiently dry for long term storage.

222. Storage. Home vacuuming devices extend the life 3-4 times. Also vacuum sealed in a jar. OR whatever you have. Ziploc bags or regular jars.

223. Tomatoes and onions. Pack immediately as they absorb moisture from the air.
224. Mold. Check for white mold, it will be visible or the food will smell off.
225. Storage. Cool, dry and dark. Fruits dried with the skins intact should be packaged and frozen for 48 hours to kill any bugs. The lug jars are excellent to store fruits and vegetables. Shake the food periodically and inspect to see that the food moves freely in the jar.
226. Rehydrate. Place dried food in a container with enough water to cover the food, and soak for 30 minutes to 2 hours. Boiling water rehydrates foods more quickly. Do not add spices, seasonings, sugar, or especially salt during rehydration because it can slow down the rehydration process.
227. Using. After rehydrating food, cook as normal. Most food will rehydrate to about 80% of fresh, so may be more chewy even when rehydrated. Also add 1 additional cup of water for 1 cup dried food. When using fruits in baking or for ice cream, cover with boiling water and allow them to stand for 5 minutes to soften.
228. Eggs. Red Rose Homestead had a recipe that she dehydrated raw eggs. Eight eggs, into blender, 4 short pulses. Pour in the middle of plastic tray. If you don't have a tray, put on parchment paper or Saran Wrap. Dehydrate \*not above 140 degrees\*. About 13 hours, check. Edges may dry first, don't over dry. Remove the dried parts, leave the damp in until it dries. Put dried eggs in the blender, blend to powder. Strain powder through strainer (stir the dry powder and remove the chunks, put the chunks back into the blender. Place the dried, strained powder into a jar. Turn the jar to check dryness. Powder should turn freely. Keep adding dried eggs to the blender, repeat process. Vacuum seal the jar with an oxygen absorber, great way to use used lids. To reconstitute: 1/4 c powder to 1/4 warm water - stir. Note: 2T is one egg. Add more water if thick.

## 229. Freeze drying

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### 230. The Low Down

231. Freeze dryers are extremely expensive.
232. Freeze dried food can be purchased but it is also expensive.
233. Food must be frozen first, then freeze dried.

## 234. Food Saver, bags, ziploc

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235. Saving the bounty

236. Food saver and other manufacturers make a vacuum sealing machine that uses special bags to place your food in with the aim of being air tight, as air and light are an enemy of food.

237. Bags are relatively expensive, but worth it if you have food that you're putting up. Some say that Ziploc freezer bags can be used with the Food Saver, but it is hard and unwieldy to use anything but the company's standard bagging system.

238. If you decide to seal flour or another fine powder, rebag into a regular paper sack, ziploc, or into its regular container, otherwise you will destroy the vacuum sealing machine.

239. If you decide to seal a wet product to preserve it, such as meat, or soup, freeze it first. If it's meat or something similar, lay it on a cookie sheet in the freezer in chunks, then drop the frozen pieces into the vacuum sealing bag and the seal. If it's soup or something similar, place into some type of container, such as a bowl, and freeze. When completely frozen, take it out and seal in the bag. Either liquid or dust will kill the vacuum sealing machines.

240. Purchase them. They run anywhere from \$35 on Amazon to \$200. Brands Nesco Seal a Meal and Food Saver are available at Walmart.

241. I have one, you can also seal Cheeto bags and things like that.

## 242. To be continued...

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