

NEW EDITION

THE PREPPER'S

THE

SURVIVAL

2 BONUS
INSIDE

BIBLE

13 BOOKS IN 1

The Ultimate Guide to Survival After the Society Collapse.
Stockpiling, Home-Defense and Life-Saving Strategies
to Survive a Worst-Case Scenario



JACK MARSH

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Jack Marsh

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Introduction

The world has become an uncertain, sometimes frightening place. It is a sad fact that sometimes bad things happen to good people. But the trick to surviving the bad times is preparation. We can come through an emergency safely if we apply forethought and planning. What's more, we can guide our family with a steady hand using the resources available to us without panic or fear. This book will show you how to do that.

We will discuss how to find, store and purify water. We will look at how much food we need to store, the best way to organize a prepper's pantry, and how to acquire food if you don't have a pantry. Depending on the emergency you're dealing with, you'll learn which types of shelter are better than another. We'll also discuss the importance of disaster hygiene and sanitation. Mental health will be addressed as well. The importance of staying calm and focused during a disaster cannot be overstated. We'll also look at the benefits of lists. It's much easier to build our resources and skills if we know our goals ahead of time.

You'll learn tips that will help you defend your home and family, and learn when to leave for your safety. If you have to leave, you'll need to know what you should take with you to increase your chances of survival, where to take shelter or how to build one. Herbs will help you stay healthy, fight off infection and boost your immune system if our conventional medical system is unavailable.

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BOOK 1

Survival Guide



What is Prepping?

Preparedness (commonly referred to as ‘prepping’) is the process of analyzing the likelihood of emergencies and then making arrangements to come through those emergencies safely. These arrangements usually take the form of learning skills and utilizing resources such as stockpiles of food, medical supplies, and educational resources. These arrangements, or ‘preps,’ will be different for everyone because no two sets of personal circumstances will be the same. A family with small children will have to make different arrangements than a single person or even a family that includes a senior and a pet.

But prepping is much more than just a year’s supply of food and toilet paper. A large part of survival is a mindset. Knowledge combats fear of the unknown, but all the knowledge in the world does no good if one doesn’t understand how to transfer it into action. So knowing the steps involved in making a fire, for example, is all well and good, but you need to actually get out and make a fire a few times to build that muscle memory. Understanding how a fire will behave with various types of kindling can make all the difference between life and death.

The first mindset adjustment you need to make is one of silence. You don’t want everyone in the neighborhood to know that you have enough food and water for a year because when the grocery stores have all been emptied, people will come for *your* food. So don’t advertise your efforts. If your next-door neighbor sees you unloading cases of bottled water from the back of your vehicle and looks askance at you, shrug and tell him it was a terrific sale you couldn’t pass up. If you decide to convert your backyard into a garden and that same neighbor watches you over the fence, talk to him about the rising cost of vegetables. He’ll either agree or go away muttering about “crazy tomato-lovers.” Never tell anyone outside your immediate family what your plans are, and impress upon them the need to keep your activities private.

The Purpose of This Book

This book will provide you with the knowledge you need to ride out and survive various emergencies. It will give you the tools you need to begin your journey to preparedness. From there, it's up to you to put your newfound knowledge into practice. Being familiar with the actions to take in an emergency will help you stay calm and focused and help your family survive. I recommend practicing the skills you learn in this book. That might mean acclimating your family to live without electricity for a few hours every couple of weeks so they can learn what to expect and how to adapt to life without power. It may mean finding an alternative cooking method and recipes for stored food that everyone will eat. Your circumstances will inform the skills you need to learn and develop to keep your family safe and relatively comfortable during an emergency. I can guarantee you that it's never like you think it's going to be.

Recognize The Different Faces of an Emergency

A short-term power failure will call for contrasting plans than a medical emergency. A city-dweller will respond differently to social unrest than someone who lives out in the country. You'll want to assess your circumstances and decide what sort of emergencies or disasters you might face. Earthquakes, fire, flooding, financial upheaval, rioting, infrastructure collapse, power grid failure, compromised water safety, and societal collapse is all possible depending on where you live. All of these examples have happened in the past ten years somewhere in North America. So don't let anyone tell you "it'll never happen." It has, and it will happen again. Lists are beneficial. After considering the aforementioned examples, make a list of what disasters might affect your family. Then you can start to plan your response so that the emergency does not become a crisis.

What Tools Will You Need?

There are a variety of items that will help you survive. What you'll need depends on what you're facing and where you are.

Tools to Help You Survive at Home

Organize Your Preps

I suggest acquiring a large three-ring binder, section organizers, and binder paper. In this binder, you can keep lists of what resources you'd like to learn more about and potential places to find them. You can also make a master list of things you want to acquire, such as a water storage system, canning jars, or backpacks for bug-out bags (I'll explain more about these later). I also recommend building a weekly or bi-weekly list of shelf-friendly food that you can pick up when circumstances and your budget allow.

One of the first sections you'll want to build up is your Identification section. Here you'll have copies of medications any of your family members take and why. (The 'why' is as important as the 'what' for other family members and any health care professionals that you may need to access in the future). This is also where you'll store copies of military papers if anyone has been or is currently in the armed services, living wills, power of attorney documents, deeds to homes and properties, adoption papers, as well as current photos of all your family members, including pets. Don't forget copies of insurance documents (life insurance, home, auto, medical insurance for humans and pets) as well as any applicable citizenship documents.

You'll want a section devoted to the equipment you may want, such as a water filtration system, a solar generator for an alternative power supply, or solar chargers for your electronics. Trust me when I tell you that if you have family members that rely on electronic entertainment, a solar charger will make a ton of difference in their mental health.

Another important part of your binder will be a section where you'll track your stored food. I recommend keeping careful and thorough notes on your food storage with an eye toward expiry dates. You'll want to eat your food before it expires, obviously, and the easiest way to track that is in your binder. The more technically minded prepper can construct a spreadsheet for this purpose as well. Back-ups are essential in all areas of prepping.

A Preppers Library

As a small side note, many prepping resources can be stored on a micro SD card, elevating a tablet from merely an entertainment device to a prepper's library. You never know when this vast amount of knowledge might save the day. So even if you don't already have a tablet, I recommend getting one to use as an electronic library. Books are terrific but are unwieldy if you have to leave in a hurry. It's far better to tuck your library into a pocket of your backpack than it is to leave it behind.

But what kinds of things should you add to your portable library? Thankfully, tablets can store and access books, PDF files, videos, and audio files. Your first addition should be a good first-aid guide. This is one of those resources where repetition is beneficial. You'll want both a print copy and an electronic one. Where you'll shop for an electronic version depends on the tablet and app you'll use. A print copy is handy and sometimes faster to find the information in an emergency. You don't want to wait for your tablet to boot up while a family member is bleeding profusely from a serious cut. As I've said before, it's wise to have a minimum of two ways to do everything. This includes finding whatever information you're looking for.

I also suggest *The Survival Medicine Handbook* by Joseph Alton MD and Amy Alton ARNP. The book has been greatly expanded in recent years and is in its third edition. At 670 pages, it's full of useful information and written for those of us without medical degrees. The authors assume you have no medical system to rely on and that help is not coming. They discuss emergencies such as appendicitis, heatstroke, frostbite, urinary tract infections, dental, hygiene, and water-borne issues. They also recommend how to build a first aid kit, discuss allergic reactions, worms, ticks, high

blood pressure, diabetes, and how to care for all kinds of wounds, from an embedded fishhook to a gunshot. A massive book chock-full of more information than I can list here, this is a book every prepper should have.

I also recommend adding the book in your hands to your library as well. None of us have a perfect memory, and sometimes we can pick tips up on a later re-read that we missed the first time through. So you absolutely want a copy of this book at hand!

Another terrific book that will help you stay alive is the SAS Survival Handbook, Third Edition: The Ultimate Guide to Surviving Anywhere by John Wiseman—an important book that teaches you how to stay alive in both urban and wild environments, navigation techniques, how to avoid disease, how to find food, how to avoid dangerous urban situations, camp craft, and much more.

Also of use will be a guide that identifies the wild plants in your area, including fungi. Many people have made themselves or their loved ones quite ill through improper plant identification. Sometimes with deadly consequences. This is, unfortunately, easier than you might think! So, you definitely want to invest in a good guide with clear color diagrams or photographs.

There are other useful books that you'll find as you move along this preparedness journey. In some cases, you may find that you'll want both a print copy and an electronic one. I recommend regularly sorting through your prepping library and discarding books that don't work for you. Over time, you'll figure out which ones will be useful and those that aren't.

Recommended Reading:

The Survival Medicine Handbook by Joseph Alton MD and Amy Alton ARNP

SAS Survival Handbook, Third Edition: The Ultimate Guide to Surviving Anywhere by John Wiseman

Tools to Help You Survive on the Road

I want to talk a little about the equipment you want if you have to leave home during an emergency. First, we need to talk about bags. There are “bug-out bags,” and there are “get-home” bags. A get-home bag is generally lighter and contains what you think you’d need to get home in case of a major emergency from a remote location. A bug-out bag is stocked with items to help you survive while evacuating from home to a safer location.

Get-Home Bag

Let’s say you’re attending a conference for work 100 miles from home. An act of domestic terrorism shuts down the event, transportation lines, and all communication. You have to make your way home, but all the usual means of doing so are unavailable. In the get-home bag, you might have copies of your identification, perhaps a hundred dollars in cash, a tarp or reflective blanket, a couple of bandanas for water filtration, signaling, or to wear bandit-style to filter the air. You’ll want a limited supply of food that doesn’t require cooking, a change of socks and underwear, water, a road map or atlas, a small first-aid kit, and a small compass. This bag is packed with the expectation of a three to four-day trip and likely wouldn’t weigh any more than 20 pounds.



Bug-Out Bag

A bug-out bag is packed with an entirely different objective, though. This bag will help you survive for up to seven days and realistically shouldn't weigh more than 25% of your body weight. You have to assume that you'll be walking and carrying this on your back. If your bag weighs more than forty-five pounds, the distance you can walk in one day will be diminished and may prolong an already difficult journey. You want to consider the weight of everything in your bug-out bag because I guarantee that after a day of walking, every ounce is going to feel like five pounds. So, what should be in this bag? A backpacker's tent (usually more lightweight and compact than a 'regular' tent) and a 5' X 5' tarp (two are better). Also, a reflective blanket or two. The thicker, the better—those ultralight ones have their uses, but a thicker survival blanket will serve you better. A reliable and bright flashlight (we'll discuss light in a minute), a first-aid kit, a large bottle of water, and a three to five-day supply of shelf-stable food that preferably doesn't require cooking. You also want cordage of various thicknesses. One hundred feet is a good starting point—more is better. I like to have a spool of twine as well for the lighter jobs that my cordage would be too much for as well as zip ties and duct tape. A folding saw, too, in case you need to build an emergency shelter or cut fallen wood for a fire. Don't

forget a pot large enough to cook in, a metal plate, and a ‘spork’ for eating too! (A spork is a camping spoon/fork combination utensil).

Tip : A metal plate can be used as a small shield in a hand-to-hand situation

A water-purification straw or water purification tablets (more on this in a moment) are also essential. The more of these you have, the less you’ll have to worry about drinking water, as long as you have a steady supply. The more drinkable water you can find along the way, the less you’ll have to carry. Remember, water weighs a lot! More on finding water in the wild later. A good compass and a map covering the distance between your home and the bug-out location are also invaluable if you know where you’re going. You’ll want two changes of clothes, including underwear, extra socks, a bandana or two, and a pair of sturdy leather gloves, as well as a couple of garbage bags. You’d be surprised how many people forget they’ll want a roll of toilet paper. Make sure you pack one, as well as a bottle of hand sanitizer, and keep them in the top of your pack where they can be reached easily. A pair of goggles and a respirator mask if you’re fleeing a wildfire, are equally important. You can become easily disoriented in smoke, lost, and unable to escape. If you have to stop to cough or you’re choking in the smoke, you can become separated from help or a group and lose your way. A pair of goggles and a mask can be of enormous value!

While you can use a ‘regular’ backpack for a get-home bag, you’ll want a sturdier model to serve as your bug-out bag. As I mentioned before, you might be carrying up to forty-five pounds, so your bag should be able to carry this kind of load without tearing or straining. A good quality bug-out bag won’t be dirt-cheap, but it’s an investment you won’t be making every year if you buy quality. As with many survival tools, you get what you pay for. So don’t skimp and go cheap. Now, let’s look at some of the aforementioned tools in detail, shall we?

I highly recommend two ways to start a fire. Waterproof matches can be easily purchased at grocery stores, some convenience stores, and of course, wherever camping supplies are sold. Depending on your preference, the matches can be stored in an unused pill bottle, or a resealable plastic bag. Don’t forget to include a surface to strike them on; otherwise, they’ll be no

good to you when you need them most! The second-most economical, lightest, and easiest to use is a fire-strike tool. They are easy to find in sporting goods stores and online, and there isn't a big learning curve when you want to use them. I do recommend getting outside to practice using this tool, however. Practice will result in better results and might make a difference in how quickly you're able to get a fire going in an emergency. Don't overlook a disposable lighter! Small, easy to carry and procure, these are easier to use than a fire striker kit. It never hurts to have more than one way to start a fire.

Speaking of fire, I recommend having a pre-made firestarter. You can buy these at any camping supply store, as well as popular dollar stores. One good do-it-yourself idea is to take a cotton ball and drag one side through petroleum jelly, which is flammable. That way, you have one 'dry' side to hold on to and one side to light with your fire source. Do this to a bunch of cotton balls, and store them in a plastic, resealable, zipper-style bag. Squash the air out, seal and store at the top of your bug-out bag with your fire-making kit. As an alternative, some preppers use toilet paper tubes stuffed full of dryer lint, and I think it's a great idea. Dryer lint is flammable, which is why we have to be vigilant about cleaning out our lint traps. Toilet paper tubes are just going to be thrown away anyway, so you might as well divert these two things from the landfill and use them to your advantage. Once you've got a few tubes stuffed with dryer lint, store these in a moisture-proof, sealable bag and stash it in your bug-out bag next to your fire striker or lighter. Trust me, it might sound odd, but these fire-starting tubes could save you valuable minutes if you need to start a fire in a hurry. That said, I've also heard of some preppers who keep one of those resealable bags full of dry sticks no bigger than their thumbs as kindling in their bug-out bags. Dry kindling is invaluable and makes all the difference between a successful fire or shivering and going hungry.

Water purification is another area where you have multiple choices. On the road, the smallest option is a Life Straw. It is a straw-sized microfilter approximately nine inches long by one inch in diameter. Its small size is easily stored in a pocket or worn on a lanyard around one's neck and filters out bacteria, sediment, and parasites from water. There is a range of

products made by the LifeStraw company to suit a variety of circumstances, and they're worth doing some research.

Another tool you'll want in your bag is a good flashlight and backup batteries for it. Flashlights have come a long way in the past decade. Now, we can get intensely bright lights in a much smaller package. Did you know that because of advances in LED technology, the world's brightest flashlight is 10,000 lumens and has a beam distance of 4,430 feet? On a more moderate scale, a flashlight that fits in the palm of your hand can light up to 557 feet. If a hands-free option is more your preference, then headlamps of varying quality and cost can be obtained at outdoor supply stores and online. Sometimes you can even find them in discount stores. Be aware, though, that when it comes to flashlights, you get what you pay for. There are all sorts of models to choose from. Some take batteries, and others recharge through a USB port on your computer (sometimes you can find generators with USB ports too, but more on that later!) You can even purchase flashlights that charge with a hand-crank. From personal experience, I've found these to be of less value in a survival situation since the cranking motion doesn't produce much light and is quite noisy, so I don't recommend them. In a survival situation, you want a flashlight with a lot of light that will take a lot of abuse and yet still work no matter the conditions.

Another tool that will be invaluable is a shovel. You might think that it's unnecessary weight, but if you're on your way to your bug-out location and nature calls, you'll want that shovel to dig a hole and bury your business afterward. More on that later, though. Also of use is a roll of duct tape. This is not a prep to buy at a dollar store. Get the good kind, and don't forget a knife to cut it with! We'll cover knives in more detail later.

A small canister of pepper spray (sometimes sold as bear spray) should be somewhere easily accessible. It can be found with belt clips or cross-body straps or come in a canister small enough to fit in a side pocket of a backpack, but however you decide to keep it handy, you need to be able to reach it quickly in case of unexpected encounters. This powerful deterrent works on wild animals, vicious dogs, and humans. It can be used by both older people and children and is easily procured at sporting goods stores or

online. Pepper spray works because it blinds the attacker, allowing you time to get away and for many reasons is a much better idea than buying a gun.

Shelter

Sometimes, different scenarios call for different plans. No matter how good your plan might be for one set of circumstances, say, extreme weather, that plan might need to change if you're suddenly presented with a different emergency. Throughout history, the threat of nuclear war has fluctuated between being a serious threat and a memory. These days, it seems prudent to discuss what you should do if nuclear war becomes an all-too-real threat once more.

According to ready.gov, nuclear fallout takes more than 15 minutes to fall to ground level. If you're at home, you have time to get inside, wash, change your clothes and get down to the basement. Keep your family and pets in the basement for at least 24 hours, keeping at least 6 ft between you and windows, doors, or the roof (this is why so many families had underground bomb shelters back in the 1950s. Nuclear war was a real threat then). But what if a nuclear device explodes while you aren't at home?

Anywhere you and your family spend a lot of time that is not your home should be assessed for emergency response. School and work are obvious examples. Does your children's school have an emergency plan in case of attack, fire, or nuclear war? Does your workplace? The safest recommended place to take shelter is either underground or in the middle of larger buildings. Again, the more solid bulk between you and the outside world, the better. If you have to commute to work, try and identify where you might find potential sheltering locations. You want somewhere inside, preferably with a basement.

Families that frequently spend a lot of time apart during the day should be encouraged to shelter in place and not leave places of safety to reconnect right away. It's better to wait until given the all-clear to go outside rather than risk getting your loved ones horribly ill. If you've included a battery-operated or hand-cranked radio in everyone's get-home bag, you'll be able to keep abreast of developments. Television, internet, and cell phones may

not work if a nuclear device has been detonated. In this case, shortwave or ham radio will be valuable.

In a less-dire emergency, you may have decided to walk to a safer location and now find yourself in need of a temporary shelter. Remember the tarp I advised on when we discussed building a bug-out bag? If you don't have a tent, the tarp can serve as an emergency shelter. You may have a tent but want to put the tarp under the tent to prevent moisture or a chill from seeping up from the ground. If you don't have a tent or time to put up a proper shelter, you may think you'll have to sleep right on the ground. Not so! Cut pine or spruce boughs and make a thick cushion with them. Now fold your tarp lengthwise so that one side is between you and the boughs, and you can bring the other side over to cover you. This also works great in winter conditions.

A tarp is a good way to help get all the heat you can out of a small fire, too. If you place the tarp far enough away from the fire, it will reflect the heat back to you without melting. Fold the tarp in half lengthwise. Then use sturdy branches and your cordage (you did pack some in your bug-out bag, right?) to stretch it out like a privacy screen. As I said—far enough away, and it won't melt from the heat of the fire. You'll also have the added advantage of hiding most of the glow of the flames just in case you don't want to be seen. If that's a concern, while you're putting your bug-out bags together, look for darker colored tarps such as green or camouflage patterns.

If you're traveling alone, you can build a lean-to using sturdy saplings or standing trees fairly simply but first, give a couple of minutes to consider your shelter's site. You don't want to build your shelter in a hollow or 'bowl' in the ground. If a sudden storm pops up, you'll be sheltering in a bowl of water. So look for somewhere a little raised or higher than the rest of the ground around you. Try and look for a site that's sheltered from the wind. The longer you're exposed to elements such as wind and rain, the less your chances of survival are. So give yourself every advantage you can think of. The perfect site rarely exists, but a really good site for a lean-to is dry and shielded from the wind. If you think you might be staying there a day or two to rest, try and find a site with southern exposure as well.

Try and locate a site with all of the considerations I've listed above that also has two sturdy trees a couple of feet apart. Using your folding saw and cordage or rope, find a sturdy sapling or small log longer than the space between the two trees. This is going to be your cross-post. Lift and secure your cross-post (using your cordage) to the two trees a couple of feet off the ground. Then find two fallen trees or long branches long enough to reach back from your cross-post to the ground at roughly 45 degrees. Secure those to your cross-post securely with your cordage. Now locate a number of branches that are about the same size as your forearm (or a little smaller) and long enough to reach from the cross-post to the ground, parallel and laid in between your side logs on that 45-degree angle. Every couple of inches is good. Don't trim these—you'll use all those little offshoot branches to your advantage. If you can't find any long enough, lash a couple horizontally between those long side logs and attach the other branches to those with your twine parallel to the side logs.

Now that you have a framework of small logs and stout branches, you want to pile leaves overtop this structure, as many as you can get your hands on. Ideally, you'll be toasty if you can pile these about two feet thick. You might think that's too many, but after you've spent a chilly night inside one of these shelters, you'll realize you truly can't have enough leaves on top of your shelter. Remember all those little branches I told you not to trim? They'll help support the leaves and keep them from falling. Cover the leaves with light branches. This will hold the leaves in place if a breeze picks up. You don't want to lose your insulation to the wind!

But what if there aren't any leaves where you are? Look around for spruce, cedar, pine, or tamarack trees. Any boughs from those trees will cover your framework just as well. And as with leaves, the more the better. Once your framework is covered, do the same at the sides. Whether you have access to lots of leaves or just boughs, put a bunch of these where your bedroll or sleeping bag will go. The more you can pile up here, the more distance there will be between you and the ground. Which means you'll be kept drier and warmer. If you have more than one tarp, fold it in half and lay it on your leaf or bough bed with the fold at your left. Think of this tarp like your blankets on your bed at home. But here, you'll put your bedroll or sleeping bag on one half of the tarp and drape the other half over you to help retain

body heat. So now you should have your shelter built, a small fire a few feet away, and if you have another tarp, you've set it up a few feet behind the fire to reflect the heat back to you. As long as you've not skimped on the leaves or boughs and you haven't skipped any steps, you should be warm and toasty even if the mercury is hovering at the freezing point.

Checklists

Checklists can be a valuable tool that everyone in your family can easily use and can be safely keep in your emergency binder. (You did make one earlier, right?) You can build checklists organized by emergency and sectioned off with what each member of your family will be responsible for. Once you have these checklists compiled, a family meeting to discuss these tasks and why they're important will go a long way toward everyone working as a team. Some potential things to prepare for would be flooding, wildfire, extreme weather, or societal anarchy.

If you live in a flood-prone area, pay attention to flooding alerts and typical flood-prone months. If you live in an area surrounded by rivers and lakes, there are some things you can do to help your house come through a flood.

Before A Flood

- Invest in a good, reliable sump pump. If you can, invest in a battery-operated one that will still move water if the power goes out.
- Make your basement (if you have one) as waterproof as possible and elevate appliances like your washer, drier, water pump, and hot water heater a few inches off the floor. I recommend using cinder blocks for this, although corner blocks for decks are more solid and easier to find than they once were.
- There's a case to be made for waterproofing spray that can be applied to unfinished foundation walls to prevent water from seeping through wet foundation blocks. It doesn't sound like a big problem, but I've experienced a flooding basement that had water seeping in for two weeks. It's not something that most people would think of happening, but it does.
- Flood insurance seems obvious, but a lot of people that live on flood plains don't have any. You'll want flood insurance if your home is slammed by a big one, so it's worth looking into.
- If you have elderly neighbors, check in with them to ensure they have a plan in place. Being older, infirm, and alone can be frightening, even

more so in times of crisis. So be a good neighbor and make sure yours have a plan.

- If you have pets, try and have a secondary location chosen in advance that you can escape to with your pets. Many shelters that will take people escaping floodwaters will not take animals, so if you can, have your own place of refuge or at least know where you might go that will take your pet as well.

During A Flood

- Listen to and heed flood warnings issued over the radio, social media, or the local alert system.
- Be prepared to evacuate at a moment's notice. Your speed in getting out of your community might make the difference between escaping the flood or being stuck on the road in an endless traffic jam (it's happened!). Don't forget to have supplies packed for your pet as well!
- Keep pets and children away from floodwaters, even if danger is not apparent.
- Try and avoid driving into the water if you cannot see the road. There may be underwater obstacles, the water may be moving and force your vehicle off the road by sheer volume or speed, or you may end up flooding your engine and become stranded. It's always a good idea to have a map in the glovebox (or in your bug-out bag) that has two escape routes out of your community clearly marked. This way, if one route is impassible, you would potentially have an alternative.

After The Flood

- If you've had to leave your community, do not return until public health and safety officials determine it is safe to do so.
- Unless your public health authorities say otherwise, assume water sources have been compromised—boil water for at least one minute before consuming. If you are giving it to your pet, allow it to cool thoroughly before offering it. If you have a well, have someone test the water before you use it. Nasty things can lurk in contaminated water!
- Do not eat food that has come into contact with floodwaters. Do not eat refrigerated food whose temperature rises above 40 degrees for more than two hours or is discolored or smells bad.
- Locate and check on family, friends, and neighbors, if possible.

- When allowed to return home, assess your home and belongings for damage. If you have flood insurance, your insurance companies will likely want an accounting and photos of damaged items.
- Inspect studs and framing with a moisture meter (or have a licensed inspector do this for you) before you replace any floodwater-soaked drywall. You definitely don't want to inadvertently enclose wood that is still damp. Black mold is a serious concern, even for your future health, and not one to be taken lightly.

Before A Fire

If you live in an area that is at risk of fire, there are steps you can take to make your home safer.

- Cut trees and brush back 100 ft away from your home (and any fuel tanks) to reduce the risk of embers from wildfires landing on your roof. The idea is to remove any fuel for a wildfire close to your house or any nearby outbuildings.
- Don't forget to keep gutters, decks, and stairs clear of any leaves or sticks. All it takes is one to catch a spark or ember.
- If you can, consider metal roofing. Metal is fire resistant.
- Keep wool blankets inside your vehicle—not only during the winter, either. If for some reason, you are surrounded by flames while trying to escape the area in your vehicle, a wool blanket will protect you and your loved ones. Wool is naturally fire-resistant because it has a higher ignition temperature. It would have to be at least 500 degrees before it would catch fire. Another benefit of wool is that it will not melt to your skin, unlike many synthetics. So, in addition to being a tough fiber, wool also has protective qualities. Ideally, you'll want one wool blanket per person in your family (if you have pets, someone can pull them under a blanket with them).
- If your area is in the path of an oncoming wildfire, but you've not been issued an evacuation order yet, it's wise to have your bug-out bag (and those of your family and one for the pet) waiting beside the door alongside shoes and jackets. It's better to be prepared to leave immediately if woken in the middle of the night than to be caught unprepared. Besides, that's why you're reading this book!

Other potential lists include:

- A checklist of things to do if you have to leave the house suddenly due to a hurricane or flood.
- You might decide to learn first aid and build a checklist of specific treatments you want to learn, such as burn treatments, how to set a broken limb, how to treat a drowning victim or even first aid for your pet. You may benefit from building a checklist of first aid supplies you want to build a better first aid kit.
- A list of equipment you want with items on it like backpacks for everyone in the family for bug-out bags, solar chargers, water storage, purification supplies, or fire starter kits.

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BOOK 2

Food & Water Preparedness

How to Acquire, Store & Purify Water

You might be surprised to learn how much water one person uses in a day, and even more surprised to learn how much water we *need* daily. On average, it's recommended that we store two to three gallons of water per person, per day, for both sanitation and drinking. I disagree with that. Give any of your family members three gallons of water and tell them that it has to last all their needs all day, and they'd laugh at you. I believe that with some behavioral training and conditioning, we could get by during our everyday lives with four gallons. You can expect that figure to change depending on the climate where you live, the health of your family members, sanitation needs, and of course, if you have pets. Don't forget to save water for them as well. Unless we're talking about a pet cow, two gallons a day is sufficient for most pets (they don't normally wash their paws after answering nature's call.) Keep in mind that cooking should also factor into your water storage plans. If you plan to eat MREs (meals-ready-to-eat), or dehydrated food, you'll want more water. The CDC recommends saving a three-day supply of water for each person and pet in your home, with a three-week supply being even better. As I said before, we can condition ourselves to use less water before an emergency arises, and I think that's a good idea. You'd be surprised how little water you can get by with when you have to collect it, haul it and purify it before using it.

How To Get Water

There are many different ways you can acquire water, depending on your circumstances.

A long-term solution is through rainwater collection. Did you know that a half-inch of rain falling on a 1,000-square-foot roof could yield up to 300 gallons of water? So if you live in an area that dumps an inch of rain in one storm, and your roof is roughly 24 feet by 48 feet, you could collect up to 720 gallons of water. If you live in a smaller home that has a roof dimension of 40 feet by 24 feet, and you only get a half-inch of water per

rainfall, that's still potentially 300 gallons. But even if you live in a tiny home, you'd be wise to invest in a few gutters and a rain barrel. Better to catch and store the rainwater than to ignore a perfectly good resource. If you live in an area that gets a lot of rain, you might want to think about a storage system comprised of connected rain barrels and a downspout diverter. If you attach downspouts to a couple of those barrels, you could take some of that water, boil it, drop in water treatment tablets, and store the water indoors. Before use, you might want to boil it again and run it through a filter.

If rainwater collection is out of the question there are various sizes of pre-filled bottles you can purchase. You can also repurpose washed, heavier-grade juice jugs and bottles or even large canning jars. As long as these remain sealed, you don't have to worry about them. Perhaps just store them in a cool, dark place like under a bed or in the bottom of a clothes or utility closet. A storage unit in the basement can be an option if your building has them. Just be sure to cover your water supply with blankets or surround the water with other boxes to keep curious eyes from discovering your stash.

If a crisis happens during winter, you can always collect snow and melt it, but keep in mind this option is resource-intensive because you'll want to melt the snow first. Simply melting it in your mouth and swallowing it will lower your core body temperature, and you don't want that to contend with as well. You'll be trying to stay as warm as possible, so melt the snow for water if you can.

Another option depending on the duration of your emergency is to drain your pipes by opening the lowest faucet in your house into jugs, pitchers, jars, kettles, or whatever food-safe vessel you have on hand. Your water heater has 60-80 gallons stored inside it and can be drained into water collection vessels.

As I said before, when you have to collect water and haul it for any distance repeatedly, you develop a new appreciation and respect for the life-giving liquid. You also conserve more. If you have to rely on 'wild' water, ideally, you'll want to look for a moving water source. You should assume that every water source in nature is full of parasites that want to kill you. Giardia, E. coli, Cryptosporidium, Salmonella, Hepatitis A, Legionella, and

Norovirus, are just some of the dangerous diseases you can get from untreated water. Cautious prevention should become your normal attitude when dealing with water in the wild. We'll talk about filtering and disinfecting water in a moment.

Let's assume you have to haul your water in buckets. You start by carrying one in each hand, but pretty soon, your hands are burning and screaming from the unfamiliar weight. Even though you're carrying five-gallon buckets, you didn't fill them to the top to allow for splashing. So let's say, for the sake of our example, that each bucket holds four gallons. One gallon of water weighs eight pounds. One of those buckets that you're trying to carry weighs thirty-two pounds, and together they weigh a hefty sixty-four pounds. Unless you've been lifting weights at the gym, you're not going to be carrying that kind of weight by hand very long. Assuming a vehicle is out of the question, one transportation is a "milkmaid pole".

You'll want to locate a sturdy pole or small log longer than your shoulders are wide. Make sure there's enough length to allow room for a bucket to hand from each end without slamming into your shoulders. You don't want to be wearing your family's drinking water by the time you get home! At each end of the log, you want to carve a groove deep enough to hold the bucket's handle so that it doesn't slide off. You'll also want to pad your neck and shoulders with a towel or a small blanket folded multiple times lengthwise. Yes, you'll get warm, but you want that padding between you and that sixty-four pounds of extra weight spread across your shoulders.

So, let's continue with our example and assume you got all that water home safe and sound. Now what? Now you filter it before boiling it. You can assume you'll have to filter all the water you'll use for cooking and drinking. Water used for flushing or watering your survival garden won't need disinfecting, but you will want to water your garden below the leaves just to be extra safe. A small-scale do-it-yourself filter can be constructed with an empty pop or soda bottle. Keep in mind that filtering will remove physical debris and larger parasites. Disinfecting will kill off smaller, microscopic organisms.

To make a small water filter from an empty pop bottle, cut the bottom inch or two off and invert it, so the narrow neck is at the bottom. Place a paper

coffee filter inside the bottle over that narrow opening, but do not stuff it into the neck. Over the filter, you want to have about two inches of activated charcoal, which you find fairly easily at a pet store if they sell fish or fish tank supplies. Over the charcoal, add two inches of fine-grain sand. Over the sand, you'll want a layer of "pea gravel" at the top of your filter. Put this bottle, neck down, inside another vessel that will hold it upright: a tall glass jar, clean vase, or even a kettle with a wide opening at the top. A little creativity will pay off here, but be mindful that the bottle will make the whole arrangement top-heavy. Pour your water slowly over the pea gravel at the top, and gravity will pull the water through the various layers of your filter. You'll notice these layers get successively finer. The water that comes out the neck of the bottle will be free of larger physical impurities, but you shouldn't assume it is safe to drink. After you've collected enough, you'll want to boil your water. Experts disagree on how long water should be boiled, but I believe in erring on the side of caution. Once your water has reached a proper rolling boil, let it boil for five minutes to ensure you're killing off all the microscopic impurities. Then let it cool.

I know people that further purify the water by putting it into other bottles to sit in the sun. They use clear, not colored bottles, fill them with water, and lay them on their sides on a dark surface. One day in full sun is sufficient, or two days if the sky is cloudy. This is called solar disinfection. You can disinfect as much water as you want this way, limited only by the number of bottles you have. Other folks will use a portable ultra-violet disinfection device. There are a variety of designs available for these devices, but I recommend the crank-style ones for ease of use and fewer parts to replace. After you've filtered and disinfected your water and it's cool enough to drink, you may find it tastes flat. This can be easily rectified by pouring your water back and forth between two vessels a few times to add oxygen back into it.

The best option, of course, is to have as much water stored as you can. It's always better to have "too much" rather than not enough. That being said, now is the time to start collecting water. Even a single person with a dog needs as much water as they can possibly store, so there's no point in waiting. You never know when an emergency will happen, so now truly is

the best time to start. Depending on your circumstances, start with what you have and always strive for more.

How To Store Water

When it comes to storing water, you've got a lot of choices here too. But first and foremost must be safety. Even if you buy brand-new water storage jugs or bottles from a camping supply store, you'll want to wash and disinfect them thoroughly. A good wash with soapy water, followed by a thorough rinse, will get rid of any dust or insects that may be hidden inside. Then, you'll want to use a diluted water or bleach solution of one teaspoon of unscented bleach for each quart of water to further sanitize the container. Shake this solution around the inside of the jug so that it rinses all inner surfaces, then wait 30 seconds. You can then dump it out and rinse the jug out again with potable water. Let the jug air-dry before filling it with water. You'll want to label the jug as safe drinking water and note the date. The date is important because, ideally, you'll want to replace this water every six months, although it should be noted that you don't have to wash and disinfect the inside of the jug that often. Keep any water jugs out of the sun since the plastic can start to chemically degrade in direct sunlight. Just like with medicine, a cool (50-70 degrees Fahrenheit) dark place is best. I like to keep a running list of water storage dates in my binder to eliminate any guesswork.

Another option for water storage is two-liter soda or pop bottles (a two-liter soda or juice bottle is equal to a hair over two quarts). Wash them well once they've been emptied, then disinfect with a diluted bleach solution of one tablespoon bleach to two quarts of water. Allow them time to air-dry thoroughly. You know those little cap inserts? Pull those out and toss 'em. Then take the caps and soak them in a diluted bleach solution for about fifteen to twenty minutes. Rinse well and spread them, threads down, to dry. Once everything is dry, fill the bottles with drinking safe water and store them all in a dark, cool location.

If money isn't a concern, there are commercially available water tanks that are tough, sturdy, and come with the needed fittings. They can even be stacked two units high, saving you a little bit of space. These come in 3.5,

35, 55, or 160-gallon sizes. The benefit with these is that procuring them is relatively simple and filling them even easier—an easy solution for the prepper that wants an uncomplicated water storage solution.

If it's not possible to purchase water jugs, tanks, totes, or interlocking "water bricks," your water storage solution might be to buy cases of water and store those. Again, somewhere cool and dark is best, and off the floor. There's a lot of social and environmental pressure to stop using those single-use water bottles, and I agree that if we have a better way to tote water around, we should absolutely use it. However, I also believe that if the *only* way you can afford to store water is by buying a case every week or so, then do it. At least until you can build some other storage solution into your preps—do the best you can with what you've got until you can do better.

How to Build Up Your Pantry

Why should we build a prepper's pantry? Insurance. You never know what's coming.

In our society of fast food and mega-stores, there is a phenomenon known as "Just In Time Inventory Management." This is the practice of making inventory available just when it's needed. This eliminates the need for storage space, reduces expenses, and prevents stock from sitting around unsold. Unfortunately, it also relies heavily on the supply chain working as intended. All it takes is one link in the chain to break, and the whole system breaks down. The best way to prevent an interruption in the food supply chain from affecting you is insurance. No, not the kind you're thinking of—insurance that looks like food.

Before we get into the physicalities of your pantry, let's be clear on what a prepper pantry is and what it's not.

The food in the cupboards in your kitchen is a working pantry. Ideally, that's not where you're going to locate your prepper's pantry. A prepper's pantry is your food back-up, designed to last you and your family an extended period of time, from a few weeks to a few months. Some folks have been fortunate and determined enough to build a supply of a few years. Not everyone can do this, and that's okay. This isn't a competition to keep up with someone else. This is about being as prepared as you can be for yourself and your family. Keep in mind that there is a reasonable way to do this without spending a bunch of money all at once.

The prepper's pantry has two parts, non-perishable items and perishable. I've seen some pantries large enough to include a small freezer beside the shelves. If you're able to include a freezer for long-term storage, I absolutely recommend getting one, even second-hand. As long as it works and fits the space you have, that's all that's important. If your circumstances don't allow it, focus on the storage of your non-perishables.

Where To Store Your Food

The ideal place to put your pantry is somewhere dry, cool, and pest-free. What this space looks like is different for all of us. Some people have a basement they can convert into a food-storage area with lots of shelves, spaces for buckets, water cubes, or large packages of toilet paper. A basement that floods every spring will require a system that includes off-the-floor shelving, buckets with oxygen absorbers, and moisture-proof jars. Some people have a closet they seldom use that they've added a light source to, along with sturdy shelves. A crawlspace under stairs can also be converted with a little creativity. Each of our homes will be different, and with that comes different challenges and benefits.

No matter where you choose to store your prepper's pantry, make sure it is a dry, cool place that is well-lit, easily accessible, and easily organized. Otherwise, you'll never want to use the space. Make it as easy to use as possible.

Food Storage & Cooking Equipment

A pressure canner is a terrific investment. You can preserve far more with a pressure canner than with just a water bath canner. With a pressure canner, you're able to 'can' meat such as ground beef, ground pork, or chicken that you got on sale. This is a terrific way to store ground venison and wild fish too. A pressure canner allows you the freedom to store your food in a way that uses minimum energy. Freezers are great but rely on a constant supply of ongoing energy to keep the food inside in a suspended state. Interrupt that energy supply for an extended period of time, and the food inside grows slowly warmer and starts to thaw and age. As many people have discovered, after 24-48 hours without power, freezer contents do not age well once they warm up. Home canning is a safer alternative. In the prepping world, it's often said that backup systems can save your life. So I recommend having two or more ways to preserve your food.

Dehydration, home canning, smoking, freezing, and fermentation are all popular ways to preserve the food you'll eat. Some foods lend themselves

more readily to one type of preservation over another, and you'll need to keep this in mind as your pantry grows. For example, freezing cabbage limits what you can make with it later. Once the cells in the cabbage freeze and thaw, the leaves begin to break down. But if you like sauerkraut, you can ferment your cabbage. It keeps much longer as 'kraut than it would simply frozen. Potatoes take up a lot of room in the freezer, so you want to explore alternative ways to keep those. You can slice them, stack them in canning jars and pressure can them. Preserved this way, your potatoes could last for a couple of years. Stored in sand in a cool, dark room, your spuds will only last a year, at max. It's still a useful storage technique, just shorter-term. Fish fillets that have been cold smoked and then frozen will last much longer than fish that have just been frozen. More about smoking later.

But while you build up your prepper's pantry, you'll have to decide how you want to store your food according to your circumstances. Not everyone has two freezers, a pressure canner, a water bath canner, and a dehydrator. Not everyone is going to want to freeze their tomatoes. Some folks will dehydrate them and store them in vacuum-sealed bags, and then store those bags in a bucket with an oxygen absorber. Some might prefer to shop online for a year's supply of food, but this is an expensive way to acquire all the food you'll need. While this is an immediate solution, one of the drawbacks is the lack of personalization. When you build your own pantry, you'll store the things your family likes to eat.

Not to be overlooked are food-grade buckets with air-tight lids. These can be purchased at any hardware store or numerous places online. These can be further fortified by lining them with bags and including oxygen absorbers if you choose. The buckets can be labeled and stacked, but remember to store these as close to the floor as possible. For obvious safety reasons, you don't want to store your full buckets on the top shelf.

Another useful piece of equipment you'll want is an alternative way to cook fairly rapidly. A propane camp stove that uses small bottles of propane can be easily set up outside and used when your stovetop is unusable for an extended period of time. You can purchase the stove and a bottle of propane for it relatively inexpensively and buy other bottles on a regular basis if you choose to go this route. In case of a days-long power failure, you could set

up a rough outdoor kitchen if you have plywood and a couple of saw-horses. Another option is a propane barbeque—larger, easier to explain to a nosy neighbor, and more versatile. With a few adjustments in cookware, you can cook almost anything on it. We'll discuss this in more detail later. Also available are butane camp stoves. These are cousins to the foldable propane stove and run on the same principles.

One integral piece of equipment that many forget is a hand-crank can opener. Here too, there are plenty of options. You can get the most basic model at almost any store or shop around for a larger one with padded handles for arthritic hands. Whatever kind you decide upon, two is better than one. They don't make things like they used to, and it wouldn't be good to have your only can opener stop working for some reason!

Tip : In the prepper world, there is a saying, "Two is one, and one is none." It reminds us to make sure we have backups.

Another way to preserve your food is through the use of a root cellar. If you aren't lucky enough to already have one, you can make a small one out of a metal trash can with a tight-fitting lid. Find a spot near your house, so you don't have to trek too far, but high enough that rainwater won't collect inside. Dig a hole deep enough to bury the can, but leave an inch or two above the dirt. Put the items you want to store inside the can, then put the lid on. Cover the lid with several inches of straw, then cover that with a tarp. Weigh the tarp edges down with stones or bricks to prevent it from blowing away. Make sure you keep an eye on the contents of your root cellar can. While it is possible to store your root vegetables inside, you want to use them up before they grow mold or rot. One way to preserve them a little longer is to leave some of the dirt on them when you harvest. By this, I mean don't wash them. If you brush most of the dirt off but don't clean them to grocery-store standards, they'll last a little longer.

What Kind of Food to Store

The wise prepper has a diverse stored food pantry that consists of canned goods, meat preserved through pressure canning, frozen food, dehydrated

fruit and vegetables, dried goods like pasta, sprouts, and food ready to eat right out of the bag.

Aim to have enough food and water for one month or more without any input. Let's say the roads that provide access to your town were cut off suddenly, as happened in the interior of British Columbia in 2021. For weeks, residents were on their own as entire sections of critical roads washed away in massive floods. Thousands of people were without power, heat, clean water, and food. Help came sporadically and not to everyone that needed it. Folks who had seen the potential of being cut off from aid, and who were able to plan for it, were better off than those who were caught by surprise. So, it's in your best interests to plan for the unexpected and build up your pantry.

Get out the binder you built earlier. On a clean sheet of paper, list all the meals your family eats on a regular basis. Now make a list of the components of those meals. Lasagna, for example. When you make it, you use noodles, tomato sauce, your favorite cheese(s), maybe spinach, onions, and bell peppers, too. Perhaps your tomato sauce is a meat sauce. Obviously, the lists of ingredients will differ with the dishes. Once you have all your family's favorite meals and their ingredients listed, you'll have a better idea of what you'll want to stock up on.

Keep in mind that the basic amount of calories needed is approximately 1,500 per person, per day. Everyone's culinary tastes are different, but there are a few basics you can start with. I recommend powdered milk, sugar, yeast, flour, oats, salt, rice, pasta, tea, or coffee if your family drinks them. If you enjoy hot chocolate, definitely add your favorite brand of that as well. Don't forget beans if your family likes them. Depending on how often you eat them, these can be stored in air-tight bags and then stored in buckets for further protection.

Tip: Hot chocolate serves as a good substitute when kids want chocolate but there's none to be had!

Also worth saving is any cooking oil your family uses consistently, keeping in mind that no oil lasts forever. So, you'll want to rotate through your oil supply and keep it fresh by using and replacing it. For one family, that

could be virgin olive oil, and for another, it could be vegetable oil or coconut. Whatever kind you prefer, make sure you know the storage life of that particular oil and use it before it goes rancid! Keep track of expiration dates by month in your emergency binder, and as these draw closer, rotate that item into your working pantry to be used, then simply replace it in your prepper's pantry.

Canned meats are also invaluable in the pantry—tuna, salmon, sardines, Vienna sausages, canned chicken or ham, and even that mystery known as SPAM can be used. It's an easily-acquired and relatively inexpensive form of protein that can be mixed into salads or even scrambled eggs. There are many recipes canned meats could be used in; a visit to your local library or even an hour on the internet will reveal a wealth of ideas.

Not to be forgotten is peanut butter, assuming no one is allergic to nuts in your house. Nut butters have 80-100 calories in every teaspoon-sized serving, so they're a fast source of calories, protein, and antioxidants. Also, plan on including your family's favorite condiments. Of course, you can make ketchup, relish, sauerkraut, pickles, and so on, but mustard is a bit more challenging to make. Unless you want a challenge, this might be better purchased if you eat it. Vinegar can also be made, but it too might be better purchased for now. Both apple cider vinegar and white vinegar have multiple uses besides food and are very shelf-stable.

Honey is also a terrific addition to your pantry and not only to eat. It can serve as a sweetener when sugar is unavailable and will never spoil. Yes, you read correctly. But even more amazing is the honey's antibiotic and antimicrobial properties. It helps soothe and heal cuts, burns, and scrapes by sealing the wound from bacteria, nourishing the tissues, and decreasing swelling. It soothes a raw throat and aids in recovery from the common cold. But even more important for us, it helps fight infection. While you can use the most local-to-you honey (support your local beekeepers!), the best honey for medical purposes is Manuka honey. This can be easily found online.

Granulated white sugar, if kept dry, will keep almost forever. Brown sugar is at its best up to six months after purchase. Even if you keep it in an airtight container, somehow it can still manage to dry out. Store it with a

piece of bread to keep it fresh longer (the heels of bread loaves are good for this). Maple syrup should be kept in the fridge after you open the bottle, but—even then—it's really only good for about a year. So granulated white sugar and honey are your best long-term options for storage. If you can get enough stored, so you have extra, both could be valuable trade items in times of societal collapse.

Food-grade buckets with tight, moisture-proof (and ant-proof!) lids can store a lot of sugar. If those aren't an option, try to find large jars. The bigger, the better. These could potentially be stored on shelves to keep them away from pests. Or, you could fill one-gallon resealable bags with sugar and then store those in plastic tubs with tight-fitting lids. Often, these can be found at dollar stores. If you're low on food pantry storage room, these can be stacked in an unused closet or even under beds. But how much sugar should we store? The answer to that question depends on you and your dietary choices. Do you bake or enjoy sweetened tea on a regular basis? You'll want more sugar than a diabetic who doesn't consume much at all. That being said, it has been estimated that the average person today consumes 152 pounds of sugar per year! Much of that would be in soft drinks and candy, and it's a great reason to start cutting back now. The American Heart Association recommends that a woman consume six teaspoons of sugar per day and a man no more than nine. No modern person I know would willingly cut back their sugar consumption that far. I recommend a sensible approach toward cutting back and storing granulated sugar.

Perishable produce, such as tomatoes, apricots, apples, peppers, and so on, can be preserved in a variety of ways that do not require a freezer. They can be dehydrated, then stored in vacuum-sealed bags, which would then be stored upright in bins or buckets. You can store a lot of fruits and vegetables this way! Another option is to can them if you have the shelf space. A recent sale on radishes resulted in a glut of radish relish in our house. Last year, a sale on less-than-perfect tomatoes resulted in 10 jars of homemade salsa.

Don't forget the humble multivitamin. Stock up on these as much as you can for your family members because you're all going to need to be as

healthy as possible to weather whatever crisis you're trying to survive. Not only that, but multivitamins make a terrific bartering item. You never know what will happen, but you should assume there will be others out there less prepared than you are. There will be many people who won't think about vitamins until they or their children start suffering from malnutrition. MREs will provide calories, but they don't have the vitamins and minerals your body is going to need—especially if you have to bug-out. So, it's wise to stock up on multivitamins while you can.

What If Your Stored Food Is Running Low?

Now we're going to play "what if?" What if the situation that has you eating from your prepper's pantry becomes an extended event, and you're unable to get to the store to replace your supply of meat? Do you hunt? Do you fish? Vegetarians are going to have a harder time trying to provide their families with protein. If you decide to hunt, only take what you need—perhaps starting with smaller game first. No matter what you hunt, use all that you can of the animal and not just the haunches for a couple of pieces of meat. I cannot stress the following enough; if you hunt, please make sure you have a good shot, and it is a clean kill. This applies to both hunting with a gun and a bow. There is no point in making the animal suffer. To allow a messy kill is disrespectful to the animal and taints the meat due to a chemical stress response. So if you don't have a good shot—don't take it.

Many people find it easier to fish for their meat than to hunt. It requires less equipment and has the potential to yield meat with less energy spent and in less time. There are multiple ways to catch a fish, and if you use a fish trap, you can always set the smaller ones free to grow a little bigger.

Let's say you've found a body of water and observed it long enough to determine it has a number of good-sized fish in it. You've decided that you're going to catch as many of the larger ones as you're able and can them in your pressure canner when you get home. The meat can be used in stews and soups and might go further that way. But you've never been one to put a worm on a hook. You don't have a rod or hooks anyway. With only a sharp knife and a little ingenuity, you can still catch fish. Fish usually feed around sunrise, shortly before sunset, and just before a storm. Observation

will show you that on cooler days, schools of fish will congregate in sunlit pools, and on hot days the fish will gather in the coolest, deepest pool they can find.

So, you've found the fish. Now what? You can spear them with a double-pronged spear or trident that can be easily made from sticks sharpened to a point with a sturdy knife. Or, if you have a net, you can extend it loosely across a narrow waterway where you've observed fish swimming. When you have a fish or two in the net, close the net and simply bring them to shore. This method would probably yield the most fish with minimal effort.

You can, of course, make a fishing pole and hook with only your knife and some form of cordage; the thinner, the better. If you find discarded pop or beer cans, take the pull tabs off—you can fashion crude hooks from these. Alternatively, you can carve hooks out of smaller branches where the branch grows out of the stem, lash together a few stems with thorns attached, or make a gorge hook. A gorge hook is a small stick, sharpened to points at either end with a groove carved into the middle and wrapped with your line, vine, or very fine cordage. You thread a worm, a maggot, or an insect longitudinally along the gorge hook, and when the fish bites or swallows the hook, you set it with a jerk, as you would with a conventional rod and reel. Instead of relying on very thin cordage, your best bet is to keep some fishing line in your bug-out bag, as well as a couple of hooks small enough for bass or perch.

As I've mentioned previously, the more you can practice these skills *before* you're in the midst of an emergency, the better.

For our example, I'm going to assume you have (at the very least) a fishing line, a couple of weights, and a couple of hooks in a tin in your bug-out bag. You want to find a green and flexible sapling, between six to eight feet long with a base diameter of an inch around or less and approximately a half-inch in diameter at the tip. Use your knife to smooth away any nubs, sharp bits, and bark. Wrap your fishing line a couple of times around the last third of the stick and slowly turn the stick while you wrap the fishing line around it, bringing the fishing line more toward the narrow end of the stick as you wrap the line around it. One wrap per foot should do it. This will provide support to your stick if you catch a stronger fish than a perch. You do not

want to merely tie the line at the narrow end. There is a good chance any fighting fish would just break the end off and swim away. So by wrapping the line around even just the last third of your pole, you are increasing the strength of your handmade fishing rod. It might seem trivial, but it could make the difference between eating or not.

Spool out a few feet of line and tie your hook to the end of it. Now find your bait—worms or grubs can usually be found under rocks or rotting logs. Just think like a bear and turn everything over until you find one. If you thread the worm or grub up the hook, you have a better chance of not losing your bait to nibbles. Toss your hook toward a likely-looking place and move the stick around with slight movements to make your worm appear as if it's moving. Remember, fish like to hang out under bank overhangs, beneath logs, and in deeper pools, so it pays to study the river or creek where you're fishing. Stand so you aren't casting a shadow on the water (see what I did there? Casting). You may or may not get a hit. Sometimes the weather is lousy, and sometimes the fish just aren't biting. They are sensitive to barometric pressure and oncoming weather. Whatever the reason, they may or may not be in a feeding mood. While there are tricks you can use in a survival situation to ensure a higher degree of success, I wouldn't recommend them for non-survival sport fishing. The best sport fishing is non-lethal catch and release, as well as good practice for when we do need fish to survive. My advice is twofold. Have a backup plan if one way doesn't produce any results, and practice, practice, practice.

Not to be overlooked are wild birds. During molting season, they are easier to corner, capture and kill. Their nests might also harbor eggs that you can use for protein. If you are a hunter, you may already be familiar with hunting grouse, woodcock, ducks, or geese.

If you have a good field identification guide with you, it is possible to forage for wild edible plants, but **I do not recommend putting any plant in your mouth unless you are 110% sure what it is** . A really good field guide will show you look-alike plants, too, so that you can be even more certain about what is and what is not safe to eat.

Many people are familiar with the wild fiddlehead, easily distinguishable in the spring by its tight coils, which resemble the head of a fiddle. Hence the

name. Steamed fiddleheads are a tender delicacy comparable to asparagus. These, too, need to be correctly identified. Once properly identified, cut the curled parts from the stem, rinse in cool water, rub them between your palms to remove the papery covering, and rinse again. Once they've dried thoroughly, they can be steamed and enjoyed on their own or beside any wild meat dish.

Blueberries are edible. They have thornless stems and can frequently be found growing close to water and roadsides in forest-border areas. You can find these in Canada and all over the northeastern United States. I'm not sure about blueberry growth in other countries. You can add the ripe berries to soups, stews, salads, hot water for blueberry tea, oatmeal, or just eat them on their own. As with every other plant, make sure what you're about to eat are blueberries and not a similar plant that might be poisonous.

Red clover is also edible and is related to peas. Some people describe the young leaves as having a pea-like taste. Red clover is more palatable in the spring due to higher volumes of alkaloids in the autumn. Pregnant women should not eat this plant, though, so keep this in mind.

The entire much maligned and misunderstood dandelion is also edible, although younger plants that have grown in the shade taste a little better. Everything on this plant is edible and full of micronutrients and minerals like calcium. My only cautionary note is to be aware of where you harvest the plant. You don't want to use plants that have had pesticide sprayed on them or where a high number of dogs may have used them as a target.

Wild roses are also edible and related to wild blackberries and raspberries. When the rosehips form, they are orange-red in color. These are full of vitamin C and can be made into jelly or included in herbal tea. They grow almost everywhere, from roadsides, besides parking lots and abandoned lots, and can frequently be found where old homesteads used to stand. Once you know what to look for, you'll see them everywhere!

Wild Leeks are much sought after for their flavor and are commonly known as ramps or ramsons. They grow under trees and in shady spots when the ground is still damp. Both the leaves and the bulb they grow out of are

edible, but if you can only take the leaves and resist the urge to take the bulb, you can return for wilder leek leaves another time.

Broadleaf plantain is not only edible but also a nutritious and medicinal plant as well. The leaves taste like celery with a hint of pepper, in my opinion. The leaves are broad, egg-shaped, and have a tall flower-spike growing from the low-growing center of the leaf cluster. You'll commonly see this plant at the edges of abandoned property or on the roadside growing out of the gravel.

Blackberries are sweet, slightly tart, and can be a great source of vitamin C. You can find them growing all across the U.S and Canada, although I'm not sure about other countries. The berries are, of course, edible, as are the shoots and younger leaves. Watch out for the spines!

Andrew Townesmith, an edible plant expert and botanist at the Missouri Botanical Garden, recommends scanning the surface of a lake, river, or wetland you might find yourself near. He says almost all emergent aquatic plants are edible, with the roots being a good source of carbohydrates and protein. He also says the cattail's dried-out flower spike makes good fire-starting tinder.

I do not recommend putting any plant in your mouth unless you are 110% sure what it is . The absolute best way to learn which plants can be safely foraged is to have someone schooled in bushcraft teach you. If that's not possible, remember that it's better to go hungry than inadvertently poison yourself or your loved ones. Learn all you can about foraging wild plants safely, starting with the books I've recommended below. But never stop learning about how to eat safely in the wild.

Recommended Reading:

The Total Outdoorsman Manual by T. Edward Nickens

How To Eat In The Woods by Bradford Angier

Foraging Wild Edible Plants of North America by Christopher Nyerges

Peterson's Field Guide to Edible Wild Plants

The Scouting Guide To Basic Fishing by The Boy Scouts of America

**Identifying and Harvesting Edible and Medicinal Plants In The Wild
(And Not So Wild) Places** by Steve Brill

Edible Wild Plants: A North American Field Guide by Elias &
Dykeman

**Plant To Plate: Complete Beginner's Guide To Foraging in North
America** by Jack Cirone

OceanofPDF.com

BOOK 3

Gardening for Prepper



How to Grow Your Own Food Before You

Run Out

Having a prepper's pantry stored away is only one layer of emergency preparedness. You should have more than one plan for all your preps; food, water, medical response, hygiene, and communication. The best backup system for stored food is to grow as much as you can *before* your food supplies run out. Unless you've purchased a five-year supply of food buckets, you'll want to think about what you and your family will eat in the future.

Even if you're in a basement apartment, you can grow at least some of your food. The more light and room you have, the more food you can grow. That being said, you can always take a corner of your living space and set up an indoor greenhouse using a large cardboard box, aluminum foil, and a couple of grow lights. Think of it as a vegetable grow-op. You have multiple options you can pursue, and I'll cover a few of them here. First, let me talk about growing your food in your yard.

If You Have a Yard

The easiest way to grow anything in a suburban yard is in raised beds and containers. That way, it doesn't matter what kind of soil you have, if you have the necessary tools or the physical capability to dig. Raised beds (which are really just larger, immovable containers) can be situated in alignment with the sun or placed in the shade, depending on what you want to grow. For example, lettuces, salad greens, and peas prefer slightly cooler environments rather than six to eight hours of sun like tomatoes or pumpkins. So if your family enjoys a lot of salad, you'll want to plan ahead and build a raised bed somewhere that provides a cooler microclimate with partial sun. Containers come in all sizes and shapes and can be moved to take advantage of the sun or shade. You can place pots of herbs along a

front walk or along the base of a wall of your house. Pots of marigolds can sit at the corners of raised beds to attract pollinators and deter harmful insects, too. You can have raised beds in the middle of your yard for vegetables and containers with herbs for your herbal remedies. The possibilities are endless. You can also hang pots with flowers and herbs to attract pollinators such as bees, birds, and butterflies. You provide food for them, and they pollinate your fruit trees and bushes, vegetables and herbs—a working partnership at its best.

Depending on the soil quality, varieties of plants, and how intensive you plant, raised beds can produce more vegetables and greens than you might expect. For example, a raised bed 12 ft by 8 ft can hold eight tomato plants, three heads of lettuce, 18 radishes, or ten radishes and eight carrots all at once! I assure you, using the combined intensive gardening techniques of square foot gardening and companion planting, this is possible and has been demonstrated repeatedly. How? Depending on the type chosen, tomatoes can take up to three months to reach maturity. Radishes only take one month, carrots will need two to three months to be harvestable, and lettuce can take up to 75 days to reach maturity and will benefit from the shade cast by the growing tomatoes. If all that can be grown in one raised bed that measures 12 ft by 8 ft, imagine how much food you could grow if you added one or two more raised beds.

To get even more food, consider vegetables that can be trained to grow upright against a fence or with support. You could stretch chicken wire between sturdy supports and grow peas, beans, or cucumbers there. Peas don't take very long to grow, and depending on the region you're in, you could get three or four plantings in one season. If you freeze your peas soon after harvest, you can capture all the flavor and vitamins before the peas' natural sugars turn to starch. You could also grow zucchini quite easily with support. Potatoes are also easy to grow, loved by nearly everyone, and can be grown in almost any living arrangement. They can be grown in deep buckets and even unused plastic garbage cans if given a couple of holes in the bottom for drainage. In fact, just last year, I grew 10 pounds of potatoes in two 20-gallon garbage bins without much effort at all other than watering them.

With a combination of raised beds and containers, depending on your region's climate, you could grow spinach, turnip, lettuce, corn, potatoes, beets, beans, tomatoes, peas, corn, onions, peppers, cabbage, asparagus, carrots, broccoli, cauliflower, radishes, garlic, cucumber, pumpkins and so much more!

You may have noticed that I mentioned fruit trees and bushes. Even in more northern regions of North America, it is possible to grow fruit in your yard. You can grow cold-hardy grapes, pears, cherries, plums, strawberries, blackberries, apricots, cranberries, raspberries, some types of pears, apples, blueberries, haskap berries, and even peaches as far north as the more northern parts of Minnesota. In Canada, all the aforementioned fruit will grow as far north as zones two or three. Growing your own fruit is important because of its vitamin content and its rising cost. With a little creativity and planning, you could grow the fruit you need to make all the jam, jelly, and preserves your family could want. It's also possible to grow orange and lemon trees if you're willing to take them indoors when the weather turns cooler.

If you decide to grow as much food as you can in raised beds and containers, you might be pleased to know that gardening this way is actually less work than the traditional method. Old-time gardens were an enormous amount of work with long rows, scattering seeds, stooping to thin seedlings, stooping again to weed, and stooping to harvest. With a combination of raised beds, companion planting, and intensive gardening methods, there are fewer wasted seeds, fewer seedlings to thin, and less wasted time. When you use the bed to its maximum effectiveness, you can produce much more food and have fewer weeds to battle with. By planting individual seeds no farther apart than the distance their mature selves will need, you will be shading the soil with their growing foliage. This prevents wasteful moisture evaporation while crowding out weeds. If you do a little research and learn about rotating the plants you'll grow from year to year, you'll discover that many of the harmful pests can be diminished or eliminated. By incorporating companion planting, you'll reduce pests even further and bring helpful pollinating insects into your garden.

The more perennial vegetables you can grow, the less work you'll have to do year after year. Many people have an asparagus bed, or a few Jerusalem artichokes (also called sunchokes) tucked away in the corner of their yards. Consider planting rhubarb, raspberries, sorrel, horseradish, chives, blueberry bushes, watercress, grapes, kale (if covered to protect it from frost and snow if you get it), and garlic. Yes, we've come to think of garlic as an annual, but if left in the ground, it will produce all sorts of delicious scapes. Onions, too, can be left in the ground to grow larger. Of course, fruit trees such as apples, pears, peaches, and citrus, depending on your location, all make sense to plant too. If you live in a location that will allow you to grow nut trees such as chestnuts, hazelnuts, or walnuts, grow those as well. You want to assure yourself of a varied diet as possible for the future, and the more perennial food sources you have, the better.

Modern gardening is no longer the thankless, backbreaking work that our ancestors had to endure if they wanted to eat. If you can enlist the help of your family, your survival garden (because your garden *will* help you survive) can be less of a chore and more of a family bonding investment in your collective future.

Why You Should Compost

One way to increase your yield, no matter if you grow in containers or in the ground, is through the use of compost. Even if you don't have a flock of chickens or a couple of goats or rabbits, you can still compost. If you have kitchen scraps, coffee grounds, or know someone who would be willing to share theirs, you have a source of compost. Compost helps build healthy soil. Healthy soil reduces pest problems, supports healthier plants that produce bigger yields and more nutritious fruits and vegetables, and supports a micro-environment for beneficial insects, microbes, and worms. Healthy soil also drains better while retaining much-needed moisture. I know that sounds like an oxymoron, but it's true. Soil enriched with compost retains moisture better without becoming too boggy.

If you don't have a compost pile started yet, you absolutely can buy bags of compost. There's no shame in it. Go ahead and buy "zoo poo" or "sea compost" or whatever kind of compost is available where you live. It will

make your plants healthier while building your compost pile and learning how to use the end product. In fact, marine compost can often supply your plants with nutrients that land-based compost may not. Compost made from peat moss, composted fish waste, seaweed, and shellfish exoskeletons bring an enhanced amount of calcium and other micro-nutrients to your gardens. Just the ticket if you want tomatoes that won't fall victim to blossom end rot.

Compost reduces the need for chemical fertilizers because instead of just getting nitrogen, potassium, and phosphorus, compost delivers a wide range of micro-nutrients as well that allows plants to be even healthier than they would be on chemical fertilizers alone. This includes calcium, manganese, copper, iron, zinc, boron, and sulfur. When you produce compost, you are able to control what your plants take in. This is important to people with sensitivities to certain products used in commercial farming. Compost also reduces your dependence on fertilizer produced thousands of miles away or even in another country. As a matter of fact, at the time of this writing, the prices of fertilizers have sky-rocketed, and some countries are holding back their supplies of chemical fertilizers to use in their own countries instead of exporting them. So another benefit to composting is that you are the producer so it doesn't matter if commercially available compost experiences a supply chain shortage.

Earlier, I briefly touched on the nutritional value of plants affecting our nutrition. It is a well-researched fact that in the past thirty or so years, the amount of vitamins and minerals in our foods has dropped from six to over eighty percent. This is due to nutrient depletion in the soil. Healthy soil means healthy plants, which in turn creates healthier people. So, the key to a great many issues really does start with the soil. The best way to have more control over what you and your family are eating is to grow it yourself, and the optimum path to better health starts with healthy soil.

Making compost isn't as difficult as it might seem. Despite what some experts would have you believe, composting is not a process steeped in mystery. All it really comes down to is controlling the speed of rot. I know how that sounds but bear with me. If you were to pile leaves, dried grass clippings, and straw in a big pile and leave it alone, it would all eventually

break down. But it would take a very long time because they're all dry. If you add wet ingredients such as vegetable trimmings, fresh grass clippings, rabbit manure, or fish cleanings such as head and tails or scales, the dry ingredients are now exposed to moist ingredients. Add oxygen, and these things all start to break down a little faster. Once the beneficial insects, worms, bacteria, fungi, and bacteria show up, it all breaks down even faster.

There are thousands of bacteria found in a compost pile, but let's meet the three main types; psychrophiles, mesophiles, and thermophiles. Psychrophiles—which are aerobic bacteria—are the first to show up in a pile and start breaking matter down in temperatures as cool as 28-55 degrees Fahrenheit. Mesophiles are the second group to show up as the temperature in a pile rises to between 70-90 degrees Fahrenheit. They prefer their living conditions like most of us. These are the really efficient bacteria that do most of the work in a compost pile. The only drawback to all of their efficiency is that as they break down all that organic matter, they raise the heat of the compost pile, which is fine until the temperature reaches about 100 degrees. Then they all die off, and their thermophilic cousins take over. They can raise the temperature of a pile to 160 degrees, at which point you can be assured weed seeds have been killed off. This kind of temperature usually lasts less than a week, then the next generation of mesophiles shows up as the temperature of the pile drops back down. So, it's completely normal for the temperature of a compost pile to fluctuate, and now you know why.

These 'laborers' in your compost pile need a few things to survive and thrive:

- **Carbon** —from your dry yard waste like dry leaves, chopped branches, or sawdust for energy.
- **Oxygen** —oxygen is needed by the most efficient microbes known as aerobes. When there's not enough oxygen in a compost pile, the aerobes die off, decomposition tapers off by as much as ninety percent, and other microbes called anaerobes take over. Oxygen can be added by frequent turning of the pile, or by building the pile around long PVC pipes with strategically placed holes that allow air to penetrate the compost pile.
- **Nitrogen** —microbes in your compost pile also need nitrogen for protein to help break down their 'food.' They find this nitrogen in grass

clippings, vegetable waste, and blood meal. Without a sufficient supply of nitrogen-rich materials, decomposition slows, and a passer-by would smell ammonia gas.

- **Moisture** —too little moisture in a compost pile slows decomposition, while too much smothers the microbes. If your pile is not wet enough, you may have to add moisture to simulate rain. Just don't add too much!

Your compost pile is home to more than just bacteria. There are also fungi, earthworms, earwigs, actinomycetes, enzymes, nematodes, spiders, and grubs.

Tip : If your compost pile smells bad, add a little more 'green' waste to give your microbes some protein!

Mixing the ingredients, also referred to as “turning the compost pile,” helps add oxygen and ensures even distribution of the wet and the dry contents and the microbes that break it all down. In fact, the more varied the ingredients you can introduce to your compost pile, the wider range of nutrients and micro-nutrients your finished compost will have.

Essentially, this is the process that goes on in the forest over decades to produce the darkest, richest soil on the planet. But by composting in bins or barrels, we're merely accelerating a natural process to serve us.

Composting serves a number of purposes. Obviously, the process helps return nutrients into the soil, giving back after we've taken them out through gardening. It also helps reduce the amount of waste in our landfills. In a prepping situation, there may be no trash collection. If you can learn how to separate your 'green' trash and compost the organic, once-living waste, you'll have less trash to deal with later. If the experts are correct and three-quarters of any household's waste is organic material, think of all the soil-building we could be doing! Additionally, if there are any toxic elements or metals in the soil, compost neutralizes them so they cannot be taken up by the plants.

If you really want to make compost faster, rotating drums or barrels can be rolled around the yard, turning the compost ingredients inside and adding oxygen with fine-mesh screens built into the barrel. There are also commercial activators available that help break raw materials down even faster if all the basic elements to feed the microbes are available, as I've

discussed above. No matter if you use bins, barrels, or drums, if you try and stick close to the standard ingredient ratio of one part animal input (manure of some type) to two parts vegetable matter (clippings, leaves, ashes, trimmings, cuttings or straw), you should end up with terrific compost.

Why You Want to Save Seeds

Seeds can be kept viable, ready, and waiting for many more years than you might expect if kept in the right conditions. If you can keep your seeds cold and dry, they'll last much longer than if just tossed into a junk drawer. Write the date, or at least the year, that you bought (or were given) that packet of seed somewhere on the package. Trust me, you won't remember later. You'll have other, more important things to worry about, so make this as easy as possible for your future self now. I find that a coffee can, empty and wiped clean, usually provides lots of room for seed packets. Try and resist the urge to buy every seed you see while planning your survival garden. There's no point in growing Swiss Chard if your family won't eat it. But you need to consider something else before you buy seeds. What if you plant one type of cucumber because you discover it's good for snacking as well as pickling, try to buy more the following spring, and discover no one is carrying that variety?

The world of seed availability is fraught with politics, profit, and uncertainty. You cannot rely on your favorite seed being available from one year to the next. The best idea is to buy two packets of seeds for your family's favorites—specifically heirloom seeds. Seeds are classified as either heirloom or hybrid. Hybrid seeds may produce a sturdy, prolific plant, but that plant's seeds will not produce another identical plant just as prolific or sturdy. Its offspring may not even produce seeds at all. Hybrids are the "one and done" of the plant world. Besides being handed down through the generations, heirloom varieties will produce identical copies of the parent's plant. So you can rely on consistent vegetables from season to season if you plant heirloom types. Even better, you can save your own seed. This eliminates the need to locate more seeds every spring and takes away the uncertainty around variety availability. Once you find your

family's favorites, it's well worth the time invested in learning how to save that seed properly. With seeds, you always have food.

Saving seeds is not difficult, but not all seeds are harvested the same way. Some need soaking, cleaning, and drying, while others merely need thorough drying. Heirloom seeds represent an aspect of self-sufficiency and freedom that hybrid seeds cannot replicate. You might be surprised to learn that the world of seeds is dominated by six big companies, perhaps even less by the time you read these words. Hybrid seeds are copyrighted, controlled, and legislated beyond common sense. Heirloom seeds, once you learn how to save them and build your own seed vault of your family's favorites, preserve species diversity. Hundreds of varieties of vegetables are no longer available simply because the controlling seed companies saw more profit in others. So if you're going to devote time and energy to a survival garden, give careful consideration to the preservation and use of heirloom seeds.

While saving seeds is one part of the solution, the other part is learning how to grow those seeds before your family goes hungry. Let me say it again; *you need to learn how to grow your food now before your family's lives depend on it* . Take the time to learn how to grow your family's favorite vegetables. Experiment and discover the best spot in your yard for tomatoes—perhaps one variety will grow much more easily for you than another. Learn which varieties of tomatoes grow better in your area and try out different methods of preserving them. If you like asparagus and garlic but are shocked at the prices the grocery stores are commanding, try growing those things yourself. Once your asparagus patch is established, it will be a couple of years before you can eat them, so start now. Invest the time and energy into discovering how to grow a little more of your family's food now, while the only pressure is economic rather than all-out survival. Learn all you can about growing under less-than-ideal conditions rather than with perfect temperature, sunlight, and water. Invest in and dedicate yourself to a grower's education while you can. Future-you will be grateful.

You may be interested in, or forced to by necessity, extending your growing season. You have options here too. One inexpensive way is by using a greenhouse to house your seedlings at the beginning of your growing

season. You can buy plastic greenhouses that stand about four feet high and two feet deep or make your own if you're skilled and have the materials. Even if you think it's too cold outside, there's a secret to keeping your greenhouse warm, as long as the greenhouse isn't large.

A visit to a local pet store, or one online, can supply you with a submersible aquarium heater. These come in a wide range of price points and quality. Do not buy the cheapest one available. Get one that is listed for five gallons or more. A good fully submersible heater can heat one to ten gallons of water from fifty-nine degrees to ninety-four and will not use any more power than the light bulb in your refrigerator. A good heater will also have a safety shut-off programmed so that it will not heat water above a pre-programmed temperature. Be careful not to submerge the cord. A good, strong binder clip can help keep the heater where you want it. Now, get a five-gallon bucket (preppers can never have too many of these) and fill it almost to the top inside your greenhouse. Place the submersible aquarium heater inside the water, clip the cord to the bucket's rim so the cord won't accidentally fall in, and plug it into a power cord (obviously, this assumes you have power. I do know preppers that have devised ways to power these heaters from small solar panels they purchased at hardware stores). Put a sturdy piece of cardboard over the bucket to keep curious heat-seeking rodents and insects out of the water. Once the water inside the bucket heats up, the radiant heat will warm the inside of the greenhouse, bringing the temperature inside up and protecting your seedlings from freezing.

If You Have a Balcony

Even folks who live in apartments can prepare for emergencies. These days, we have to worry as much about a financial crisis as we do any other disaster. The rising cost of food, supply chain inconsistencies, and possible job layoffs can all affect how we provide for our families. Many apartment dwellers are planning for future homes, and they, too, want to grow their own food. Sometimes, they're motivated by the desire for healthier food or by rising costs. No matter the motivation, apartment-dwelling preppers can also grow some of their own food.

Obviously, some vegetables and fruits lend themselves more easily to larger spaces. But even on an 8' by 12' balcony, you can still grow fruits and vegetables. Blueberries, strawberries, and orange trees can all be grown in pots in the sunny corners of your balcony. You can also grow peas, chamomile, beans, marigolds, roses, lettuce, tomatoes, spinach, lettuce, onions, beets, chili peppers, zucchini, cucumbers, carrots, and radishes, among other things. You can also grow basil, chives, cilantro, a bay tree, sorrel, and rosemary. I've also seen corn grown in very large pots and even kiddie pools on balconies, so it can be done! You can also use the submersible aquarium heater trick I discussed above to keep your seedlings warmer or even plants that aren't mature when your weather cools off.

Apartment dwellers can compost, too, with a little creativity. Bokoshi composting is ideally suited for apartment living and takes only weeks to produce compost 'tea', is much more beginner-friendly and is enclosed in one bin. I have never composted this way, so I have no insights into this method. But its proponents swear by this method of reducing one's organic waste and say their plants thrive with the use of Bokoshi 'tea.' Another option for apartment dwellers, basement or above ground, is the use of comfrey slurry. The premise is simple enough. You grow comfrey, take the older leaves, and chop. Then run the chopped pieces through a food processor with a little bit of water until a slurry is produced. Then side-dress your plants with the slurry.

If You Live in a Basement Apartment

If you live in a basement apartment, prepping as best you can and waiting for the day you can have some land, know that you can grow some of your food as well. You don't need a walk-out or a patio—you just need to be a little more creative. You can grow all sorts of microgreens and sprouts on a windowsill if you have one. If not, you can take a corner of your space and convert it into an indoor garden with the addition of a table, a grow-light (or two), and a large box. You cut the box along one seam so that it opens up flat and simply line the inside with aluminum foil. Tape well and position it on the table so that the top flaps reflect the grow-lights rays back down to your seedlings. You can grow a wide array of microgreens this way, as well

as radishes, spinach, lettuce, arugula, baby carrots, and tomatoes. If you can find cherry tomatoes meant for containers, you may find them a little more suited size-wise for a basement apartment. With a little experimentation, you might be surprised at what you can grow in your little corner.

No matter where you live, no matter what your current circumstances are, my advice to you is to start learning and preparing **now** . Do what you can, where you can, and always strive to learn more. The time to learn how to grow potatoes is not when your family is starving. The time to put a plot of peas in is not when you're opening your last can. It'll do no one any good to wish you knew how to pressure can extra beef. Start these things and more **now** , before your life depends on it.

Herb Gardening for Preppers

Despite what common knowledge will tell you, you don't have to have an acre of land or even a front and back yard to grow fruit or vegetables. You can grow almost anything in containers, especially herbs. While you might not want to tell your neighbors about your new prepping hobby, you can certainly steer the conversation toward your new gardening hobby! A walkway looks especially nice lined with pots of lavender, cilantro, or roses, and can charm the most curmudgeonly nosy neighbor. You can add pots of chamomile and marigold beside your front door, and while the neighbors are admiring your "cute little plants," you can plan on adding them to your herbal medicine cabinet!

Historically, English cottage gardens were often seemingly hodge-podge collections of plants with no apparent rhyme or reason. But upon closer inspection, you might find a great many of them had a purpose for being there, from natural dye to cooking aids or herbal remedies. You might choose to honor those delightful gardens with a similar one of your own filled with beneficial plants. Or you could create your own healing garden as the monks did. However you choose to grow your "healing helpers", remember that it is a first step on the path to increased health for you and your family.

Chamomile —There are actually two types of chamomile—Roman, which is perennial, and German, which is annual. Both are sun-hogs that will do well with eight hours a day but don't like to be scorched. The Roman type is a terrific plant for containers, less so for formal flower gardens. The German type of chamomile can grow up to three feet high and is considered a shrub. You may enjoy this variety of chamomile at the corners of your garden if you have full sun. Both varieties will make splendid tea. You can grow chamomile from either seed (which is very small) or nursery starts. If you choose to start from seeds, smooth the planting surface, remove any weeds if you're planting outdoors, and thoroughly dampen the soil. Once you've scattered the seed, don't cover them. The seeds need light to

germinate and won't do that if they get smothered. Keep them moist and protected from the wind, so they don't blow away. You should see germination start in seven to ten days. Once the seedlings are big enough that you can visually ascertain which are the weaker-looking, you'll want to thin them by taking a small pair of scissors and snipping the weakest ones. Don't pull them out, as that will disturb the roots of the seedlings you want to leave undisturbed. As they grow, your chamomile seedlings will benefit from a little compost being spread gently around their bases. Other than that, keep watered and wait to harvest.

When you're ready to harvest your chamomile for tea, simply pluck the flowers gently from the plant. The flowers are ready when they're fully open, and you can harvest them all summer long. The best time of day to harvest is after the dew has burned off but before the hottest part of the day. If you get them a little before or after their prime, they'll still be good for tea. You can make tea from either fresh or dried flowers, but if you use fresh flowers, you'll need about two teaspoons. Half that if you're using dried flowers.

Comfrey —If you're lucky enough to find seeds or root cuttings for this useful plant, you can grow it with minimum fuss. You need to be aware that it can be toxic to humans, as well as to cats and dogs—so if you have a cat that likes to 'graze' out in the garden, don't grow comfrey.

Russian comfrey is sterile but a vigorous grower, which is perfect for gardeners growing this plant for compostable biomass. The most commonly found variety has elongated dark green leaves and blue or violet flowers. The other variety has bi-colored leaves of gold and green and cream-colored flowers that do produce seeds.

It has a large, persistent root system that can be a problem for some gardens. Thankfully, it can be grown in pots just as easily as in an outdoor garden. If you choose to grow it in-ground, know that you can propagate this plant by taking root cuttings. The other thing to be aware of is that comfrey leaves make an excellent fertilizer. So if you're overwhelmed by plants and can't use them right away in a herbal remedy, don't worry. You can rough-chop the leaves (once removed from the plant) and either scatter them in your garden to work as green compost, bury them with a root ball

when you transplant other plants, or put them in your compost pile. I've known gardeners that used comfrey leaves as mulch, too.

You can also grow comfrey in pots or planters if you prefer. You can start the plant from seed or from root cuttings if you know someone who has comfrey already that's willing to share with you. You can do this by cutting down through the plant from above. The "donor root" recovers quickly, so don't worry. Take the 'new' root and trim off any leaves that are rootlets until your section is two to six inches long. Plant this piece horizontally two to six inches deep in garden soil or your planter. Wherever you've chosen to grow your comfrey, water it every couple of days. You should start to see new shoots after three to six weeks.

Comfrey is a very easy plant to grow. It prefers full sun to partial shade, and its large leaves shade out all but the most persistent weeds and aren't bothered by many pests—slugs and snails being the exception, so watch for those. If you've chosen to grow multiple comfrey plants in your outdoor garden, you can cut the leaves when the plant starts to send up flower stalks. However, because comfrey attracts beneficial pollinators, you might want to leave a couple of plants to flower while you harvest the rest.

You can harvest leaves multiple times throughout the growing season without harming the plant. That being said, it is recommended that you allow "new plants" to grow undisturbed for a year before you harvest leaves from them. It's not a hard and fast rule; the plant will survive if you take leaves from it sparingly within the first year. Comfrey is so useful that there are many benefits to growing a patch rather than just one or two plants.

Echinacea —The plant that is also known as 'coneflower' could also be called "the hedgehog plant" since the botanical name *echinacea* comes from the Greek word *echinos* , which means hedgehog. The center floret of the flower is spiky with miniature flowers, botanically speaking, which look like a curled-up hedgehog. No matter what we call it, echinacea is a delightful border plant that can be grown in clumps as a backdrop for smaller plants. It comes in a variety of colors, from hot pink to white, yellow, pale lavender, purple and orange, and is related to daisies and sunflowers. There are nine species of echinacea, and all but two have long

taproots than can grow up to eight feet into the soil under the right circumstances.

You can propagate echinacea through seeds, root divisions, or from nursery starts. If you have a neighbor with a good-sized clump, perhaps they could be talked into sharing a root or two with you. If you decide to start from seed, expect a fifteen to thirty-day window for germination. Wild seeds have a very low germination rate, and in many areas, the flower is rapidly disappearing because of over-harvesting. So the more responsible approach is to save the wildflowers and buy your seeds. Wild or domestic seeds will germinate better if soaked in water for twenty-four hours before planting, but new echinacea plants may not actually flower for up to three years.

Coneflower plants aren't fussy about soil composition or the amount of sun they get. They're just as happy in average soil and partial shade as they are in rich soil with compost and full sun. In the wild, you'll find them growing in sandy soil, forests, abandoned lots, beside the road, and in the middle of fields. Pretty much everywhere but the desert. They will, however, be happy with an annual side-dressing of compost.

Marigold —You can grow these uplifting and useful flowers either in your garden scattered among your other flowers and vegetables, in planters and pots, or both! Because marigolds have so many varieties to choose from, it's easy to find one you like. They have a certain toughness about them because they're so pest, heat, and drought-tolerant. As a matter of fact, not only are they avoided by most pests, but they actually attract pollinators such as bees and butterflies and, for that reason, are much-loved as a companion plant among vegetables and flowers. They enjoy full sun and really don't do well in the shade. They will tolerate partial sun somewhat, but they adore the sun. Shade makes them susceptible to powdery mildew, and the plants will generally be weaker with less-than-impressive blooms. So plan on putting these charismatic flowers in the most sun possible without burning them. If you are growing yours in planters, you'll want to move the pots somewhere that gets them out of the intense heat. They are heat tolerant, but they don't want to bake—moderation, even with marigolds.

When you first plant your marigolds, it's a good idea to give them a thorough soaking, as it is with any plant. This offers them a substantial drink to start off right in their new home, and it settles the soil more properly around their roots. After that, though, just keep an eye on the leaves and moisture content in the soil. Usually, they'll do just fine with rainfall. During a particularly dry spell, keep an eye on the leaves to watch for wilt. If the leaves wilt, the plant needs a drink *now*. A note of caution—if you do need to water your plants, water from beneath the flowers. While blooms do fine with rain, they can turn into brown sappy messes if they get too wet. So be kind to your insect-attracting blossoms and water carefully. Other than that, though, marigolds are pretty satisfied with rainfall and dew.

Marigold can be grown from seed or nursery starts. Many find the seeds and seedlings to be fussy, so the common practice is to buy pre-started marigolds. If you get them home and find they're a little root-bound, gently pull the root ball apart when you transplant. The plants will recover and thrive with good watering. Nursery starts generally don't produce seeds that produce a clone of the parent. You can find heirloom marigold seeds if you search, but generally, most commercially-available marigolds are hybrids. If you are growing marigolds in the ground, I recommend planning the placement of your flowers before you plant. It is far easier to move a still-potted flower than to dig it up and subject it to further stress. Some varieties are taller and bushier than others, so keep this in mind when planting. Of course, if your marigolds will live in pots and planters, you'll be able to move them until you find a sweet spot they'll thrive in. They'll live happily with most other plants and are successfully used as border color and interspersed within vegetable gardens where they repel most harmful pests.

You can pluck fresh marigold flowers to brush with sugar and use them on top of cakes or in tea. You can also use dried flowers for tea, washes, warm compresses, and herbal baths.

Milk Thistle —Keep in mind that although attractive and useful, this plant is considered invasive. That being said, it is very forgiving about less-than-ideal soil but does prefer full sun. However, because milk thistle is so invasive, because a single plant can send up to 6,000 seeds aloft on the wind, and because the plant is toxic to cattle, it's not recommended that you

grow milk thistle in your garden. A more responsible approach might be to watch for it in the wild and reclaimed spaces and harvest the flower from there.

Sage —The two most useful types of sage to a herbalist are white sage and garden sage. There are slight differences between the two types. White sage is the taller cousin of the two that can grow up to four feet tall with smooth, white leaves. Their flowers are mostly white with brushes of lavender. Garden sage is shorter, topping out at two feet, and has leaves with a grey-green hue and blueish-purple flowers. White sage is more drought-tolerant and can be grown in drier conditions. Garden sage needs a steady supply of water.

The leaves of both types can be burned as incense, which has provided positive benefits to mental health. Garden sage, of course, can be dried and used in dishes to provide flavor, vitamins, and minerals. It can also be used as a tea, in ointments, washes, herbal baths, and compresses. You can harvest leaves from plants anytime in their second year before flowering. If you only need a few at a time, harvesting the young leaves and tips will encourage the plant to grow bushier. But if you need more than a few leaves, never harvest more than a third of each plant. Sage is a perennial, but if you take more than a third of each plant, you seriously impact the plant's ability to recover. As with any other plant, moderation is key.

Recommended Reading:

With knowledge comes great power, especially when it comes to raising your own food and preserving it. I recommend a few books that will teach you more than I have room to cover here. There are so many elements of raising your own food that can be improved upon with the right knowledge that learning how to maximize yield and nutritional value can be daunting. But I turn to the same books year after year, and they've never failed to teach me something new. Here, then, are my recommendations for books that will teach you how to grow your own food and make your yields even better.

Mini-Farming: Self Sufficiency on ¼ Acre by Brett L. Markham

The Backyard Homestead Edited by Carleen Madigan, published by Storey Books

Square Foot Gardening by Mel Batholomew

Let It Rot!: The Gardeners Guide To Composting by Stu Campbell

When Technology Fails: A Manual for Self-Reliance, Sustainability, and Surviving the Long Emergency by Matthew Stein

Water Wise Gardening by Steve Soloman

Gardening When It Counts: Growing Food in Hard Times by Steve Soloman

How To Grow More Vegetables (and Fruits, Nuts, Berries, Grains and Other Crops) Than You Ever Thought Possible on Less Land Than You Can Imagine by John Jeavons

Seed To Seed: Seed Saving and Growing Techniques For Vegetable Gardeners by Susan Ashworth

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BOOK 4

Hygiene and Mental Health



First Aid and Hygiene

First Aid

An expert in survival first-aid, Amy Alton ARNP, says, “In a survival situation, an ounce of prevention is worth not a pound, but a ton of cure.” She’s right.

A really good first-aid kit will address a wide range of emergencies. Even better is the knowledge of how to use that kit. When we go on a hike and sprain our ankle, we can treat it and head to the nearest medical facility. But what if an emergency happens that ties up medical assistance for an unknown amount of time? We should expect the unexpected and teach ourselves all we can in case we are completely on our own and a medical facility is not available. Using a combination of supplies, alternative medicine, improvisation, and prevention, we can learn the skills we need to give our families the best odds, medically speaking. Often, first-aid courses and more advanced courses like CPR training or community emergency response training can be found on offer at local colleges, Red Cross offices, and sometimes local fire departments and EMT stations. If you’re able to take advantage of any of these, I absolutely recommend you do it. You never know when you could potentially save a life.

Before I go on, in the interest of transparency, it should be said that I am not a doctor. I have nothing against modern medicine or the medical profession. I will admit that I’ll reach for a herbal remedy for minor, non-life-threatening medical issues before a bottle or tube of something one has to buy. I believe that if a herbal can treat a non-life-threatening issue, and you don’t have to see a doctor, don’t congest the emergency room and doctor’s waiting rooms any more than they already are.

That being said, *there are medical issues that should be attended to by a doctor or EMTs* . **If you suspect you might be having a heart attack, slip an 81 mg aspirin** (also known as baby aspirin) **under your tongue and get**

to a hospital right away . Don't stop, don't reach for a herbal in this case, just go to the hospital.

If you suspect you or someone else may be having a stroke, call an EMT or First Responder or head to the closest medical facility. **Signs of a stroke include sudden numbness or weakness on one side of the body, especially in the face, arm, or leg. Sudden difficulty speaking or understanding speech or sudden onset of confusion. Sudden difficulty seeing out of one or both eyes, sudden trouble walking or weakness or loss of coordination. Or a sudden and intense headache with no known cause.** The faster you can get medical assistance, the more successful the treatment will be. Don't stop and lie down if you think you're having a stroke. If someone else suspects they're having a stroke, or you think they are, try and convince them to seek immediate help. The sooner medical assistance is given, the better the odds of recovery. This is not the time to drink a cup of herbal tea and hope for the best!

What should we start learning about and preparing for first? Trauma such as sprains, concussions, cuts and burns, skin infections, bleeding, bladder infections, respiratory infections, exposure to poison ivy, dog bites, and broken bones. CPR training is always useful too.

In everyone's bug-out bag should be an individual first aid kit or IFAK. This should include:

- compression bandage
- bandage scissors
- adhesive bandages (cheap ones do not stick well, Elastoplast makes the very best, and you can purchase the type that you can cut to the size you need)
- sterile dressings
- sterile gauze pads
- cloth medical tape
- antimicrobial wipes
- a bottle of hand sanitizer
- packets of burn gel
- an Israeli bandage or two
- a triangular bandage with safety pins for a sling, or a very large bandana

- a tube of triple antibiotic ointment
- a small resealable bag of honey (this will never go bad and is unsurpassed at wound and burn care)
- Steri-Strips
- a tube of super glue
- tweezers
- Benadryl
- a cold pack
- a penlight
- nitrile gloves

You can condense all this together inside small bags that can be found at luggage dealers or even in tins after everything is placed inside small individual resealable bags for cleanliness. Do not overlook a small but thorough first aid pamphlet or booklet kept with the first aid kit. You may have all sorts of first aid knowledge, but what if you're unconscious and someone else without that knowledge has to work on you? So make sure you have a first-aid booklet in their first-aid kit as well.

There are minor medical issues and major ones. Abrasions, scrapes, and "road rash" are far less likely to be life-threatening than cutting a major artery, right? All wounds that break the skin have the potential to be serious in a situation where the arrival of medical help is uncertain. Obviously, there are classes of medical emergencies that are more urgent than others. A heart attack requires more immediate action than an embedded fish hook.

So let's say you and the family are out hiking, having a great time, when your son stumbles, falls, and scrapes the underside of his arm. Treating this is simple, but you don't want to leave it until you get home. Take one of your water bottles and rinse the scrape. It will sting, but you don't want to leave dirt, leaf matter, and who knows what in there. Then cover the scrape in either triple-action antibiotic ointment from your first-aid kit or honey. Honey has amazing antibiotic properties and sometimes works better than ointment! Whichever option you choose, cover it with a bandage to keep it clean, apply tape to keep it there, and carry on hiking. Keep an eye on the wound, take a peek at it every few hours, and make sure that the bandage is always clean. There should be noticeable improvement within a short time.

If you've used either the triple-action ointment or the honey, there should be no issue with infection.

For minor cuts that are not deep, herbal remedies may be used if you have a herbal first-aid kit. We'll talk more about this later. Flush the cut clean with water or a herbal wash if you have one, and apply a herbal blood-clotting agent. Yarrow or cayenne pepper powder (believe it or not) are both exceptional at clotting and do not sting. Compress the area gently with gauze. If you have no herbal remedies or prefer to use your first aid kit, you can apply triple-action ointment and cover it with clean gauze. Cover with a bandage. Change the bandage twice daily and take note of any changes within or around the cut. I wholeheartedly recommend the use of herbal washes, poultices, and honey for wound care, but you may feel differently. If the use of herbals for health care interests you, see the section on Herbals.

Hygiene

There are many aspects of modern life that we've come to rely on. Take the toilet, for example. You go, you flush, and your waste is gone. You don't give it another thought. It's a great system—until it doesn't work. Now you have to figure out how to dispose of all the waste that is normally carried away, and you have to do it safely. You also have to ensure, now more than ever, that your hands are cleaned properly. There are a few items you can get now that will help you, your home, and your clothes remain clean during an emergency.

- Borax
- Baking Soda
- Bleach—this is only shelf-stable for about a year and should be considered a last resort for cleaning. It is, however, terrific for sanitizing water storage containers and any secondary systems you might have to use to dispose of human waste in a grid-down situation.

Washing: Hands and Body

We all know we should wash our hands carefully after a visit to the toilet. Our parents, teachers, and medical professionals have been telling us all our lives. But did you know that diarrhea and dysentery are caused by poor personal hygiene? One of the ways that norovirus is spread is by touching a contaminated surface and then putting your hands in or near your mouth. It is a highly contagious virus that can spread rapidly. These are just three examples of medical conditions spread by insufficient hand-washing.

One of the things that were extremely hard to find as little as two years ago was hand sanitizer. Supplies are more abundant now, and their importance cannot be overstated. To truly be effective, the sanitizer should contain no less than 60% alcohol. 75 to 90% is better. Such a powerful hand sanitizer kills many different types of viruses, including those that cause the common cold, the flu, coronaviruses, and 99.9% of all bacteria.

Cleaning our bodies without water is a little easier now than it was a decade ago. Any parent of a baby will tell you that wipes are invaluable, and it's true in an emergency as well. There are wipes designed for adults, babies, and for disinfecting our homes as well. These are easy to find, relatively inexpensive, and easy to use.

How to Deal With Waste

If you're in a home with a septic system, you'll still be able to flush as long as you have a source of greywater (water not necessarily purified enough to drink). You simply ensure the toilet tank is full, and your flush mechanism will work as expected. The waste goes into the septic system, and the microbes there do their job.

If you live in an urban environment, you'll want to determine that the sewer main hasn't been compromised. If it has, don't flush! The water in your toilet bowl is a barrier between you and what lurks beyond your pipes. I can tell you from experience that merely tossing a bucket of water into the bowl will get rid of the waste, but it also leaves your bowl empty if there's no water in the tank to replace it. Without the water to create a barrier, everything in the pipes can escape through your empty toilet bowl, whether that's sewage gasses (disgusting enough on their own) or the neighborhood

waste (which is beyond repugnant). So always find out about the stability of the sewer main in an emergency, and always keep water in your toilet bowl.

If you're on the road to your bug-out location and nature calls, dig a hole that is six to eight inches deep, at least six inches around, and at least 200 ft from any water. Do your business, clean up using one of your aforementioned wipes and then bury the entire mess thoroughly. If you aren't traveling and this is your only means to dispose of human waste, try and place your holes somewhere away from water runoff but in the sun for faster decomposition. If you have a fire pit, all the better. Sprinkling wood ash over waste and wipe together before burying it will help it all break down even faster. If you and your family find yourselves making camp for a few days, a latrine trench is a good idea. As you dig, pile the dirt beside the trench so it can be easily accessed. After each person goes, cover the waste with however much dirt is needed to get the job done. You'll want to locate the trench far enough away from camp that odor won't be a problem, but not far enough away that your kids are wandering out of shouting range. You'll also want to erect some sort of screen. The situation will be bad enough without adding the ultimate loss of privacy.

But if holes or trenches are not possible and you're absolutely desperate, you do have another option. Drain as much water as you can from your toilet. Now, tape a doubled trash bag, so most of it rests inside the cavity of the bowl, with the toilet seat over the opening. Put the toilet seat down and go as normal. Cover the waste with kitty litter, wood ash, or sawdust if you have it each time someone goes, and make sure to put the lid down to control flies and odor. When the bag is two-thirds full, carefully remove the tape. You don't want to spill the bag! Tie the bag securely and place it in a gallon pail or trashcan, preferably outside, until you can deal with it more permanently. If you live in an apartment building, I recommend a large trash can with a tight-fitting lid out on your balcony if you have one.

Mental Health

An emergency can bring out the worst in people or the best. An unplanned-for crisis can generate anger, panic, hopelessness, insomnia, and physical aches and pains. It can also magnify any mental health issues that have been ignored. Depression, anxiety, schizophrenia, anger management issues, and drug and alcohol problems are only a handful of issues intensified in times of catastrophe. During any number of emergencies, medications that help regulate and control mental health challenges may not be available. So what do we do? For serious health issues that require prescription medications, I suggest stocking up as much as possible. This isn't always feasible, but if you have a health care professional, talk to them about perhaps allowing you to have a repeat prescription to set aside in case of emergency. They may agree to or deny your request, but it never hurts to ask.

Folks With Special Needs

A topic that I've never seen mentioned in any books on preparedness is that of prepping with special needs individuals. This could include seniors with dementia who live with their adult caregiver child or a teenager on the autism spectrum or any one of a different set of circumstances. But no matter what your familial structure is, you must consider what your family member needs to be comfortable in a crisis. They might benefit from a few extra practice runs if you think you may have to bug-out, or they may need a checklist of their own to assure themselves that no steps are forgotten. It's a good idea to print out and laminate an identification card for their bug-out or get-home bag, with special instructions on the back of it in case the first responder is not trained in emergency care of an individual with special needs. For example, if bright lights and noise upset your son, you would want to have first responder instructions to keep him in a quiet area so as not to panic him. If your elderly mother gets easily confused, make a note of that on the back of her identification card in case you are not with her when the first responders arrive to help. Take the time to consider what your family member will need to remain as calm as possible until you can be

reunited with them. If they have a phone, build a contact list within, and mark any emergency contacts with ICE (in case of emergency), so that emergency responders can pick out priority contacts at a glance.

It is worth mentioning that if you do have folks with special needs in your family, you'll want to list these needs in your emergency binder, along with copies of everyone's identification. If your senior parent has incontinence issues and needs adult diapers, this needs to be noted. And, of course, you'll want to add these items to your preps too. Diabetics and asthma sufferers will also need special items stocked as well. Take everyone's needs into account when building both your preps and your emergency binder.

Children

A large part of avoiding panic and feelings of hopelessness is a well-considered plan that is built with your family. As frightening as it might seem to them during the discussion, it is easier to deal with an actual emergency if they know what to expect. Many children are taught about fire escape plans in school and often come home with the task of creating an escape plan as homework. Build on that. Start with fire. Once they seem to have understood the importance of planning one's escape and are comfortable with that scenario, build a plan with them to deal with some other kind of emergency—a long power failure, for example. Practice the execution of that plan on a regular basis, so it becomes second nature to everyone involved. As a result, response time will improve too. Then you can discuss whatever other kind of emergency you're most likely to face in your area. By including them in an age-appropriate way, your children will be better equipped to handle a variety of emergencies instead of resorting to fear.

Older children, teenagers, and young adults are better equipped to deal with the unexpected, but they too should be taught the value of being prepared. Including them in your plans may yield surprising insights and ideas. Young people have their eyes on the future and are better informed than any generation before them. They are far more intelligent than the media gives them credit for. However, keep in mind that the prefrontal cortex (the part of the brain that governs decision making) is not fully developed until

approximately age 25. So if you can teach your teenagers and young adults how to rationally plan and respond to a variety of emergencies, you may find yourself with a valuable partner in a crisis.

A big part of mental health in an ongoing emergency is having the ability to decompress. For younger children, this might mean stories, something light and hopeful to distract them from the seriousness around them. It's tempting to think you don't have time for such frivolity, but hope can be a powerful motivator and guardian of mental health for children and adults alike. You *need* to make time for such things to keep morale up. Older children, young adults, and even older adults might enjoy being told stories too. Of course, they probably don't want to think of it as "being read to." But if you were to include a novel in your bug-out bag, perhaps a rollicking adventure tale without a lot of darkness, and read them a chapter each night, if possible, they may find listening to someone else read aloud helps them ward off depression and despair.

The Primary Prepper

Another point that should be made is one for you, the primary prepper in your family. It's easy to get carried away with all of the things we think we need to do to prepare. There's a lot involved in preparedness, it's true. And when we start to plan and prepare for more than one type of emergency, it can be easy to let all this take over our lives and look at the world too seriously. My area is prone to floods in both spring and autumn, wildfires in the summertime, and losing access to town during nasty winter storms, not to mention the weather-related instability of the local power grid. I have to remind myself from time to time that it's as important to be ready for such events as it is to enjoy life. If you have children, you'll want to demonstrate this concept so that they don't assume the end of the world is coming and spiral into depression. The best way to demonstrate this is to live the lesson yourself. Do fun things with your family, like bike rides or family backpack day trips. Not only do you all build physical fitness, but you enjoy each other's company as well.

You can schedule certain days of the week for prepping-related activities if that helps you balance your days. Perhaps canning on Saturdays or three

days before the end of the month, you go through your stored food to make sure you stay on top of expiry dates. Whatever schedule works for you. But if you do something every day, you'll quickly become overwhelmed and possibly depressed.

Mental health is just as important as physical health for everyone in your family. It can make the difference between weathering an emergency with calm deliberation or succumbing to panic and possible injury. So plan to make mental health a priority when prepping.

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BOOK 5

Communication



Two Way Communication

Being responsible for your loved ones in an emergency is nerve-wracking enough, but if that emergency happens when you're all scattered across your neighborhood or community, how do you contact one another? We've all become quite attached to the concept of reaching our friends and family with very little effort. I'm lost without my cellphone on the rare occasions I don't have it at hand, and I use it more like a palm-sized computer than as a communication device, which is probably true for many of us. So what do we do when our favorite form of communication is suddenly unavailable due to a large-scale crisis? How can we check in on or locate loved ones who may be scattered far and wide during an emergency?

Telephones

The obvious first choice is to reach for a telephone, although these are becoming rarer as more of us switch to cell phones, even for our primary numbers. Once, it was common to have a home phone and a cell (also called mobile) number. Now, many of us are using cell phones as our main communication tool. This has its drawbacks, however. As I recently re-discovered, sometimes, when cellular service is unavailable, old-style landlines will still work. During times of emergency in the past, calls have been able to be sent out but not be received. Even this limited use is handy if only to call home and tell someone that you're safe and heading home.

Cell phones are so much more than mere phones. They've come a long way from brick-like satellite phones, evolving into mini-computers that fit in the palm of our hands. Once, they bore a great resemblance to communicators in the classic science fiction television show *Star Trek*. These days, our cell phones can enable communication with people in other countries around the world. Through the use of apps, we can listen to entertainment radio programs, shortwaves, marine radio, and even pilots flying high above us. We can track personal fitness, miles walked, manage our finances, play

games and be so much more productive than ever before. Of course, there are prepping apps as well—we'll discuss those in a minute. Cell phones do have limitations. The signals can be interrupted by high, rocky walls in a canyon or valley. If a mechanical breakdown afflicts one tower, the signal may drop and be unavailable for hours and sometimes days. In a major emergency, the higher usage volume may overwhelm cell towers and interrupt or simply drop calls completely. In times like this, though, sometimes text messages can get through when calls cannot. But, all in all, cell phones are an invaluable communication tool. You'll want to buy yourself a shock-proof and waterproof case for your phone and add a screen protector. Often, these physical forms of accident insurance can make the difference between a scare when you drop your phone and an unusable piece of circuitry and glass. The peace of mind is well worth the monetary investment.

Smartphone Apps

Smartphone applications are useful and can be entertaining. But since we're discussing getting your family prepared for emergencies, let's discuss prepping apps for your smartphone and other electronic devices. There are a great number of apps available to preppers, and more are being created all the time, so you'll want to do some research into current prepping and emergency apps. Knowledge can save your life. That being said, let's take a brief look at some apps you'll want to look into:

Police & Emergency : There are a variety of police and emergency scanner apps that will keep you both entertained and informed. You can find local first responders or search for other regions. Doing a little research will reveal the best ones for your phone and your area.

First Aid : There are a great many first aid apps out there, and some of those focus on babies, pets, mariners, and asthmatics, while others are targeted at providing first aid knowledge to children. Proper first aid training will always be a better option. But in a pinch, a first aid app might make a substantial difference. You'll want to look first for an 'official' app from the Red Cross society within your country, such as the American Red

Cross, Canadian Red Cross, or British Red Cross. The St. John Ambulance First Aid app is worth downloading as well. The American Heart Association also has a CPR and First Aid app. Pet owners will find a plethora of apps for the furry members of their family as well.

Survival Manuals : There are a few really good survival apps, and the best ones will allow you access offline. An app of this type will teach you how to make a fire, find water and food in the wilderness, how to build an emergency shelter, and more. You'll want to read reviews and look for the highest ratings when you go searching for one of these apps.

Prepping Inventory : There is a variety of these online, and depending on what you're looking for, you'll find a range of uses. In this specific category of apps, you'll want to pay close attention to how user-friendly the app in question is and if you can sync it with other family members or your other devices. As with all the other types of apps I've mentioned, pay close attention to updates to determine if it has been kept current, responses from the developer, and overall reviews.

CB Radio

CB radio has been an important and slightly misunderstood communication tool since 1948. Once considered the tool of truckers, CB radio has enjoyed a loyal group of enthusiasts whose numbers swelled after the movie *Smokey & The Bandit* made the Citizens Band radio cool again.

Many fans of CB radio find it less intimidating than Ham Radio, with a less-steep learning curve and no required FCC license. It's also a little more budget-friendly to purchase initially and to run. It has a predetermined 40 channels for use, with channel nine reserved for emergency purposes. Many first responders who have a CB monitor the channel for calls from folks in need, making emergency response time faster. Handy for a prepper in need. Often, local conditions can be gathered from CB users in the thick of an emergency faster than many other information sources, making faster response more attainable and possibly saving lives. CB radios can, depending on the quality of the unit in use, have a range of one-ten miles. There are a lot of choices when it comes to the radios themselves in terms

of quality, price, and between mobile or mounted units. Mounted units can be mounted in vehicles or in a home, office, or communication shed. Units of both types are available across a wide range of budgets. While long-range communication with CB units is rare, it can happen depending on channel traffic and weather. Typically, the range of communication is no more than 20 miles.

Social Media

Believe it or not, social media has an important part to play in an emergency. After an F5 tornado leveled Joplin, Missouri in 2011, a mother/daughter team quickly set up a Facebook page to provide people with directions to helpful resources, real-time updates, and an accurate report of what was happening in the area. It also proved to be a locator for friends and family. A social media response such as this one can also be used by both citizen volunteers and official volunteers to know where their help is needed. Once they are made aware of a social media resource, first responders can use it to update the public. The Joplin Facebook page also informed people where they could find blood banks that were desperate for donations, Loads of Hope, and Duracell trucks. The Duracell truck provided people with a way to recharge their devices, as well as use PCs on the truck to let loved ones know they were safe. Loads of Hope is a mobile laundromat. It may not seem like an important resource, but having clean and dry clothes to wear can have a huge positive impact on a survivor's psyche.

Facebook, Twitter, LinkedIn, and others may have their drawbacks, but in an emergency situation, they also have a lot of potential to help. Even in a smaller-scale situation, such as a multiple community power outage, Facebook has played a valuable role in informing residents who had power, who did not, and who needed assistance. The news and information can often be delivered much faster than over "official channels" in a circumstance such as this. Additionally, looters and would-be criminals have been stopped by community members announcing over social media when their neighborhoods have been cased by unknown individuals or scoped out by drones.

Instant Messaging

Cell phones and tablets all have the capability, if not the app already installed, for instant messaging such as Facebook Messenger, Google Chat, Skype, Telegram, WhatsApp, Viber, Slack, Discord, and the group chat app WeChat. Sometimes instant messaging (IM for short) can get through when a proper call will not due to phone lines being overwhelmed by traffic, and for this reason, it's important to know where to find it on your device. Equally important is that everyone in your family knows how to use the messaging app.

Don't forget that our electronic devices will only serve us as long as there is power. So be sure to acquire a backup power bank and recharging cables. Solar chargers are better made and less expensive than when they first came on the market. Many car starter devices have built-in USB ports and are worth consideration. Many newer vehicles have charging docks or ports where you can charge your phone. As in all other areas of prepping, "One is none, and two is one." Always have a backup plan for your backup plan.

One often overlooked aspect of communication in a crisis is that when life is falling apart around you, you're not going to remember the phone numbers of the emergency room, your mother's doctor, or the local first responder phone number if 911 isn't available in your area. Or what if you're unconscious and your teenage son has to call for help and can't find your phone because you forgot it in your jacket out in the car? (It happens more often than you think). The easiest solution is an ICE list—in case of emergency. Fill it out as if you weren't available and someone else in your family had to call for help. You might populate your list with:

- your doctor's phone number and that of the local emergency room
- your parent's and sibling's phone number(s), as well as any phone numbers for your older children
- first respond4
- ER numbers if 911 is unavailable in your area
- local police dispatch phone number
- poison control
- your veterinarian's number (if you have pets)

Print this list out and post it somewhere central in your home and then make sure everyone old enough to use a phone knows what's on it and where it is. Then print out as many copies as you have people in your family and place a copy in each of their bags, and make sure they know where it is (teenagers might roll their eyes at you, but at least they'll be better informed in an emergency).

One-Way Communication

Emergency Alerts

If you have to monitor the real-time progress or location of a flood, wildfire, hurricane or tornado, or even a tsunami, you'll be looking for 'official' updates from experts. For this, a weather radio is invaluable. You can also get updates from emergency-oriented smartphone apps, local radio stations, the Wireless Emergency Alert System, and the Integrated Public Alert and Warning System. Most smartphones receive emergency alerts automatically, and many cable television systems do the same. You can opt-out of receiving the emergency alerts on your phone, although it would be foolhardy to do so. The system is designed to alert people to a potentially life-threatening situation. To ignore the alerts is to welcome trouble and perhaps worse. Do yourself and your family a favor, and **DO NOT OPT-OUT OF THESE ALERTS**. Weather channels and apps also release official information if the emergency is weather-related such as floods or hurricanes.

Another way to gather information is over the AM/FM radio in your vehicle or over emergency radios. You can buy these in all sorts of designs; hand-crank, solar-powered or battery-operated, and even rechargeable through your computer's USB port. If you buy one that takes batteries, don't forget to buy back-ups and note their best used by date. You don't want to forget about them, suddenly need them, and find they've corroded and leaked everywhere. They don't stay useable forever, so stay on top of your backup battery supply and condition.

No matter which radio design you buy, don't go cheap. I did back when I was still a new prepper, and I regretted my decision. There is a rational middle-of-the-road approach to prepping gear. For the most part, you get what you pay for. And while you may be able to buy some equipment cheaply, an emergency radio is one area (among a few others) that you don't want to skimp on. You don't have to pay top dollar, but you don't

want the cheapest of cheap radios to let you down when you need it most. Do some research into emergency radios when you're ready to buy one. Ask around for others' opinions, seek out reviews, and pay attention to the aspects other consumers took issue with.

NOAA Weather radios broadcast weather forecasts and warnings all day, every day. It also broadcasts Amber alerts and warnings about man-made disasters. They also broadcast information about environmental emergencies such as chemical spills, oil refinery fires, or train derailments that involve fuels, like the great train derailment in Mississauga, Ontario on November 11, 1979.

Shortwave Radio

Shortwave radio transmissions have been in use since the 1900s. Thanks to Guglielmo Marconi's research with short-wavelength frequencies, shortwave stations accounted for more than half of all long-distance communication by 1928.

One of the benefits of having a shortwave radio is that you can listen to transmissions from other parts of your state, province, or country. With a strong enough receiver and antenna, you can even listen to radio transmissions from other parts of the world. AM and FM radio signals occupy a range of bands specific to them. As you may already know, AM frequencies can be found between 530 kHz to 1,710 kHz, and the FM spectrum runs from 88 MHz to 108 MHz. Within those ranges, you have to search for signals by scanning the bands for stations. Shortwave radios work in a similar fashion.

Because shortwave signals bounce off the ionosphere, signals can fluctuate depending on the sun, the way the shortwaves interact with the atmosphere, and even the time of day. Frequently, signals found in the morning won't be available at night, and vice versa, offering the shortwave radio enthusiast a different experience every time they listen.

Thankfully, it is possible to listen to shortwave radio online for free through mobile apps and digital shortwave Internet radio stations. Besides the

entertainment value, this option also provides listeners with different perspectives on world events that mainstream news outlets may not be able to report on.

Police and Emergency Scanners

Another informative and accessible tool for preppers is a police scanner, especially in societal collapse emergencies. Many residents of Ottawa kept abreast of the protests-turned-siege in February of 2022 when they could find no better real-time, accurate reports. The police scanners kept them apprised of which areas of the city to avoid and which streets and neighborhoods had been cleared by police as the crisis wrapped up.

Because public alert radio systems don't transmit continuously, information cannot always be accessed. Scanning radios scan automatically between multiple frequencies. When a transmission is detected, the radio holds that channel while scanning other bands. Once the communication has ceased, the scanner moves on to the next available frequency, providing a maximum of information when we need it most.

For ease of use, there are a number of models that have pre-set channels that include Police, Fire and Emergency, Railroad, Military Air, Marine, Ham radio, CB Radio, as well as the Weather Alert System. These models also have a high number of scannable frequencies. Try and get a scanner that uses both analog and digital formats (Trunked, Digital Phase 1, or Digital Phase 2). A Phase 2 Digital Signal is compatible with all the others. It's in your best interests to try and ascertain which format your local services are using before you invest money in a scanner.

Scanners can be both portable and home-based, or "fixed-base." A portable scanner can be either hand-held or vehicle-mounted and are helpful if you travel a great deal or have to bug-out and leave home. There is a wide range of models to suit a user's proficiency with scanners, from working right out of the box to those that can store hundreds of channels and offer multiple scanning options. There is also a wide range of sizes and costs. As with emergency radios, you don't want to settle for something cheap and unreliable, or that has a low-quality speaker. Make sure you know, before

purchase, how to recharge the model you're interested in. Does it take batteries, or is it only rechargeable with a USB connection? Here too, it pays to do your research.

There are scanner apps, but you'll have to search for one compatible with your device and local services.

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BOOK 6

Home Defense



The Possibility of Home Invasion

There are people who will tell you that “you’re worrying for nothing.”

But if you reflect back on the events after Hurricane Katrina in New Orleans in August of 2005, you’ll remember there was widespread civil unrest, break-ins, looting, and all sorts of other domestic crimes. There was domestic interference and personal attacks in Ottawa during the protests in February 2022. While that was happening, an organized and violent attack in British Columbia targeted nine people and resulted in millions of dollars of damage to equipment and buildings. The most frightening part is that a vehicle that some of those people had taken shelter in was intentionally set ablaze. Furthermore, while trying to navigate their way through booby-traps, police were attacked as well. In August of 2014, in Ferguson, Missouri, there were multiple waves of protests, civil unrest, and violence in response to the police shooting of Michael Brown and the resulting lack of charges against the officer involved. There was more violence on the first anniversary of the shooting that saw rioting, vandalism, arson, and even random gunfire. Beyond Brown’s death, 10 members of the public and six police officers were injured.

Recent history is filled with even more examples of violent protest, and it doesn’t take much for a “simple protest” to turn ugly and spill over into a residential area. So you should never assume that your home is safe.

“Situational awareness” means being aware of your surroundings. Being observant of groups of new people in your neighborhood, taking note of smashed car windows, or people taking an interest in your house, vehicle, or property are all examples of situational awareness. In an emergency that gives the already-criminally-inclined confidence to do whatever they want, you need to be aware of any threat to your family and home. You want to avoid confrontation whenever possible unless you have no other options.

A major part of home security is silence. Every person who knows about the preparations you’ve made is a risk. Everyone who knows about the defensive measures you’ll employ is a risk. So the key is not to discuss your

preparations with anyone outside your family. In survivalist circles, this is known as OPSEC or operational security. You'll want to stress the importance of silence and discretion to your family in their conversations with others. If an emergency disrupts food and water acquisition, and it's commonly known among your neighbors that you have six months of food and water stored, you might find yourself facing a desperate and demanding mob. Among the prepping community, there's an understanding that polite society is only nine meals away from chaos. Think about it; if you were caught unaware by a sudden societal breakdown in your town and had no food or water put aside, you would get desperate pretty soon. If the emergency services and relief agencies could not help, what would you do to feed your family? An even better question is, what would you *not* do to feed and protect your family? Your neighbors will have to face this same question. Desperation brings out the worst in people. A good idea to avoid your neighbor's attention is to avoid getting deliveries every week. If you order online, try not to get regular shipments every week. Neighbors notice such things, and many may prove to have long memories when law-enforcement officers are busy elsewhere.

Consider that you may be facing an extended emergency. After Hurricane Katrina, normal life took weeks to be re-established. Never kid yourself into believing it'll never happen to you. Everyone wants to think it'll never happen to them.

Until it does.

How To Secure Your Home

Let's first get a thorny issue out of the way. Guns make you a target and further threaten your family. If you can avoid arming yourself with a gun, by all means, avoid it! "The best defense is a good offense" is true for both hockey and home security, but it doesn't have to be expensive. There are several ways you can increase your home's security without investing in an over-priced system.

The first thing you want to do is make your home invisible to a thief. Walk your street with a criminal eye. Which ones look easy to sneak up on or get

away from without being spotted? Which houses look like affluent targets? Chances are, good houses with high-end cars will likely also have high-end electronics or home safes potentially holding valuable jewelry. Does your home have a lot of bushes, trees, or structures in the yard that might provide a hiding place? This is exactly the environment a criminal is looking for. Don't make it easy for them! A secure yard is fenced, with a lockable gate, clear of shrubbery and old junk. It is well-lit at night and can be easily seen from the street or a neighbor's window. Usually, you wouldn't want to make it easy for your neighbor to see what you're doing outside, but in this case, the more visibility, the better. There are a number of inexpensive solar motion-activated security flood lights on the market that will light up your yard. No potential thief wants to be in the spotlight. You could light up all your doors for less than \$150 and install the lights yourself, saving you even more money and adding another level of security and peace of mind for your family. Because they're solar, it won't matter if your neighborhood has power or not—they'll still protect your home.

Doorbell cameras have captured the faces and acts of many "porch pirates" helping themselves to unattended packages on front porches, potential home invaders, and those who are looking for potential places to break into in the future. If you don't have a doorbell, install a camera that will capture all activity and faces of everyone who comes near your front door. An additional step is to put up a sign that tells people they're being recorded. Some preppers I know have even found a way to have a recording of a very large dog barking play every time their doorbell is pushed. The mailman, delivery folks, and immediate neighbors all think they have a huge man-eating dog, but their house has never been broken into.

Another thing you'll want to do is secure your doors and windows. Let's start with the doors. Most doors have standard residential hinges with 1" wood screws. To make your door more impenetrable, you'll want to replace those screws, one at a time with 2" or 3" screws, or however long they need to be to penetrate through your frame and into the studs. Metal screws have a tighter, sharper thread and grip far more securely. Once you have all those screws replaced, it will be a lot harder to rip the door down. To make it even more difficult to gain entry from the outside, install a good quality deadbolt that goes at least an inch or more into the doorframe, and lock it every time

you are inside. It can't protect you from someone breaking into your home if you forget to lock it behind you.

Another thing that will help you avoid notice is to make your home look lived in. By this, I mean don't let your yard and entranceway take on the appearance of an abandoned house. The criminally inclined will check out the easier marks first, and that is almost always the homes that look abandoned. So go outside, putter around the yard, and keep an eye on your neighborhood without looking like Neighborhood Watch. You want to be aware without being obvious. Also, make sure your mail, flyers, packages, and newspapers are brought indoors promptly. Nothing screams "this home's occupant is away" more than a bunch of uncollected mail at the door. If you have to go away, arrange for a trusted friend or family member to collect your mail and newspaper (if you still get one) and take it in the house. Ask them to leave different lights on throughout the house each day. Perhaps they could be persuaded to house-sit, or at the very least, hang out at your home for part of each day. That way, anyone casing your house for a potential target will see that someone is there regularly. An empty and ignored house is a much easier and risk-free target over one that has a potential witness there on a regular basis. Most thieves want an easy in-and-out opportunity. Don't make it easy for them.

Another cautionary note is the location of your backup key. Don't put it under a flower pot, doormat, or handy rock near the door. That's the first place thieves will look. Do not stick it under the flap of your mailbox. Wherever you put it, make sure that someone in a parked car across the road cannot see where you keep it. Go and stand across the road yourself, then walk past your house from both directions. That will tell you what others can see and what they can't. Take note of any blind spots. You want to hide your spare key somewhere that is unusual but that all of your family members can reach. If you have a metal dryer exhaust hood, place a magnet up and inside and keep a spare key on the magnet. If the exhaust hood is plastic, glue the magnet inside but out of sight. You can have a thick wooden post in the backyard with a plant hanger on it and have a cute resin or ceramic figurine sitting on the top. Hollow out the top of the post about six or seven inches. Superglue a piece of light to medium gauge wire to the bottom of the figurine, and at the end of the wire, a small carabiner or other

clip that will hold your key. You want the key to be easily removed and then put back. Make it easy enough for any children in your family to access, but don't make the arrangement look obvious.

Remember those blind spots you noticed earlier? Take steps to get rid of them. You don't want bushes under or beside your windows unless they're full of thorns. Trim back trees, but don't leave stubs of branches that could be used to climb to a second story of the house. Don't leave outdated appliances or old vehicles that no longer run in your driveway that someone could hide behind. If your front door has a window, hang a curtain over it so anyone peering through cannot see the interior of your home. Remove large (fist-sized and up) rocks from your property. You don't want to leave a potential entry tool for a thief. You might think it's obvious, but keep your garage door closed at all times. Not only does this prevent people from seeing what is in your garage, but if your garage is attached, this will also deny potential invaders another access point to your home.

So far, the things I've mentioned are common security enhancements. But now, we're going to hypothesize a more urgent situation.

Let's imagine for a minute that a protest a few blocks away from your home has been attended by police. They've broken up the protest and advised everyone to go home before arrests are made. Grumbling, unhappy people move through the streets. A few hotheads have found their way onto your street. Someone spots your neighbor's expensive car parked in the driveway between two high hedges and wonders aloud to his buddies what else "those rich people got." His gaze passes right over your humble house. There's nothing of obvious value out where he can see it, and there's no way he and his friends could sneak up and peer in the windows without being seen. Your home is mentally dismissed, and they return their focus to the house that screams affluence. The next day, you are chilled to hear that your neighbors were killed in a home invasion.

This scenario plays itself out more often than you might realize.

So, let's backtrack a little and plan for a potential encounter.

Word reaches you that a protest is happening not far away. Because it is within a half-hour walk of your house, you decide to be proactive. You send

one of your kids to the garage to retrieve fishing line and the other out to the yard to gather up as many pebbles as they can find. You ask your wife to get a few empty cans out of the recycling box. When you all reconvene in the kitchen a short time later, together, you rig a homemade proximity alarm. Someone can drill a hole in each side of the top of the can. Outside, you stretch fishing line across the approach to your house at ankle height, hanging the cans out of easy sight. A few pebbles in the bottom of each can will make a lot of noise when the cans are jostled by the fishing line tripwire. You've just created a booby-trap that will alert you and your family to an unwanted presence on your property.

The longer it takes a potential attacker/looter/thief to enter your property or residence, the more time you have to detect them and repel them. If you can make it as difficult as possible for an aggressive individual to gain entry to your home, you can retain more control over the situation. In an extreme emergency, people will resort to measures they would ordinarily never consider, especially if their families are starving.

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Bug-In or Bug-Out?

Bugging-in means you're hunkering down and making the best you can of a bad situation. All your supplies are here, or you have no safe place to go to, or you physically have no way to get out of town, as was the case with many when Hurricane Katrina was bearing down on them. Perhaps you have pets, and staying is easier than lugging gear, animals, and multiple family members to another location. Perhaps you have an older family member (or pet) who can't make the trip. Or perhaps you've decided that staying put would be easier on your family than fleeing. For whatever reason, you're staying where you are. You've decided to stay put, and that brings a unique set of challenges and urgency. If you stay, you're committed to defending your home and loved ones. How can you do that if you're not Rambo?

How to Defend Yourself if You Decide to Stay

If your home *is* breached, you'll have to defend yourself and your family. As I said before, guns make you a target. If word gets around the neighborhood that you have a gun, there may well be someone who decides they want it. They may also wonder what else you've got that you want to defend so badly. The best choice is not to have guns in your home, but that's a personal decision. For this book, we're going to assume you don't have a gun. So how can you defend your home and loved ones? The trick is to arm yourself with effective weapons that don't *look* like weapons.

The best self-defense tool is one that keeps an attacker (or, in our case, the home invader) at arm's length. So don't reach for your kitchen knives just yet. A broomstick brought sharply down across an invader's nose or jabbed into someone's chest can be a powerful deterrent and keep them far enough away that they can't grab you. Similar to the broomstick, a walking stick or cane will keep an attacker further away than arm's length, and you don't need special training to use it.

An innocent-looking baseball bat can do wonders, too. If you have seniors in the home, give them an aluminum bat (it's lighter and easier to swing than a wooden bat) or a canister of pepper spray or bear spray to keep beside their bed. You might be surprised to learn that seniors have fended off would-be burglars and done serious damage to the potential thieves in the pursuit of defending their homes and possessions!

Another good deterrent can also be purchased quite easily in any sporting goods store—a slingshot. There is a whole range of slingshots one can purchase, from the most basic model to one with a built-in arm brace or even laser sights. With a strong enough draw, a projectile can travel 120 ft per second! Perhaps not the best weapon if you're trying to repel someone from your bedroom. It would be the perfect tool to have in hand if you're hidden in the shadows of your porch and want to send a home invader packing! As mentioned before, you want to make your home as undesirable a target as possible. One piece of advice regarding the slingshot is to practice. While you don't need the same kind of accuracy to repel a home invasion as you would in hunting small game, you do want to be accomplished enough that you can hit the trespasser.

Another non-weapon that comes in various sizes is the home fire extinguisher. We'd be wise to keep one in every major room of the house anyway. If you have an attacker coming at you with a knife, give them a faceful of fire extinguisher spray, and I guarantee you, they'll drop whatever they're carrying and fall over themselves to get out. You'll have some clean-up to do when it's safe, but even the smallest-framed woman can repel a home invader with a fire extinguisher. And she doesn't need to be an arm's length away to use it either.

If You Have to Flee

If you are forced to leave your home for the safety of your family due to impending flood, fire, hurricane, or civil unrest, there are a few things you'll want to do to help yourselves stay as safe as possible. First, try and have a safe secondary location already chosen and mapped out. Knowing where you'll go "in case" can make all the difference between mild fear and panic, and you don't want to panic. Also, consider where you might have to go if your secondary location becomes unsafe. Having a backup plan for your backup plan is always a good idea.

Ideally, everyone in your family should have bug-out bags, even if you have children. You'd probably not be putting a backpacker's stove in their bags, but they'll still benefit from spare clothes, food items that don't need cooking, a reflective blanket, and, depending on their age, a small stuffed toy or favorite book for their morale. The contents of a bug-out bag for your offspring will change and evolve as they grow, and it's a good idea to frequently go over the contents of their bags with them. Not only so you can explain *why* they might need to carry these things, but also to explain *what to do* in case your family has to flee your home. Knowing the why of a situation frequently helps children feel a little more in control of the situation, thereby preventing panic. By assessing the contents of their bug-out bags, you also involve your children in your family's safety plan. Older children may find this reassuring—it depends on the age and individual.

Another consideration if you have to leave your home is how you'll get there. Do you have a vehicle, or do you live in a city where there's plenty of public transportation? If that's the case, how would you get to your secondary location if the buses were all shut down? When the World Trade Towers collapsed on September 11, 2001, many commuters had no way home when the city shut down. So never assume public transportation will be running as usual. Perhaps you're single and can use a mountain bike to get to your bug-out location. Or your wife and teenagers are all fit enough to walk, with some pre-conditioning.

On that note, if you are planning on bugging out without a vehicle, I would recommend some form of pre-conditioning so that the physical exertion isn't too much of a shock to your body. This can be achieved by walking every day or every other day, reasonable distances at first. You'll want to gradually increase the distance, so you build up your body's tolerance. After you've all become accustomed to walking, add some weight. Perhaps this can be more easily achieved as day-hikes. Walking with the goal of seeing something new (even in the city) is far more enjoyable than merely walking to get fit. If you have children, it pays to start this change in their routine as early as possible. Take it from me; teenagers are especially resistant to going outside if they've been holed up in their rooms for a large portion of their time at home.

The perfect bug-out plan, if ever there could be one, is well-thought-out and well-equipped. When drawing up your plan, it's best to involve as many family members as possible. As I've said before, if everyone knows what to expect, morale will remain higher, and your plan will have a better chance of being successful. It can be a little stressful to brainstorm what could go wrong with your plan, but it is a valuable exercise. 'What-if' can present roadblocks you might not have considered otherwise. (This is where the pessimism of teenagers comes in handy!) Consider your transportation plan and then come up with a plan B. What if your family is scattered across the city at work, school, recreational facilities, or on public transportation when a major emergency forces you all to flee? How will you communicate with each other? Will you all meet at home, grab your bug-out bags and go, or meet somewhere else? What if one of you is unreachable?

Let's imagine you've all met up at home, everyone has their bags, and you're all set to leave. Where will you go? Do you have a cottage that you could use as a safe secondary location, or perhaps someone in the family has offered to shelter you all in case of emergency? Wherever you're running to needs to be removed from danger and not somewhere where everyone else in the city will be headed. Your sanctuary needs to have some way to cook, heat, and room for sanitation concerns. Of course, the perfect solution is a well-stocked "bug-out retreat" that has room for everyone in your family, space for gardens or planters so you can grow your own food,

and a source of water and wood to heat with. It is secure, easily defensible, and does not put your family in any further danger.

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BOOK 7

Herbal Medicine



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The use of herbs to heal what ails us reaches far back in history, as far as the first century B.C to the first illustrated herbal guide. The first monasteries were renowned for their herbal gardens and knowledge. Often, the monks knew a great deal about healing the sick with plants. So using plants to heal is far from new!

There are a number of benefits to using herbs instead of reaching for a pill. If incorporated into our daily lives, herbs can improve our health to a point where our bodies respond better to stress and change. Herbal remedies treat the cause of a condition instead of merely masking the uncomfortable symptoms. After all, those symptoms are messages from within our body telling us that something's happening. A fever, for example, is the body's response to an infection or virus that's not supposed to be inside us. As we all know, the cost of medical treatment can be prohibitive, which helps no one other than the medical person raking in the cash! But herbs, especially the more common ones we'll talk about in a minute, are accessible, inexpensive, and many can be grown by you. Growing our own health aids appeals to a number of people, prepper and non-prepper alike. Increased knowledge and control over our own health is always a good thing! We can also monitor what goes into our herbal remedies, thereby minimizing potentially harmful and annoying interactions.

A fairly well-stocked (traditional) medicine cabinet will include items that can treat a range of injuries, and a herbal kit should do no less. Common ailments are cuts, burns, embedded fish hooks or thorns, road rash, animal bites, sprained ankles, broken limbs (including fingers), insect bites such as spiders, and head injuries resulting in possible concussions. We'll talk more about the best herbs to treat these injuries and ailments and which herbs treat more than one medical issue. But first, a cautionary word or two about injuries. **Any wound that is inflamed, oozing, won't stop bleeding, or is not getting any better should be looked at by a medical professional. Herbal healing will work alongside modern medical care. It should be recognized that there are certain conditions that require immediate medical assistance, such as heart attacks, strokes, broken bones, and major impalements such as a large nail through the hand, for example .**

A good starting point for first aid knowledge would include proper training in first aid. This can be acquired from any Red Cross branch. Further information can be found online. An accompanying herbal first aid kit would include herbs that will help prevent infection, stop bleeding, deal with pain and swelling from sprains, and ease the itching of poison ivy or poison oak and insect bites and stings. A well-stocked herbal kit will also include remedies for fever, diarrhea, nausea, soothing burns and cuts, and warding off infection. Fortunately, all of these common issues can be addressed by a handful of herbs. Chamomile, aloe vera, cayenne, bee balm, chickweed, honey, comfrey, calendula, goldenseal, oregano, thyme, and yarrow are all common, easy to acquire or grow, and relatively easy to use.

A herbal medicine kit should have washes, powders, and ointments at the very least. Herbal teas can be used as washes, and antimicrobial herbs will help the body fight off infections. St. John's Wort, Calendula, and Honeysuckle are all good for this, but the best antimicrobial is honey. To stop bleeding, yarrow is best. This can be administered to a cut fresh from the garden. Slightly bruise by rolling over the flowers with a jar or glass and apply directly onto the cut, then cover with gauze and wrap a bandage around the whole affair to keep it all in place. Alternatively, you can dry and grind the yarrow into a powder that can then be sprinkled right into the cut. Bandages may also be soaked in healing tea, excess liquid squeezed gently out (to avoid the liquid running everywhere), and applied to burns, scrapes, sprains, cuts, and insect stings.

Poultices are probably the simplest way to deliver the healing power of nature. You can lightly bruise plant leaves such as mullein and spread a turmeric paste on them before applying directly to a sprained joint. Poultices can also be pastes spread onto warm cloths that can then be applied to abscesses, cysts, arthritic joints, skin abrasions, and infected cuts. Bee stings, non-venomous spider bites, and especially stubborn splinters all benefit from the drawing actions of herbal compresses of ground flaxseed, calendula and plantain applied as poultices.

Ointments and salves are common herbal treatments for cuts, stings, and minor burns. Salves are a little thicker than ointments, but both aids in healing while fighting off infection. Common ingredients found in salves

are beeswax (for thickening), plantain, mullein, calendula, sage, comfrey, and lavender flowers, among others.

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Common Herbs You Should Know

Many common afflictions can be dealt with in a gentler way before reaching for a bottle from a drugstore. A herbal remedy may not work as quickly, but there might be fewer side effects, and many of these remedies can be grown by you. You can't say that about a bottle of pills for a headache! Fortunately, there are a number of herbs that will treat various issues.

Barberry —Barberry is one of those plants that has helped ease so many ailments—it could be a staple in a herbalist's cabinet. As the name implies, it is a shrub that produces berries. The bright red berries have been used throughout history to alleviate skin conditions, infections, and digestive issues. They contain several helpful compounds, such as berberine, which act as an antioxidant. But just as impressive are the nutritional qualities of the berries, which are high in fiber and vitamin C, zinc, copper, manganese, and iron. These minerals and trace elements are especially important in building immunity and disease prevention. Berberine also improves your cell's response to insulin, which lowers one's blood sugar levels. In studies, berberine has proven to be just as useful in lowering blood sugar as the often-prescribed diabetes drug—metformin. As if that were not note-worthy enough, a study also confirmed that berberine could ease diarrhea caused by irritable bowel syndrome and bacteria-caused infections, including *E. coli*. In limited studies, barberries also proved to be highly effective in the fight against gingivitis. In lab tests, berberine slowed the growth of cancer cells. All in all, this is a most useful plant. Unfortunately, you may only be able to use it as a nutritional supplement since the plant, both the Japanese barberry and the Common barberry, have been banned from North America since both harbor ticks and are considered invasive.

Bee Balm —This charming and useful North American native likes to grow in rich, moist soil but doesn't tolerate "wet feet" well. You may find it growing wild in woodland clearings surrounded by pollinators. It has flowers that resemble a mop of untamed hair in pink, white or purple. It prefers to grow somewhere that provides at least six hours of sun a day but

will tolerate light shade and is actually called different names, depending on who you're talking to. It is known as "wild bergamot," "horsemint," or "bee balm," of course. No matter what it's called, the leaves and flowers are antifungal, antibacterial and expectorant.

Topically, Bee Balm can soothe rashes, bee stings, and minor burns. As a tea, it can ease digestive bloating and nausea and helps fight off infection, relieve sinus congestion, and breaks a fever, but it should not be used by pregnant women. Everyone else can enjoy bee balm leaves dried as a spice or fresh in salads. Bee Balm is considered safe for pets and wild animals. It's a wonderful addition to your home garden and much loved by pollinating insects and butterflies alike. If you don't have a garden, there are dwarf varieties that would do well in pots and planters.

Borage —The borage flower looks like a tiny blue star on top of a red stalk, and the leaves, with their rough edges, smell faintly of cucumber. The entire plant is slightly hairy, giving it a fuzzy look. It's hard to miss this attractive plant since it can grow up to two feet tall. Not only does borage bring all kinds of benefits to your garden soil, but it's also good for healing many ailments. It was used by the Ancient Greeks to flavor their wine, as well as for coughs. These days we can use it in tea to reduce stress, as well as inflammation, arthritis, promote lactation in breastfeeding mothers, and chase away fever and even depression. Borage is an attractive plant with so many useful qualities that it should be in everyone's herb garden.

Cayenne —An underestimated and powerful pepper whose active ingredient is capsaicin, which gives the pepper its anti-inflammatory and antioxidant properties. The hotter peppers seem to have higher levels of capsaicin and include habanero, chili, poblano, jalapeno, and Scotch bonnets. Besides being high in capsaicin, which produces the pungent, hot taste these peppers are known for, they are all very high in Vitamin C, E, and B, and various minerals. Medical studies have found capsaicin to have anti-diabetic effects as well as balance the body's cholesterol levels and reduce one's blood pressure. It also increases the body's appetite satisfaction, preventing overeating. It is most well-known among healers for its anti-inflammatory qualities. It can be commonly found in many commercially available topical creams intended to relieve muscle and joint

pain, osteoarthritis, shingles, trigeminal neuralgia, diabetic neuropathy, fibromyalgia, and, of course, arthritis. Research seems to suggest that bacteria-caused infections resistant to the antibiotic erythromycin may be killed by capsaicin. Further research is needed in this area, but the results so far are promising. Overall, hot peppers definitely deserve a place in your garden or planters.

Chamomile —This amiable plant looks like a miniature daisy with white petals surrounding a bright yellow center. It rarely grows more than 24 inches tall. A soothing herb, chamomile is used in teas meant to help us relax and can be frequently found in “bedtime teas.” A lesser-known benefit is for reducing nausea and topically for reducing skin irritations.

Chickweed —Easily overlooked, this little plant looks like nothing more than a collection of leaves. But its value as a healer shouldn’t be ignored just because it’s not as showy as some of the other plants mentioned in this chapter. Chickweed is useful as a poultice on cuts, rashes, irritated skin, and most external wounds. Taken internally, it eases stomach and bowel issues that result in constipation.

Comfrey : A tall flowering plant that pollinators love with dark green, hairy foliage, and tiny bell-shaped flowers that can be purple, white, or pink, comfrey can be a stunning addition to your flower garden. Best used externally, this plant was historically known as “knit-bone” and “bone-set” since it was best known for healing broken bones. Now we know it does much more than that. It also promotes fast healing of tissues, so it isn’t recommended to use on deep wounds. You don’t want the surface tissue to close over before the inside of the wound and create an abscess! But for shallower cuts, scrapes, and burns, this is the plant to reach for if you can’t find honey. Comfrey also helps ligament injuries. Do not use it on pregnant women, though!

Dandelion —This common, sometimes cantankerous, flowering plant is commonly considered a weed, but there are many who swear it’s a useful plant. Some like to make wine from it, while others use the first leaves in the spring in salads. Consumed in these ways, dandelion can aid in digestion and help your body absorb nutrients more readily. Perhaps not the

first plant you think of in a prepping emergency, but if over-the-counter digestive aids are unavailable, you won't have far to search for dandelions.

Echinacea —The expeditions of explorers Lewis and Clark were funded by amateur botanist President Thomas Jefferson and the Congress of the day. Jefferson asked the adventurers to send back anything they felt might be scientifically or economically significant. In 1805, Meriweather Lewis sent coneflower roots from Fort Mandan after learning about the plant's healing potential from Native People.

This tall flower's petals look as if they've been pushed down and away from the center and come in a wide variety of colors. Also called coneflower, this might be the most widely recognized plant to treat upper-respiratory ailments. However, since this plant is related to ragweed, marigolds, and daisies, some folks may have issues. Some may not. If you do try echinacea to deal with colds and flu, be aware this is a short-term remedy since long-term use can affect your immune system. Echinacea root has been used in the past by chewing the root to treat upset stomachs and toothaches. The mashed root has also been used as a poultice on burns. But it's best known for its cold-preventing antioxidant and antibacterial properties.

Eucalyptus —Of all the creatures in the wild to catch a cold, Koala bears will be the last because their diet consists mainly of eucalyptus leaves. Many of us are familiar with eucalyptus' powers to relieve the common cold, nasal congestion, and coughs—many of us from a certain era were also subjected to daily spoonfuls of eucalyptus oil over sugar. While only the adorable Koala can eat the fresh leaves, the rest of us can consume a tea made from dried leaves. Not only does it have the aforementioned benefits, but it's also an anti-inflammatory. It also reduces mucus build-up. Because of these two benefits, eucalyptus is a favorite of people with asthma and can often be seen draped over their showerheads so that the oils released into the steam might be inhaled. This is the safest way to enjoy the benefits of this Australian plant. Unless distilled and diluted, eucalyptus oil should not be consumed, despite what my mother told me.

Eucalyptus is terrific for healing wounds and irritations like athlete's foot and cold sores because it has antifungal and antibacterial properties. It's

also effective at treating eczema, poison ivy rashes, cracked heels, and dry skin. It's also a wonderful alternative to DEET for people who are allergic to bug repellent, and there are many products that include eucalyptus in head lice treatments. So while you do need to exercise caution, eucalyptus can be a powerful addition to your medicine cabinet.

Feverfew —Often mistaken for miniature daisies, this plant is also known as “Bachelor’s Buttons.” It grows to approximately 20 inches tall and has petite white petals clustered around a bright yellow center, just like a daisy. It prefers to grow somewhere sunny and in loamy soil, but it will grow just as happily in containers as in the ground. Medicinally, Feverfew has been used as a preventative against migraines and as an anti-inflammatory against arthritis and rheumatism. You can use the leaves daily, just like lettuce in a sandwich, although the leaves are reported as tasting a little bitter.

Garlic —You’re probably familiar with this plant through cooking with garlic cloves. This plant has a long history of being used as an antimicrobial, antiviral, and antibiotic, even through WW1. Useful against chest infections, colds, sinusitis, and sore throats.

Ginger —Most people are familiar with the root of this plant that has been used all through history to help with digestive issues. As any lover of ginger ale can tell you, ginger calms an upset stomach. Female fans of ginger claim that if taken in the first three days of a menstrual cycle, ginger can help ease bloating and pain. It also has an often-overlooked benefit of reducing flatulence. While this might not classify as a prepping emergency, gas can be quite painful. Ginger candies can be given to young children if they’re bothered by cramping and gas. If you have ever had to travel with an uncomfortable and cranky child due to gas or cramping, you know how miserable they can feel. A compound in raw ginger also helps strengthen your immune system. Ginger candy is easily found in stores or online. Even better, ginger is easily grown and can be used in a multitude of ways.

Goldenseal —Because of overharvesting in the wild, it’s illegal to remove this plant from much of its natural environment. But it is acceptable to grow it in our gardens and containers! It prefers shady, rich, well-drained soils, much as it would find in deciduous forests. Its leaves are dark, wide, and

have a toothed edge. The stalk can grow up to two feet tall, is covered with fine hair, and, true to its name, has a yellow root. As a wash, Goldenseal is used to ease eye infections and can be swirled around the mouth to relieve swollen gums that result from gingivitis or applied as a wash for athlete's foot. Combined with Echinacea, Goldenseal battles colds and respiratory ailments but is especially effective when sinus infections develop.

Honey : No, honey is not a herb, but it should be a staple in everyone's natural medicine cabinet simply because it's a healing powerhouse. The best honey for medical uses or to consume is as local to you as possible. Honey has so many benefits that it seems miraculous, but even better is the fact that it never goes bad! Honey is antibacterial and has anti-inflammatory and antioxidant properties, making it the perfect remedy for all sorts of wounds, including burns. Research has also been done on honey's possible benefits for memory loss, anxiety management and depression, and cardiovascular disease. Research also suggests honey helps with gastrointestinal issues like diarrhea. People with allergies to bee stings should consult with their medical health professional. It is recommended that honey should not be given to children under one year old because honey can cause infant botulism caused by *Clostridium botulinum* spores.

Honeysuckle (Japanese) —This wonderfully scented vine grows in a wide variety of places but does best in sandy soil in shady corners. It has white trumpet-shaped flowers that turn yellow as they age, which then give way to dark berries that are mildly toxic to humans and animals alike, and so should be avoided. But the flower buds, open flowers, leaves, and stems are all safe to use. Honeysuckle can be used in the treatment of head colds, sore throats, and respiratory issues and is included in teas and in poultices to ward off infection and inflammation.

Hyssop —Related to mint, hyssop is an ancient plant, even found mentioned in the Bible! In the 17th century, it was used to rid the body of phlegm. The Romans included hyssop in their wine as a digestive aid. Besides its biblical fame, it is well known for its inclusion in aromatherapy and perfumes. The flowers might be blue, white, or pink and attract bees to make a lovely honey. Hyssop flowers have antispasmodic and antioxidant qualities that support upper respiratory muscle function, making them

valuable to asthmatics and anyone who suffers from bronchitis or COPD. It also has digestive benefits, particularly as an appetite stimulant. Because of its antispasmodic qualities, it is also effective at easing digestive cramps and resulting flatulence. Hyssop should not be used by pregnant or lactating women.

Lemongrass —Lemongrass resembles spring onion tops but is slightly more grey-green than green. Like any other grass, it grows from a rhizome but does not spread as easily as lawn grass does. Lemongrass grows in clumps up to six feet wide and four feet across, so not easy to miss! Because this is a tropical plant native to Sri Lanka and Southeast Asia, it requires a growing environment that never freezes. Lemongrass produces a popular essential oil commonly used to relieve the pain of inflammation, sprains, and headaches. Sometimes, stalks can be found in the produce section of grocery stores. If these come with roots attached, you may be able to place the stalks into a glass of water. Occasionally, people have grown lemongrass purchased without roots in glasses of water. Experimentation is key. If you aren't interested in growing your own, you can buy stalks for tea. These can be kept in the fridge for a week or two or in the freezer. Steep fresh or dried lemongrass stalks for five minutes in boiled water to make a bright and satisfying tea that will help settle a nauseous stomach.

Marigold —Marigolds are among the most common and charming potted flowers. They're easy to grow, long-blooming, are happy in sun and partial shade, attract pollinators and work to repel some harmful insects out of your garden if you put them there. They are lesser-known for their other benefits, though. They have a long history of helping soothe and heal skin ailments such as scrapes, bruises, psoriasis, sunburns, and varicose veins. Consumed in a tea, marigold also relieves upset stomachs and nausea, as well as menstrual cramps. If the tea is used as a wash, marigold is helpful as an anti-inflammatory.

Milk Thistle —This cheery, but prickly looking plant helps reduce cholesterol and addresses impurities in the liver. Some proponents also claim it helps reduce cancer cells. Studies have been done in an attempt to ascertain how useful it is in treating the liver, but so far, they've been

inconclusive. Many users claim milk thistle is the best liver tonic found in the natural world. You can grow this plant in your own garden, even though it's considered invasive.

Mullein —Once you know what mullein looks like, if you don't already, you'll never forget it. Don't be surprised if you suddenly start seeing it everywhere! Its most distinguishing feature is the plant's tall flower spike that rises from the center of a cluster of hairy, broad, light-green leaves. The flowers are a bright, sunshine-yellow, and very small. When you find a plant, feel the leaves. They're as soft as a much-loved flannel shirt, and it's for this reason that it is sometimes called "Old Man's Flannel." Mullein can grow up to six feet tall, so you aren't likely to miss it! The leaves and flowers of this unique plant have been used to treat colds, emphysema, bronchitis, laryngitis, and upper respiratory tract infections. Second-hand smokers will also find mullein tea helpful. Mullein also has a long history of being used for earaches. It's even safe to use on dog's ear issues, but you should consult a herbalist for that.

Back to human aches and pains, large mullein leaves can be gently mashed and applied directly to a sprain or jammed digit to reduce pain and inflammation. Not surprisingly, this also applies to hemorrhoids. Another benefit is that mullein strengthens urinary tract muscles, thereby treating incontinence. For this reason, mullein is much sought-after by post-menopausal women. This humble plant treats so many conditions—I advise foraging it whenever you can. If you come across a few plants, remember to leave one to reseed. If there is only one plant, only take a few of the older leaves, and the plant will live to propagate. Never take all of an assistive plant if there is only one in the area, no matter what kind of plant it is. You don't want to take so much that there will be none growing in that spot next year.

Pine Needles —Pine needle tea has saved many an explorer and lost hunter from deficiency diseases. Although pine needle tea will never win any awards for taste, it is packed with as much Vitamin C as a glass of orange juice. A hot cup of herbal tea also has a positive effect on mental health and serves to warm the drinker from the inside.

Plantain —Makes a great compress for insect stings and bites, as well as snake bites. It also calms gastrointestinal inflammation. Although it sounds a little disgusting, chewed plantain poultices draw out splinters and shards of glass. It also helps soothe minor burns and cuts. If you're grossed out by the thought of a chewed compress, you can bruise the leaves by rubbing them together briskly between your hands or smash them with a rock. Either way will work. Another way to benefit from this plant's healing qualities is to soak bruised leaves in water and wash the scrape or burn with it. You can often find this plant growing at the edge of developed areas or wherever the soil has been disturbed and then compacted. Roadside harvesting is not recommended due to the pollutants that will have settled on the leaves.

Sage (Garden and White varieties) —Sage is useful for so many applications beyond culinary because it is antifungal and anti-inflammatory. Historically, the steam from burning White Sage has been helpful in treating sinusitis, congestion, asthma, and bronchitis. Both types can be included in teas and tinctures as wound and burn washes as well. Neither type should be used by pregnant women since it is a uterine stimulant and can dry up breast milk. Sage can be grown in your garden.

Slippery Elm —This tree that is native to North America is a terrific herbal helper with allergies, respiratory issues, and the digestive tract. It also has antiseptic qualities. It has been used for hundreds of years in ointments to relieve boils, ulcers, wounds, psoriasis, and burns. It can grow over 50 feet tall or more and has long leaves that darken in autumn and a deeply grooved bark.

St. John's Wort —Fitting for a tall plant with sunny yellow flowers, you can find St. John's Wort in sunny locations with dry soil. It can grow up to three feet tall on slender stalks, and the flowers typically have five bright yellow petals clustered around the flower's base. Buds and new growth have a red hue. St. John's Wort is effective in the treatment of depression, seasonal affective disorder, nervousness, and anxiety. It's also a great reliever of nerve pain due to sciatica, damaged nerves due to surgery, pinched nerves and Bell's Palsy, as well as shingles. St. John's Wort also relaxes muscle spasms in the digestive system, menstrual cramps, and

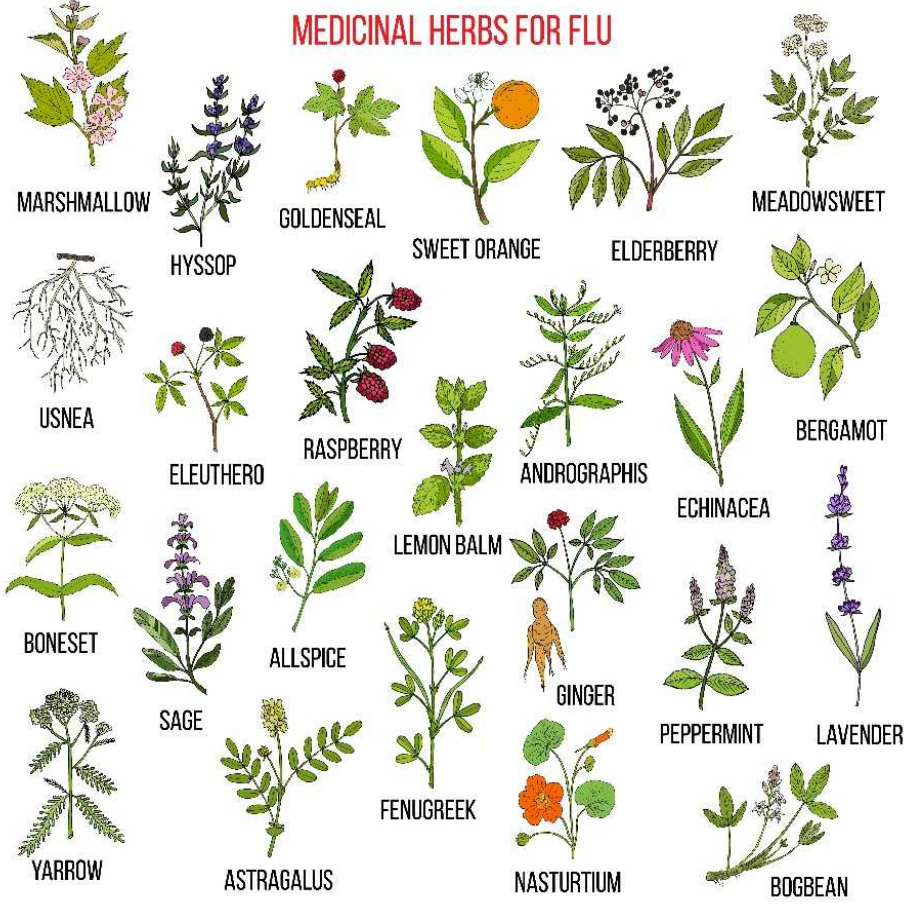
typical muscle cramps in the shoulders and back. Its anti-inflammatory qualities make it an important part of skin healing on cuts, burns, bruises, sprains, and even hemorrhoids. In addition to this plant's anti-inflammatory nature, St. John's Wort is also a terrific immune system and respiratory support. This makes it an ideal illness and infection fighter of great value.

Turmeric —This versatile spice made from the root of the *Curcuma longa* plant is rich in curcumin, minerals, and vitamins and is easily recognizable by its vivid yellow-orange color. It can be consumed daily in a tea, purchased as a dietary supplement, or as a spice added to food. Turmeric is a popular anti-inflammatory that is full of immune-boosting properties. Proponents of turmeric say it can help fight off depression, is good for the skin, reduces arthritis pain and discomfort, is beneficial to cardiac function, and may help prevent and treat cancer. This is still being researched. Turmeric is also credited with treating Alzheimer's Disease, easing irritable bowel syndrome, and preventing liver damage. Further, turmeric has helped manage diabetes for centuries, probably due to its curcumin content. Medical research also points to success in using turmeric in the treatment of asthma and cardiopulmonary disease, although this is still being studied.

Witch Hazel —American Witch Hazel is a tree that can sometimes grow as large as twenty feet high with tight clusters of long yellow flowers. Other species are shrubs renowned for their fragrant flowers. Topically, witch hazel can be used to relieve inflammation of the skin and the resulting itch. For this reason, it is a main ingredient in hemorrhoid relief products. Those who suffer from oily skin find it helpful in treating acne since witch hazel is an astringent that shrinks pores, making it difficult for infection-causing bacteria to invade the skin. It can commonly be found as an ingredient in shampoos for those with sensitive skin or dandruff. Research has demonstrated witch hazel to be an effective antiviral against herpes simplex, human papillomavirus, colon cancer, and influenza A in the lab, but this is still being tested.

Yarrow —This plant, with its tight clusters of flowers and feathery leaves, controls bleeding and swelling. As a poultice, it also prevents and helps the body fight infection if it's already present. It can also be used as a wash to relieve pain and assist in the healing of various scrapes and wounds. Even

more, it reduces fever and helps relieve the unpleasantness of the common cold. Some chew yarrow leaves to alleviate the pain of a toothache. It can grow quite tall at maturity and can be yellow, white, pale pink, red, or purple, so you're not likely to miss this showy, helpful plant. It has been used for healing throughout history, even by Neanderthals. Yarrow was found in the teeth of Neanderthal remains in an archaeological dig in Spain, so even then, yarrow was recognized as a healer.



BEST ANTI INFLAMMATORY HERBS



PINEAPPLE



BALSAM OF PERU



ASHWAGANDA



MULLEIN



WITCH HAZEL



WHITE PEONY



BONESET



ALFALFA



WHITE BIRCH



GRINDELIA



SPILANTHES



CAT'S CLAW



SHEA BUTTER



COPTIS



CUMIN



BUPLEURUM



CHRYSANTHEMUM



FEVERFEW

HERBAL REMEDIES FOR HEALING CUTS AND SCRAPES



CORNFLOWERS



TAMANU OIL



SHEA NUT BUTTER



SOLOMON'S SEAL



WHITE PEONY



AGRIMONY



BLACK WALNUT



COMFREY



PLANTAIN



ROSE



LAVENDER



BALM OF GILEAD



SPEEDWELL



COPAIBA BALSAM



OAK BARK



CALENDULA



SWEET WOODRUFF



ALOE VERA



TEA TREE OIL



SELF-HEAL



WHITE WILLOW

HERBS THAT DETOX YOUR BODY NATURALLY



DANDELION



BOLDO



ELDERBERRY



SARSAPARILLA



CHICORY



TURMERIC



MILK THISTLE



STINGING NETTLE



PEPPERMINT



PARSLEY



CLEAVERS



SASSAFRAS



GOLDENROD



OREGON GRAPE



MANJISHTHA



CYPRESS OIL



BURDOCK



ALFALFA



BLACK WALNUT



WORMWOOD



CRANBERRY

BEST HERBS FOR SKIN CARE



TURMERIC



LEMONGRASS



BORAGE



JASMINE



COMFREY



LICORICE



SARSAPARILLA



MELISSA



PEPPERMINT



CLARY-SAGE



MARSH MALLOW



BLACK ELDER



NETTLE



ROSEMARY



TEA TREE



LAVENDER



BASIL



CALENDULA



ALOE



NEEM



CHAMOMILE

Herbal Medicine Preparations

Making your own herbal remedies doesn't have to be mysterious. When you break it down into steps, producing your own herbal first aid won't seem so overwhelming.

Tinctures

Tinctures both extract and preserve a herb's medicinal qualities. It's very simple to make and fairly easy to use. Let's say we want to make a tincture from calendula to use as a skin wash in case of cuts or poison ivy. First, a reminder that **calendula should not be used by pregnant women, nursing mothers, or folks who are allergic to ragweed, marigolds, chrysanthemums, or daisies. Folks who take sedatives shouldn't take calendula either because they may experience breathing issues or excessive fatigue.** Okay, with that important note taken care of, let's get back to making our tincture. You'll need:

- a pint-sized or larger glass jar with a tight-fitting lid such as a canning jar
- 80-120 proof alcohol, about four ounces
- one ounce of distilled water
- calendula flowers, fresh or dried
- electric grinder, or a mortar and pestle

In some parts of the world, 190-proof alcohol is sold under the name Everclear. This is the absolute best for making tinctures with fresh flowers. But it's not found everywhere. If it's not available where you live, use vodka or white rum instead. No matter what you substitute with, it needs to be 80-120 proof or 40-60% alcohol.

You'll want enough flowers that, when dried, you have about half a cup of tightly packed flowers in your measuring cup. Grind these in either an electric coffee grinder that's not being used for coffee, or in a mortar and pestle. You'll want the flowers ground into a fine powder, about a quarter cup.

Pour the distilled water and alcohol into a measuring cup and stir. Put your ground flowers into the jar, then pour the liquid slowly over the powder, and stir again to ensure all the powder is covered. Put the lid on and tighten. Put the jar in a moderately sunny (but not hot) window. You'll want to gently shake the jar and its contents twice a day for two weeks. On the fifteenth day, leave the jar undisturbed. The next day, pour the tincture into a measuring cup or another glass jar through a cheesecloth to strain the plant material out of the liquid. You may have to do this two or three times. Gently pour the liquid into opaque bottles. You can buy stoppered bottles online or just keep a separate stopper handy if you prefer. Your tincture will keep for up to two years if stored in opaque bottles out of the sunlight.

Tisane/Infusion/Teas

When discussing herbal remedies, there is no difference between a tisane, an infusion, or a tea. A tea is the simplest way to administer the medicinal qualities of leaves or flowers, except for steam. If you can find herbal remedies already in tea bags, you simply pour water boiling over the bag and let it steep for five minutes. If you need the tea sweetened, honey is best. If you have loose dried or fresh leaves and flowers, you can either make a bundle with a piece of cheesecloth or let the herbaceous material steep before straining. Tea strainers are useful and easily procured. Two teaspoons of plant material in the bottom of a teapot, covered by two cups of boiling water, is a good introductory amount that will allow you to determine how palatable you find a specific herbal remedy. Remember that you can often add bits of fruit or honey for sweetening. Often, teas can be consumed hot or chilled. Teas intended to stimulate one's appetite should be consumed fifteen minutes before eating, while all others can be consumed after a meal. I find it easier to be consistent with therapeutic teas if I drink them after meals. Teas intended to relieve insomnia should be taken once in the evening and again about a half-hour before bedtime.

Steams

There are herbs that are of great benefit to people with asthma and bronchitis, as well as anyone who suffers from deep chest coughs, chest

colds or allergies. The absolute best way to deliver the medicinal qualities of eucalyptus, basil, thyme, peppermint or spearmint, ginger, oregano, and even pine needles is through steam inhalation. Put about half a cup of the desired herbs (or a combination of herbs) in a heat-proof bowl and pour approximately four cups of boiling water over the plants. Allow them to steep for about ten minutes, covered with a large towel. After ten minutes or so, place the towel over your head and the bowl and simply inhale deeply. The steam will deliver the medicinal properties to your sinuses and lungs, and you should feel better very soon.

Decoctions

A decoction is an extract produced by boiling hard herbaceous plant matter such as seeds, bark, or roots. You can use herbaceous parts of plants as well. The medicinal aspects of berries are also captured this way. Typically, one ounce of dried herbs (or two ounces of fresh) are combined with one quart of water and brought to a boil. Then the pot is covered, the temperature is reduced, and allowed to simmer for fifteen to forty-five minutes. Hard or woody herbs should be simmered for an hour or two. Remove from heat and allow to cool thoroughly. After that, you can use the decoction however you like—consumed as a tea, used as a gargle for throat issues, used in a compress, or included in ointments and salves.

Poultices

It's not uncommon to hear seniors talk about bread poultices or mustard plasters they endured as children, and while that might sound slightly disgusting to our modern ears, poultices can be made with all sorts of ingredients. But what's the difference between a poultice and a plaster? A plaster is a waxy or oily mixture mixed with herbs. They're designed to be thick and sticky so that they don't fall off. A poultice can be a paste spread onto a warm cloth that can then be applied to arthritic joints, cysts, or foreign objects embedded in the skin, abrasions, and infected cuts. It can also be a compress of slightly bruised leaves applied directly to the affected area. Confused?

Let's say a loved one has sprained their ankle. Elevate and put ice or a cold compress on it right away. While the ice is working to reduce the swelling, bruise whole, fresh sage leaves by rolling over them with a jar or rolling pin. Don't break or tear them, though. Now put them into a pan and cover them, just barely, with apple cider vinegar. Simmer them very gently over low heat. You don't want the vinegar to boil, just steam. Once the sage leaves begin to soften, move them quickly to a clean cloth. Now fold this into a 'package.' Remove the ice from the sprained ankle and replace it with the hot herbal bundle, as hot as the other person can tolerate, and cover with a towel to retain the heat. Leave on until the whole thing has cooled. Alternatively, the towel could be replaced with a hot-water bottle in order to allow the herbs more contact time.

Quick Guide to Common Ailments and Treatments

Affliction	Remedy	Preparation
Burns	Aloe vera gel	Cut an aloe vera leaf open and use as a poultice
	Honey	Pour 3-4 teaspoons directly on the burn, cover with gauze. Alternatively, put honey on a gauze pad and place over burn
	Plantain	Plantain oil-based ointment spread directly on the burn
	Lavender	Essential oil mixed with carrier ointment
Affliction	Remedy	Preparation

Sprains	Mullein	Poultice
	Sage & apple cider vinegar	Poultice of sage steamed in apple cider vinegar
	Lavender	Essential oil applied directly to skin
	Witch Hazel	Extract applied directly to skin
Cuts	Comfrey	Mash and use as a poultice
	Yarrow	Can be applied directly to the wound or mashed and used as a poultice
	Plantain	After rinsing the wound clean, plantain can be applied as a poultice if the wound is not deep
	Teatree Oil	Diluted tea tree oil can be applied directly to the cut or soak gauze in it and apply
Skin Irritations (scrapes, poison ivy or oak)	Calendula	A wash made from the flowers can be applied to the skin. Alternatively, gauze can be soaked in the wash and applied to the skin

	Cloves	Sprinkle finely-crushed (powder) cloves directly on irritation
	Honey	Pour a teaspoon of honey directly onto the skin and cover with gauze
	Teatree Oil	Dilute oil and apply directly to the abrasion or irritation
Affliction	Remedy	Preparation
Nausea	Ginger	Tea made from fresh ginger slices, can be drunk hot or chilled
	Peppermint Candy (too much peppermint tea may cause miscarriage)	Dissolve candy in the mouth
	Raspberry	Tea, can be consumed hot or chilled, or combined with ginger and mint with a bit of lemon for taste

BOOK 8
Off-Grid Living
Part 1



Grid-Down Short-Term Solutions

Short Power Outages

A brief power failure in good weather is fairly easy to get through, depending on how prepared you and your family are. If electronic entertainment devices are all charged and working, if there's food to be had that doesn't require cooking, and fresh drinking water is easily accessed, then a brief power failure is only a mild inconvenience. But ask two preppers what a "brief power failure" is, and you'll likely get two different answers. The best answer is to prepare for a power outage of undetermined length, no matter if the cause is a squirrel or a storm.

Power Failure Checklist

You'll want to assemble an emergency kit and store it in a watertight plastic tub. Keep it well-stocked and make sure everyone in the family knows where it is, in case you aren't home when the electricity goes out. In the tub, you'll want;

- a first-aid kit
- a tool kit with standard screwdrivers, pliers, duct tape, a knife, and electrical tape
- a flashlight for each person in your family as well as backup batteries
- a battery-operated weather radio, so you know what's coming
- a whistle for signaling
- a sign that says 'HELP' in large letters that you can put in a window if you're in need of medical aid or rescue
- an envelope containing emergency cash, because bank and debit machines can't run without power
- a device charger that can be topped up in your vehicle if you have one, or a solar charger
- a camping lantern that can sit on the floor or a table

- a list of emergency contact numbers written out, in case you have to use a phone other than yours with your stored contacts list
- don't forget the can opener!

Water, Food, Lighting & Sanitation

Remember also to stockpile three gallons of water per person in your family and two gallons per pet per day. You never know how long the power might be out, but a good starting point is three days. Keep in mind though, that there have been many instances where whole communities were without electricity for weeks. If you rely on an electric pump to get rid of your waste, you'll need to devise a plan to get rid of it without flushing (see the chapter on hygiene).

Depending on the length of the power outage, you could turn to a generator for short-term electricity. At the minimum, you could run your refrigerator, furnace, and pump for water, as well as any freezers, although not all at the same time. Remember that you don't want to be in and out of your refrigerator every five minutes. The interior and contents will stay cooler if you leave the door shut. Of course, this goes for any freezers as well.

- an unopened refrigerator will keep food inside cool for four-six hours
- an unopened, full chest freezer will keep food frozen for up to 48 hours
- a half-full, unopened chest freezer will keep food frozen for up to 24 hours

By determining how long each of these would need to run, you could parcel out electricity through your generator long enough to keep food cold or frozen and at least have running water long enough to flush your toilet and refill your tank. With careful rationing, you could also recharge any electronic entertainment devices and a phone. While not a perfect solution, a generator would allow you and your family to weather a short-term power outage of a few hours somewhat more comfortably than without any power at all.

To eliminate the need for opening the fridge and freezer, have seven days' worth of food (per person) stockpiled that doesn't require refrigeration. This could be freeze-dried food, peanut butter, backpaker's meals in mylar

bags, meals-in-a-jar are always handy in power failures, and dried fruit. We all need a minimum of 2,000 calories per day to be healthy, and more active folks need up to 3,000 to keep their energy up. So think carefully about a food supply that doesn't need refrigeration. One thing that some preppers like to have set aside is vacuum-sealed bags to store morale-boosting treats like cookies. Nothing lifts moods quite like homemade cookies! Vacuum-sealed cookies could last up to nine months if the sealed bags are stored in a bucket with a vermin and moisture-proof lid, which is then stored in a dry, dark corner.

Lighting

You'll want to have a plan for alternative lighting. While you can still buy hurricane lamps and their fuel, these should only be considered as a last option. There are much safer, cleaner ways to light your home in a power failure—LED lanterns, for example. There are a staggering number of options on the market now; battery-operated, rechargeable via USB port, as well as hand-cranked. Some come with multiple light modes, including an SOS emergency beacon. You'll want one that is bright, somewhere between 100-200 lumens, which will light up a room quite well and allow your family to play a board game to pass the time. Lanterns and flashlights do come much brighter than that, but you don't want too much light. You'll find it hard on your eyes, and everyone outside will surely notice the well-lit house. Remember, you don't want to stand out in your neighborhood. Unless you need rescue, but that's not the focus of this chapter. A good quality lantern will withstand knocks and drops without damage, should sit flat on a table and be water-resistant, feel sturdy, and will last about 100 hours on a low setting. You don't want your lantern to run out of juice every time you turn around! For further peace of mind during a blackout, you can install strips along your stairs and hallways that absorb light and then glow in the dark. They aren't very bright, but they will provide enough of a glow that you'll know where you're putting your feet.

Sanitation

Washing without power is more complicated than we might think, and we forget this in the haze of a simple shower. But what if the power is off for the third day in a row, and you desperately need a shower? This problem can be solved with a little foresight and a trip to the camping goods or outdoor store. Both of these places commonly stock camping showers. A camp shower is a black, heavy-duty rubber bag that holds four and a half gallons, warms the water inside quickly if placed in the sun, and has a hose with a showerhead at the bottom of the bag. You can fill it with warm water, or just fill it and hang it in the sun. Simple, right? That's the beauty of this under-appreciated hygiene helper. Empty, it weighs next to nothing. If you're worried about water purity, boil the water first, allow it to cool until it's warm, then fill the shower bag. The importance of staying clean in a grid down situation cannot be overstated, and this is a simple, economical way to do that.

Another option is to purchase personal hygiene wipes. There is a company that makes these, intended to clean your entire body and contain colloidal silver. Silver has been well documented in reducing and preventing infection. If you don't have time or privacy for a shower, these could make all the difference in being clean and infection-free.

Borax and baking soda can double as laundry helpers if you really have to get your clothes clean before the power comes back on. Don't overlook dishwashing soap or shampoo either. Using whatever cleaner you've decided on, work it through the entire garment. Rinse well, then rinse again. One more time for good measure, because if your shirt or underwear aren't rinsed out properly, you're going to find yourself very itchy. A good rule of thumb is to rinse your clothes out at the minimum and allow them to dry. No, you won't have sparkling whites, but neither will your clothes stink so bad your eyes water. Dirty clothes keep dirt and other nastiness close to your skin, which invites infection. Soap nuts are easier to find in stores than ever and can be used to clean your clothes, your body, your pets, and your hair. These are definitely worth locating and stocking up on.

Off-Grid Power Options

Heating An Off-Grid Home

The best way to heat an off-grid home is with wood heat. There are wood/oil furnaces for the bigger homes, and of course, there are always wood stoves to consider. If the woodstove can be installed in front of a stone wall, you can also reap the thermal benefits later as the wall slowly releases heat into the room. Woodstoves can also be laced with copper piping on one side to heat water with the residual heat from the burning wood. The sides of the wood stove are going to be hot anyway, so why not use that heat? Wood is also used to fuel some cookstoves and water heaters, although not so directly as attaching copper pipe to the side of the woodstove. Another option to heat the off-grid home is direct vent propane wall heaters. These need no electricity and are well worth researching since everyone's living space is different. Biomass boilers are also an option and can burn all sorts of organic matter from plant materials such as wood chips, used straw, unwanted saplings, and logs. Many off-grid homes heat the building and the water they use with propane. Easily delivered by truck and contained in large exterior tanks, it can be a reliable option.

The most efficient way to heat an off-grid home is through a heat pump. Developed and in use since the 1940s, there are two kinds, geothermal and air pumps. For even more efficiency, you could have a hybrid system installed. They do need a small amount of electricity to operate the compressor, but this can easily be delivered by a solar panel.

A geothermal system involves laying pipes anywhere from four to six feet under your home in any of four different layouts, depending on how much room you have. An antifreeze solution flows through these pipes, warmed by the heat held within the soil surrounding it, as much as 20 degrees. Because soil as far down as ten feet is at a constant 42 to 52 degrees Fahrenheit, geothermal systems can be used in any climate and season, including areas that enjoy winter for five months of the year. Another

benefit, besides reliability, is that the loop systems are reported to last as long as 50 years, with the indoor components lasting 25 years.

If you don't want to be tied to the grid, there are renewable and sustainable options that might work for your circumstances. In some cases, you can double up, but none of these are cheap. But for increased independence, autonomy, and self-sufficiency, proponents of off-grid living swear by it. There's nothing about living off-grid that's easy, so don't trick yourself into thinking it's the carefree life. But if you want to be proud of producing your own energy in an environmentally responsible way, if you are tired of being dependent on someone else for your power, read on.



Solar

Power

The cost of solar panels has come down significantly since they first became commercially available. Although, with the recent supply chain hiccups of the last two years, their cost may plateau. But as photovoltaic systems become less costly to produce and acquire for John Q. Public, the panels have also gotten smaller and more adaptable.

In a very simplified nutshell, here's the breakdown of a solar installment. The sun beats down on your solar panels, which ideally should face the sun. The charge generated goes into a charge controller before being stored in the battery bank (the charge controller moderates the current before going into the batteries so the power can be better stored and doesn't wear the battery out). The current then goes into an inverter, which converts the Direct Current (DC) into alternating current (AC), which most of our appliances and gadgets use. Then there is an AC loads controller, which does what you would think from its name, controls the loads distributed, and maintains the voltages used by the appliances and devices connected to the system.

Generally, most urban families are electricity hogs, and re-training ourselves to become electricity sippers can take a period of readjustment, but it is possible. The first step is to know how much we use, usually through a usage assessment and by studying our monthly power bill (this is a good time to start looking at ways to cut back on energy usage). An energy assessment audit usually involves bringing a professional out to your home to examine each room and your past power bills and do a thermographic scan to determine where you might be hemorrhaging energy—through older windows and uninsulated doors, for example. Their resulting report may make a host of recommendations, depending on the age of your home and your energy goals. This is only the first step, and although it sounds quite involved, it can be extremely revealing and useful.

Wind Power



Despite the promise and hope surrounding small-scale wind-powered systems, they are still fraught with issues. Some claim that windmills are more harmful than useful to the environment. Some energy professionals maintain that windmills need to be in an area with almost constant wind to be of any use at all. Tests done in the Netherlands on small windmills proved that to get the best output from windmills, they needed to have a large rotor diameter—larger than what could be installed on a home’s roof. The size of the rotor matters a great deal when it comes to energy output. Because wind is reduced in a built-up and developed area, the windmill efficiency is further reduced in an urban area. Generally, wind power alone will not power an off-grid home. It does present an interesting supplement to your home’s power, but only if your region is very windy.

Water Power

If you have flowing and falling water on your property, hydropower may hold some potential for you. Small hydropower systems are called “micro-hydropower.” They are a system consisting of the water, a conveyance channel (think small canal or pressurized pipeline), a turbine or pump, and an alternator or generator to transform the energy into usable electricity. A regulator controls the generator and wiring actually delivers the electricity. The pump, generator, and regulator are contained within a pumphouse,

which is then wired into your home. Assuming you do have flowing water on your property that descends downward and water rights, your first step is to determine head and flow.

Don't be overwhelmed by the terms; I'll explain. *Head* is the vertical distance the water falls and is usually measured in feet. *Flow* is the amount of water that falls from a potential micro-hydropower collection site and is usually measured in U.S gallons. In a nutshell, the higher the water has to fall, the more energy it will produce, and flow measures that. You may be able to consult with your area's local flood control authority to determine the flow in the stream or river you want to utilize. The higher the head, the better because you won't need as much water to produce energy. You want a head distance of more than two feet, at minimum. You'll also be able to use smaller equipment. If you have a deep stream (with a minimum depth of at least 13 inches) or other fast-moving current but not a lot of head, you might still produce power through the use of an in-stream turbine. If you think your site has potential, contact your region's energy department or flood control office to find out what your next steps should be.

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BOOK 9
Off-Grid Living
Part 2



How to Cook Without Electricity

If the electrical grid is inaccessible for a short time and you have a supply of food you can eat without cooking, you're set. But what if you're caught unprepared? Or what if you've gone through all of your short-term food stashes and the power still isn't back? Then you'll need to know how to cook without the comfort of turning a knob or pushing a button. But don't worry, there are plenty of other ways to cook.



Campfire

Maybe you're lucky enough to have cooked over an open flame in your youth, or maybe not. For the purpose of this book, I'm going to assume you haven't had the experience of trying to produce a meal from a fire. That's okay; it's really not that hard if you keep a few pieces of advice in mind.

First, it's much easier to cook over coals than on an open flame. This is because coals give off a steadier heat. So plan ahead. Start a fire well before you want to start cooking. It doesn't have to be big, but you will want a good bed of glowing coals to cook with. Coals of hardwood (alder, oak, beech, walnut, hickory, maple) will burn longer and steadier than softwood (cedar, fir, juniper, pine, redwood, and spruce), but if you're bugging out or suddenly faced with having to make a fire in your driveway, you might not have any choice about what kind of wood you're going to use. What you've got is what you have to work with.

If you've been caught unprepared, this is not the time to realize you don't know how to start a fire. I talked earlier about learning skills and practicing them—this is one of those skills. Beyond a disposable lighter, make sure you know a few different ways to start a fire. In the chapter about tools you'd need on the road (Chapter 2), I discussed a fire striker. This would be one of those times that would come in handy if your disposable lighter isn't working or is missing. Also handy would be kindling. If you have a dryer, you have a source of terrific firestarter. Dry lint is flammable, which is why we're always told to make sure our lint traps are frequently cleaned out. Some preppers save the empty tubes from toilet paper, stuff them full of dryer lint, then save as many of those as they can in moisture-proof zip-up plastic bags. That way, if they need tinder in a hurry, it's ready and at hand. There's a lot of wisdom in this and something I recommend.

So, you've got a way to start a fire and tinder. Now you want to gather kindling—small sticks no bigger than your thumb that will hold that flame from the firestarter. Have a good pile of kindling at hand, more than you think you'll need because this is the fuel that will feed the bigger pieces of wood. Also, have a good pile of sticks and small pieces of wood at hand, gradually getting larger. The idea here is to have wood, gradually increasing in diameter, already at hand when you start the fire. If your flames run out of fuel, you won't have a fire, and your family will go cold and hungry. So set yourself up for success and have all your tools and fuel at hand before you start to make a fire.

You've started your fire with your firestarter, whether that be the tube of dryer lint or wood shavings, or maybe both. You've been adding the

smallest kindling pieces to that, and they've caught the flame. Once your fire is getting a little bigger, you can slowly start to add the bigger pieces of kindling. Each progressively bigger piece of wood will burn a little longer—but this step can't be rushed, so take your time and let the flames be your guide. Once you're adding wood as big around as your forearm, you'll likely notice that you're getting a bed of coals. This is what you want, but you need more. So add the bigger pieces of wood a few at a time every now and then. This requires patience, common sense, and letting the fire guide you. You don't want a bonfire, but it can't be too small either. Somewhere in the middle is your goal.

Once you have a bed of coals a few inches deep, you can start to cook with them.

Let's say you're in your driveway, trying to provide hot food for your family because the power has been out for an entire day, and you're all sick of granola bars. What you intend to cook dictates what tools you'll use. If you're just trying to heat a package of backpaker's stew or freeze-dried breakfast in a mylar-type bag, all you'll need is a pot to boil water in. But if you get the urge to make hamburgers in your driveway, you'll need something else to cook in. In a pinch, you could use your everyday frying pan from the kitchen—just be careful you don't melt the handle. I like cast iron frying pans, so it's what I have in my kitchen. Those things take a beating and, with a little care, can be passed down through the generations. In fact, most of my cast iron frying pans (I have four) have been either passed on to me or picked up at second-hand stores. All that being said, you definitely don't want to be lugging around a cast iron frying pan in your bug-out bag! So your circumstances definitely affect your tools. If you're practicing your cooking skills over a hotbed of coals in your driveway, you have a little more freedom of choice. If you're honing your emergency cooking skills, definitely use the equipment you'll be carrying in your bug-out bag.

Another way to cook over an open flame is to use one of those patio fire bowls or a kettle-shaped charcoal grill. Instead of charcoal, you'll burn wood. Just put an old grill grate over the mouth of the bowl or grill, with the wood under the grill, and you'll be able to use a cast-iron frying pan,

pot, or kettle. Technically, you'll be cooking over coals. When you have enough coals, scrape them to one side of the bowl or grill and cook on that side. Add smaller pieces of wood, say the size of your forearm, every now and then to the far side of the coals to make fresh coals.

Smoking

Smoking meat is not just a great way to preserve it, but the chemical changes that take place lend a flavor to the meat that no other cooking or preservation method can match.

“Cold smoking” is done over a low and smoldering fire for twelve hours or more and utilizes woods that have preservative and flavorful qualities, such as apple, pecan, cedar, or cherry. Avoid pine and fir. Their high resin content will spoil the taste of whatever food you're trying to smoke. If you have a chipper or a friend who has one, the absolute best practice is to collect your own wood, so you know exactly what kind of wood you'll be using. ***You do not want to visit a local carpenter who uses whatever kind of wood they can get their hands on. You run the risk of getting sawdust from cheaper pine or MDF, which will make your food inedible because of the chemical content*** . The best time to collect your wood is in the autumn, when there is less sap in your wood of choice. Alternatively, you can also buy wood chips specifically for smoking, usually wherever barbeque and smoking products are sold, or even in some camping and outdoor supply stores.

You don't want your fire to be very hot—cooler than seventy degrees is ideal, so don't put too much wood on at once. You can smoke all kinds of meat this way, as well as fish. Smoked cheese is a delight that you never forget once you've had it. In my opinion, the taste cannot be accurately reproduced by chemical additives. If you decide to take up smoking your meat for preservation, I wholeheartedly recommend you try smoking cheese as well.

If you want to “hot smoke” to cook your food and don't have a smoker, you can use a barbeque. Soak your wood chips, no matter where you got them from, for at least four hours. After that, take a long piece of foil and lay the

chips at one end. Then fold the other side of the foil over the chips, fold the edges of the foil over on themselves and pinch shut. You should now have an ‘envelope’ of wood chips. Take a fork and poke some holes for the smoke to escape as the wood chips smolder. Not too many, but enough to allow for a good amount of smoke to be released. In the barbeque, put this package off to the side and not directly under your meat. You want the heat and smoke sources to be low and slow—a cooking temperature lower than 225 degrees and longer than four hours. You can use this method with any grill, charcoal or propane, or kettle-style.

Barbeques and Camp Stoves

Another option for off-grid cooking is a barbeque. Not what most people think of as prepping equipment, but it can be. Think of it as a backup cooking system. But what if you live in an apartment and aren’t allowed to own one? Then I recommend a folding camping stove. They use small green bottles of propane for fuel, which come with screw caps to put over the opening if you’ve not used all the gas inside. You could store the folding stove under a bed or in a closet, and the bottles of propane can be tucked unobtrusively behind something else out on the balcony. No one needs to know. You might never need to use it, and if someone does notice the stove or the fuel canister, you can always explain it by calling it what it is—camping equipment. I’m not encouraging you to break any renter rules if you do live in an apartment, but I do recommend you think of plans and systems you can use if the grid is down for an extended period of time and you need to feed your family. Again, your backup plans will depend on your circumstances.

Solar Ovens

If the electrical grid is down longer than expected due to component unavailability, you can still bake bread, meat, cookies, and cakes with a solar oven.

Solar ovens have a long and storied history, dating back as far as 1767 when a scientist constructed a box out of insulated pine, glass, and wool

insulation. One of his contemporaries added mirrors and reportedly cooked meat in an hour. So solar cooking has been used, experimented with, studied, and improved upon for hundreds of years. But should we use it today, in this day and age? Isn't it easier to just turn on our oven or stovetop? Using a solar oven has a lot going for it;

- It's cheaper than electricity or propane and a renewable resource.
- You can sterilize water, cooking utensils, and medical instruments with it when there is no other power source.
- It won't raise the temperature of your house in summer, like cooking a roast in your oven might.
- You can reduce your power bill and your carbon footprint every time you cook with the power of the sun.
- It uses no other resources in its regular operation.
- Unlike conventional cooking, solar cooking doesn't leach nutrients away into the water the food was cooked in. This results in healthier food for our families.
- More evenly balanced temperature eliminates the worry about uneven cooking, stirring, and burning dinner.
- Solar cooking can be an important supplementary cooking system when wood, propane, and electricity are all unavailable.
- You can use a solar oven on the beach, on a boat, in your backyard, and in the middle of a restricted fire zone. No flames mean less danger.
- You can dry (or warm) clothing with it. Handy if you have an elder with you who might be plagued with arthritis or if a member of your group falls into cold water. Nothing says comfort like warm clothes and a hot drink (which your solar oven can easily boil water for!)

Solar ovens work due to three principles;

1. **Concentration of the sun's rays** —the concentration of the sun's rays is achieved by reflective panels or mirrors that concentrate (or focus) the ultraviolet rays in a sunbeam. The panels can be covered with aluminum, chrome, or mirrored, as previously mentioned.
2. **Absorption of heat and the ability to hold it** —Absorption of heat happens best with dark surfaces. To work within this principle, the interior of most solar ovens is black. For even better heating, cookware should be black as well. Cast iron cookware such as Dutch Ovens really excels in solar ovens.

3. Retention, or capacity to retain the aforementioned heat —Retention of the heat allows maximum usage of the heat. The better insulated a slow cooker is, the more heat is retained and less energy lost. A clear lid further retains the energy as heat, boosting the efficiency of the solar cooker.

Depending on where you live and the time of year, you may find the solar oven more efficient than other times. A clear sky with the sun high overhead will enable your solar oven to cook at peak performance. In less ideal situations, a partly cloudy sky, for instance, the oven can still cook; it may just take longer. On overcast days or in rainstorms, your oven likely won't cook much. But on very sunny days, you can cook a pound of meat in as little as twenty minutes, even in the winter. Many places throughout the world use solar ovens for cooking, and you might be surprised at how many of those are in northern parts of the world. If you live in a region that sees a lot of fog, you can still use a solar oven. It just requires a little more creative planning.

Outside ambient temperatures don't affect how quickly your food cooks. All that matters is how many hours of sunlight you get, how intense the sun's rays are, and the position of the sun in the sky. In optimal conditions, and depending on the environment you're in, you could cook a roast, bake a loaf of bread, or cook a whole chicken. In North America, the best times to utilize the sun's rays are between noon and three in the afternoon because the sun is highest in the sky and therefore at the perfect position for cooking with a solar oven. So when the sun is at its highest position, that would be the best time to bake bread, rolls, and other baked items. Stews, roasts, chili, and soups can be allowed to cook longer when the sun's rays might not be at their peak. You may find that you need to plan meals around the sun. Some weeks might not provide very many sunny days, so on those days, you'd want to plan dishes that can take longer periods of time to cook. In winter, or in regions that do not get a lot of clear sunny days, you may have to track the sun with your solar cooker, rotating the cooker every few hours or inclining it slightly. Experimentation will teach you the finer details about cooking with a solar oven in your region. But you don't need to invest \$200 or more to experiment. It is possible and easy to make your own!

Solar ovens come in three designs; parabolic, box, and panel solar cookers. A simple box cooker isn't difficult to make. To keep things even easier, make one out of cardboard first. It works on the same principles as commercially available solar ovens, conduction, radiation, and convection. The solar oven, even a cardboard one, gathers heat and converts it to energy. This one won't get as hot as a parabolic solar cooker, but it will still cook vegetables, oatmeal, or anything else that doesn't need to be hotter than 200 degrees. Amaze your neighbors with eggs cooked by the sun.

You'll need:

- Two boxes, both shallow, one taller than the other. The smaller of the two should fit inside the larger one and have an inch or two between them.
- Four loose pieces of cardboard.
- Clear cling wrap that is wider and longer than the outer box.
- Black construction paper, aluminum foil, glue, duct tape, a black marker, newspapers to crumple or shred (for insulation), scissors or a box cutter, and four sticks.

Construction:

4. Cut the tops off both boxes. Place the larger box on the ground, bottom down.
5. Put glue on the bottom of the smaller box and place it inside the larger one, providing an inch between all sides for insulation. Press down firmly on the inside bottom surface of the smaller box to ensure a secure seal.
6. Fill the gap between the boxes with the crumpled or shredded newspapers. They will act as insulation, which will retain the heat generated by the sun.
7. Cut your pieces of black construction paper to fit the inside panels of the smaller box. Glue the construction paper to the inside of the smaller box. The black will absorb the heat and make your oven warmer.
8. Using a utility knife or scissors, take each of the four loose pieces of cardboard, and cut it into a trapezoid shape, so the narrow end is the same width as one side of your larger box. The wide end should be two inches wider than the small end.
9. Once each of these pieces are cut, tape aluminum foil to them. These will be the reflectors. Then secure them with duct tape to each side of

the bigger box, foil side facing in. The narrow end of the trapezoid should be at the bottom and taped to the box with the wider end of the trapezoid toward the sky. They'll flop, but not to worry, we'll be propping them up with the sticks.

10. Position your solar cooker box in the full sun, somewhere that will not be in the shade in a couple of hours. Prop each of the reflector panels up at approximately 45 degrees, wedging the sticks into the ground a little if you can.
11. Put your pan of food inside the smaller, blackened box. In most places in the northern hemisphere, the sun is highest between eleven in the morning and two in the afternoon. This is your optimal cooking time.
12. Wait. Not unlike a crock-pot, a solar oven can take hours to cook the food inside. You may have to reposition the box now and then chase the sun. When you think your food is done, it's best to measure the internal temperature with a meat thermometer for accuracy.
13. Enjoy your food and bask in the knowledge that you harnessed the power of the sun to cook!

Outdoor Oven From Natural Materials

Another option to cook without electricity is an "earth oven," also called a "pit oven." This form of cooking stretches back throughout time, all across the world, and is still used today. Its simplicity is the biggest benefit, so if you don't have a lot of building skills, an earth-oven may serve your needs.

In its simplest form, an earth oven is a pit in the ground that traps heat, steam, and smoke for cooking purposes. You'll need to dig a pit approximately 40 inches deep and 30 inches across and line this with rocks. Then build a fire on top of these. When the rocks are red-hot, or as close to it as you can get, allow the fire to go out. Place 'green' (so not dry) sticks on top of the rocks as a mat. If you're by the sea, you can also put seaweed on top of the sticks. The food is laid on this mat of green vegetation, either wrapped in damp leaves or without, and then covered by more green sticks or seaweed or simply damp leaves if that's all you've got. When the food is thoroughly covered, the whole thing is covered with dirt and more leaves.

The heat from the hot rocks will cook the food within, and the dampness inside the green vegetation will prevent the food from drying out.

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Conclusion

We've covered a lot of information because exactly what systems you decide on will be dictated by your circumstances, family dynamics, and finances. But just deciding on one system for food procurement and storage, water, or medical supplies isn't enough. You want multiple backups. Stuff happens, equipment fails at the worst possible times, and some days it seems like you just can't catch a break. Random occurrences are one thing, but your family is depending on you to keep them safe. The right gear can help you do that, but what you need more than that is the right knowledge. You need to know what tools you'll need, but you also need to know how to use them when it's pouring down rain with lightning crackling across the sky. Your hands need to know how to hold a fire striker to get maximum sparks before your family is hungry. You need to have the physical capability to defend your home if need be, and you can't do that effectively without some level of physical fitness, even if you're over 60. So yes, get all the right books and gear, but learn how to use them *before* you have to.

My last piece of advice is double-edged, and I know I've said this throughout this book, but it cannot be stressed enough. Start prepping now with what you have, or you can start getting it while you learn more. The time to start saving water is now, not when you're faced with a water shortage. The time to think about growing your own food and learning how to preserve that food is now, before a financial crisis renders you three paychecks away from hunger. There's no time to start like the present. Always strive to further your knowledge about your personal infrastructure. Learn all you can about improving and hardening your systems against failure. Have backup systems and gear, and teach your family what you know. You'll need their partnership and help in the days to come.

Lastly, I want to leave you with one of the best-known and wisest quotes on preparedness.

By failing to prepare, you are preparing to fail. –Benjamin Franklin

BOOK 10

The Prepper's Pantry



Why You Need a Prepper's Pantry

Food is everywhere, right? Your town might have a few, or many, grocery stores that pretty much carry everything you might want. You may even be fortunate enough to live in a town that has a grocery store big enough to offer online shopping and curbside pickup. Grocery delivery services are gaining in popularity among those that can't get out to do their own shopping, seniors, and folks with restrictive physical conditions. Meal delivery companies are booming with a higher than ever number of people that don't want to slip out to their local fast-food restaurant. Food is everywhere you look!

But it's also fraught with instability.

Every week it seems there is a new recall over contaminated vegetables or meat. The price of food is skyrocketing without any financial relief in sight, portion sizes get smaller, and the food supply chain is battered, broken, and limping. Climate change has also played havoc with food availability. Consider the humble orange. The prices for oranges and orange juice twitch higher every time Florida has a blossom-killing frost. Coffee needs a specific set of growing conditions found in fewer and fewer places in the world and only gets more expensive. Tea is the same.

Another important point is that the retail world, most especially grocery stores, runs on a "just-in-time" system. They order enough to last for three weeks. Just as that supply is running out, they get a fresher supply of whatever stock they've ordered. I can confidently tell you why stores order their stock this way.

- lower overhead because they don't need to rent or buy warehouse space to store product
- fresher stock, resulting in satisfied customers
- less of a rodent and insect infestation risk if stock isn't sitting around
- shelf and storage space are at a premium, and stores frequently have to work within the square footage they have, which usually is not the amount they'd really like

This is true for grocery stores, gas stations, and convenience stores, all of which can be sources of quick and easy food. But when their suppliers run out because their supply has been reduced, that shortage is passed on. The price of fertilizers for crops (which has risen over 200%!), climate change, and lack of people-power to transform the raw ingredients into the food we want have all affected the supply of food over the past few years. So with the shortages being passed on, the food supply chain has taken a brutal beating these past few years.

Another strike against our food supply is that more and more crop-growing land is being turned over to corn, but not for food as you might recognize it. In fact, about a quarter of the food in your local grocery store has corn in it, but not in any form you might recognize. Corn syrup is used as a sweetener in juices, soda, and just about everything marketed toward children. It's used as a filler in almost everything from pastries to pet food. And corn starch is used as a thickener in everything from ice cream to toothpaste. In fact, the environmentally-friendly packaging that a lot of companies are crowing about these days is made of corn-based biodegradable "plastic." So corn has become a big business. All that potential money waiting to be made from corn demands more land dedicated to corn that will not feed your family in any useful way. Don't even get me started on ethanol. So what about land for cattle, chickens, or pigs to feed hungry, meat-loving people? What about the land gobbled up by housing and roads or wiped out by flooding caused by climate change? All of this affects food availability.

Food as we recognize it is threatened. What we can buy this week might not be available next week or priced so high that we can't afford it—even staples like bread and salad-friendly ingredients. Bread here in my part of the world costs triple what it did four years ago; lettuce and celery are the same. At this rate, none of us will be able to afford the food at the grocery stores if we can *find* it at the grocery stores!

So what are we supposed to do?

There is an answer. A prepper's pantry.

It's not just our food that has become precarious and uncertain. Our economic horizon is bleak and almost depressing. We live in times of mass

layoffs, company mergers, buy-outs, and restructuring. Those lucky enough to have a job frequently don't have benefits like medical or dental coverage. Many need to have their own form of transportation to work, whether they're an executive who has to commute or a single dad trying to feed his daughter on the income of a meal delivery driver. The mandatory cost of insurance, the price of gas, and even just basic vehicle maintenance all gouge into an already shrinking paycheck. There are a constantly-rising number of people forced to take low-paying jobs simply because they can't afford to get a vehicle that would allow them to get a better job. Our multi-layered economy is turning against many of us.

Part of the answer is a prepper's pantry.

If you don't have to worry as much about food, you can breathe a little easier while you put gas in your vehicle. Or look for a new job. Or build a side-hustle into your primary job. If you don't have to worry about food, an oncoming winter storm that keeps everyone home for days at a time is less of a concern.

Civil unrest is becoming increasingly rampant all over the world. Protests rallying against unpopular court findings, against government action or inaction, and any number of things have increased. Being out in the community can sometimes be fraught with danger. Civil unrest can quickly turn to violence, prompting many stores to remain shuttered until tempers cool. It happens all the time. If you have food put by, civil unrest needn't dictate how you feed your family.

Food can represent both control and freedom. You want both. Don't let someone else control when you can get food or what food you can feed your family. Don't let someone else dictate your access to life. Take control over access to your food. Seize the freedom and peace of mind that comes with knowing you can feed your family whenever you want.

Build a prepper's pantry.

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How to Plan and Organize Your Pantry

Planning Your Pantry

Everyone's dietary needs are different. Families with children may find themselves eating child-favorites, as we did when our children were young. People with food allergies may not be able to make the same choices as others. For example, I can't have thin-skinned fruit without having an anaphylactic response unless I cook it, so we don't buy ten pounds of apples. Instead, we'll buy five pounds, cut and cook them before freezing. Three of us in the family are lactose-intolerant. An acquaintance of ours is gluten-intolerant. Everyone eats the way they do for a variety of reasons. You need to plan to store the foods you and your family are comfortable with. There's no point in storing wheat berries, beans, and tomatoes if your children hate tomatoes and your spouse is gluten intolerant. So plan accordingly.

If you're starting from nothing, with no pantry at all, you might find it easier to start with prepackaged food. Maybe you're moving hundreds of miles, and it's not feasible to bring your pantry with you, as was our circumstances eight years ago. Perhaps your budget limits the amount of groceries you can get, or perhaps you have a hard time getting to and from the grocery store. Maybe your goal is to store enough food for three months first. Whatever the reason, let's say you don't have hundreds of dollars to build your prepper pantry right away, and circumstances dictate the necessity of starting with prepackaged foods. That's a good start, but once you have a couple of weeks' worth stored, look at expanding your pantry with food you can use more than once.

On a piece of paper, list what your family eats in a week, breakfast, lunch, and dinner. Don't forget to list fun foods, too. Do you have movie nights with bowls of popcorn and M&M's? Ice cream for dessert after Sunday dinner? Add those to your list too. Some families have very specific meal plans. For a long time, our meal plan looked something like this:

Monday : Spaghetti and meatballs

Tuesday : Tacos

Wednesday : Chicken, mashed potatoes, and corn

Thursday : Meatloaf, mashed potatoes, and peas

Friday : Pizza

Saturday : Hamburgers and fries

Sunday : Roasted chicken dinner with all the trimmings

As our boys grew older, we were able to move away from “kid” meals like burgers and substitute roast beef dinner or fish. Every family is different.

Once you have your weekly list, you’ll see what items you can benefit from buying pre-packaged “quick” foods. When you shop, try and pick out a few items you can buy extra. This might look like three boxes of instant oatmeal instead of just one. Or two jars of peanut butter instead of one, or perhaps six cans of tuna instead of two. Two packages of spaghetti instead of one. You get the idea. The point is to start *somewhere* . Even on a tight budget, you can start investing in your future food. You do what you can while you learn the skills you need to take even more control over your food.

From your weekly meal list, pick out the common ones that everyone enjoys. Let’s say that everyone in your family likes having a warm bowl of instant oatmeal in the morning. One child prefers his with blueberries, and another prefers his with milk and honey. So while stocking up on instant oatmeal that doesn’t take long to make (which is important when you have small children), you also want to store frozen or dried blueberries, maple syrup, and honey.

I think of this stage of planning your pantry as a wheel. In the center is the meal. Let’s say pasta and sauce. Break it down into ingredients. These are the spokes of your wheel.

- flour
- eggs
- olive oil
- salt

- water
- tomatoes
- spices such as basil or oregano or garlic

So, for our example with pasta and tomato sauce, you'll need to buy (or with certain ingredients, grow or make) the ingredients. You can grow tomatoes, basil, oregano, and garlic fairly easily, although you will need to plan ahead if that's your goal (for now, let's just assume you're going to buy canned tomatoes until you can get a harvest of home-grown tomatoes in). Those same ingredients are used in a lot of other dishes, some of which your family probably enjoys, so you wouldn't be growing them only for one dish. If you make your own pasta, you would need to buy the raw ingredients for that. If you *don't* make your own pasta, you would buy and store the pasta. Either way is fine. Your circumstances will be different from everyone else.

We don't make our own pasta, but we eat a lot of it. We tend to have rodent problems here, so we counteract that by storing the different types of pasta in rodent and moisture-proof bins. We grow some of our own spices and some tomatoes. This offsets what we need to buy. For example, we don't have the land to grow all the tomatoes we would eat in a year (I wish!). But we can grow enough tomatoes, peppers, and garlic to make a year's supply of salsa. Do what you can according to your family's preferences and circumstances.

We know a retired couple who enjoys jam and makes their own from frozen fruit. They buy bags of different types of frozen fruit from their grocery store, then make jams and preserves from that. Because they're both diabetic, they can adjust the sugar levels to nearly nothing. They make what they can from the resources they have at hand.

Once you've decided on *what* food you want to store, you have to decide on *how* to store it. This may be dictated by how much room you have for your pantry, as well as how much you'll be storing. Twenty pounds of wheat is better stored in food-grade buckets than in one-gallon jars but can be trickier to store if the amount of square footage you have is limited. The same goes for a large bag of rice. An ideal prepper's pantry is a cool, windowless, spare room lined with shelves for jars of every size, with lots

of room beneath for large buckets or mega-packs of paper goods. We aren't fortunate enough to have that, but we modify and adapt by using what we do have available to us. We do have lots of shelving, although we had to buy the industrial metal type because the only room we have available for food storage also floods in the spring. Don't feel pressured to conform to the ideal prepper's pantry. Stockpile according to your circumstances. Or, as the saying goes, "you do you."

How you'll build your pantry depends not only on how much room you have but also on the resources you have. We have two mid-sized freezers as well as the small one over the fridge, a dehydrator, a water-bath canner, and a pressure canner.

People with freezer space have the option to freeze whole chickens. These can be used to make two or three meals, as well as broth. People that don't have the budget for a freezer but do have a pressure cooker can utilize sales on quarters, wings, and other poultry parts. We know one family that has two freezers in their kitchen and one out in their garage. They're able to split the cost with a neighbor for a large meat order, but they have no idea how to run a pressure canner. Because they have a large amount of meat put by, fluctuating meat prices at the store don't bother them a bit. Your prepper's pantry will be stocked according to your circumstances.

That being said, I wholeheartedly suggest having a self-education plan when it comes to your pantry. Always strive to learn more. Learn how to grow your own spices and the best way to preserve them. Learn how to can, if you don't already know-how (you'll find the chapter on canning later on in this book handy). Every step you take towards controlling what you eat will make you that much healthier. Later on, we'll discuss the different food preservation methods.

Organizing Your Pantry

Organizing your pantry depends on how much room you have, but there are a couple of things that you can do to make it easier to keep track.

First, make sure your pantry is well-lit. No one wants to go into a dark pantry. Kids, and lots of adults, will refuse to go somewhere that's dark and

intimidating. Not to mention that dark places seem to attract rodents, bugs, and who-knows-what. Also, it's much easier to see expiry dates in a well-lit pantry. This can make all the difference between having a bunch of food with questionable dates or knowing exactly when your stored salad dressing has to be used up. So make sure your pantry is properly illuminated.

Another piece of advice, and I speak from experience here, is to make sure that your stored food is easy to reach. You don't want to have to climb over bikes, a lawnmower, and a steam cleaner to reach a can of tomatoes. If you have to face that kind of obstacle course just to check the dates on your stored food, it's time to re-organize! Make it as easy as possible for everyone to reach and see the food in your prepper's pantry.

I've found it easiest to write the best-by or expiry date right on the front of the container. Then, if I send someone else in my family in for something, they can see which one should be used next. While we're on this topic, another word of advice. If your tetra pack of chicken broth expires in May, write May, not Ma. Many folks assume Ma could be March. Different countries use different date systems, even Canada and the United States. One might use month, day, year. Another might use day, month, year. Make it simple. If your chicken broth expires on September 11th, write that on the front, or at least Sept 11, and the year. 11/09 could be the eleventh of September, or it could be November the ninth. Be kind to your family members and make it easy to understand exactly when the food in your (hopefully) well-lit pantry will expire.

That being said, make a point of rotating through your stored food. Keep a list in your prepper binder (as well as on a clipboard hanging near your pantry) of the foods due to be eaten next. This is another reason why you'll want to store the food your family enjoys. Besides, if the SHTF, times will be hard enough. You'll want something familiar in trying times, so it might as well be your food. So store the food you and your family enjoy eating. Eat it. Replace it. Let's stick with your chicken broth tetra packs as an example. When you use one, replace it and put the new one at the end of the row, not the front. That way, the next one in front will be used next instead of expiring. If you see that the next tetra pack expires soon, within the next month, for example, plan a meal that will require chicken broth.

Although it's more difficult to know when spices expire or lose their flavor, try and add your favorite spices to your prepper's pantry as well. Cooking from scratch will taste better with a few preferred spices, which should result in less food waste. My advice is to use spices and herbs within a year. Again, you'll want to keep track and rotate.

Something that a lot of folks forget to stock up on is bathroom supplies. No, I'm not talking about just toilet paper, although that is extremely important. Here, I'm talking about soap, toothpaste, brushes, floss, mouthwash, feminine hygiene products if your family dynamic requires it, deodorant, and shampoo. Don't forget laundry supplies as well. There's less of a concern about these things expiring, obviously. But if you have a supply stored away, a shortage at the store won't be as much of a disappointment. Also, keep a supply of paper plates and plastic utensils stored. Why? In case you're faced with a water-based crisis and can't wash dishes. Most people need power to run their water pump, and sometimes emergencies just won't wait for you to wash the dishes.

Don't forget multi-vitamins. Yes, if we were eating a perfect diet, we wouldn't need multi-vitamins. But the sad truth is that most of the raw fruits and vegetables we have access to these days aren't as nutrient-filled as they used to be. This comes from soil depletion and hybrid engineering. If we can grow our own fruits and vegetables, we can increase our food's nutrient values, but it won't happen overnight. It'll take a long process of learning how to enrich the soil, grow heirloom varieties and store the harvest so that the maximum amount of nutrients is captured. It is possible to grow healthier food, but it can involve a learning curve. To provide our bodies and brains with the macro and micro-nutrients we need, stock up on multi-vitamins.

Where Should Your Pantry Be?

All of the items, except perhaps the paper products that I've mentioned above, last longer if kept in a cool and dark environment. Where is that in your home? Do you have a spare room? Do you have under-utilized space in a basement or storage locker? Do you have a closet that's not being used to its maximum usefulness? All of us have unique living situations, so each

of our prepping pantries is going to be a little different. I know a family that doesn't have a basement, but they have a really deep closet that has four feet of wasted space in an unused corner. I mean, this closet is really long! So they decided to put reinforced shelves in and keep their prepper's pantry there. They push their clothes over, and no one knows they have food stockpiled. That's a terrific use of formerly wasted space.

Another family I know, comprised of a single mom and her two kids, live in a small apartment with less than 900 square feet of space. She has no spare room at all! She has stockpiled two months' worth of their favorite food and one month's supply of water. How did she do it? By utilizing the built-in storage room of their beds (all three of them have "Captains" beds), a "Deacon's Bench" in her entranceway, and the floor of her bedroom closet. Ingenuity at its finest!

My point here is to work with what you have. So many folks within the prepping world think you have to have the same as what everyone else has. That kind of "keeping up with the Jones" thinking leads to disappointment, frustration, and defeat. Don't give in to that. Work with what you have, where you are, as you can. Don't compare yourself to what others are doing. Celebrate everything you put aside.

That being said, keeping your prepper's pantry in a dark place is important because light will not only cause your food to discolor but also start breaking down the fat, proteins, and vitamins in your food. In a time of crisis, you'll need every vitamin, mineral, and calorie you can get.

How Much Should You Store?

This brings us to our next bit of planning. How much food should you store in your prepper's pantry? Many experts and influencers in the prepping community say you should have a six-month supply put aside. My advice to you is to start small first.

Assuming you're starting your prepper's pantry from nothing, refer back to the planning we did earlier. Aim to set aside a month's worth of the things your family consumes. With careful shopping, this is possible even on a tight budget. Once you have your first month of supplies set aside, it's

easier to grow from there. The first month is the hardest. But I've done this on a budget, and I can tell you from experience that if you target one month at a time, it's far easier to celebrate each milestone. It's easier to stay positive about your accomplishments while planning for a collapse of the world around us.

Plan for one month, then aim for three, then move your goal to a six-month supply, and so on. Be realistic. Here are some general suggestions:

- twice the normal amount of milk your family consumes in a month
- twice the usual amount of eggs your family eats in a month
- double the amount of ground beef, planning on one for the freezer
- a whole chicken
- a bag of flour
- a case of water
- a small ham or two
- quick-cooking oats
- frozen fruits and vegetables that your family prefers, or extra cans of those if you don't have a lot of freezer space after the extra meat
- a gallon of white vinegar
- double the amount of sugar your family uses in a month (this will need to be kept somewhere dry as well as insect and rodent-proof)

These are only general suggestions and not a list of everything you should get at once. You will be restricted by your budget and how much room you have for your pantry. If you can only buy extra meat this month, then do that. If you can buy extra meat and some extra cans of tomatoes and maybe a bag of rice (if your family eats that), then get those. My point is that what you buy and how much you buy, should work for you, your family, your budget, and your circumstances. No matter how you do that, consider that it's easier to eat from your prepper's pantry and avoid food exhaustion (where you and yours get tired of eating the same thing all the time) if you know how to cook from scratch. You can also build your prepper's pantry more economically than if you just buy buckets filled with freeze-dried food designed to last 15 years.

I recommend learning how to make bread if you don't already know how. Here's a hard-earned bread tip—bread dough rises better from fresh dough than from frozen. This is because no matter how fresh your yeast is, some

will always die off in the cold. The dough will still rise somewhat, but not as much as unfrozen. Knowing this, plan on turning your frozen dough into rolls or buns. You probably won't expect them to be as perfect as we expect a loaf of bread. For added nutrition, you can roll your unbaked bread or rolls in oats. Don't worry—they'll still rise.

I suggest taking a varied approach to building up your prepper's pantry. Be realistic about this. Buy extra canned goods, buy extra frozen meat, fruits and veggies. Don't forget to stock up on comfort foods and treats, as they can help keep morale up. Take advantage of freeze-dried foods if possible. Learn how to preserve food by canning, pickling, and dehydrating (more on all these later), and most especially, learn how to grow as much of your own food as your circumstances allow.

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How to Build a Healthy Pantry

Why You Should Build a Healthy Pantry

It's one thing to stock up on food. It's another to build a stockpile of *healthy* food, and that can be challenging. It's often easier and cheaper to fill our pantries and stomachs with whatever food you and your family will eat. But false calories will work against you. Your body needs the proper vitamins and minerals to be at its best. In times of emergency and crisis, you need a sharp mind and quick reflexes. Your brain, muscles, and nervous system work best when properly nourished, and the best way to do that is to stock your prepper's pantry with food that will nourish you, not just fill your belly.

What we eat affects our bodies. It's not just about building muscle mass; we need to feed our brains too. A vitamin and mineral-poor diet results in a malnourished brain, which results in poor decision-making. In times of crisis, we don't want to have brain fog. Our brains need a complete range of vitamin B, essential fatty acids and trace minerals, vitamin K, and antioxidants. Leafy greens like kale, spinach, collards, and broccoli are swimming in brain-healthy nutrients like vitamin K, lutein, folate, and beta carotene. Whole grains, vegetables, fruits, and animal fats can provide the elements your brain needs to be healthy. Processed food containing high amounts of white sugar, white flour, and trans fats do not support a healthy brain and, in fact, can deplete the vitamins and minerals in your body.

While you can't store it, one of the other most critical things you need for optimum performance is adequate sleep. Without enough sleep, your brain can't forge the chemical connections it needs for fast responses, resulting in the aforementioned brain fog.

In a rapid-onset stressful situation, your hypothalamus, situated in the middle of your brain, sends out the call for adrenaline and cortisol from your adrenal glands. You might already know that adrenaline boosts your heart rate and blood pressure, focusing your blood flow to your muscles in

case you need to do something fast like run for your life. Cortisol adjusts the bodily functions like growth or digestion that aren't necessary in a life-or-death situation. Think of it like a chemical 'hold' button. Your body can get back to growing and digesting breakfast after you've removed yourself from the situation. Once the initial crisis is over, the adrenaline and cortisol surge taper off, and your nervous system takes over what it was doing before. You'll probably be exhausted, but everything should even out to pre-stress conditions.

Knowing all of this, we can understand why we need to plan for a healthy pantry instead of just stockpiling any old food to fill our bellies. But what does a healthy pantry look like?

How to Build a Healthy Pantry

I'm not going to recommend you ditch white flour. That's too extreme for most of us. Instead, I like to take a more realistic approach. Unless you or someone in your family is gluten-intolerant, I recommend storing both white flour and whole-wheat flour, as well as buckwheat flour and rolled oats. Any of the latter three can be added in small amounts when you're making a loaf of white bread. This allows you to deliver a loaf of bread your family will eat, along with healthier ingredients. Many of us struggle to get our families to eat healthier, myself included. While my sons grew up as picky eaters, I had to get very good at sneaking healthier ingredients into the food they would eat. Thankfully, they're less picky now that they're grown. Even if your family has a picky eater, you can still build a healthy pantry.

Whole wheat and buckwheat flours, depending on how much your family enjoys them, can be stored in mylar or zippered plastic bags and further protected in bins or buckets. Stockpile rolled oats. You can store these in a mylar bag inside a food-grade bucket if you have the room. If not, you can store the oats in large or extra-large zipper bags, which can then be stored inside plastic bins with lids that can be stored under a bed. Rolled oats can be included in baked goods, stews, soups, and included in breakfast cereal. And, of course, eaten as oatmeal.

You can save kale by dehydrating and saving it as “kale chips” in mylar or zippered plastic bags with the oxygen removed. The kale can then be reconstituted and used in smoothies, omelets, or soup. Or just grind it up and sprinkle it into whatever food your picky eater is having. They’ll never know you increased their meal’s nutrient value! Broccoli can be frozen or dehydrated and used in soup, stew, or as a side dish. Vegetables and fruits are relatively easy to store and widely versatile. The more you can save and incorporate into your family’s diet now, the easier it will be to get them to eat healthy when all you have is your prepper pantry.

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BOOK 11

Stockpiling and Preserving



How to Store Dry Food

Generally speaking, basic ingredients have a longer shelf-life than processed foods. Grains, fats, fruits, and sweeteners like honey will last far longer than a pre-made package of fruit-filled pastries. You'll also be able to use those ingredients more than once, making the investment into basic ingredients a much better value than the pre-made pastries.

Depending on how much room you have for storage, you have a few options when it comes to storing your dry goods. This includes rolled oats, flour, mixes like Bisquick, salt, sugar, dried herbs, tea, coffee, cereal, corn starch, cocoa, and so on. For cleanliness and organization, it's always better to store things in tightly sealed jars. Because we live out in the woods, we're always mindful of the rodents that want to move in with us. These days, we store our dry goods in large, labeled glass jars. We buy our flour in 25 or 50-pound bags, and it gets dumped into large totes that have rodent-proof lids. It works for us.

Even if you don't have a spare room to convert into a prepper's pantry, store your dry goods in tight sealing jars. While jars with bale-style wire lids and rubber gaskets are not recommended for canning, they'll still keep out insects and rodents, so don't overlook them (if undamaged) at garage and estate sales. Always look for ways to prolong the life of your food.

FIFO is an anachronism that means *First In, First Out*. Remember earlier, when we talked about organizing your preps so that when you replace an item, the newest one goes to the back? The first item in that row facing you should be the first one used because it will be the oldest in that row. Or should be. First in, first out. This is much easier to do when you're facing a row of jars containing herbs, rather than a jumble of bags.

It's also easier to keep your dried food stores cleaner if they're in jars (plastic or glass). You'll want to schedule time to clean your prepper's pantry. This allows you to assess the condition of your food, discover if you have a pest problem, and stay on top of expiry dates. A few months ago, we went into our prepper's pantry to check on expiry dates and clean up a little,

only to find that almost all of our six-month supply of pasta had been eaten by rodents we somehow did not know we had. Because we had taken in a formerly feral cat, who we knew from observation was a terrific mouser (and we had traps set up that hadn't caught anything in months), we weren't as vigilant as we should have been about storing our pasta. Spaghetti, rotini, fettuccini, lasagna noodles...all of it had been chewed on or entirely consumed by rodents. Anything that was left had to be thrown out. The entire shelving unit had to be emptied and disinfected. Only after we took away their food source did the mice finally start hitting the traps, and we realized just how big the colony was. And how big mice can get on a steady diet of uncooked pasta! It was a painful and expensive lesson. So the takeaway here is to never assume your dried food will be fine in the packages you bring them home in. Store them in glass or plastic rodent-proof, moisture-proof and insect-proof containers.

Among your other dried goods, I also recommend storing skim milk powder. While many people will balk at it as a glass of milk, you can substitute this for the more expensive store-bought stuff in casseroles, cream soups, and baking.

A friend of mine raised her five boys on skim milk powder because that's what she could afford. From the time they were very young, their milk came from a powder base. That's what was familiar to them. The trick she said, was to mix the powder with hot water and mix thoroughly. Then let it cool. That's the only milk her sons knew. To them, that was 'normal' milk. When we make bread, instead of using a cup of milk from the carton, we turn to our skim milk powder and make up just enough for the baking we're doing that day. You might not think that sort of substitution can save much money, but it really does add up. We make three to six loaves a week. That can translate to up to six cups of milk used, depending on the recipe and method used to make bread. So always look for ways you can use staple goods instead of their more expensive counterparts.

The best way to build up your dried goods stockpile is to buy in bulk. At least as much as possible. If you have a bulk food store in your community, take advantage of it. If not, buy in the largest quantities that the store and your budget will allow. Not only is it more cost-effective, but it's far easier

to build a long-term supply. If you know how to use the basics you have stored, you'll have far more options when you have to rely on your prepper's pantry to feed your family. We'll talk about recipes soon.

Another option is to store dry goods in buckets. Food stored in buckets will last approximately five years and up to twenty years if you include oxygen absorbers. You'll want a 2000cc oxygen-absorber in every five-gallon bucket. You can store almost anything in food-grade buckets, and if you line those buckets with foil pouches, you have even more options. The buckets will afford you another layer of insulation against oxygen, insects, and rodents. Flour, wheat, rice, oats, and sugar can all be stored this way. A one-gallon foil pouch can hold seven pounds of grain. Mylar bags further keep out light and oxygen as well as insects, provide a sealed environment for the contents inside, and are usually available at prepping supply houses. The more layers of protection you can provide, the longer your dry goods will last. Beans, peas, dry pasta, sugar, salt, dried apples, and more can last up to thirty years if kept in properly sealed mylar bags. Keep in mind, though, that grains and foods with more moisture and fat will expire sooner. If you can divide your stores into multiple bags, say, yearly allotments, you won't risk losing the shelf life of all your supplies. So planning ahead really is your best bet.

No matter how you store your dry goods, the key thing to remember is that the drier, the better. Dehydrated foods should have less than 10% moisture to last a long time. Dried foods last longest when stored in a cool, dark, and oxygen-free environment. The closer you can get to that goal, the longer your dried food will last.

How to Preserve Perishable Foods

You might have noticed that I frequently specified dried goods when talking about foil pouches. That's because moisture-rich food is best preserved differently. When it comes to perishables, variety in your preservation techniques will help prevent recipe exhaustion. No one wants to eat the same thing over and over, and in times of crisis, you don't want to give anyone in your family any reason to balk at eating. So plan ahead when preserving your perishables and make it easier on yourself.

Perishables like fruit and vegetables can be frozen, canned, dehydrated, or stored in plastic with tools like a food-saver. Some foods lend themselves more readily to one type of preservation than others. Cheese can be waxed for storage but is better frozen *after* grating, and milk can be easily frozen but takes up a lot of room this way. Potatoes, carrots, beets, and other root vegetables can be stored for up to a year in damp sand, but this isn't the best preservation method for some people. Sometimes, it is prudent to plan how you'll feed your family according to your tastes and food preferences and let those decisions dictate how to store your food.

For example, let's say you find a good sale on carrots at your local store. 20-pound bags of carrots are amazingly cheap, and you don't want to pass on the sale. If your family enjoys homemade soups and stews, you can make a large batch of carrot soup, or you could cut some of those carrots up into a useable size and freeze them like that. You can also cut them into matchstick sizes and freeze those, or slice thin and dehydrate them. Or you could make pickled carrots, which are amazingly good. Or you could puree a large batch and freeze or process jars of puree in a pressure canner. But let's take a closer look at each of the preservation methods for your perishable foods.



Dehydration

Dehydrating food, one of the oldest food preservation methods known to man, is the act of removing the moisture from a food item to inhibit the growth of mold, yeast, and bacteria. Fungi and yeast both need a moist environment to thrive, so by removing the moisture, you're ensuring your food is safe from the very microscopic elements that would spoil your food. As I said before, less than 10% moisture is the ideal goal. Another one of the benefits of dehydration is minimal nutrient loss, only 3–5%. We need to recognize that some foods lend themselves to dehydration more easily than others. Onions, mushrooms, kale, zucchini slices, fruit, and potatoes will all dehydrate well. You can also make fruit or vegetable leather. Remember those fruit roll-ups when you (or your kids) were young? That's fruit leather. You can also dry herbs and spices for long-term storage and even dry noodles.

Frequently, grocery stores will mark down fruit or vegetables that are less-than-perfect. As long as there's no mold, you can use those too. You can either dehydrate them or puree the vegetables in question and then dry the puree, resulting in "vegetable leather." Soft, slightly past-prime fruit can be cut up and dried just the same as perfect fruit. As long as the food has not grown mold, it's all usable. When you're preparing your food for the dehydrator, remember that evenly sliced and evenly spaced pieces will dry more thoroughly and more consistently. Cooked potatoes will reconstitute

more easily and taste better if dehydrated *after* cooking. Do not dry spicy foods with non-spicy foods. The dominant flavor will overwhelm, and then everything in your dehydrator will taste spicy. Also, foods belonging to the Brassica family should only be dried with members of the same family to avoid flavor cross-over. Fruits, however, are all safe to dry with other fruits—it's just the vegetables you need to be careful with.

Dehydrated food not only locks in nutrients but shrinks in size, allowing you to store a greater amount. Thus, two pounds of dried apples takes up far less room, making dehydration an ideal food preservation method for those preppers who don't have a lot of room. If properly stored, dried fruit and vegetables could last for up to two years. If you double up on your preservation methods, it could last even longer. For example, dried venison that has been frozen or sealed in plastic would last even longer. A word about dried meat and fish, though. Ideally, you'll want to consume the dried meat within four months. If it doesn't look likely, wrap tightly and freeze or refrigerate.

If you can afford a dehydrator, dried food is a healthier alternative to frozen or canned food. The drying process locks in nutrients, and there are some studies that show dried foods are actually higher in antioxidants than their non-dried counterparts. Apricots, for example. There are no preservatives to concern yourself with when it comes to dried food, so if you're worried about the long-term effects of preservatives on your loved ones, dehydrating is the safest way to go. And even if you're new to food preservation and building up your prepper pantry, drying fruit, vegetables and meat is probably the easiest food preservation method there is.

There are a few tools we can utilize to help us dehydrate food items. We can use our ovens, commercially available dehydrators, or even solar dehydrating units.

Let's talk about commercially available dehydrators first.

A word of warning. Commercial dehydrators can be expensive. But the newer models also come with safety features and should operate quietly. The best ones will come with racks and at least one sheet for fruit leather. Even better, a good dehydrator should be easy to clean. If it's a pain to clean, you won't want to use it, and then you've wasted your hard-earned money. So

think about ease of clean-up afterward. Also, consider a timer and whether or not you can assess your food without opening the door. Will the unit automatically shut off when the prime temperature is reached? I suggest doing your research when shopping for a dehydrator. Pay attention to reviews and customer-logged pros and cons. Ask around; you might be surprised to find who owns one already. Perhaps you could borrow one. There are a few “prepper oriented” message boards on the internet that could be very helpful in your search for the right dehydrator for you.

But what if you don't have \$100-\$1000,00 to spend on a dehydrator? No worries, you still have a couple of choices. You can utilize something most of us have—our ovens.

Some ovens have fans to push around the hot air inside. These are called convection ovens. The built-in fans can be handy, but even for dehydrating, they aren't absolutely necessary. You can dry a wide variety of fruit and vegetables in your oven with just a little more work involved than with a commercial dehydrator. Apples, mangos, pears, bananas, plums, cherries, zucchini, pineapples, green beans, and kale will all dry wonderfully in your oven, along with far more fruits and veggies. Tomatoes are best dried by the sun, but we'll get to that in a minute.

The first thing you want to do is wash your fruit and either pat dry or let air dry. With some fruit, you might want to soak it briefly in a diluted mixture of cold water and lemon juice to keep it from browning and help retain its color. Then trim away any stems or pieces of leaves and cut your fruit or vegetables into thin pieces. Thinner slices will dry faster, but try and make your slices a consistent size for even and consistent drying. While you're doing this, pre-heat your oven to 200 degrees. Any higher, you'll end up cooking the meat instead of drying it. While your oven heats up, arrange your fruit or veggie slices in a single layer on wire racks so that dried food won't fall through, ensuring they aren't touching. I use a couple of racks marketed for grilling fish. Again, consistency is important for thorough drying. Your food will take between four and eight hours to dry thoroughly. It should look shriveled, much smaller in size, and have a chewy consistency when nibbled. The point is to remove as much moisture as possible, up to an ideal 10%, but unless you have a food moisture analyzer (which is insanely

expensive), you'll have to use your own judgment. But a good rule of thumb is four to eight hours at 200 °F .

Once your dried fruit or vegetables have cooled, they can be stored in zippered plastic bags or mason jars. They'll be good for about a year this way. You can store far more dried apple slices in a large jar than you could whole apples, so this is a good preservation method for preppers who don't have a lot of storage room but want to take advantage of sudden sales or garden windfalls. Do you have a neighbor that leaves boxes of zucchini on your doorstep at the end of summer? Make dried zucchini chips and slices in your oven!

But what if you see an amazing sale on apples and it's just too hot outside to run your oven for eight hours? Or you've felt the pinch of climbing electricity fees? One solution is to use the power of the sun. Solar power is free and sometimes brings a flavor to a food that you just can't replicate with your oven. Sun-dried tomatoes, for example. If this method sounds interesting, there are lots of resources you can find to learn more about it in your local library and on the internet. YouTube is a virtual treasure-trove of information on sun-drying fruits and vegetables!

So now that we've discussed a few different ways to dry your fruits and vegetables, what do you do with them? Well, obviously, you can store them for about a year and add them to your prepper pantry. But then what? Stuffing is a perfect use for dried fruits such as apples, cranberries, or even pears. Not only will you give the stuffing a boost of flavor, but the dish will be healthier for the inclusion of the fruit. Dried vegetables can be used in soup and stews, or they can be rehydrated and used as a side dish topped with butter or margarine. Generally speaking, you'll want to soak your veggies or fruits in about 2 cups of water for an hour. Keep an eye on this, as your dried food might take up more water depending on humidity levels where you live. But if you'll be including dried vegetables in a soup or stew, you usually don't have to soak them beforehand. Just toss them into the soup pot and let them rehydrate with the liquid already in there. You can also toss in chunks of dehydrated squash while your pasta water boils just before you toss in the dried pasta. Spaghetti sauce can be made awesome by the inclusion of sun-dried tomatoes too. Dried vegetables can be used in casseroles as well.

You can rehydrate a handful of dried fruit to include with your breakfast cereal or bowl of oatmeal. This also makes a terrific after-dinner snack. You can also add fruit to a bowl of ice cream, a batch of muffin dough, or even make what my family calls “trail mix cookies.” Essentially, cookies made with whatever dried fruit catches our attention that week. This might be dried cherries, cranberries, blueberries, apricots (my personal favorite), or bananas. The possibilities are endless and can help alleviate “pantry food exhaustion.” Muffins, homemade bread, and even popcorn can be made healthier by including dried, ground zucchini or kale. Smoothies, too, can be made healthier by the inclusion of dried and ground spinach, kale, or bananas.

There are folks who love receiving handmade gifts, and a jar of dried fruit with an attractive ribbon and handwritten label can say more than a mere gift card. Let’s say you know a man who is hard to shop for but really enjoys granola. Make him a granola mix from your dried cherries, apples, bananas, rolled oats, hulled sunflower seeds, nuts, and chocolate chips. Top the jar with a piece of dark cloth, perhaps even a camo print if that’s his thing, and tie it down with a piece of twine. Gifted jars of homemade food don’t have to be frilly and, with a little creativity, can be personalized a great deal. If he’s an outdoorsman, a box lined with a bandana in his favorite color and four or six small jars of handmade granola mix might be the perfect thing for his birthday.



Canning

Canning as we know it was invented by Nicholas Appert in 1809 in response to a plea from the French government, who was trying to find a way to ship food to their navy and prevent scurvy. Appert's method is exactly what we use in home canning. Fill a jar with food, seal tightly and then heat the jar and food to a particular temperature. Maintaining the temperature for a specific period of time kills any microbes inside the jar and creates a vacuum, creating a better seal.

Canning, which is a catch-all term for preserving food in a jar, allows us to not only preserve food for the future but also enables us to take more control over the quality of the food we feed our families. It's a form of insurance, really. We're taking steps to ensure we have tasty, healthy food in the future. If you've never canned before, you'll be glad to know there isn't a big learning curve. You don't need to have a degree in chemistry to understand how canning works, but you do have to recognize that cutting corners can be dangerous. The safety of your preserved food and the future health of you and your family depends on clean, sanitized equipment and hermetically sealed jars. Clean jars, lids, and rings are one part of the system that prevents spoilage. When those jars are filled with food, wiping the rims of the jars with a clean cloth ensures a clean seal. This is why it is so important to use clean lids unmarred by rust. In fact, many experts will tell you that you should use new lids every time you preserve your food to ensure a proper seal.

Heating causes the food and gases inside the jars to expand, which creates a build-up of pressure inside the jar. The gases trapped in the headspace between the food and the lid are forced out. This build-up of pressure and escaping gases happens repeatedly over the processing time and creates a vacuum as the jar and its contents cool. The vacuum pulls the lid down, which makes that distinctive 'pop' sound, and the softened sealing compound inside the lid conforms to the rim of the jar. If the lid is not pulled down, there is no vacuum seal. This is why filling the jars to within $\frac{1}{4}$ " to $\frac{1}{2}$ " of the rim is important to facilitate proper venting of the gases inside the jars.

It cannot be stressed enough that heat processing is not optional. It is a vital step and necessary to destroy food spoilage microorganisms that can cause illness and even death in humans. Botulism is not to be taken lightly!

Botulism poisoning is caused by a single-cell bacteria called *Clostridium Botulinum*. This bacteria thrives in a low-acid, moist, and oxygen-free environment. Exactly the environment found inside a home-canning jar. The bacteria itself can be killed by boiling water at a temperature of 212 °F , but this does not kill the toxin-producing spores. In low-acid environments, they can only be eradicated by heating the food to 240 °F , which can only be done in a pressure canner. The botulism toxin can be deadly. It attacks your central nervous system and could cause difficulty swallowing and speaking. It can also cause muscle weakness that may result in difficulty breathing, vomiting, paralysis, and, as mentioned before, death. This toxin is nothing to fool around with! The elderly and young are particularly susceptible to botulism, but it can kill anyone of any age, and their general state of health doesn't factor into the equation. So merely assuming that a hot water bath will do for everything is a risky and incorrect assumption.

Low-acid foods include vegetables like okra, carrots, turnips, beets, green beans, lima beans and spinach, meats, seafood, poultry, soups, meat sauces, and any mixture containing tomatoes. So, in addition to the food listed above, vegetable soup, homemade tomato soups, and pasta sauces all need to be processed in a pressure canner. Not a pressure *cooker* , but a pressure *canner* . There is a difference!

High-acid foods can be safely processed in a hot water bath canner. Fruit such as peaches, plums, apples, pears, jams, fruit spreads, and jellies are considered high-acid foods, as are fermented foods such as sauerkraut and pickles.

As an interesting side-note, lobster cannot be safely canned in a hot water bath canner. While there may be old family recipes circulating out there, most especially on the east coast, lobster is a low-acid food and should be processed in a pressure canner to completely destroy any spores of *Clostridium Botulinum* .

If you're ever in doubt about the acidity of specific food and the best way to process it, I would suggest consulting the Bernardin website, the Ball Mason Jars website, or the Ball Blue Book, now in its 37th edition (look for an edition dated 2016 or newer). Alternatively, you can also reach out to your local department of health.

We already know that canning jars were invented by Nicholas Appert. His jar used wax to seal the food inside. It wasn't a perfect solution, but it was the only one until John Mason invented a jar with a threaded neck in 1858. His jar utilized a threaded zinc cap that was screwed down over a glass liner and sealed over a rubber ring on the shoulder of the jar. Over the years, a number of manufacturers sprung up, and at one point, there were eight producers of the jars that came to be known as "mason jars." Today, there may only be two left.

While you don't need to purchase new jars every time you want to can food, it is *highly* recommended that you use new lids. As we discussed before, a compromised sealing compound will result in an inadequate seal. So be sure and use new lids (also called 'flats') every time. Because the rings don't affect the seal at all, many people do not store their jars with the rings on. Some folks take advantage of the now-common white threaded plastic lids, remove the metal rings, and put the white plastic tops on right over the metal lids (I've never been comfortable storing my jars without rings, and I have used the white lids right over top the metal lids). You can frequently purchase these from hardware stores or any general supply store that sells canning supplies. Many chain stores sell these as well.

A word about jars. The best are labeled as "Mason," and all of the standard canning jars sold in the United States are made by one company, Newell Brands, which acquired Jarden Corporation, which also owns Crock-Pot®, Mr. Coffee®, and First Alert®, among other brand names you'd likely recognize. They're then marketed under the names Ball® and Kerr® and Bernardin® in Canada. There are "regular mouth" jars and "wide mouth" jars. Both styles come in quart, pint, half-pint sizes. All are translucent and have threaded necks. Sometimes, you can find jars made with red, green, amber, or blue glass. They can be difficult to find, so if these appeal to you, get them while you can. Bernardin also markets a "Heritage Jar" line in one-gallon and half-gallon sizes.

Often, you can find older mason jars at yard sales. As long as there are no nicks or cracks, you can still use these. The older jars with rubber rings, wire bales, and glass lids can be used for loose tea, dry goods, or crafty projects, but not for hot water baths or pressure canning. If you do come across undamaged, threaded-neck mason jars, you can use these, but you'll want to use new flat lids and rings.

I'm always amazed at the foods people preserve. For some reason, I hadn't expected carrots could be pickled, but they're delicious. And who knew radish relish was a thing? It is a treat for the tongue if you're already a fan of radishes. Pickled peaches are a special surprise as well, as are watermelon rind pickles. Rhubarb strawberry pie filling is easy to make and preserve and brings a burst of summer flavor to a pie in the middle of winter. Did you know you could make and preserve fruit ketchup? My point here is that once you start canning, with both a hot water bath and pressure canning, a wonderful new world of food opens up to you. Embrace it!

There are canning-specific accessories that will make your canning sessions easier, safer and faster. These include a magnetic wand to retrieve lids and rings from hot water without burning yourself as well as canning funnels. Another important tool is canning jar lifters. These resemble tongs, with the jar-grasping end of the tool coated in rubber to help grip the jars tightly. Regular metal tongs are not recommended for canning since they can slip, scratch the jars, and do not hold the jar tight enough to keep it from dropping. These are well worth the investment. Canning funnels are another accessory no home canner should be without. These can be found in metal or plastic varieties, and both are equally good. Nonmetallic spatulas are useful for removing air bubbles and are usually made from rubber, silicone, or wood. A wooden chopstick can be used as well. You should never use forks or butter knives for this, however, since they can scratch or even accidentally crack the glass jar. Don't overlook the value of a good home canning book, either. We have a few at our house, but the most often used is the *Bernardin Complete Book of Home Preserving*. I wholeheartedly recommend getting a few from the library and trying them out until you find a favorite. Look for books written or updated after 2016 to ensure tested recipes for safety.

A boiling water-bath canner is simply a very large pot with high sides and a rack to keep the jars off the bottom of the pot (if you don't have a rack, you

can tie rings together in a honeycomb pattern and set those in the bottom of the canner, but I recommend investing in a proper rack). You'll want to use jars that are at least three inches shorter than the height of the canner because you'll need to ensure your jars are fully submerged at the time of processing.

1. First, inspect your jars for cracks or nicks at the mouth of the jars. If you find any, discard these. If you try and use these in either a hot water bath or pressure canning, you run the risk of having a broken jar. So ensure the jars you'll use are blemish and crack-free. Then inspect the lids and rings. If the rings are rusted, get rid of them. If the sealant compound looks compromised or uneven, discard it, even if it's brand new. For the safety of you and your family (or even a gift recipient), you want a hermetically sealed jar of food. You can't be certain of a good seal if the compound on the lid is compromised.

2. Place a rack in the bottom of your water bath canner, then place the jars on the rack. 8-ounce jars or smaller should be submerged. Pint jars or larger should have water added until they are three-quarters full. Cover the canner and bring the water inside to a simmer. You don't need to boil the water. Keep the jars hot until you need them. In a small pot, cover the lids with water and bring to a simmer, which is approximately 180 °F . Do not boil. Keep the lids hot until you're ready to use them, and use the wand to remove them from the hot water to avoid burning yourself. While I was always taught to put the rings in with the lids, they really don't need to be heated or sterilized. They don't touch the food. Their only purpose is to hold the lid down during the sealing process. In fact, many people don't leave the rings once the jars and lids have sealed properly.

3. If your canning recipe is going to take longer than thirty minutes to prepare and cook, you can wait until your recipe is nearly done before heating the lids.

4. Work with one jar at a time using your jar lifters. Grasp the jar below the threaded neck, lift slowly, and carefully pour the water back into the canner. Put the jar on a work surface protected by a cutting board or dish towel, and if needed, insert the canning funnel. Ladle the food into the funnel. Fill the jar until you have ¼" to ½" of space remaining between the food and the top of the jar. This space is called 'headspace,' and it's important to leave this space for proper venting of gases and a complete seal.

5. Slide your nonmetallic spatula (or chopstick) down between the food and the side of the jar a couple of times to disperse any air bubbles. This step is important and should not be skipped because a failure to remove these air bubbles can cause seal failure. If you find that you have more headspace after removing the air bubbles, just add a little more of your food.
6. Now take a clean damp cloth and wipe the jar rim and threads. You don't want anything left behind that could compromise the seal.
7. Using the magnetic wand to remove a lid from the hot water, center a lid over the mouth of the jar. Place a screw band on the jar and tighten. Do not over-tighten since this can prevent jars from venting properly.
8. Return this jar to the hot water canner and repeat these steps with all the other jars.
9. When all the jars are filled and returned to the canner, fill the canner with more water if needed so that all the jars are covered with at least an inch of water. Turn the heat up to high, cover the canner with a lid and allow the water to reach a full boil. Once it's boiling hard and consistently, start timing for processing according to your recipe.
10. At the end of the processing time, turn the heat off, remove the lid and allow the canner to stand for five minutes to cool slightly. Then remove the jars using your jar lifter without tilting the jar. Any water on top of the lid will evaporate, so don't try to remove it by pouring it off. It's important not to disturb the contents of the jar and possibly risk the seal. Place each jar on a towel or cutting board in a draft-free location and allow them to cool undisturbed for at least twelve hours, but twenty-four is better. If all has gone well, you should soon hear popping noises as the lids and jars complete the seal that will protect your food.
11. After the jars have cooled naturally for at least twelve hours, test the lids to be sure they've sealed. The lids should be concave and not have any movement when pressed on. If there is movement, it means the jar didn't seal. If this happens, refrigerate and use as soon as possible.
12. Wipe down your jars to remove any debris or mess on the outside left over by the canning process, and label with the food name and date. It's best to use your canned food within a year. Food stored for longer than one year may still be good if processed correctly, but the quality may be reduced.



Strawberry Jam

An age-old favorite, strawberry jam can be delightful if made with the freshest strawberries available. But the adaptability of this jam is part of its appeal to so many. You can make it with freshly picked berries or frozen strawberries from the store, mix in other favorite fruit or keep it just to the letter of the recipe. If you decide to use frozen berries, thaw them in the refrigerator until they're soft enough to crush. A few ice crystals are fine. You can add sugar to taste. I make this recipe all the time and do not add as much sugar as is called for. I usually stop at four or five cups, and the end product is wonderful. Powdered pectin and liquid pectin should not be used together. I've done this just to see what the outcome would be, and I can tell you the end result is less than desirable. So whichever type you decide to use (in recipes that call for more than one package), stick to one type or the other, do not mix. For diabetic recipes, there is "no sugar needed" pectin.

Fruit preserves and spreads made with this kind of pectin don't need substantial amounts of sugar to gel.

When measuring dry ingredients, level off the measuring cup with the top edge of a knife for measurement accuracy.

Foam will develop on the surface of the cooking jam as the fruit releases air. This is normal. You can either skim this foam off and discard it or add up to ½ tsp of margarine or butter to the recipe before cooking. This will reduce the buildup of foam.

Makes approximately eight 8 oz jars

Ingredients :

- 7 cups of sugar
- 8 cups (approximately) of washed, hulled strawberries
- 4 tbsp lemon juice
- 1 pkg regular, powdered pectin

Directions:

1. Place eight clean 8-ounce jars on the rack in the bottom of your canner. Fill the jars and the canner until the water covers the tops of the jars. Place the lid on top of the canner and bring the water to a simmer over medium heat. Do not let the water boil.
2. Set screw rings aside and place eight flat lids in a small pot. Cover them with water. Over medium heat, let the water reach a simmering point, but do not boil. Leave the lids in this water until you are ready to use so that they stay hot. Do not heat the screw bands.
3. Measure sugar into a large bowl and set aside. If this is your first time using this recipe, I suggest sticking to the recipe first, then adjusting to taste later on. The sugar will be added to the boiling fruit mixture later, but all at once, so you want to have it all measured out ahead of time to avoid errors.
4. Unless you've already washed and hulled the berries, rinse them in a colander and hull them with a small sharp knife or the end of a potato peeler.
5. In a pie plate or flat-bottomed dish, crush the berries with a potato masher, one cup at a time. Then transfer to a 1 cup liquid measuring

vessel (this is so you know how many cups of fruit you'll end up with). Then transfer to a deep saucepan. Repeat until you have approximately 5-8 cups of crushed fruit in the pot.

6. To the fruit in the pot, add your 4 tbsp of lemon juice and pectin. Whisk them together with the crushed fruit until the pectin is fully dissolved. Turn the heat up to a 'high' setting and bring the mixture to a full rolling boil, stirring often. Add the sugar all at once and stirring constantly, bring back to a full rolling boil that cannot be stirred down. Boil hard, still stirring constantly, for one full minute. Then remove the pot from heat and skim off any foam that formed during boiling using a slotted metal spoon (see the tip above concerning foam).
7. Fill one jar at a time so that they all stay hot until you're ready to use them. Using the jar lifters, remove a jar from the canner and carefully pour the water from inside it back into the canner. Don't dry the jar. Place the jar on a cutting board or dish towel you've laid out on the counter, and place the canning funnel in the neck of the jar. Carefully, ladle hot jam into the jar, leaving a ¼" of headspace between the top of the jam and the top of the jar. Slide a small rubber spatula down inside the jar between the jam and the glass wall of the jar a couple of times to release any trapped air. You might need to adjust the headspace at the top of the jar. If you do, simply add a little more jam until the level is once again ¼" below the rim of the jar. With a clean and damp cloth, wipe the rim and threads to remove any jam residue. Using a metallic wand, lift a hot lid from the saucepan and center the lid on the jar. Place the screw band on the jar and tighten until it is "finger tight." Do not over-tighten. Carefully return the filled jar to the canner and repeat with the rest of the jars until they are all filled and capped and back inside the canner.
8. When all the jars are filled and returned to the canner, ensure they're all covered by at least 1" of water, but 2" is better to allow for evaporation. Cover the canner and bring the water to a full rolling boil by returning the heat to 'high.' Start your timer when the water reaches a proper boil, then process for ten minutes. At the end of the processing time, turn your heat off and remove the canner lid. Wait five minutes, then remove the jars from the canner without tilting. Don't worry about the water on top of the lids—it will evaporate as the jars cool. Place the jars on a towel in

a draft-free location and allow them to cool naturally for at least 12 hours.

9. After 12 hours, check that the lids are sealed correctly. If they did, you would have heard a series of popping noises. This is good. Press down on the lids with a finger. Sealed lids will be concave. If you're not sure, press down on a lid. If there's no movement, congratulations! It sealed! Jars that did not seal must be refrigerated and used as soon as possible (I recommend a feast of homemade bread and jam).

At this point, you can wipe down your jars and write out your labels. You want to note the recipe and the date so you know when it was made. You should aim to have used all your jam within two years.

Strawberry Jam, January 15th, 2024 (or whatever the date is).

Well done!

Basic Salsa

While normally, you would have to process anything with tomatoes in a pressure canner, **the addition of cider vinegar to this recipe makes it safe to process in a hot water canner** . While you may be tempted to adjust the quantities of vegetables and vinegar, **do not adjust the amounts. They must be used in the recommended amounts to ensure the proper acidity for high-acid food processing.** You may adjust the flavor and heat level by substituting jalapenos or another hot pepper for the bell peppers. Dried spices or hot sauce may be added to the cooked mixture without affecting the desired acidity.

For the best-tasting salsa, use plum tomatoes, not those intended for sandwiches. If you must use globe tomatoes—maybe your neighbor dropped off a whole bucket—the tomatoes will need to be seeded, diced, and drained in a colander for at least thirty minutes to remove as much of the liquid as possible. Measure the quantity of chopped tomatoes *after* draining. Homemade salsa is usually more runny than commercial salsa because the tomatoes are usually insufficiently drained. The drained juice should be saved for inclusion in stews, soups, or even homemade salad dressings.

While your salsa can be used immediately, the flavor mellows and blends during storage. Optimum flavor peaks after three to four weeks.

Makes eight to nine 8 oz jars of salsa

Ingredients :

- 1 ½ cups of chopped onions
- 1 tbsp chopped garlic
- 1 cup cider vinegar (**not white**)
- 10 cups skinned, seeded, and cored, coarsely chopped plum tomatoes
- 2 cups seeded and chopped red or green bell peppers (or hotter peppers if you prefer)
- 1 cup chopped and loosely packed cilantro
 - 1 tsp dried oregano
- 1 tbsp white granulated sugar
- 1 tbsp hot sauce
- 1 ½ tsp ground cumin
- 1 ½ tsp salt

Directions:

1. Place nine clean 8-ounce jars on the rack in the bottom of your canner. Fill the jars and the canner until the water covers the tops of the jars. Place the lid on the canner and bring the water to a simmer over medium heat. Do not let the water boil.
2. Set screw rings aside and place nine flat lids in a small pot. Cover them with water. Over medium heat, let the water reach a simmering point, but do not boil. Leave the lids in this water until you are ready to use so that they stay hot. Do not heat the screw bands.
3. In a large pot, combine onions, garlic, and cider vinegar. Over high heat, bring this mixture to a boil, stirring occasionally. Reduce the heat and boil gently for two minutes. Stir in the peppers and tomatoes, return to a boil, and heat for three minutes. Add salt, cumin, oregano, cilantro, sugar, and hot pepper sauce. Return to a full boil, stirring constantly. Then reduce the heat to a gentle boil, stirring occasionally until your peppers are tender, about three to five minutes. Remove the pot from heat to prevent overcooking.

4. Fill one jar at a time so that they all stay hot until you're ready to use them. Using the jar lifters, remove a jar from the canner and carefully pour the water from inside it back into the canner. Don't dry the jar. Place the jar on a cutting board or dish towel you've laid out on the counter, and place the canning funnel in the neck of the jar. Ladle hot salsa into a hot jar, leaving ½" of headspace. Slide a small rubber spatula down inside the jar between the salsa and the glass wall of the jar a couple of times to release any trapped air. You might need to adjust the headspace at the top of the jar. If you do, simply add a little more salsa until the level is once again at ½" below the rim of the jar. With a clean and damp cloth, wipe the rim and threads to remove any food residue. Using a metallic wand, lift a hot lid from the saucepan and center the lid on the jar. Place the screw band over the lid and tighten until it is "finger tight." Do not over-tighten. Carefully return the filled jar to the canner and repeat with the rest of the jars until they are all back inside the canner. Ensure all jars are covered by at least one inch of water.
5. Cover the canner, return heat to high, and bring the water to a full rolling boil. Start your timer only once the water reaches a full boil, then continue to boil rapidly for no less than fifteen minutes. After fifteen minutes, turn the heat off and remove the lid. Wait five minutes before removing your jars. Do not tilt jars when removing to drain water from lids. It will evaporate as jars cool. Place jars upright on a towel-covered surface in a draft-free place and allow them to cool naturally for at least twelve hours.
6. After 12 hours, check that the lids are sealed correctly. If they did, you would have heard a series of popping noises. This is good. Press down on the lids with a finger. Sealed lids will be concave. If you're not sure, press down on a lid. Jars that did not seal must be refrigerated and used as soon as possible.
7. Now wipe down your jars and write out your labels. Note the recipe and the date. You should use all your salsa within two years.

Freezing

Freezing is pretty simple, right? You wrap your food, toss it in the freezer, and forget about it. Except, you shouldn't. Forget about it that is. We all

know how food tastes that's gotten "freezer burned," but how long do things in our freezer last before they get freezer burned? While wrapping material and technique do play a part, there is a general rule of thumb for most items.

First, let's all agree that a freezer should be set to and run at 0 °F or -18 °C . Any higher and the food you're trying to keep for later won't freeze properly and won't store as long.

So, what sort of "best before" timeline can we expect from our frozen food?

1-2 Months:

Pizza, deli meat, unbaked bread and rolls, waffles, ice cream, egg-based casseroles, bacon, hot dogs, cooked ham, and smoked fish.

2-4 Months:

Baked bread and rolls, cooked rice and pasta, raw hamburger, cooked meat, meat broths, meat-based soups, organ meats, citrus fruit, raw seafood, nuts, cookie dough, chicken, and cooked casseroles.

4-6 Months:

Baked goods like fruit pies, cookies, banana bread, and muffins. Cooked meat like roasts, lamb or chicken, steaks, fish or turkey, milk, juice (both homemade and concentrate), butter, soft and hard cheeses, non-citrus fruit, cooked seafood such as lobster, clams, squid, mussels, scallops, and cooked fish.

The more thoroughly you can protect your food, the longer it will last without ill effects. Some folks wrap their meat in plastic wrap, then butcher paper, tie it up with string, and label it before freezing it. Fruit and vegetables can be stored in plastic freezer-proof containers safely, with the added advantage that those containers can be stacked for better space management. Speaking of space management, I'd like to offer a further bit of cautionary advice when it comes to your freezer. Over-packing your freezer should be avoided. Generally speaking, there is a "fill-line" in both commercial and residential freezers, usually about three to four inches from the top. This space is meant to provide air circulation. Without room for air movement, the freezer's compressor can overheat and stop working, resulting in all of your food thawing out. This can be financially painful

enough, but even more so if you don't notice right away that your freezer has stopped working. So the takeaway here is to ensure you've not over-filled your freezer and check the contents at least once a day to make sure everything is still frozen.

All that being said, there are some foods you can't freeze and consume afterward. Salads, for example. Freezing foods that have a high moisture content, such as lettuce or watermelon, results in mushy food after thawing. This is because the cells inside the food item are mostly water. When water freezes, it expands. This explodes the cell walls. When the food thaws, you get mush. Besides salad greens, there are other foods you should avoid freezing—hard-boiled eggs, eggplant, custards, sour cream, buttermilk, and salad dressings.

Pickling and Fermenting

Ever heard someone say, “So and so's pickles are always better than mine, but we use the exact same recipe. I don't know what the difference is.”? If all else is equal, it might be the water. Soft water is almost essential for the best pickles. Hard water can inhibit the quality of pickles and might even darken or cloud the liquid. But if you have hard water, what can you do? Bring your water to a hard boil for 15 minutes (time after the water reaches a boil). Remove the pot from the heat and let stand for 24 hours. If there is any scum on top, carefully ladle it off and gently decant the liquid into another container, trying not to disturb the sediment at the bottom of the pot. Now you have soft water.

Most of the ingredients used in pickling recipes are low-acid foods, but most recipes add enough acid to raise the acidity level to a pH of 4.6 or lower. The acid level helps preserve the food. That being said, you do still need to heat the jars and lids. You should use non-reactive tools such as stainless steel, chip-free enamelware, or food-grade plastic, but not wooden spoons—they'll take on the flavor of the brine. As with every recipe, the higher the quality of your ingredients, the better your results will be. Also, be sure to measure accurately for even more success. Don't reduce the amount of vinegar for any reason, or the acidity levels of your foods will change, which makes it less safe.

Salt, too, is an important part of the preservation process. Salt mixed with water draws juices and sugar out of foods and forms lactic acid, which is a preservative. Thankfully, salt also adds crispness and flavor to pickles. For pickling, you must use canning or pickling salt, not iodized or table salt. They will create a cloudy, dark, unappetizing brine and change the color of the pickles. You don't want that. Use the correct amount of pickling salt and water for proper fermentation.

The best kinds of cucumbers to use for pickling are wax-free, fresh, free of blemishes or soft spots, and on the 'younger' side. Older cucumbers can be bitter. Larger, though still fresh, cucumbers are better used in sliced pickle recipes. For "baby dill" style pickles, you want to use cucumbers that are six inches or less. No matter which cucumbers you use, wash them well with a soft brush under cold running water. Any residual soil accidentally left on the cucumber could harbor bacteria. You don't want that. Before using the cucumber, remove 1/16 of an inch from each end. The blossom end contains enzymes that can cause soft pickles.



Traditional Bread and Butter Pickles

Makes approximately 5-pint jars

Ingredients:

- 10 cups sliced, trimmed pickling cucumbers ($\frac{1}{4}$ inch thick slices)
- 4 med onions, thinly sliced
- $\frac{1}{2}$ cup pickling salt
- 3 cups white vinegar
- 2 cups granulated sugar
- 2 tbsp mustard seeds
- 1 tsp celery seeds
- 1 tsp ground turmeric

Directions:

1. In a glass or stainless steel bowl, combine onions, cucumbers, and pickling salt. Mix well and cover with cold water, then allow to stand at

room temperature for two hours. Transfer to a colander placed over a sink and rinse well with cool running water. Drain thoroughly.

2. While your cucumbers and onions are draining, prepare the canner, jars, and lids.
3. In a large stainless steel pot, combine vinegar, sugar, mustard seeds, and turmeric. Bring to a boil over medium-high heat, stirring carefully to dissolve all the sugar. Stir in vegetables and return to a boil.
4. Pack the vegetables into hot jars, leaving $\frac{1}{2}$ inch of headspace. Remove air bubbles with a small plastic spatula and adjust the headspace if necessary. Wipe the rim of the jar and center the lid over the rim. Fingertighten ring over lid.
5. Place jars in a water bath canner, ensuring they are completely covered in water, then place lid on the canner (remember, these can be processed in a water bath canner because the presence of vinegar and salt raises the pH level in the food). Bring the water to a boil, then process for ten minutes. Remove the canner lid. Wait five minutes, then remove jars and allow them to cool naturally. Once cool, wipe the jars and add labels with the process date and recipe name.

Sandwich Pickles

I love a sandwich brimming with good deli meat, lettuce and a couple of sandwich pickles. Here's how to make some.

Makes approximately 3-pint jars

Ingredients :

- 2 lbs pickling cucumbers, trimmed and sliced lengthwise, $\frac{1}{4}$ inch thick
- $\frac{1}{2}$ cups pickling salt
- 12 cups water, divided (see instructions)
- 5 cups white vinegar divided (see instructions)
- 1 cup lightly packed brown sugar
- 1 cup granulated sugar
- $\frac{1}{2}$ tsp celery seeds
- $\frac{1}{2}$ tsp mustard seeds
- $\frac{1}{2}$ tsp ground turmeric

Directions:

1. Place cucumber slices in a large stainless steel bowl.
2. In another stainless steel bowl, combine pickling salt and 8 cups of water, stirring until the salt dissolves. Ladle this mixture over the cucumber slices and let stand in a cool place (70 °F - 75 °F) for three hours. After three hours, drain cucumbers and discard liquid. Rinse the cucumber slices under cool, running water and allow them to drain thoroughly.
3. In a large stainless steel pot, combine 3 cups of the vinegar and 3 cups of the water. Bring this to a boil over medium-high heat. Add your drained cucumber slices and return to a boil. Reduce the heat and boil gently for eight minutes. Drain well, discard liquid, and set cucumber slice aside.
4. Prepare canner, jars, and lids.
5. In a large, clean stainless steel pot, combine the remaining 2 cups of vinegar, remaining 1 cup of water, brown sugar, granulated sugar, celery seeds, mustard seeds, and turmeric. Bring this all to a boil over medium-high heat, stirring well to dissolve sugar. Reduce the heat and boil gently for 10 minutes. Add the drained cucumber slices, increase heat to medium-high and return to a boil. Once the mixture has boiled, remove it from the heat.
6. Pack hot cucumber slices into hot jars, leaving a ½ inch between cucumber slices and the top of the jar. Add hot pickling liquid, leaving ½ inch of headspace. Remove air bubbles and adjust headspace if necessary by adding a little more hot pickling liquid. Wipe rim of jar, the center lid over the mouth of jar, and screw band down over lid until just finger-tight.
7. Place jars inside the canner, ensuring they are completely covered with water. Cover canner with lid. Bring to a boil, and once boiled, process for 10 minutes. Remove canner lid, wait five minutes, then remove jars to allow to cool naturally. Wipe jars down once cool, label with process date and recipe name, then store.

Your Pantry Checklist

There are equipment, tools, and systems that will help you build a prepper's pantry, and we're going to talk about some of them.

5-Gallon Buckets with Gamma Lids : Until I got a bucket with a gamma lid, I had no idea how useful they were. These days, for food storage, I don't trust anything else (except glass) to keep out moisture, insects, or rodents. A gamma lid is a food-grade, heavy-duty, high-density plastic two-piece, threaded, screw-on lid with a rubber, water-proof gasket. The basic premise is that you gently tap the bottom ring onto any 5-gallon bucket using a rubber mallet and then screw the threaded lid onto the ring. These are available in 3.5–7-gallon sizes. If you want to stack them, don't go more than two high for safety reasons, and use a wide, strong piece of wood such as plywood between them for weight distribution.

Mylar Bags : Sealable bags made from a polyester resin that forms an oxygen-proof barrier against moisture, light, rodents, and insects. They're intended for dry food and sealable with heat. These foil pouch-like bags can help preserve food for up to twenty years and are a valuable part of a prepper's pantry, especially when used in conjunction with other food-storage items like 5-gallon buckets. You will need a way to seal these. A cheap flat iron (found in hair care aisles) or a household flat iron for ironing your clothes will do the job, as will a proper bag sealer. Bag sealers can be expensive, however.

Oxygen Absorbers : Small, sealed pouches consisting of special material containing iron powder. The iron powder absorbs oxygen from the container the pouch has been placed in. The exterior material the pouch is made of is food-safe and only allows oxygen in and nothing out. Keep them packaged until you're ready to use them. If you find you have a few left over, put them in a plastic, zippered bag and push as much air as possible out of the bag. The best idea, though, is to fill and seal as many mylar bags with oxygen absorbers as you can in one session. A word of caution, don't use these in foods like sugar (white or brown), salt, or powdered drink mixes. They'll turn incredibly hard, and you'll have a brick instead of food.

Generally speaking, each 5-gallon bucket should have 1000–1500 cc of oxygen absorbers. Keep this in mind if all you can buy is 300 cc absorbers.

Desiccant Packages : You know those little packages that come in new luggage, purses, wallets, and over-the-counter medications? Those are desiccant packages. Those are **not oxygen absorbers** , but they do moderate the amount of moisture. They can be used with oxygen absorbers, but they need to be as far apart in the container as possible since the desiccant can neutralize the absorber. Only use these in bags that are two gallons or larger.

Vacuum Sealer : This machine removes the air from a specialized, food-grade, plastic ‘bag’ around your food and then uses a heated seal bar to fuse the sides of the plastic together. It must be special plastic made for this purpose, or it won’t work. You can find these machines wherever canning supplies or food storage systems are sold (tip: you can, with a large enough sealer machine and bags, also use this system to further protect the meat from freezer burn, keep matches dry and air-tight for your bug-out bag or even the clothes you want to keep in your bug-out bag! The vacuum sealer *really* compresses them!).

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Some Final Advice

Teaching ourselves the skills we'll need in the future can be an enjoyable pastime. I wholeheartedly recommend hitting the library for books on the old-time skills that kept our grandparents and great-grandparents alive. Learn how housewives made their food stretch during the Great Depression. The internet and the library are both treasure troves of Great Depression cooking. If you don't already know how to cook from scratch, learn how. If you don't already know how to grow vegetables, fruit, and herbs, learn how, even if all you have is a balcony. It is possible, I promise.

If fishing and hunting interest you, learn the finer points of those, too but do it legally. Make sure you take whatever safety courses you have to so that you can be properly licensed to fish and hunt, no matter where you go. Laws and limits can be different in different locations. If you're going to fish or hunt to stock up your pantry, do it the right way, and do it ethically. Use all that you can, and don't waste that animal's life.

Always strive to learn more, but don't give in to the doom that you might find splashed across the prepping online community. Fear sells, and the voices to listen to are not the ones screaming every day that the world is going to end. There are a number of reasonable voices out there that will teach you far more than you might expect. Listen to the calmer heads that teach you what you need to know. Because fear and panic will work against you in times of crisis, and your family is counting on you to be well-informed and level-headed.

The really good teachers in the prepping community have been around for a long time, and some of them will have written books in addition to their online platforms. Don't assume that both online and printed information is a carbon copy of the same information. Quite often, you'll learn different things from utilizing both formats. I've been prepping for a long time and always learn something new. So who should you be paying attention to?

Scott Hunt : Another educational mainstay in the prepping community, Scott has been prepping and homesteading for years. Online, he's known as

Engineer775, the owner of Practical Preppers. Scott has a Master of Science Degree in Mechanical Engineering and is probably the smartest guy on the internet when it comes to off-grid water systems, solar systems, and generators. Because of him, I understand how a water pump can run on sunshine. He does have a book out, but the best format to find him is his YouTube channel or his website. He makes things easy to understand and doesn't talk down to his listeners.

City Prepping : Kris holds a degree in microbiology and spent his youth learning survival skills as a Boy Scout. What sets him apart from everyone else in the prepping community is his calm "it's never too late to start" attitude, which I totally appreciate. His channel is known for an educated look at what's coming, what the world is doing, and how to prepare for that without panicking. He has a suburban lot on which he and his wife grow some of their food and raise chickens, so he really understands the challenges of prepping. He also owns and maintains the City Prepping website that teaches the followers of their blog how to prepare for infrastructure collapse, power generation, gear reviews, food preservation, how to prepare for an economic upheaval, cooking, and more. Between their website and Kris's videos on his City Prepping channel on YouTube, I always learn something.

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Conclusion

I hope our journey into building a prepper's pantry has been both useful and educational for you.

Now that you know different ways to correctly preserve your food so that you can feed your family safely, I'd like to stress that when it comes to your food and your family's health, safety cannot be over-done. While you might be able to take shortcuts in other areas of your prepping without serious consequences, food preservation is not the place to get lazy. If you're going to put food up, make sure you can start and finish the job all in one day. The longer your food and equipment sit out, the more opportunities you provide for botulism to make your family gravely ill. So as the Boy Scouts used to say, "safety first."

I firmly believe that if you approach prepping from a rational, educated, and thoughtful angle, it is possible to survive in times of emergency. So start learning all you can now, put those lessons into use, and keep a clear head. Start with what you have, and don't compare yourself or your prepping journey to anyone else. You do you.

I wish you a smooth prepping journey and clear skies in the days ahead.

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BOOK 12

Water Bath Canning for Preppers

Introduction

Ever since man has been on earth, he has had an instinct to survive, having to find and preserve food in the most diverse environments and ways. Luck, chance, inventiveness and availability of territories have brought to our knowledge various methods of food preservation, some of which also have the power to improve the taste. The basic purpose of food preservation is to preserve its edibility and nutritional value over time.

The principles by which this is done are different: absence of water or air, cold temperatures or treatments that block bacterial growth. Some preservation methods, such as salting and drying, manage to make food last for years, others for days, but this depends on ingredients and needs.

Here are listed some of the main preservation methods:

- Refrigerating
- Freezing
- Drying
- Smoking
- Salting
- In Oil or Vinegar

Even if I will explain all of them in general terms, this book will focus on the Water Bath Canning method, the easiest and most affordable way to create a pantry for any need and any scenario.

Refrigerating

Refrigeration is a food preservation method of storing food at a low temperature of 40°F or little less, which keeps the water inside the products in a liquid state. Refrigeration slow the growth of microorganisms that could cause food poisoning and toxins but only for a limited amount of time. Storing food in the refrigerator should be done with a specific logic

and sequence. Heat always goes to the top, taking this into account, you should arrange foods in the refrigerator in the following order:

- Fruits and vegetables in the appropriate drawer, which is suitable for preserving food from too cold temperatures
- Meat and fish in the lowest shelf of the refrigerator
- Cheese, dairy products, eggs (with the whole box) and open foods in the middle shelves
- Packaged products and cooked foods in the top shelf

Freezing

Freezing slows the movement of molecules and keeps food safe by putting microorganisms in a dormant period. Freezing keeps food eatable for a long time to prevent the growth of microorganisms that cause both food poisoning and food spoilage. Today storage takes place in convenient or deep freezers where temperature must be kept constantly under 0°F; always remind that any interruption of the cold chain could lead to potential danger for health. Even if frozen foods will never expire, go bad, or pose any health issues, it is good to know that with the passing of time some aliments could lose their taste or texture and not being pleasant to eat anymore.

Tips for freezing foods

1. Freeze foods separately: arrange them individually on a baking sheet lined with parchment paper.
2. Then they are ready to be bagged in bags and will not stick.
3. Label with relevant freezing dates so you know what to consume sooner and what later.

Drying Or Dehydrating

We are talking about a method of preserving as old as mankind. Drying consists of progressively depriving foods of the water they contain; this

allows most of the organoleptic properties to remain intact and take off any chance for the bacterias to grow and spoil the food. The treatment can be done in different ways depending on which tools and resources you have at hand.

The principle is to remove water from food, and this can be done conveniently at home through a conventional oven, to preserve fruits and vegetables of all kinds. There are professional dryers that you can buy and use any time you need it or, in case you are in a non-domestic environment, the sun and its power can be your best ally for dehidrating.

Have fun drying, colorful, nutritious and very tasty fruit! This is perfect for making a wholesome and healthy snack, and in difficult moments having this kind of comfort food available in your pantry, can really make the difference in your state of mind. Plus, they are good for you, your wallet and the environment.

Smoking

Smoking is a very old way of preserving food. This technique involves exposing a food product to smoke caused by burning wood, in which the amount of resin must be very low. Smoking foods allows them to be preserved as much as those treated by salting, the only difference being that they will have the characteristic and good smoky flavor. Preservation occurs because of two factors: first is the loss of liquid, and then the smoke acts as a kind of disinfectant and stops bacterial growth.

There are two types of smoking, hot and cold and they require different times.

In cold smoking, the process takes about 24 to 48 hours (depending on the food), and the temperature must be kept between 60 and 80°F. In case of fish generally it's better to cure it before smoking it, to avoid the meat getting too dry and tough.

In hot smoking, the temperature must be between 140 and 170°F. Using this method food is smoked and cooked simultaneously. Hot smoking is a

perfect solution for cooking if you are out in the wild and you are able to fish or hunt.

The two smoking treatments differ in purpose. Cold smoking is primarily used to preserve the product while hot smoking is chosen to add the smoky flavor to the food.

Salting

Like smoking, salting is a conservative technique which modify the taste of preserved food; salt enhances the flavor and generally improve the taste perception. The principle of preservation in salt is due to a process called osmosis, which consist in depriving foods of the water they contain and perform an Antimicrobial activity. It is a treatment to be done carefully and with the right tools/products as any food improperly treated can create the right growing environment for *Clostridium botulinum* bacteria.

Salting is a preservation technique that can be applied especially to meat, fish, and vegetables. Each ingredient must be treated with its own procedure, but in general, two types of ways of preserving in salt can be distinguished: dry salting and brine.

Dry salting

Dry salting is a very ancient way of preserving food that involves sprinkling the surface of foods with salt, which has a dehydrating and at the same time antimicrobial action. The osmotic action of salt facilitates the escape of liquids, and the food lasts over time. Cheeses, capers, anchovies, and cured meats in general are treated this way, by taking into consideration the different needs in duration and procedure for each ingredient.

Brine, liquid curing

Brine preservation occurs mainly for vegetables, first and foremost capers, olives and gherkins. In this case, no direct salt is added to the food, but rather a solution of water and salt is prepared. The concentration of salt in

this solution can vary; one can obtain a weak solution - with a low salt content (salt concentration is less than 20 percent) or a strong solution, with a high salt concentration (20 to 25 percent). In stores we often find various types of fish conserved this way and we can do the same at home by pressure canning the fresh product.

Pickling In Oil Or Vinegar

Making preserves is a timeless, seasonless activity because each period has its own products. Eggplants, tomatoes, peppers are the most usual vegetables in oil and are a symbol of summer. Artichokes, mushrooms, chilies or asparagus: there is no vegetable that cannot be preserved in oil! As we all know, water and air are the worst enemies of our long-lasting food: oil and vinegar are great preserving agents because they isolate food from contact with the air. Food preserved this way, can last years if properly canned and stored and it makes a great solution for any emergency pantry.

The Water Bath Canning Method

A simple and low-cost but very effective way to preserve your favourite food is by canning it in a water bath canner. You do not need to buy a professional canner at all costs; for this method you can use any big deep pot you have at home, fill it with hot water and boil the jars full of your favourite recipes for 10/15 minutes. I bet everyone has seen their grandparents or parents using this technique at least once in their lifetime.

Water Bath Canning is adapt only for foods high in acidity, such as fruits and tomatoes. You can high the pH level of your vegetables by pickling them in vinegar or adding some lemon juice, based on the quantities that your recipe provides. This method is anyway unsuitable for meat and fish.

In home canning, there are certain things to prepare before proceeding, and there are methods to choose on how to can. Let's start with the home canning equipment and utensils. Some of the below will be optional, you can really keep the costs at minimum with this technique.

Home Canning Equipment

- Water Bath Canner: a large pot with a lid and rack.
- Canning Jars: also called mason jars especially manufactured for canning purposes. They come in different sizes
- Canning Jar Lid and Rims: canning jars and rims are re-usable but lids should always be brand new.
- Canning Funnels: used for easier transfer of food to the jars
- Jar lifter: comes in the rounded end and rubber-coated that holds jars safely and transfers hot jars without falling.
- Wooden spoon: for mixing.
- A clock or timer.
- Mixing bowls: used in combining food ingredients and used as containers while cutting and peeling.
- Sharp knives.
- Chopsticks or stir stick: used to get rid of remaining air bubbles.

- Strainers: used to separate liquid forms from solid parts of ingredients.
- Food processor: used especially in making jams or jellies.
- Ladle and spoons.
- Tongs: used in taking off hot pot covers or lids.
- Clean towels.

Water Bath Canning Steps

1. If your recipe stats that processing time is less than 5 minutes, you should sterilize the jars and lids. Sterilizing jars is very simple: you can immerse new jars and lids in a pot filled with water and boil them for 30 minutes
2. Studies have shown that sterilization is a waste of time and energy if the processing time is 10 minutes or more. If this is the case, you just need to wash the jars to get rid of any dust or factory residues.
3. In any case, don't boil the lids!
4. After sterilizing the jars-they should be completely dry-you can fill them with the food you want to preserve. Do not fill the jars to the brim, but leave about $\frac{1}{4}$ inch between the food and the cap. Close each jar finger-tight with its own cap.
5. Now, take a pot large enough to hold the jars and place the jars on the rack. It is important the jars do not touch each other to prevent them from breaking during boiling.
6. Increase the heat and bring the water in the pot to a boil. Start the timer when the water starts to boil. Recipes vary, but typically involve cooking filled jars for about 10 minutes.
7. Turn off and let the jars rest in the pot for 5-10 minutes. Then place them on a kitchen towel or rack to avoid touching. When cool, you should hear the leads "pop" which means the jar is properly sealed. Allow the jars to cool for 12-24 hours.
8. Label the jars with the date and ingredients (if necessary) and store them in your pantry!

Chutneys Recipes

1. *Curried Apple Chutney*

Preparation time: 20 minutes

Cooking Time: 20 minutes

Servings: 10-pint jars

Ingredients:

- 2 qt. apples, chopped, peeled, and cored
- 2 lbs. raisins
- 4 c. brown sugar
- 2 tsp. curry powder
- 1 c. onion, chopped
- 1 c. sweet pepper, chopped
- 3 tbsp. mustard seed
- 2 tsp. salt
- 2 tbsp. ground ginger
- 2 tsp. allspice
- 1 clove of garlic, minced
- 2 hot red peppers, chopped
- 4 c. vinegar

Directions:

9. In a large saucepan, mix all the ingredients. Set to a boil and simmer for one hour.
10. Spoon the chutney into sterilized jars, leaving a ½-inch headspace. Wipe the jars' edge rim clean and add the lid. Set jars in a water bath for 10 minutes.

Nutrition: Calories: 23 Fat: 0 g Carbs: 11 g Protein: 0 g

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2. *Plum Tomato Chutney*

Preparation time: 15 minutes

Cooking time: 15 minutes

Servings: 4 pints

Ingredients:

- 4 tomatoes, chopped
- 6 plums, seeded and chopped
- 2 green chilies, chopped
- 4 tbsps. fresh ginger, grated
- 1 tbsps. lemon zest
- Juice of 1 lemon
- 2 bay leaves
- Pinch of salt
- 1/2 cup + 2 tbsp brown sugar
- 2 tsps. vinegar
- Pinch black pepper
- 4 tsps. vegetable oil

Directions:

1. Heat the oil in a deep saucepan. Add the bay leaves, ginger and green chilies, and stir.
2. Add the rest of ingredients. Stir in the sugar & pepper, cover, and cook for 3 minutes.
3. Spoon the chutney into sterilized jars, leaving a 1/2-inch headspace. Wipe the edge of the jar's rim clean and add the lid. For 10 minutes, process them in a hot water bath.

Nutrition: Calories: 70 Fat: 0 g Carbs: 31 g Protein: 1 g

3. *Rhubarb Chutney*

Preparation time: 15 minutes

Cooking Time: 15 minutes

Servings: 6-pint jars

Ingredients:

- 8 c. sliced rhubarb
- 6 c. sliced onion
- 2 c. raisins
- 7 c. light brown sugar
- 4 c. apple cider vinegar
- 2 tbsp. salt
- 2 tsp. cinnamon
- 2 tsp. ginger
- 1 tsp. ground cloves
- 1/8 tsp. cayenne pepper

Directions:

1. In a big saucepan, combine all the ingredients.
2. Bring the liquid to a boil, then cook it slowly until it slightly thickens.
3. Pour into clean jars, then clean the rims.
4. Tighten the lids and process for 10 minutes in a hot water bath.

Nutrition: Calories: 58 Fat: 1g Carbs: 12g Protein: 0g

4. *Mango Chutney*

Preparation time: 15 minutes

Cooking Time: 45 minutes

Servings: 4-pint jars

Ingredients:

- 6 c. sliced green mangos
- ½ lb. fresh ginger
- 3 ½ c. currants
- 8 c. sugar
- 2 c. vinegar
- 3 c. ground cayenne pepper
- 1 c. salt

Directions:

1. Half the ginger after peeling it. One half of the ginger should be thinly sliced, while the other half should be coarsely chopped.
2. Blend the ginger slices and the first half of the currants well. Place everything in a pan except from the mangoes.
3. Cook for fifteen minutes at medium heat.
4. Cut, half, pit, and slice the green mangos while preparing the six cups.
5. Attach the mangos after the first fifteen minutes of boiling, then parboil them for a further thirty minutes, or until they are soft.
6. Clean the rims of the shot glasses after pouring, then screw the lids and rings on.
7. Use the 10-minute boiling water bath method for both pints and quarts.

Nutrition: Calories: 37 Fat: 0g Carbs: 12g Protein: 0g

5. *Garlicky Lime Chutney*

Preparation time: 10 minutes

Cooking Time: 60 minutes

Servings: 3-pint jars

Ingredients:

- 12 limes, scrubbed and cut into ½-inch dice
- 12 garlic cloves thinly sliced lengthwise
- 1 (4-inch) piece of fresh ginger, peeled and thinly sliced
- 8 green chili peppers, stemmed, seeded, and thinly sliced
- 1 tbsp. chili powder
- 1 c. distilled white vinegar
- ¾ c. sugar

Directions:

1. Stir the limes, garlic, ginger, chilies, and chili powder together in a medium pot before simmering.
2. About 30 minutes later, add the vinegar and sugar, bring the mixture back to a boil, and cook, stirring regularly, until the limes are fork-tender and the mixture forms a mound when dropped from a spoon. Get rid of the heat.
3. Fill the prepared jars with the chutney, allowing a headspace of 1/4 inch. Any air bubbles may be released with a nonmetallic object. Clean the rims, then use the lids and rings to seal.
4. The jars should spend 20 minutes in a hot water bath. Turn on the heat and leave the jars in the water bath to cool.
5. Three days of resting the chutney is recommended for the finest taste.

Nutrition: Calories: 58 Fat: 1g Carbs: 12g Protein: 0g

Marmalades Recipes

6. *Carrot Marmalade*

Preparation time: 10 minutes

Cooking Time: 40 minutes

Servings: 4-pint jars

Ingredients:

- 2 cups of grated carrots
- 2 1/2 cups of sugar
- 2 cups of water
- 1 orange
- 1 lemon

Directions:

1. In a large pot, finely grate orange and lemon.
2. Then, over medium heat, add the additional ingredients and bring the mixture to a boil.
3. Parboil for 30 minutes, or until thickened, over low heat.
4. Remove the pan from heat after the marmalade has thickened.
5. Put the hot, clean jars with the marmalade in them. Make a headspace of half an inch. Get rid of air bubbles.
6. 5 minutes in a hot water bath after sealing jars with lids.
7. Jars should be taken out of the water bath and allowed to totally cool.
8. Verify the jars' seals. Store and label.

Nutrition: Calories: 43, Fat: 0 g, Carbs: 11.3 g, Protein: 0.1 g

7. *Blueberry Marmalade*

Preparation time: 10 minutes

Cooking Time: 45 minutes

Servings: 12-pint jars

Ingredients:

- 4 cups of blueberries, crushed
- 5 cups of sugar
- 1/8 teaspoon of baking soda
- 1 lemon, peel
- 1 orange, peel
- 6 ounces of liquid fruit pectin

Directions:

1. Place the chopped lemon and orange rind in the pan. Citrus pulp should be chopped and left aside.
2. Bring to a boil the baking soda and 3/4 cup of water in the pan. Simmer for 10 minutes at low heat. Frequently stir.
3. Add blueberries, sugar, and the juice of the orange and lemon. Bring back to boiling.
4. Heat source to low; parboil for five mins.
5. Take the pan from the fire and let it to cool for five to ten minutes.
6. After returning to a boil, add the pectin and stir continuously for a minute. Get rid of the heat.
7. Then, transfer the jam into the jars. Leave a headspace of 1/4 inch.
8. Using lids, secure jars. For 10 minutes, place in a water bath canner.
9. Once jars have totally cooled down, verify the seals, store and label.

Nutrition: Calories: 352, Fat: 0.2 g, Carbs: 92 g, Protein: 0.5 g

8. *Orange Marmalade*

Preparation time: 15 minutes

Cooking Time: 15 minutes

Servings: 2-pint jars

Ingredients:

- 1/2 cup of water
- 4 medium navel oranges, peeled and cut into small pieces
- 2 cups of sugar

Directions:

1. To a blender or food processor, add the orange pieces. Mix well.
2. Combine the orange mixture, water, and sugar in a large pot.
3. Cook the mixture for 12 to 15 minutes over medium heat, or until it reaches a temperature of 220 F, until it becomes thick and solid. Stir often to avoid burning.
4. Pour the heated liquid straight into the jars. Maintain a 1/4-inch headspace around the jar top.
5. Insert a non-metallic spatula and gently whisk the liquid to separate any small air bubbles.
6. With a moist cloth, clean the sealing edges. The bands/rings should be adjusted to seal the jars and stop any leaks, then the lids should be tightened.
7. For 10 minutes, place in a water bath canner.
8. After this, place the jars somewhere dark, dry, and cold. Let them totally cool down.

Nutrition: Calories: 40, Fat: 0 g, Carbs: 1 g, Protein: 1 g

9. *Pear Marmalade*

Preparation time: 10 minutes

Cooking Time: 10 minutes

Servings: 12-pint jars

Ingredients:

- 4 medium ripe pears, peeled and quartered
- 5 1/2 cups of sugar
- 1.75 ounces of pectin
- 1 tablespoon of orange zest, grated
- 2 tablespoons of lemon juice
- 1/2 cup of orange juice
- 8 ounces of crushed pineapple

Directions:

1. Pears should be added to the food processor and pureed.
2. Pear puree, pectin, orange zest, lemon juice, orange juice, and pineapple should all be added to the pot and heated to a boil. Continuously stir.
3. Boil for one minute while thoroughly stirring in the sugar.
4. Turn off the heat and let the pot to cool fully.
5. Pour the jam into the pre-heated jars and process 5 minutes in a water bath canner
6. Leave the jar to rest and, once cold and ready, store them.

Nutrition: Calories: 393, Fat: 0.1 g, Carbs: 40.1 g, Protein: 0.4 g

10. *Lemon Marmalade*

Preparation time: 40 minutes

Cooking Time: 10 minutes

Servings: 6 half-pints

Ingredients:

- 3 medium lemons
- 1 medium grapefruit
- 1 package of powdered fruit pectin
- 4 cups of sugar

Directions:

1. Lemon and grapefruit rind should be peeled and sliced into 1-inch-long pieces.
2. Citrus peel and 4 cups of water are combined in a Dutch oven. Heat to a boil then reduce heat, cover, and simmer for 5-7 minutes or until peel is tender. Take it off the fire and put it aside.
3. Remove the white pith from the grapefruit and lemons you set aside. Slice lemons and grapefruits into segments, removing the seeds and membranes.
4. Stir pulp into the saved peel mixture after chopping pulp and conserving juices.
5. Put pectin in. Stirring continuously, bring to a boil. After one minute add the sugar.
6. Skim the froth off after removing it from heat.
7. Fill the jars. Bands should be screwed on until fingertip tight once the jar tops are placed.
8. Place the jars in a canner filled with boiling water for 10 minutes. Cool the jars after removal.

Nutrition: Calories: 67, Fat: 0 g, Carbs: 17 g, Protein: 0 g

11. *Rhubarb and Raisins Marmalade*

Preparation time: 25 minutes

Cooking Time: 10 minutes

Servings: 4-pint jars

Ingredients:

- 2 medium oranges
- 1 medium lemon
- 6 cups of sugar
- 6 cups of diced fresh or frozen rhubarb
- 1-1/2 cups of fresh or frozen strawberries
- Pinch salt
- 1 cup of raisins

Directions:

1. Orange and lemon peels should be finely grated; juices should be squeezed and left aside. In a Dutch oven, combine the peels, juices, sugar, rhubarb, strawberries, and salt. Stirring continuously, cook the sugar until it melts, then toss in the raisins.
2. Bring to a full rolling boil, then lower the heat to a simmer, cover, and cook for 5 minutes, or until the sauce has thickened. In the saucepan, turn off the heat and skim out any froth that has developed.
3. Carefully ladle the heated mixture into the hot pint jars, leaving a ¼ inch headspace.
4. Rims should be cleaned, air bubbles should be eliminated, and lids should be properly set. It takes 10 minutes to process in a canner with boiling water.

Nutrition: Calories: 314, Fat: 0.2 g, Carbs: 81.1 g, Protein: 0.9 g

Jam Recipes – da qui punti elenco

12. *Peach and Mango Jam*

Preparation time: 20 minutes

Cooking Time: 15 minutes

Servings: 6 half-pint jars

Ingredients:

- 2 pounds peaches, peeled and chopped
- 2 cups mangoes, peeled and chopped
- 5 cups sugar
- ¼ cup lemon juice
- 3 ounces liquid fruit pectin (half a small pouch)

Directions:

1. Heat up the peaches and lemon juice in a big saucepan.
2. Use a potato masher to crush the peaches until they are pulpy. Mangoes and sugar are added.
3. Stir in pectin as soon as the mixture reaches a boil. While stirring continuously, bring to a boil.
4. Get rid of the heat. Pour into heated jars, spoon, and clean the rims.
5. Place containers in boiling water for 15 minutes after fastening lids and bands. Cool after removing.

Nutrition: Calories: 175 Fat: 0 g. Carbs: 15 g. Protein: 23 g.

13. Strawberry Jam

Preparation time: 30 minutes

Cooking Time: 20 minutes

Servings: 4 pints

Ingredients:

- 2 quarts whole strawberries
- 7 cups sugar
- ¼ cup lemon juice
- 3 fluid ounces of liquid pectin (1 pouch)

Directions:

1. Strawberry stems and crowns should be removed.
2. Strawberry cleaning should be swift yet thorough.
3. Strain the rinsed strawberries or, if you'd like, mash them.
4. 4 cups of strawberries, crushed, should be added to a big kettle.
5. Add the sugar and lemon juice now, and thoroughly whisk.
6. Bring the kettle to a rolling boil right now.
7. Keep stirring the kettle for a full minute after it begins to boil fiercely.
Remove the pot from the heat after the minute has passed.
8. Pectin has now been added; mix it in.
9. You must remove the foam using a metal spoon.
10. Fill your jars right away, allowing a headspace of ¼ inch.
11. Clean jar rims, and adjust lids.
12. Process for five minutes if you're above 1,000 feet or ten minutes if you're below.

Nutrition: Calories: 163 Carbs: 24.56 g Fat: 0.31 g Protein: 1.06 g

14. Blueberry Jam

Preparation time: 20 minutes

Cooking Time: 50 minutes

Servings: 6 half-pint jars

Ingredients:

- 2 pints blueberries
- 2 tablespoons lemon juice
- 3 ounces pectin
- 5 ¼ cups sugar

Directions:

1. All ingredients should be combined in a big saucepan and heated until the sugar dissolves, around 20 minutes.
2. Take off the heat, pour into jars, and then let the jars 30 minutes to rest in a water bath.
3. Allow to cool before storing.

Nutrition: Calories: 493 Carbs: 125.6 g Fat: 0.58 g Protein: 1.13 g

15. *Raspberry Peach Jam*

Preparation time: 35 minutes

Cooking Time: 20 minutes

Servings: 2 half-pint jars

Ingredients:

- 2 cups chopped peaches
- 2 teaspoons lemon juice
- 4 cups raspberries
- 7 cups sugar

Directions:

1. In a medium mixing basin, combine all the ingredients. Boil some water in a boiling-water canner while you wait.
2. Put into an oven after transferring to a pot.
3. Cook for 16 minutes while stirring periodically over low heat, or until the mixture bubbles.
4. Scoop out the froth after removing the dish from the oven.
5. Pour into 2 hot 250 ml jars slowly, leaving a quarter-inch space at the top. Scoop whatever bubbles you see.
6. Place the jar in the boiling-water canner for 12 minutes with the lid securely fastened.
7. Remove the jar from the boiling water once the 12-minute period has passed and let it cool.
8. Enjoy!

Nutrition: Calories: 66 Kcal Fat: 0 Carbs: 16 g Protein: 0

16. Apple Pie Jam

Preparation time: 20 minutes

Cooking Time: 30 minutes

Servings: 6 half-pint jars

Ingredients:

- 1 cup water
- 5 cups sugar
- ½ teaspoon butter
- 4 large Golden Delicious apples, peeled and sliced
- 3 ounces liquid fruit pectin
- 1 ½ teaspoon ground cinnamon
- 1 teaspoon ground nutmeg
- ¼ teaspoon ground mace

Directions:

1. Combine the apples with the water in a Dutch oven. The apples should be covered and cooked until soft over medium heat.
2. Butter and sugar are added, and the mixture is heated to a rolling boil while being constantly stirred.
3. Add the pectin and stir. Stirring constantly, let the mixture boil for one minute.
4. Skim the froth off after removing it from heat. Spices added; stir.
5. Fill the heated jars with the mixture, leaving a ¼-inch gap at the top.
6. To get rid of air bubbles, scrape the surface with a knife or spatula.
7. Process for 10 minutes in boiling water.
8. Cool the jars after removal.

Nutrition: Calories: 199 Fat: 2 g. Carbs: 14 g. Protein: 8 g.

17. *Blueberry Vanilla Jam*

Preparation time: 10 minutes

Cooking Time: 20 minutes

Servings: 2 half-pint jars

Ingredients:

- 4 ½ cups blueberries
- 1 teaspoon calcium water
- 1 cup granulated sugar
- 1 teaspoon Pomona's Pectin
- 3 tablespoons lemon juice
- ½ teaspoon vanilla bean paste

Directions:

1. In a dish, evenly combine sugar and pectin.
2. Leave a few whole berries out and mash the rest of berries until you have 2 cups.
3. Add calcium water and lemon juice after pouring them into a pot.
4. Pour in vanilla bean paste, bring to a boil, and stir continuously.
5. Mixture of pectin and sugar should be whipped until smooth.
6. Stir until it boils.
7. Remove from the heat and mix in the vanilla paste.
8. Place the jam in a jar, leave a 1/4-inch space, and secure the lids.
9. It is processed in a bath of hot water.
10. Remove from water after 8 minutes and let it cool for 24 hours.

Nutrition: Calories: 45 Kcal Protein: 0 g Carbs: 11 g Fat: 0 g

Jellies And Preserves Recipes

18. *Preserved Peach*

Preparation time: 10 minutes

Cooking Time: 30 minutes

Servings: 16 Portions

Ingredients:

- 12 medium peaches
- 2 oz. pectin
- 4 ½ cups sugar

Directions:

1. In a big pot, crush 1 cup of peaches. Over low heat, add the remaining peaches to the pot. 20 minutes of cooking after bringing to a boil
2. Over medium heat, stir in the sugar and bring it to a boil. Stir continuously for a minute after adding the pectin gradually.
3. Take off the pan from the heat.
4. Leave a 1-inch headspace while adding peaches to the clean jars. Eliminate air bubbles.
5. Process in a boiling water bath for 10 minutes after sealing jars with lids.
6. Take the jars out of the water bath and allow them to cool.

Nutrition: Calories: 257 Fat: 0.3 g Carbs: 67 g Protein: 1.1 g

19. *Grape Jelly*

Preparation time: 30 Minutes

Cooking Time: 30 Minutes

Servings: 32 Servings

Ingredients:

- 3½ pounds grapes
- ½ (6 fluid ounce) container liquid pectin
- 7 cups white sugar
- ½ cup water

Directions:

1. Grapes should be cleaned, then mashed in a large basin before being transferred to a pan with water.
2. After bringing to a boil and simmering for approximately 10 minutes, turn off the heat and squeeze the juice.
3. Overnight, let the juice cool.
4. Add sugar to the juice that has been strained into a saucepan.
5. After bringing it to a boil, turn off the heat.
6. Distribute among the sterilized jars, then process in a hot water bath for about 5 minutes.
7. Store in a cold place.

Nutrition: Calories: 101; Total Fat: 0.1 g; Carbs: 26.2 g; Protein: 0.2 g

20. *Strawberry Preserve*

Preparation time: 10 minutes

Cooking Time: 20 minutes

Servings: 10

Ingredients:

- 2 lbs. strawberries
- 2 tbsp. vinegar
- 5 cups of sugar
- Pinch of salt

Directions:

1. Fill the stockpot with all the ingredients, then heat to a boil.
2. Cook for 15 to 20 minutes, stirring regularly.
3. Take the saucepan off the heat.
4. Fill the clean jars with the strawberry preserves, leaving 1-inch headspace.
5. Get rid of air bubbles.
6. Process for 10 minutes in a hot water bath after sealing jars with lids.
7. Jars should be taken out of the water bath and allowed to fully cool.
8. Verify the jars' seals. Store and label.

Nutrition: Calories: 405 Fat: 0.3 g Carbs: 107 g Protein: 0.6 g

21. Jalapeno Blackberry Jelly

Preparation time: 30 Minutes

Cooking Time: 10 Minutes

Servings: 72 Servings

Ingredients:

- 1 red jalapeno pepper, minced
- 1 green jalapeno pepper, minced
- 4 cups blackberry juice
- 1 (1.75 ounce) package pectin
- ½ cup white sugar
- 3 ½ cups white sugar

Directions:

1. Half a cup of sugar and pectin crystals should be combined in a bowl.
2. Bring the pectin mixture to a slow boil in a saucepan while adding the blackberry juice and jalapenos. The remaining sugar should be mixed in for approximately a minute, or until it dissolves.
3. Remove from heat and whisk to get rid of bubbles and froth for around five minutes. Divide among sterilized jars, then boil in a pot of hot water for 10 minutes.
4. Store in a cold place.

Nutrition: Calories: 43; Fat: 0.1 g; Carbs: 11.1 g; Protein: 0 g

22. *Preserved Figs*

Preparation time: 10 minutes

Cooking Time: 45 minutes

Servings: 14 Servings

Ingredients:

- 6 cups figs, trimmed & roughly cut
- 1 packet liquid pectin
- 1 tsp butter
- 1 tsp lime zest
- ¼ cup lime juice
- ½ cup water
- 7 cups sugar

Directions:

1. The big pot should include all the ingredients except the liquid pectin. Let it settle for 30 minutes.
2. Set a saucepan on the heat and bring it to a boil after 30 minutes have passed. 10 minutes of boiling.
3. Add liquid pectin and stir. For one minute, stir continuously.
4. Turn off the heat and let the pot cool slightly.
5. Fill the clean jars with figs, leaving a 1-inch headspace. Get rid of air bubbles.
6. Process in a boiling water bath for 20 minutes after sealing jars with lids.
7. Jars should be taken out of the water bath and allowed to fully cool.
8. Verify the jars' seals. Store and label.

Nutrition: Calories: 591 Fat: 1.1 g Carbs: 154.6 g Protein: 2.8 g

23. *Blueberry Preserves*

Preparation time: 10 minutes

Cooking Time: 20 minutes

Servings: 6 Servings

Ingredients:

- 6 cups blueberries
- 2 lemon juice
- 3 tbsp. pectin
- 2 cups sugar

Directions:

1. Bring to a boil the blueberries, lemon juice, and water in the big saucepan. Frequently stir.
2. Add 1/2 cup of sugar and pectin to the blueberries. Mix well, then bring it back to a boil.
3. Cook until thickened, then stir in the remaining sugar.
4. Take the saucepan off the heat.
5. Fill the clean jars with the blueberries, leaving 1-inch headspace. Get rid of air bubbles.
6. Process in a boiling water bath for 15 minutes after sealing jars with lids.
7. Let cool down and store them.

Nutrition: Calories: 339 Fat: 0.5 g Carbs: 88.7 g Protein: 1.1 g

Salsas and Sauces Recipes

Honey Mustard

Preparation time: 5 minutes

Cooking Time: 15 minutes

Servings: 4-pint jars

Ingredients:

- $\frac{3}{4}$ c. mustard powder
- $\frac{1}{3}$ c. honey
- 1 c. cider vinegar
- 3 whole eggs, slightly beaten

Directions:

1. All ingredients should be combined in a pot of simmering water over medium heat.
2. After filling the jars, place them on a 10-minute boil.
3. In jars with tight lids, store contents.
4. Let cool down and store them.

Nutrition: Calories: 49, Fat: 0.2g, Carbs: 8.7g Protein: 3.6g

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24. *Mango Pineapple Salsa*

Preparation time: 10 minutes

Cooking Time: 30 minutes

Servings: 4 ½ pint jars

Ingredients:

- 2 mangoes, peeled and chopped
- 2 jalapenos, chopped
- 1 sweet pepper, chopped
- 1 onion, chopped
- 2 garlic cloves, minced
- 1 tsp ginger, grated
- ¼ c. vinegar
- ¼ c. lime juice
- ⅓ c. sugar
- 3 c. pineapple, chopped
- 1 ½ lbs. tomatoes, cored and chopped

Directions:

1. Bring to a boil the whole mixture in the big saucepan.
2. Turn down the heat, then simmer for 10 minutes, stirring often.
3. Turn off the stovetop. Spoon salsa into the tidy jars. Keep a 1/2-inch headspace.
4. For twenty minutes, process in a water bath canner.
5. Jars should be removed from the water bath and allowed to cool fully.

Nutrition: Calories: 280 Fat: 1 g, Carbs: 70 g, Protein: 4 g

25. *Peppers and Tomato Salsa*

Preparation time: 15 minutes

Cooking Time: 15 minutes

Servings: 48 Servings

Ingredients:

- 10 c. tomatoes; peeled, cored, and chopped
- 5 c. onions, chopped
- 5 c. green bell peppers, seeded and chopped
- 2 ½ c. jalapeño peppers, seeded and chopped
- 3 garlic cloves, chopped finely
- 2 tbsp. fresh cilantro, chopped finely
- 1¼ c. cider vinegar
- 1 tbsp. salt

Directions:

1. In a nonreactive saucepan, combine all the ingredients and heat to boiling while stirring constantly.
2. Now reduce the heat to low and cook, stirring constantly, for about 10 minutes.
3. Divide the salsa among six (1-pint) jars, leaving a 12-inch gap at the top.
4. To get rid of air bubbles, run a tiny knife along the interior of each jar.
5. With a clean, wet kitchen towel, remove any traces of food from the jar rims.
6. Put a lid on top of each jar and tighten the ring.
7. Place the jars in a canner filled with boiling water, then process for approximately fifteen minutes.
8. The jars should be taken out of the water canner and set on a wooden surface spaced a few inches apart to cool entirely.
9. Press the top of each jar's lid to make sure the seal is secure after cooling with your finger.

Nutrition: Calories: 19, Fat: 0.2 g, Carbs: 3.9 g, Protein: 0.7 g

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26. *Tomato Ketchup with Vinegar*

Preparation time: 25 minutes

Cooking Time: 45 minutes

Servings: 2-pint jars

Ingredients:

- 7 lbs. (3.2 kg) Roma or other paste tomatoes
- 1 large onion, chopped
- 1 c. apple cider vinegar
- ½ c. firmly packed brown sugar
- 2 tsp. Kosher salt
- ¼ tsp. cayenne pepper
- 1 tsp. mustard seed
- 1 tsp. whole cloves
- 1 tsp. whole allspice berries
- 1 cinnamon stick, broken

Directions:

1. Combine the tomatoes and onion in a big saucepan. The mixture should boil. Set the thermostat to low. Until very tender, parboil for 30 minutes.
2. Purée the mixture by running it through a food mill. Throw away the peels and seeds. Return the purée to the saucepan after washing it, then turn the burner on.
3. Get ready for a hot water bath. To keep the jars warm, place them indoors.
4. The purée should be mixed with apple cider vinegar, brown sugar, kosher salt, and cayenne pepper.
5. In a square of cheesecloth, mix the mustard seed, cloves, allspice, and cinnamon. Make a sachet by tying it shut with kitchen thread. Add to the saucepan. Simmer for approximately one and a half hours on low heat, or until reduced by half. Take out and throw away the sachet.

6. Fill the prepared jars with the hot ketchup, allowing a headspace of ½ inch. Clean the rims well before using the lids and rings to seal.
7. For five minutes, place the jars in a hot water bath. After turning off the heat, let the jars in the water bath for 10 minutes to rest.
8. Remove the jars from the hot water canner with care. Set aside for twelve hours to cool.
9. Make sure the lids are sealed properly. Remove the rings, clean the jars, add a date to the label, and place them in a pantry or cabinet.

Nutrition: Calories: 37, Protein: 1.9g, Carbs: 7.4g, Fat: 0.8g

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27. *Tangy Cranberry Sauce*

Preparation time: 10 minutes

Cooking Time: 15 minutes

Servings: 6-pint jars

Ingredients:

- 4 (12 oz. / 340 g / 8 c.) bags fresh cranberries
- 2 c. sugar
- 2 c. water
- 2 c. bottled orange juice
- 2 large oranges, peeled, pith removed, seeded, and chopped
- ½ tsp. ground allspice (optional)
- ½ tsp. ground cloves (optional)

Directions:

1. The cranberries, sugar, water, orange juice, oranges, allspice, and cloves should all be combined in a large pot. Stirring frequently, bring to a boil over medium-high heat. For fifteen minutes, simmer over a low heat. With your spoon, mash the orange chunks while you stir often. Get rid of the heat.
2. On a chopping board, place the heated jars. Fill the jars with the spicy sauce using a funnel, allowing ½ inch of headspace. Remove any air bubbles, and if more sauce is required to maintain the ½ inch headspace, add it.
3. Hand-tight the jars.
4. Bring the jars inside the water bather. Turn the heat to high and add two teaspoons of distilled white vinegar to the water. Both quarts and pints should be processed for fifteen minutes after bringing the canner to a boil. When finished, let the jars cool for five minutes before taking them from the canner.

Nutrition: Calories: 25 Fat: 0 g, Carbs: 6 g, Protein: 0 g

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28. *Spicy Chunky Salsa*

Preparation time: 5 minutes

Cooking Time: 15 minutes

Servings: 3-pint jars

Ingredients:

- 6 lbs. tomatoes
- 3 large green peppers, chopped
- 3 large onions, chopped
- 2 c. of white vinegar
- 1 large sweet red pepper, chopped
- 1 can (12 oz.) of tomato paste
- 4 jalapeno peppers, seeded and chopped
- 2 Serrano peppers, seeded and chopped
- ½ c. of sugar
- ½ c. of minced fresh cilantro
- ½ c. of bottled lemon juice
- 3 garlic cloves, minced
- 4 tsp. ground cumin
- 1 tbsp. salt
- 2 tsp. dried oregano
- 1 tsp. hot pepper sauce

Directions:

1. In a casserole, bring the water to a boil for two-thirds of the time. With a slotted spoon, add a few tomatoes at a time to boiling water and cook for 30 to 60 seconds.
2. Every tomato should be removed and immediately submerged in cold water. Dry it off by dripping off the water. Peel and roughly chop the tomatoes, then place them in a stockpot to produce nine cups of tomatoes. In a mixing bowl, combine the remaining ingredients.

3. Put enough water on top to cover and bring to a boil. 30 minutes of uncovered, low heat chilling is followed by a minor thickening. Full the jars with the mixture, leaving a headspace of ½ inches. Eliminate bubbles in the headspace and, if required, adjust it by adding a hot liquid.
4. Center the lids on the jars and tighten bands to the point of a finger.
5. Make sure the jars are thoroughly submerged in a canner of boiling water before placing them inside. Bring to a boil, then simmer for fifteen minutes.
6. Take them out, label and store.

Nutrition: Calories: 719 Protein: 1.2 g, Carbs: 104.5 g, Fat: 0.5g

BOOK 13

Pressure Canning for Preppers



Introduction

Pressurized canning is the only safe method of preserving low-acid foods such as meat, fish, and poultry. If we really want a proper prepper's pantry, we all need something more than pickles, jams and marmalades. Here is where a pressure canner comes to help.

Many people are afraid of using a pressure canner, thinking their tool can explode in the kitchen or the procedure is too complex. In reality, if you follow the instructions from the manufacturer and the following steps, you will discover a fantastic, easy and safe method to expand your pantry to hundreds of new recipes.

I recommend the following practices for proper and safe canning:

1. Add 2-3 inches of hot water to the pressure tank. Place the filled jars on the can rack and secure the lids according to the canner's instructions.
2. With the vent off, increase the heat to high and heat the canner until steam comes out of the vent.
3. Once the steam is slowly coming out of the vent, let the steam out for 10 minutes to expel the air from the mason jar.
4. Place a weight on the vent to allow the reservoir to rise to the correct pressure.
5. Start counting working hours when the dial indicator or weighted manometer reaches the recommended pressure (see manufacturer's specifications).
6. Regulate heat to maintain constant pressure. If the reading drops from the recommended pressure, increase the pressure again and start the timing process again.
7. Once the timed treatment is complete, turn off the heat and wait for the burn-in to return to zero on the dial indicator and 30-45 minutes on the weighted indicator (see manufacturer's instructions).
8. Remove the jar with the jar lifter and set it on a towel or cooling rack.

9. Leave the jar on the counter for a day. After cooling, make sure all lids are adequately closed.

Pressurized steam creates the necessary temperatures above 240 °F to destroy the bacterial spores naturally present in these foods. As the jar cools, a vacuum seals the food inside the pot, preventing new microbes from entering and spoiling the food.

As an additional safety measure, you can refer to the USDA Guidelines about “Preparing and Canning Poultry, Red Meats, and Seafood”.

Let’s now look at the tools we need (they are quite the same as for water bath canning):

- Pressure canner
- Glass preserve jars (clean and dry), lids and bands (always start with new lids)
- Common kitchen utensils, such as a wooden spoon, ladle, and paring knife
- Quality of ingredients (fresh vegetables, meat, poultry, or fish)
- Jar lifter
- Home canning funnel
- Bubble freer and headspace tool

TIP: Check jars, lids, and bands for proper functioning. Jars with nicks, cracks, rough edges, or sharp edges may prevent sealing or cause the jar to break. The underside of lids should not have scratches or irregular or incomplete sealing compounds as this may prevent sealing. Wash in hot soapy water and dry thoroughly.

With a pressure canner, our jars and lids do not need to go through the sterilization process, so you can save a reasonable amount of time and move straight to your favorite recipes.

VERY IMPORTANT TIP : Always double check the vent hole of your canner is clean and completely free of obstructions! Do it every time you use your canner.

Seafood Recipes

29. *Pressure Canned Fish*

Preparation time: 15 minutes

Cooking time: 1 hour & 40 minutes

Servings: 10 pints

INGREDIENTS:

- 20 blueback herrings
- Onions
- 2 tbsps. pickling salt
- 9 tbsps. white vinegar

Directions:

1. Combine salt and vinegar in a small pot.
2. Clean the fish, cut tail and head, then chunk into pieces, size it to make them fit into the jars you are using.
3. Put the clean fish chunks in the jars and add the vinegar mixture in the top layer of the sterilized jars, allowing a headspace of 1/4 inch.
4. Place the jars in the pressure canner and process them for 100 minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge.
5. Hold off on removing the jars until the pressure canner has depressurized to zero. The jars should be placed on a cooling rack for 24 hours before being stored in a cold, dry area.

Nutrition: Calories: 142 Fat: 4g Carbs: 0g Protein: 27g

30. Fish Chowder

Preparation time: 15 minutes

Cooking time: 1 hour & 40 minutes

Servings: 8 pints

INGREDIENTS:

- ¾ cup chopped onion
- 3 tbsps. butter
- ½ cup chopped celery
- 2 cups diced potatoes
- 1 tsp. garlic powder
- 2 cups chicken broth
- 2 diced carrots
- 1 tsp black pepper
- 1 tsp salt
- 32 oz. canned fish
- 1 tsp. dried dill weed
- 15 oz. canned creamed corn
- 3 cups milk
- ½ lb. shredded cheddar cheese

Directions:

1. Heat butter in a saucepan, then add the celery, onion, and garlic powder for 5 minutes. Add the potatoes, carrots, dill and broth.
2. Bring to a boil and then low the heat. For 20 minutes, simmer with a cover on. Add milk, cheese, corn, and fish by stirring. Cook until the fish is cooked. Adjust with salt and pepper.
3. Pour the fish chowder into the jars, leaving ½ inch headspace.
4. Place the jars in the pressure canner and process them for 100 minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge.
5. Hold off on removing the jars until the pressure canner has depressurized to zero. The jars should be placed on a cooling rack for 24

hours before being stored in a cold, dry area.

Nutrition: Calories: 249.0 Fat: 8.1g Carbs: 14.5g Protein: 26.5g

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31. Canned Oysters

Preparation time: 15 minutes

Cooking time: 1 hour & 10 minutes

Servings: 6 pints

INGREDIENTS:

- 5 lbs. oysters
- salt
- water

Directions:

1. After washing the oysters in fresh water, heat them for 7 minutes in a 400°F oven to open them. In ice-cold water, rehydrate them. Take out the meat and submerge it in salt water.
2. After draining, place the meat in the jars with a 1-inch headspace.
3. Place the jars in the pressure canner and process them for 100 minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge.
4. Store the jars in a cold, dry area after placing them undisturbed on a cooling rack.

Nutrition: Calories: 68 Fat: 3g Carbs: 0g Protein: 7g

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32. Fish Rice Casserole

Preparation time: 15 minutes

Cooking time: 1 hour & 10 minutes

Servings: 4 pints

INGREDIENTS:

- 14 oz. white fish
- 2 cups cooked rice, divided
- 1 egg
- ¼ cup milk
- ¼ tsp. salt
- ¼ tsp. pepper
- 2 tbsps. butter

Directions:

1. Butter an 8-inch baking pan. Turn the oven on to 375°F. Fish juice should be saved for later use after draining. The baking dish should be covered with 1 cup of rice.
2. Finely flake the fish and spread it over the rice. Over the fish, pour the saved fish juice. Over the top, distribute the remaining rice.
3. Combine the egg, milk, salt, and pepper in a bowl. Distribute the egg mixture evenly throughout the dish. Add butter dabs.
4. Bake for around 30 minutes, or until cooked thoroughly and brown. Put fish and rice casserole in the jars. Put the jars in the canner that have to be prepared previously as per the manufacturer's instructions.
5. Let it go for 75 minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge. Adjust accordingly to your location.
6. Turn off the heat and allow the canner drop to room temperature on its own. Remove the jars from the canner after it has cooled and inspect the seals.

Nutrition: Calories: 209.6 Fat: 5.0g Carbs: 18.8g Protein: 21.1g

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33. Canned Mackerel

Preparation time: 15 minutes

Cooking time: 1 hour & 40 minutes

Servings: 3 pints

INGREDIENTS:

- 2 lbs. mackerel fish
- vinegar
- salt

Directions:

1. Use vinegar and cold water to rinse the fish (2 tbsps. for each quart). After removing the fish's scales, head, fins, and tail, thoroughly wash the body to get rid of any remaining blood.
2. Before cutting the fish into 3 12-inch-long pieces, split the fish in half lengthwise. Put one teaspoon of salt into each of the hot, clean Mason jars; do not add any liquid.
3. Pressure-process for one hour and forty minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge.

Nutrition: Calories: 104 Fat: 4.1g Carbs: 16.3g Protein: 1.3g

34. *Pressure Canned Salmon*

Preparation time: 15 minutes

Cooking time: 1 hour & 40 minutes

Servings: 6 pints

INGREDIENTS:

- 5 lbs. salmon
- salt

Directions:

1. As soon as the fish is caught, eviscerate it and then thoroughly wash it in clean water.
2. Refrigerate it until you're prepared to pressure can it. Take off the head, the fins, and the tail. The fish is first split lengthwise, then it is sliced into little pieces that fit your jars exactly.
3. Fill the sterilized jars with the fish, allowing a 1-inch headspace. If desired, put a teaspoon of salt in each jar. Place the lids and rings on the pot after wiping the rims with a moist paper towel.
4. Pressure-process the jars for 100 minutes at 11 pounds of pressure. Before removing the jars, let the pressure canner completely depressurize.
5. Place the jars on a cooling rack for 24 hours, and then store them somewhere cold and dry.

Nutrition: Calories: 121 Fat: 5.4g Carbs: 0g Protein: 17g

Poultry Recipes

Pineapple Chicken

Preparation time: 25 minutes

Cooking time: 1 hour and 30 minutes

Servings: 6 quart jar

Ingredients:

- 3 cups pineapple juice
- 3/4 cup brown sugar
- 1 1/4 cups apple cider vinegar
- 6 tbsps. soy sauce
- 4 tbsps. tomato paste
- 1 tsp. ground ginger
- 4 minced garlic cloves
- 5 lbs. chopped boneless and skinless chicken
- 2 diced onions
- 3 diced bell peppers
- 1 diced pineapple
- crushed chili pepper, to taste

Directions:

1. Bring pineapple juice, sugar, vinegar, soy sauce, tomato paste, ginger, and garlic to a boil in a large pot while stirring constantly.
2. Boil until the liquid is smooth and the sugar has dissolved.
3. Arrange chicken, onions, peppers, and pineapple in your jars. Add the crushed chilies now if using them.
4. Pour the sauce on top of the jars' contents.
5. After placing the lids on the jars and wiping the rims, process the food for 90 minutes at 11 PSI while accounting for altitude.

Nutrition: Calories: 391 Fat: 3.5g Carbs: 32.6g Protein: 19.5g

35. *Barbeque-Sauced Chicken*

Preparation time: 25 minutes

Cooking time: 1 hour and 15 minutes

Servings: 6 quart jar

Ingredients:

- 2 lbs. chopped chicken
- 1 crushed garlic clove
- 1/3 cup light brown sugar
- 1/3 cup soy sauce
- 1/2 cup water
- 1 tbsp. cider vinegar
- 1/4 cup apple juice
- 1 tsp. crushed red pepper
- 2 tbsps. ketchup
- 2 tbsps. oil

Directions:

1. Combine everything in a saucepan, excluding the oil and the chicken, and bring to a boil.
2. Stir-fry the chicken in a skillet with melted oil until it is lightly browned.
3. Leaving 1 inch of headroom, immediately ladle the liquid and the chicken into the sterilized jars.
4. Remove air bubbles and seal the jars with the lids.
5. In a pressure canner, process the jars for 75 minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge.
6. Remove, let the jars cool, and then label them.

Nutrition: Calories: 212.9 Fat: 1.9g Carbs: 13.5g Proteins: 35.7g

36. *Pressure Canned Chicken Breast*

Preparation time: 10 minutes

Cooking time: 1 hour 30 minutes

Servings: 5 quart jar

Ingredients:

- 5 lbs. chicken breast
- salt

Directions:

1. Separate the chicken into manageable bits for the jars. Fill the jars with the chicken, allowing a 1-inch headspace.
2. Fill each jar with 1/2 tablespoon of salt. (Water may be added, but chicken already produces juice.)
3. Remove any air bubbles and use a moist towel to clean the jar rims.
4. Cover the jars with their lids and rings. Transfer the jars to the pressure canner, where they will be processed for 75 minutes at 10 pounds of pressure.
5. After the pressure canner has completely depressurized, take the jars out, let them cool down for a full day and add them to your labeled pantry.

TIP : Add some Rosemary to your chicken if you want to give it a twist!

Nutrition: Calories: 120 Fat: 2.5g Carbs: 2.5g Protein: 25g

37. *Canned Chicken and Gravy*

Preparation time: 25 minutes

Cooking time: 90 minutes

Servings: 5 quart jar

Ingredients:

- 1 cup chopped onion
- 1 cup chopped celery
- 1 cup diced potatoes
- 2 lbs. boneless chicken breasts
- 2 tsps. salt
- 2 tsps. poultry seasoning
- 4 tbsps. white wine
- enough chicken stock

Directions:

1. Combine all the ingredients in a skillet and simmer for 10 minutes on medium-high heat.
2. Fill the jars with the chicken and veggies. Add enough broth so that it covers the chicken. Leave a headspace of half inch.
3. Take out the air bubbles, then close with lids.
4. Place the jars in the pressure canner and let them process for 90 minutes.

Nutrition: Calories: 562 Protein: 77.7g Fat: 22.2g Carbs: 7.1g

38. Turkey and Green Beans

Preparation time: 35 minutes

Cooking time: 90 minutes

Servings: 4 quart jar

Ingredients:

- 4 cups shredded cooked turkey
- 2 cups cut green beans
- 1 1/2 cups chopped carrots
- 1 cup sliced onion
- 2 cups chicken or turkey broth

Directions:

1. Combine the turkey, green beans, carrots, onion, and broth in a small stockpot. Heat to a rolling boil over medium-high.
2. After 5 minutes, remove from the heat and ladle the heated mix into the jars, allowing some headroom. Take out any air bubbles and, if required, add more mixture.
3. Use a warm, white vinegar-dipped towel to wipe the rim of each jar.
4. Fill the pressure canner with water as per your manufacturer's instructions and add 2 tablespoons of distilled white vinegar.
5. Place the jars in the pressure canner, secure the top, and release steam for 10 minutes.
6. Process for 75 minutes and 90 minutes (quarts) (pints).
7. After the canner's pressure is set to zero, wait at least 10 minutes before removing the jars.

Nutrition: Calories: 202.2 Carbs: 9.6g Fat: 8.6g Protein: 20.3g

39. *Pressure Canned Turkey Pieces*

Preparation time: 3 hours

Cooking time: 75 minutes

Servings: 5 quart jar

Ingredients:

- 5 lbs. turkey
- boiling water

Directions:

1. Cook the turkey until it is 2/3 done using a technique of your choice. Cut in chunks.
2. Fill the jars with the turkey chunks, adding water or stock while leaving a 1-inch headspace.
3. Take out the air bubbles, then cover the jars with their lids and rings.
4. Transfer the jars to the pressure canner, where they should be processed for 65 minutes with a bone-in turkey and 75 minutes without.
5. After the pressure canner has completely depressurized, take the jars out.
6. After 24 hours on a cooling rack, keep the jars in a cool, dry area.

Nutrition: Calories: 262 Fat: 10.1g Carbs: 40g Protein: 25g

Beef, Pork and Lamb Recipes

Chili Meat with Tomato

Preparation time: 15 minutes

Cooking time: 20 minutes

Servings: 1 pint jar

Ingredients:

- 1 tablespoon olive oil
- 2 large onions, finely minced
- 6 cloves garlic, finely minced
- 5 pounds (2.3 kg) ground meat
- 2 cans tomato paste
- 1/4 cup chili powder
- 1/8 cup ground cumin

Directions:

1. Lightly sauté the onion and garlic in a large stockpot with the olive oil.
2. Add the ground beef to the pan and incorporate the onion and garlic.
3. Pour a sufficient amount of water to cover the meat and vegetable combination.
4. Bring the stockpot's contents to a boil, then lower the heat so that it is just simmering. Stirring periodically, cook for around 20 minutes.
5. Carefully drain the meat mixture using a metal strainer.
6. Add the tomato paste and spices to the stockpot with the meat and vegetable combination and stir well.
7. Pour the mixture into the prepared pint jars right away, allowing 1/2 inch of headspace.
8. After correcting for altitude, process the jars in a pressure canner for 90 minutes at 10 PSI.

Nutrition: Calories: 120 Fat: 2.1g Carbs: 1.3g Protein: 10.3g

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40. *Canned Pork*

Preparation time: 2 days

Cooking time: 1 hour and 10 minutes

Servings: 4 pint jars

Ingredients:

- 3 lbs pork butt, chopped in dices
- 1 tsp pink curing salt
- 2 tsp kosher salt
- 1/2 tsp allspice
- 1/2 tsp mixed pepper
- 1 clove of garlic pressed or grated
- 1 bay leaf per pot
- 1 tbsp caramelized onion per jar

Directions:

1. First thing to do is to cure the meat. This step can be skipped, but if you want beautifully pink meat that tastes great, I suggest doing it. Simply mix the meat with salt and pink curing salt, cover and leave it marinating for 1 or 2 days in the fridge and you are done!
2. Once taken from the fridge, combine the cured meat with the rest of the ingredients and start filling your jars.
3. Put a bay leaf and a spoon of caramelized onion in each jar, always leaving ½ inch headspace; close with lids and rings and start to can!
4. Put the jars in the pressure canner and process them for 70 minutes at 15 pounds.
5. Remove the jars only after your canner has depressurized, let them cool down, label and add to your prepper's pantry!

Nutrition: Calories: 516 Fat: 20g Carbs: 2g Protein: 65g

41. *Corned Beef and Potatoes*

Preparation time: 13 minutes

Cooking time: 85 minutes

Servings: 8 half pint jars

Ingredients:

- 8 cups water
- 1 tbsp. pickling spice blend
- 5 lbs. brisket
- 10 cups cubed russet potatoes

Directions:

1. Make water boil in a pot.
2. While waiting, add 1/4 tbsp of the spice mixture to each quart jar.
3. Brisket and potatoes are layered in the jars.
4. Boiling water is put into the jars. Allow 1 inch of headspace.
5. Close the jars after cleaning the rims.
6. Pint jars should be processed for 85 minutes in a pressure canner at 10 PSI.

Nutrition: Calories: 465 Fat: 15.9g Carbs: 27.8g Protein: 99.4g

42. *Lamb Pot*

Preparation time: 13 minutes

Cooking time: 75 minutes

Servings: 4 pint jars

Ingredients:

- 1 sliced onion
- 2 chopped rosemary sprigs
- 2 cups lamb or beef gravy
- 1 lb. chopped lamb
- 3/4 lb. sliced and peeled potatoes

Directions:

1. Boil the potatoes for 10 minutes in boiling water.
2. Brown the lamb in a pan with the onion and rosemary for ten minutes. Add pepper and gravy and stir.
3. Drain the potatoes, then add the meat. For five minutes, broil.
4. Fill jars with lamb up to 1 inch from the top.
5. Place lids on jars and loosely tighten rings
6. Transfer the jars to the canner.
7. Cook for 75 minutes at 10 pounds with a weighted gauge; 11 pounds with a dial gauge.

Nutrition: Calories: 327.1 Fat: 3.7g Carbs: 54.9g Protein: 20.4g

43. *Beef and Vegetables*

Preparation time: 13 minutes

Cooking time: 90 minutes

Servings: 6 half pint jars

Ingredients:

- 3 lbs. minced beef
- 6 cups frozen peas
- 5 lbs. diced potatoes
- 1 cubed red onion
- 6 tbsps. minced garlic
- 6 tbsps. steak seasoning
- pepper and salt, to taste
- 6 cups beef stock

Directions:

1. Place a large saucepot over medium-high heat. Add the meat and season with pepper and salt. Stir and let it turn brown.
2. Drain the fat and ladle browned meat half-full into each canning jar.
3. Add 1 cup of frozen peas and 1 tbsp. of minced garlic to each jar.
4. Ladle in potatoes to fill the remaining space, leaving 2-inch headspace. Thrust the potatoes with your fingers so that it can contain more of them. Add 1/4 cup of red onions and 1 tbsp of steak seasoning to each jar.
5. Add a cup of beef stock and water to each jar until water is leveled with potatoes. Remember to leave 1-inch headspace. Adjust lids and screw band.
6. Bring the filled jars in a pressure canner at 11 pounds for dial-gauge or 10 pounds for the weighted-gauge canner for 90 minutes.

Nutrition: Calories: 243 Fat: 6.3g Carbs: 34.6g Protein: 15.1g

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44. Beef Roast

Preparation time: 20 Minutes

Cooking Time: 90 Minutes

Servings: 6 half pint jars

Ingredients:

- 2 Pounds stewing beef, cut into chunks
- 1 Cup chopped onions
- 2 Teaspoons dried thyme
- 2 Cloves of garlic, minced
- 2 Bay leaves
- 1 Cup beef broth
- 1 Cup dry red wine
- 2 Teaspoons salt
- 1 Teaspoon ground black pepper
- 1 Cup chopped carrots
- 1 Cup diced potatoes
- 1/2 Cup chopped celery

Directions:

1. Blend the onions, thyme, garlic, veggies and wine to a pot with the meat. Add salt and black pepper to taste.
2. Put a bay leaf in each jar, always leaving 1 inch headspace; fulfill with broth if there is still some space left.
3. Close the lids on jar after removing the air bubbles.
4. In the pressure canner process for 90 minutes at 11 pounds for dial-gauge or 10 pounds for the weighted-gauge canner

Nutrition: Calories: 234 Protein: 34.2 g Fat: 6.2 g Carbs: 9.3 g

Vegetables and Legumes Recipes

45. *Canned Sweet Peppers*

Preparation time: 5 Minutes

Cooking Time: 35 Minutes

Servings: 2-Pint Jars

Ingredients:

- 2 lbs. sweet bell peppers
- salt

Directions:

1. Cut the sweet bell peppers into quarters after giving them a thorough wash.
2. Put the peppers in a saucepan with water covering them, then boil them for three minutes.
3. After placing the peppers in the pint jars, season each with a quarter teaspoon of salt.
4. Fill each jar with boiled water, allowing a headspace of 1 inch.
5. Place the lids and rings after cleaning the rims.
6. Place the jars in the pressure canner and process at 10 pounds of pressure for 35 minutes.

Nutrition: Calories: 46 Fat: 0.4g Carbs: 9.4g Protein: 1.5g

46. *Bean and Tomato Chili*

Preparation time: 10 Minutes

Cooking time: 1 Hour

Servings: 5 pint jars

Ingredients:

- 2 cups dried kidney or pinto beans
- 5 lbs. chopped tomatoes
- 2 chopped onions
- 6 minced garlic cloves
- 1 chopped green bell pepper
- 1 chopped jalapeno pepper
- 3 tsps. cumin
- 4 tsps. paprika
- 1 tsp. thyme
- 2 tsps. oregano
- 2 tsps. hot sauce

Directions:

1. Beans should be cooked in a saucepan with 2 quarts of water for 2 minutes, then left covered for an hour.
2. After rinsing, add the beans back to the pot along with 2 quarts of fresh water, and simmer for 30 minutes.
3. Add the rest of the ingredients to another big saucepan. Bring to a boil while stirring constantly over medium heat; then, decrease heat, and simmer for 20 minutes. For a further 10 minutes, add the drained beans.
4. Fill heated jars with hot chili, allowing a 1-inch headspace. Process quarts for 75 minutes at 10 PSI.

Nutrition: Calories: 161.6 Fat: 3.4g Carbs: 27.6g Protein: 7.4g

47. Canned Green Beans

Preparation time: 10 Minutes

Cooking time: 25 Minutes

Servings: 3 pint Jars

Ingredients:

- 1 lb. green beans
- filtered water
- sea salt

Directions:

1. Rinse your beans carefully after washing them. Let them soak in water all night.
2. The beans should be rinsed before being added to a saucepan with water that is two inches deep. For 30 minutes, simmer the beans while stirring and bringing them to a boil.
3. Leave a 1-inch headspace after adding the beans to your clean jars. If desired, add a half tbsp of salt and vinegar to each pint jar. If extra liquid is required, add boiled water.
4. Wipe the jar rims, put the lids on and close the jars firmly.
5. Process the jars for 75 minutes at 10 pounds
6. Remove the jars only after your canner has depressurized, let them cool down, label and add to your prepper's pantry!

Nutrition: Calories: 28 Fat: 0.6g Carbs: 5.7g Protein: 1.42g

48. Canned Kale

Preparation time: 10 Minutes

Cooking time: 70 Minutes

Servings: 5-Pint Jars

Ingredients:

- 10 lbs. kale
- water

Directions:

1. Cut the kale into bite-sized pieces, then take off the tough stems and any yellow portions.
2. To a stockpot, add the washed kale. Put water over it and bring to boil.
3. Fill the jars with kale using a slotted spoon, and then sprinkle each jar with a half-tablespoon of salt. Add the liquid for cooking until leaving 1-inch headspace.
4. Place the lids and rings on the jars after cleaning the rims.
5. For 70 minutes, process the jars at 10 pounds of pressure.
6. Before using a jar lifer to remove the jars from the canner, turn off the heat and let the canner cool.
7. Allow sitting undisturbed for 24 hours before keeping in a cool, dry area.

Nutrition: Calories: 85 Fat: 0.5g Carbs: 6.7g Protein: 2.2g

49. Canned Caramelized Onions

Preparation time: 60 Minutes

Cooking time: 70 Minutes

Servings: 6-Pint Jars

Ingredients:

- 6 lbs. sliced onions
- 2 sticks of butter
- water

Directions:

1. Over high heat, melt 1 stick of butter in the stockpot before adding the chopped onions.
2. Over the onions, slice another stick of butter. Cook for an hour, going from high to medium heat after 20 mins
3. Let the onions stick a little to start the browning process of caramelization.
4. Pour the onions into the hot jars and process them at 10 PSI for 70 minutes after securing the lids and rings.

Nutrition: Calories: 178 Fat: 12g Carbs: 13g Protein: 1g

50. *Pressure Canned Broccoli*

Preparation time: 10 Minutes

Cooking time: 30 Minutes

Servings: 4-Pint Jars

Ingredients:

- 4 lbs. fresh broccoli
- canning salt
- water

Directions:

1. To get rid of any dirt that could be in the broccoli heads, soak and then thoroughly wash the vegetable.
2. Discard the stems after cutting the head into 2-inch pieces
3. Boiling water should be used to cook the broccoli for three minutes.
4. Pack the broccoli into the jars with a slotted spoon, allowing a 1-inch headspace, and then fill with boiling water.
5. To each jar, add 1 tablespoon of canning salt before wiping the rims with a fresh cloth. Transfer the jars to the pressure canner after adding the rings and lids.
6. For 30 minutes, process the jars at 10 pounds. Before removing the jars, let the canner depressurize.
7. Before keeping the jars in a cool, dry area, give them a night's rest.

Nutrition: Calories: 8 Fat: 0.1g Carbs: 1.5g Protein: 0.6g

Stew, Soups, Broths

51. *Chicken Broth/Stock*

Preparation time: 10 Minutes

Cooking Time: 30-45 Minutes

Servings: 2 quart jars

Ingredients:

- chicken carcass bones, meat removed
- Optional: 2 quartered onions
- Optional: 2 sliced celery stalks
- Optional: 2 bay leaves
- Optional: salt to taste
- water to cover

Directions:

1. In a large stockpot, add the optional ingredients and the chicken bones. Finally, cover everything with water.
2. When the last piece of meat easily falls off the bone, simmer the mixture with the lid on for 30 to 45 minutes.
3. Discard the bay leaves and vegetables after straining the soup and removing and discarding the bones.
4. After the soup has cooled, remove the fat and discard it. Adding salt is optional.
5. Bring your broth back to a boil.
6. Pour broth into quart-sized jars. Allow 1 inch of headroom.
7. Apply the 2-piece metal caps after using a clean, moist paper towel to wipe the jar rims.
8. If using a dial-gauge canner, process the quart jars for 25 minutes at 11 pounds of pressure; if using a weighted-gauge canner, process for 25

minutes at 10 pounds of pressure.

Nutrition: Calories: 233 Cal; Fat: 13.1 g; Carbs: 12.1 g; Protein: 16.5 g

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52. *Onion Soup*

Preparation time: 10 Minutes

Cooking time: 1 hour 30 minutes

Servings: 1 pint

Ingredients:

- 1 tbsp. butter
- 4 lbs. onions, thinly sliced
- 1 tbsp. salt
- 1 tsp. ground black pepper
- 1 tsp. dried thyme
- 3 cups dry white wine, divided
- 3-quart beef bone broth, or commercial chicken, beef, or vegetable stock

Directions:

1. Over medium-low heat, add the butter to a Dutch oven.
2. Add the onion, salt, pepper and thyme, and 2 cups (500 mL) of white wine. When the onion is quite soft, simmer it for an hour with the lid on, stirring regularly.
3. Cook while stirring continuously while it's open.
4. As you mix, add the remaining 1-cup of wine and simmer for 2 minutes.
5. Add the broth, stir, and cook uncovered for 15 minutes.
6. A heated jar should be filled with hot soup, allowing a 1-inch headspace.
7. Jar rims should be cleaned before being placed on a rack in a pressure canner.
8. Can for one and a half hours at 10PSI

Nutrition: Calories: 53.8 Fat: 1.0g Carbs: 8.6g Protein: 1.2g

53. *Potato and Chicken Stew*

Preparation time: 10 Minutes

Cooking time: 1 hour

Servings: 9 pints

Ingredients:

- 3½ quarts cubed chicken
- 4 quarts cubed potatoes
- 1-quart cubed carrots
- 3 cups chopped onions
- 4 slices bacon
- 1 green bell and 1 red bell pepper
- 3 minced garlic cloves
- Salt and black pepper
- 1 tbsp. paprika
- 1-pint tomato sauce
- ¾-cup tomato juice

Directions:

1. Add the meat, quartered onions, and carrots to a big saucepan. Cover with water and boil for approximately an hour.
2. Throw away the chunks of carrot and onion.
3. Cook some bacon, then drain the oil. Add to the meat pot. When the mixture is heated, add the other ingredients, cover the pot, and slowly simmer.
4. Leave a 1-inch headroom when ladling hot stew into hot jars.
5. Process quarts for 75 minutes and pints for 90 minutes at 10 PSI, adjusting the PSI for your altitude

Nutrition: Calories: 110.9 Fat: 2.4g Carbs: 11.6g Protein: 11.3g

54. *Beef Stew*

Preparation time: 5 Minutes

Cooking Time: 30 Minutes

Servings: 7-quart jars

Ingredients:

- 4-5 lbs beef stew meat, cut into small cubes
- 1 tbsp. vegetable oil
- 10 cups potatoes, peeled and cubed
- 8 cups carrots, sliced
- 3 cups celery, chopped
- 3 cups onion, chopped
- 1 ½ tbsp. salt
- 1 tbsp. thyme
- ½ tbsp. pepper
- water to cover

Directions:

1. In oil, brown the meat in a big saucepot.
2. After including the veggies and all the spices, top with water. The stew should boil before being turned off after 20 minutes.
3. Pour the stew into jars, allow 1 inch of headroom. Put lids on and close.
4. If using a dial-gauge canner, process the quart jars for 90 minutes at 11 pounds of pressure; if using a weighted-gauge canner, process for 90 minutes at 10 pounds of pressure.

Nutrition: Calories: 877 Cal; Fat: 22.6 g; Carbs: 59.2 g; Protein: 104.6 g

55. *Chicken Soup*

Preparation time: 60 Minutes

Cooking Time: 1 and half hour

Servings: 4 quart jars

Ingredients:

- 16 cups chicken stock
- 1 ½ cups celery, diced
- 3 cups chicken, diced
- 1 cup onion, diced
- 1 ½ cups carrots, sliced
- Optional: 3 chicken bouillon cubes
- Optional: salt and pepper to taste

Directions:

1. In a large saucepot, combine the chicken stock, celery, chicken, onion, and carrots (plus the bouillons if you want). Boil the mixture for approximately 30 minutes on high. Stirring occasionally, simmer for approximately 30 minutes over medium-low heat.
2. Fill heated quart jars with the hot soup, leaving a 1-inch headspace.
3. If using a dial-gauge canner, process quart jars for 90 minutes at 11 pounds of pressure; if using a weighted-gauge canner, process for 90 minutes at 10 pounds.

Nutrition: Calories: 293 Cal, Carbs: 24.6 g; Protein: 35.7 g

56. *Chicken and Veggie Soup*

Preparation time: 15 Minutes

Cooking time: 1 hour and half

Servings: 8 pints

Ingredients:

- 4 cups of chopped, cooked chicken
- 4 quarts of broth, chicken – homemade, if possible
- 4 cups chopped mixed veggies, like onions, carrots and celery
- 1 garlic clove
- Kosher salt
- Ground pepper

Directions:

1. In a large stockpot, combine the cooked chicken with the broth. up to a boil.
2. Fill the saucepan with the veggies. Reheat to a boil.
3. Pepper and salt should be added.
4. Add the garlic and any other spices you like to the mixture.
5. The ingredients should be added to the jars using a slotted spoon. No jar should have more than half of its surface covered with solids. Add the broth to fill the jars to the top. Keep a one-inch gap at the top.
6. Transfer the jars to the pressure canner after adding the rings and lids.
7. For 90 minutes, process the jars at 10 pounds. Before removing the jars, let the canner depressurize.
8. Before keeping the jars in a cool, dry area, give them a night's rest.

Nutrition: Calories: 57 Fat: 1.1g Carbs: 9.2g Protein: 2.8g

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