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Publisher’s Note

The Biscuit Fire — the result of environmentalism gone haywire

The Oregon fire of the century occurred between issues outside the back door of Backwoods Home Magazine. It was called the Biscuit Fire and it consumed a half million acres, much of it prime timber, making it one of the worst fires in recorded history. My family had to leave our home several times to escape the dense smoke, and we had contingency plans to evacuate the magazine from Gold Beach, one of many communities in southern Oregon threatened by the two-month duration of the blaze.

The fire was the result of four lightning strikes, strong winds, and accumulated wood and brush fuels that quickly turned it into an intense inferno fought on a 250-mile front. Nearly 7,000 fire fighters, 40 planes and helicopters, a hundred bulldozers, and hundreds of engines fought it. For comparison, this year’s highly publicized Colorado fire, the largest in the history of that state, was a quarter the size of the Biscuit Fire.

The Biscuit Fire became so big that it had to be divided into four zones—one in California and three in Oregon—with an incident commander for each zone and a unified command located in Medford, Oregon. At one point 30% of all available federal fire fighting resources was concentrated on the fire. Fire fighters came from as far away as Canada, Australia, and New Zealand. It cost $140 million to fight and may have consumed a billion dollars worth of timber.

But that’s only half the story. The fire may have been started by lightning, but the staggering dimensions it achieved was the direct result of ardent environmentalists who have unwittingly—some say purposefully—turned the nation’s national forests into one big fire trap. For decades environmentalists have made it nearly impossible to do any significant logging in national forests, due to regulations that require extensive environmental impact studies before any logging can be done, and due to lawsuits filed when a timber company does get permission to log. The result is that the tree density in national forests is way beyond what it should be for a healthy forest (some pine forests have 300 trees per acre when they should have 30) and fuels on the forest floor have been allowed to accumulate to explosive proportions. The lightning strikes that started the Biscuit Fire should not have caused the inferno it did, but the accumulated “ladder fuels” quickly sent the fire into the tall timber. Strong winds and dry conditions had it spotting new fires two miles ahead of itself.

Nearly a dozen communities were threatened. In one community briefing I attended near Gold Beach, the local fire commander told the audience, “Remember, fire is a natural part of these ecosystems. Mother Nature always bats last.” An angry resident shot back: “Well, we didn’t have to load the bases for her.”

Fire crews did a good job fighting the blaze and grateful residents in the saved towns put up signs all over giving them thanks and calling them heroes. Unfortunately there were no signs put up condemning the extreme environmentalists who had set the stage for this fire.

At the height of the fire, two interesting events occurred: President Bush flew over the fire, then held a news conference at the joint command headquarters in Medford to announce a proposed forest plan that would allow limited logging with controlled underburns in national forests to prevent such fires in the future. He was immediately denounced by several environmental groups.

Almost at the same time Bush announced his forest plan, Joan Baez made a surprise visit to serenade two environmental activists sitting in trees owned by Pacific Lumber Company in California. The activists were protesting the lumber company’s plans to harvest some of their own trees because they claimed it would harm the forest’s ecosystem.

What a joke! Haven’t any of these environmentalists looked in the mirror to see how stupid they are? Trees are a renewable resource. They grow back, for God’s sake. If you allow thinning of forests, then do underburns, it’s good for the forest ecosystem. Even if you clearcut, as they do near my house, you then burn and replant. It works great in Oregon. What could be more environmentally responsible?

Yes, the timber companies make some money in the process. Big deal! They help the forests with their work so they should be rewarded. These crackpot environmentalists and tree sitters play to an ignorant audience of city slickers and college kids who can’t tell a forest from a tree farm. They don’t have a clue what is good for forests. They’re just interested in pushing forward their blind agenda that Nature should not be touched under any circumstances, that it should be left for the birds and squirrels—and humans be damned. Their environmentalism is like a form of deism, and they are religious zealots who cannot be persuaded by reason, science, or common sense.

Lots of specials this issue

But I digress. I meant to talk about something more pleasant, as I usually do in this space.

This issue has a lot of holiday specials, as you can see on pages 98-99. And our best special, in my opinion, is the $10 anthology sale shown on page 90. If you order three or more anthologies, we’ll pay for the shipping. It’s a fabulous price, and they make great Christmas gifts.

As we go to print with this issue, the Biscuit Fire is 100% contained, although interior islands of trees will continue to burn until the rainy season a few weeks off. I thank all you thousands of fire fighters who came from all over the country to help save our towns and homes. — Dave
My view

Which is better: a small town or city?

Traveling has a way of giving you perspective.

For the past several summers my family and I have traveled around the country, covering as much as 9,000 miles by car in one five-week summer trip. The trips are exciting and fun, great education for my kids, and make us all realize how different our lives are from lots of other people.

Our destination is always a big city, like Boston or New York or Washington. I spent my first 29 years living in Boston, so I enjoy visiting my old South Boston neighborhood, riding the subway system I dreaded as a schoolkid, and taking in the museums and historical sites and entertainment I enjoyed so much when I lived there.

We stop in lots of small towns on the way to and from the city. Many are similar to our own Gold Beach, Oregon, a quiet, friendly town of 1,500 nestled in a fairly large expanse of open space, in our case the ocean and mountains of the Northwest.

I always gain insight into myself and my situation in life when I travel. Typically I feel fortunate to have made the transition from city to country life long ago because I feel at home and comfortable in the country. But the city is still exciting and impressive. Here are what I see as the major benefits and drawbacks between city and small town life:

Population density: Even as you approach the city on its main freeway or expressway, cars begin crowding closer together and dart in and out of lanes in an effort to get one or two car lengths ahead of a competitor. In the country there is no such competition. Once on foot, the population of the city seems staggering to a small town person. It reminds you of an ant colony, or a cage with too many rats.

Money: Most city dwellers would scoff at the $10 jobs that are coveted in the small town, and they would decline to drive the beat up old pickups that seem highly prized in the country. But poverty is greater and more foreboding in the city, with its daunting tenements and sprawling slums. The best way to make money in small towns is to start your own small business, and a lot of people have done so.

Friendliness: When you walk around in the city few people smile at you. In fact, they are likely to regard you with suspicion if you smile at them. They are not purposefully being rude, just guarded. In small towns the friendly smile while passing is standard. And it’s sincere.

Clerks in city stores are vaguely polite but not friendly. In the country store clerks are lively and talkative. They may have children who are in the same school classroom as yours. They know your coworkers, maybe even go to your church. The women in small towns are particularly friendly and knowledgeable. They know everybody and everybody’s children, often by name.

Food quality and prices: The supermarkets of a city carry a lower grade of fresh produce, it is displayed poorly, and the prices for it are higher. In small towns the produce sections look neat, the food is fresh, and there’s always fruit on sale. There had better be because often there’s a farmer selling even fresher produce at his stand just around the corner.

Prices for food may be lower in small towns, but prices are higher for just about everything else. The city has the megastores with their phenomenal bargains. When the small towner needs to do a lot of heavy duty non-food shopping, he goes to the nearest city.

Tranquility: To many youngsters, the city is exciting, while the small town is boring. To adults the city is noisy and unnerving, while the small town is calm and relaxed. In the city you are unaware of the night sky, while in the country it is obvious, huge, and black with millions of stars and several planets.

Crime: Not too far from the impressive sights of the city are the bad sections where tough looking young men loiter. These danger zones do not exist in most small towns, and there are no gangs. The local newspapers of each locale portray things accurately: The city paper is full of murders and scandal, while the small town paper contains grammar school and high school awards and events.

Medical care: Small towns have their GPs but there are few specialists, even fewer great surgeons. If you get really sick, advanced medical care may be a couple of hours drive, or a helicopter ride, away.

Entertainment: No comparison. My town doesn’t even have a movie theater. We do have guest musical artists who visit town every couple of months or so. The city is an entertainment wonderland.

Community: There is a sense of order in the city, while there is a feeling of community in the small town. The best illustration I can think of are the growing number of photo-enforced traffic lights in the city. City folk don’t seem to mind them, while most people in small towns would not tolerate these Big Brother robotic traffic cops.

Air quality: Boston air is not bad because it’s on the coast, but most cities choke in their own filth. Small towns in valleys often have bad winter air due to wood stove fires. My Gold Beach with its Pacific breeze going down the Rogue River valley has the cleanest air in the country.

Having spent my first 29 years in the city and my next 29 in the country, which is an adjunct to the small town, I am an expert on which is best. It’s the small town, in a walk.

Population density, quality of daily life, crime, air quality, friendliness, and tranquility are all important to me. I’ve solved the money problem by starting my own business. I’ll just have to live with the inconvenience of expert medical care and lack of entertainment.

Every time I come back home from a long trip to a big city, I feel like I’ve just won the lottery. — Dave Duffy
Planting fruit, nut, & shade trees

By Alice B. Yeager
Photos by James O. Yeager

Most of us think of fall as a time of winding down on gardening activities. True, there are fewer chores to do than when the spring garden was begun followed by mulching, harvesting, canning, and so on, but fall is also the preferred time for planting most fruit and nut trees. That is, unless you live where winters are severe and it’s not practical to plant young trees in the fall. If you’re unsure about the proper time to add trees to your place, check with knowledgeable neighbors or contact your local county extension agent.

First of all, consider how much space you have before selecting your tree(s). If your area is small, it might be better to consider something in the dwarf range instead of planting a standard tree that may reach 20-30 feet high at maturity and be just about as wide. There are many dwarf type fruit trees available, but most nut trees are definitely not for the small garden.

Specialty trees
Almost anyone with a garden can have a fruit tree or two as they come in all shapes and sizes. Some can be trained against a wall, wooden fence or other flat support. This is generally done where space is limited and the gardener wants to use the available open space for growing other things. It is best to use dwarf varieties of fruit trees, as they are more adaptable to espaliering, the term used for this type of training. Also, a gardener needs to learn about the fine points of espalier growing and be familiar with tying branches, pinching out unwanted shoots, etc., before embarking on this aspect of gardening.

Columnar is another form of growing fruit trees in limited space. These trees grow 8-10 feet tall but only about two feet wide and, of course, can be kept smaller by pruning. Columnar trees are grown in large containers for use on patios or for moving around here and there in the garden. They do not have to be grown trellis style and are less trouble to raise. They’re definitely conversation pieces and, if cared for properly, will yield some delicious fruit. If you’re wondering what to give a gardener who is somewhat restricted in his/her activities, a columnar tree would be

Wild pear trees cover themselves in white before putting out a leaf.
something special. (At the end of the article, see list of some nurseries handling trees recommended for espalier and columnar growing.)

Although specialty trees mature sooner than standard trees, do not expect fruit the first year on any of them, as they will probably not begin bearing until the third year at best depending on the variety. Also, unless stated otherwise, you’ll need at least two different varieties for proper pollination.

As to standard size trees, there are hundreds from which to choose. Pay attention to the planting zone map found in most reliable nursery catalogs and see if your choice is compatible with where you live. There’s no point in selecting a tree, no matter how much you enjoy a particular fruit, if it just can’t do well in your area. For instance, here in southwest Arkansas (Zone 8), it is useless to plant Bartlett pear trees.

**Pears**

Bartletts are highly susceptible to fire blight, as are many other types of fruit trees, and a young Bartlett that starts out healthy looking will in a year or two die from the blight. On the other hand, they do great in cooler climes such as from New England to Michigan or on the Pacific Coast. These are the areas that commercially produce most of our Bartlett pears.

Happily, there are alternatives to the desirable Bartletts. They may not have the mouth watering appeal of the Bartletts, but they’re more adaptable to growing in a larger portion of our country giving gardeners the pleasure of picking their own pears.

The Orient pear is a variety that is highly fire blight resistant and we have never had a problem with the Orient. Pears are of a rounder shape than most pears and flesh is white and juicy. Some weigh a pound apiece. Fruits are excellent for canning in halves for use in desserts and salads and they also make good pear honey (see recipe). Orient trees are heavy producers and are recommended for Zones 5-9. Heat and humidity don’t seem to bother them and pears begin ripening in mid July in Zone 8.

The Keiffer is a dependable pear that has stood the test of time. This is a late ripening pear. In our area, depending on weather conditions, the first Keiffer pears are ready to pick by late September. One does not have to worry about fire blight attacking the Keiffer as it is a very hardy tree. These trees can often be seen marking where an orchard existed a long time ago. One has to wonder how many bushels of pears the battered old trees have yielded during their existence. If a new owner will give them some TLC, there’s no telling how long they will continue to produce, as these old-timers are generally long-lived trees.

Keiffer pears are not known for juiciness, but they make the best pear preserves ever to come out of a coun-

A fruit harvester is a must if one wants to harvest those hard-to-reach pears, apples, etc., that always hang on upper limbs.
try kitchen (see recipe). You can’t go wrong planting a Keiffer if you’re interested in putting some choice preserves or pear honey on your pantry shelf. The pears may not be the best quality for eating right from the tree, but pick a few, leave them on a cool shelf for a few days and then try them. There’s the old sweet flavor that brings back good memories of less hurried times.

Most pears should be picked when the fruit may be bent upward and the stems separate easily from the limb. If fruit is hard to reach, obtain a “fruit harvester.” This is a handy tool resembling a small metal basket with extending prongs. Mounted on the end of a long pole such as bamboo, the fruit picker can easily claim those beautiful pears, apples, etc., that always grow on upper limbs. This eliminates doing a balancing act on a ladder, as you can easily reach the fruit while standing on the ground. Sometimes folks resort to shaking a tree in order to bring down the fruit, but the end result is bruised fruit. With the picker, bruises are virtually eliminated. The newer vinyl coated harvesters are even easier on the fruit than the metal ones.

Remember, if you want to can pears, process them within a few days of picking them, while they’re still firm. If you want them for eating fresh, let them lie on a cool shelf for several days and you’ll find that they have ripened and acquired a mellower taste and texture.

As a test for zone information, do your homework and find out if there are other trees of your choice succeeding in your neighborhood. For instance, several cherry varieties are shown as suitable for Zones 5-8, but you won’t find them thriving in the south unless it’s in the cooler and higher altitude areas. Sour cherries are more adaptable than the sweet cherries, but don’t bet on either of them if you live where winters are extremely cold or summers are hot and humid.

Peaches

Fortunately, peach trees are not as finicky as cherry trees. Peach trees may be the best overall choice of fruit trees for the home garden. These trees may be grown almost anywhere and some varieties succeed as far north as Canada.

Peach trees do have some drawbacks, as they are not noted for their longevity. Commercial growers often have new orchards planted next to their producing orchards. The average lifetime of a peach orchard is 10-12 years and requires quite a bit of maintenance—pruning, spraying, etc. To avoid further costs, some orchards now contract their entire crops to commercial harvesters leaving none for those of us who like to buy fresh fruit from the roadside stands. The gardener with one or two trees will harvest plenty of peaches for home use and, by giving trees good care, will extend their lives a bit longer.

To reap a nice crop of peaches, one must be vigilant about caring for the trees. Peach leaf curl and brown rot are the most serious fungus diseases that attack the trees, so it is necessary to implement a spray program to control these culprits. (Once started, they spread like wildfire.) It’s best to contact your county extension agent’s office as they should have the latest disease control information from the Department of Agriculture. If you don’t develop a spray program and
instead rely on nature to give you good peaches, chances are you may get a few edible peaches, but the biggest part of the crop will be a total loss.

If the fungi were not enough to deal with, there are peach tree borers that go to work on the tree trunks at ground level and work their way up. These are easily recognized by the gummy masses that ooze from the trees. One way to control borers is to put wood ashes from a fireplace around the base of the trunks during dormancy. I have also used ashes around other trees subject to borers and have had no trouble with these pests.

There are other diseases and insects, but these mentioned here seem to be the most widespread. At least, with care, they are controllable.

**Figs**

Besides peaches, one of the most widely distributed fruits in the south is the fig. It’s usually referred to as a door-yard fruit as so many fig trees are grown in backyards. All the owner has to do for a supply of figs is to step out in the backyard and pick them. During the height of the fig season, this has to be done almost daily until the season has passed. There is, however, quite a bit of competition between humans and birds. Bird control can be accomplished by loosely tying lengths of dark colored sewing thread here and there among the branches. Birds are frightened but not hurt when their wings brush against the threads.

The most common fig varieties are Brown Turkey, ripening in mid summer, and Texas Everbearing, ripening throughout the summer into fall and producing figs about three times as large as Brown Turkey but not as sweet. Figs are canned whole, made into preserves and jam, etc., just like other fruits, but they are also delicious dried. In its dried form, the fig can be eaten as a chewy snack, chopped over cereal, or rehydrated for use in cakes, puddings, and other sweets.

Fig trees are easy to grow but are not for the small garden, as they grow about 8-10 feet high and spread out about as far. The good part is that these trees don’t seem to be subject to the diseases that plague other fruit trees. If properly taken care of and watered during prolonged dry spells, a fig tree will reward its owner for many years. Trees will withstand winter temperatures as low as 15°F., but may be killed back if the thermometer drops much below that and stays there several days. We have had our trees die back, but have always had them put up new growth when warm spring weather prevailed. After a setback, trees will begin bearing again in about three years.

Fig trees may be grown in the north, but it is advisable to grow them in large pots or tubs that can be moved inside during winter to a pro-

**Dried figs**

Figs are good candidates for drying and will be leathery in texture when properly dried. They can be rehydrated by using equal amounts of figs and boiling water. Just pour the water over the figs and cover the container for about 15 minutes. Figs should soak up all of the water and be ready to use as you would if the fruit were fresh.

To dry any of our herbs, fruit, etc., we use an electric dehydrator, as the temperature is better controlled than with other drying methods.

Figs should be clean with stems removed. Cut figs in half lengthwise and place on dehydrator trays with a bit of room between each half. Set temperature at 100-110° F. Fruit takes a number of hours, so check on the figs occasionally until the leathery texture is achieved. (Some smaller pieces may dry faster than the others, so don’t hesitate to remove them ahead of the larger ones.) As soon as figs are dried and have cooled, put them in sterilized, air-tight jars and store in a dark place such as a pantry. Occasionally check for any signs of mold and, if any is seen, discard that jar. There’s one sure way to avoid mold if you’re not certain about dried fruit of any kind and that is to store it in the freezer.

Never hurry dehydration by raising the temperature as temperatures up near 145° will kill off vitamins. Your fruits or vegetables will form a dry skin covering and actually trap moisture inside.
tected place such as a cellar. Some northern fig growers put their trees in the ground during warm weather and then dig them up for storage in late fall. Balls of earth are bound around the roots with burlap or some other biodegradable wrapping and the plants are kept reasonably moist in a cool place until spring. Then they are replanted beginning the ritual all over again. Some folks are true fig lovers.

Blueberries

One of the easiest fruits to grow is the blueberry and the bushes will fit in almost anywhere along the edge of the garden or as boundary shrubs. However don’t expect them to thrive in alkaline soils or ordinary garden soil. Blueberries love acid soil (pH 5.0-6.0) so what better place to use your leaves and pine needles than around the base of your blueberry plants? Not only does this serve as mulch, but it feeds the plants as it decomposes.

The development of the Rabbiteye varieties of blueberries gave many otherwise deprived gardeners the opportunity to grow some low maintenance, almost disease free, delicious fruit. If your soil does not meet the requirements, try converting the soil to acid by digging a trench, filling it with leafmold from the woods, well rotted sawdust, peat moss, etc. Avoid black walnut leafmold as it has a toxic effect on some acid soil plants. Plant your blueberries in compliance with instructions from the nursery and keep them mulched with organic matter as mentioned. If you have problems with birds helping themselves to the blueberries, use the thread method used to protect ripe figs.

Blueberries are easy to put away. Just wash them thoroughly discarding any stems or damaged fruit, drain them for awhile in a colander, put them in freezer bags and they’re ready for the freezer. (Don’t forget to label and date the bags.) Later, when you’re not rushed, you can use them in recipes, make jam, etc.

Natives

Not only do gardens and fruit trees go together, but there’s something for everyone when it comes to growing trees. Maybe you’re a nature lover, a bird watcher, a harvester of wild fruits and nuts, or even a photographer. If you need shade trees or have room for trees attractive to wildlife, why not plant some native trees? The list of choices is almost endless.

Dogwoods

In the spring, one of our showiest natives is Flowering Dogwood (Cornus Florida L.). Covered in white blossoms and scattered throughout forests, the trees are a beautiful sight. The worst enemies of dogwoods are loggers who often run them down with heavy equipment while harvesting timber.

Dogwoods have a wide territorial range and may be grown in ordinary soil. Young trees should be mulched with leaves, pine needles, etc. and given a goodly amount of moisture during drought. Once established, they are hardy trees. In the autumn,
leaves turn to a deep red and ripe red berries provide food for migrating birds.

Depending on growing conditions, dogwoods may attain a height of 40 feet, but average height in forests is about 25 feet. These trees grow well as understory trees in shade or as yard specimens in full sun.

**Wild pears**
The earliest native tree to bloom in many areas is the wild pear (*Amelanchier canadensis* L.). This tree completely covers itself in white blossoms before putting out a leaf. Like most early flowering trees, the wild pear is a boon to beekeepers. It produces edible fruit in the form of clusters of small round fruits that begin ripening in autumn and continue throughout the winter. Because of the long ripening process, many birds depend on them for food during winter. A sweet jelly may be made from the fruit, but it is hard to come by as the trees are thorny. This is one time when it’s wise to let the wildlife have the whole crop.

The wild pears are spectacular in the fall when their leaves change from green to shades of deep orange and yellow. They attain a height of about 50 feet and are excellent shade trees in summer. They are easy to raise, grow fast, will thrive in ordinary soil and are very hardy and long lived.

**Oak**
If you have plenty of room and want a large tree, pick an oak. There are lots of oaks—Northern Red, Southern Red, Live, Post, Black, Pin, White, and on and on. Some low growing species prefer dry, rocky hillsides whereas some of their cousins live in swamps. The evergreen Live oaks are reminiscent of the south where they grow to large proportions—80 feet high and as wide. Some oaks have acorns that mature the first year and some require two years.

Oaks are among our most valuable trees and many forms of wildlife depend on them. They have a large territorial range and some grow faster than others, but they will pay off if you want to provide for wildlife and enjoy some wonderful shade trees. The National Arbor Day Foundation recently conducted a survey for America’s National Tree and the Oak was the winner.

**Pecan**
Native pecan trees are also security for many types of wildlife. Humans like the edible nuts, too, especially where that delectable concoction called pralines is concerned. (See recipe.) Our paper shell pecans are among the best pecans grown, but if you want really good pecan flavor, try the natives. They’re tedious to pick out, but their flavor is superb.

Pecan trees need space, whether native or not. Over time, the natives may reach 100 feet in height, but that...
will require many years. Native pecan trees are generally found growing in well-drained loamy soils of river flood plains from central Texas eastward to the Atlantic coast, whereas paper shell pecans are everywhere—orchards, parks, yards and so on.

Pecan pie

3 eggs, beaten
2 Tbsp. melted butter
2 Tbsp. unbleached OR all-purpose flour
½ tsp. vanilla flavoring
⅛ tsp. salt
½ cup sugar
1½ cups dark OR light corn syrup
1 unbaked 9 inch pie shell

Combine eggs, butter, flour, vanilla, salt, sugar, and syrup. Mix well. Sprinkle pecans in unbaked pie shell and pour mixture over them. Bake in 375° F., oven about 45 minutes or until filling is firm and crust is golden brown. (Test firmness by inserting a table knife into the middle of the pie. If it comes out sticky, leave the pie in the oven for a few more minutes. If it’s clean, pie is done.)

In the south, this is one of our most popular pies for the holiday season. Pecans are fresh and even weight-watching people have to indulge. Since this is a rich pie, however, smaller pieces may be cut.

Pralines

2 cups sugar
¾ cup water
½ Tbsp. vinegar
4 cups pecan halves

Boil sugar, water and vinegar until syrup makes a soft ball when dropped into a cup of cold water. Stir in pecans and cook until syrup forms a hard ball in cold water.

On platters or pans well greased with butter, drop large spoonfuls of the hot candy about 5-6 inches apart. When candy is completely cooled and hardened, run a knife or spatula underneath each praline and remove to a large plate.

This is an old recipe from the Creole country. There are many variations now including microwave cooking. Old fashioned candies such as pralines make great gifts during the holidays—or any other time, for that matter.

Pecan twerpserands tarts

½ lb. butter or shortening
4 heaping Tbsp. powdered sugar
2 cups flour
pinch of salt
2 tsp. vanilla mixed with 1 Tbsp. water
2 cups chopped pecans

Cream butter and sugar together until smooth. Mix in flour and salt and add vanilla. Add pecans and stir until all ingredients are thoroughly mixed.

Hand roll bits of dough into date size pieces and place about ½ inch apart on an ungreased cookie sheet. Bake at 250° F., about 50-55 minutes or until very lightly browned. When cookies have cooled, roll them in powdered sugar.

This should make about 55-60 pecan twerps.

Native pecans are much smaller than paper shells, but the paper shells can’t beat the natives for flavor.

Pecans are a preferred nut for eating and cooking, especially during the holiday season. These are paper shell pecans destined for the freezer.

It’s so easy to preserve pecans. Just pick the kernels out being sure they are free of shell fragments, put them in freezer bags, label and put them in the freezer. Not every year is a heavy yielding year for pecan trees, so we have learned to put away plenty of pecans when there’s a bumper crop.

Whatever your choice of trees, always remember to mulch and water young trees during long dry spells until they become established. Depending on conditions, this may require the first 2-3 years. Once your trees begin to develop, however, you’ll be glad you put out the effort.
Pear honey

Use only hard-ripe pears for this recipe. Soft-ripe pears are good for eating out of hand, but they won’t work here.

Wash, pare, and core pears. Cut in chunks small enough to easily feed through food grinder fitted with a coarse blade. To each quart of ground pears, add the following:

3 cups sugar
juice of 1 orange
grated rind of ½ orange
½ tsp. ground nutmeg

Bring mixture to a boil in a heavy stainless steel, porcelain, or granite-ware pot (do not use aluminum) and then lower heat to simmer. Stir frequently until thickened. When desired thickness is achieved, immediately put in hot, sterilized jars and seal with sterilized caps and rings. Remember, pear honey is a spread and should not be cooked to a jelly stage.

A variation is to substitute lemon and ginger for the orange and nutmeg.

Pear preserves

Pears, unlike softer fruits, can be picked several days ahead of time giving the cook some leeway when canning them. For preserves, pears should be hard-ripe—not rock-hard green pears, but firm. Keiffer pears are excellent for making preserves. Wash, pare, and core pears.

8 cups pears, thinly sliced
1 or 2 small lemons, sliced (seeds removed)
6 cups sugar

Combine all items in a large bowl and chill about 4-5 hours. This will allow juice to form.

Put mixture and juice in a large heavy saucepan (not aluminum) and bring to a boil stirring frequently. Reduce heat and simmer 50-60 minutes or until pears are translucent and syrup is slightly thickened. Stir often to avoid sticking. If any foam develops on top, remove with a thin metal spoon.

Ladle hot pears and syrup into hot, sterilized jars leaving about a half inch space between preserves and top. Seal with sterilized caps and rings. Set aside in a draft free place to cool and cover with a kitchen towel. (Never set hot jars on any cold surface.) When they are cool, lids should be sunken and not puffed. If any jars fail to seal, either refrigerate them or reheat the contents and try again.

Also, if there are nibblers around in the form of mice and rabbits, it may be necessary to use some type of tree-guard to protect the trunks of your little trees until they develop strong bark of their own.

Follow planting instructions that come with trees, as the people who grow trees in nurseries have had years of experience. Don’t be lazy when digging a hole for a tree. Make the hole substantially larger than the root system. You can’t expect a tree to do its best if you jam its roots into a small hole. That’s like putting an 8 size foot into a size 6 shoe. Miserable!

Above all, enjoy your trees. They’re another fringe benefit of life.∆
How do you tell when a politician’s lying?
His lips are moving.
Okay, it’s an old, old joke. But it happens to be true. And if we freedom lovers just admit it, we’ll save ourselves vats of ill-spent ink, millions of wasted votes, and one heck of a lot of heartbreak.

Heartbreak is what we’re headed for if we keep on believing politicians’ words while pretending not to see their deeds. Their words croon, “I love you.” Their deeds scream, “You’re gonna get screwed!”

No, wait. I’m wrong. We’re not gonna get screwed. They’re already putting it to us, big time. And some of us are still rejoicing because we imagine our attackers loooooooove us so much.

Enemies? Or twins?
Complicated things have happened in the last few years regarding interpretation of the Second Amendment. The following two statements exemplify what’s going on.
Read carefully and see if you can identify which public figure made each of these remarks.

Pretty Speech Number One:
While some have argued that the Second Amendment guarantees only a “collective” right of the States to maintain militias, I believe the Amendment’s plain meaning and original intent prove otherwise. Like the First and Fourth Amendments, the Second Amendment protects the rights of “the people,” which the Supreme Court has noted is a term of art that should be interpreted consistently throughout the Bill of Rights. ... Of course, the individual rights view of the Second Amendment does not prohibit Congress from enacting laws restricting firearms ownership for compelling state interests ... just as the First Amendment does not prohibit [government from legislating against] shouting ‘fire’ in a crowded movie theater.

Pretty Speech Number Two:
The broad principle that there is an individual right to bear arms is shared by many Americans, including myself. I’m of the view that you can’t take a broad approach to other rights, such as First Amendment rights, and then interpret the Second Amendment so narrowly that it could fit in a thimble. But I’m also of the view that there are limits on those rights. Just as you can’t falsely shout fire in a crowded movie theater, you can put restrictions on who can own guns and how, when, and where they may be possessed.

The answer in a moment. But first, is there any difference between those two statements? Nope. Both these people state the exact same position—even using the same examples.

But the first statement is from the Divine Laurel-Wearing Hero of All Gun Owners, Attorney General John Ashcroft,
from his famous May 2001 letter to the National Rifle Association.

And the second was made by that gun-hating Excretion from the Bowels of Satan, Senator Charles Schumer. Ironically, the May 2002 press conference in which Schumer made the statement was held to criticize John Ashcroft.

So are there any actual differences between “Second-Amendment supporter” Ashcroft and “Second-Amendment sneerer” Charles Schumer? You be the judge. Here are some facts about Ashcroft and your individual right to keep and bear arms:

• At his confirmation hearings, Ashcroft told Schumer he agreed with and would enforce all the restrictions on firearms ownership Sen. Schumer has worked so hard to impose over the years.

• In a November 9, 2001 memorandum sent to federal prosecuting attorneys, Ashcroft stated that the Justice Department “can and will continue to defend vigorously the constitutionality, under the Second Amendment, of all existing federal firearms laws.” All of them.

• In May 2002, immediately after the Justice Department filed a Supreme Court brief claiming the individual rights position as its official policy, Ashcroft said on Larry King Live that he fully supported the Brady Law calling it a “reasonable regulation.”

• And if you regard all these anti-gun, anti-Bill of Rights statements as mere words, perhaps designed (as one correspondent put it) to “placate the left while Ashcroft works behind the scenes to restore our gun rights,” please take a look at Ashcroft in action. Look at Project Safe Neighborhoods.

Enforcing the laws your enemy imposed

Project Safe Neighborhoods was created by the Bush Administration and is conducted under the authority of John Ashcroft’s Justice Department. Its goal: To lock up everybody in the entire U.S. who ever violates any state or federal firearms law—however non-violent, however petty, however obscurely technical the violation.

Project Safe Neighborhoods is busily putting into office more than 700—seven hundred—state and federal prosecutors whose sole job is to go after “gun criminals.” We don’t have to wait for years to see this project’s effects, since it’s patterned after an earlier plan, Project Exile, that was supported by the National Rifle Association and implemented in a number of states and localities.

Now, mind you, the laws that are to be so vigorously enforced include all the laws made by the Clinton administration, laws promoted by the likes of Schumer, Sarah Brady, and Dianne Feinstein. They’re laws the NRA and “conservative” politicians damned as unconstitutional and outrageous when they were passed, less than a decade ago. For the most part, these laws have nothing to do with the violent use of weapons, but cover highly technical bureaucratic stuff, like whether you added that folding stock to your plinking rifle before 1994 (legal) or after 1994 (a federal crime).

You can already see horrendous real-world consequences of Ashcroft-style enforcement of every idiotic anti-gun law on the books:

Take the case of Dane Yirkovsky. He found a single .22 cartridge while laying carpet. He did what you or I might do—pocketed it and forgot it. But Yirkovsky wasn’t like you and me. He had previous burglary convictions. That made him a “felon in possession of ammunition.” And his possession of that single, innocent cartridge—no danger to anybody at all without a firearm and a violent intent—cost him 15 years of his life.

Then there’s Katica Crippen. She posed for some racy photos. You may not approve. But should a girl go to prison for that? Crippen did. In the photos, she held her boyfriend’s firearm. And so, because of an earlier drug conviction, she was a “felon in possession.”

Then there was Candisha Robinson. Now she really did a bad thing. Ms. Robinson actually “used” a gun while committing a crime. The crime was selling illegal drugs to undercover officers. (Not a smart move, Candisha.) And how did she “use” a gun in that crime? The unloaded gun was locked in a trunk in her closet at the time she sold the drugs. heavens, you wonder how the undercover officers ever had the courage to face such a dangerously violent situation.

Well, maybe these three are disreputable characters who deserve to be taken off the streets and supported for years at your expense.

But what about Michael Maloney? Yes, he had a youthful drug conviction, many years in his past. But he’d cleaned up his act and had become a respectable businessman. He had undergone extensive background checks to get a liquor license—something a felon might find it hard to do. Maloney believed his youthful crime had been expunged from his records. So when he filled out the ATF’s Form 4473 to buy a .22 to protect himself when making late-night cash deposits, he answered “no” where they asked if he was a felon. The BATF disagreed. So without mercy and without any true justice at all, productive, tax-paying businessman Michael Maloney was clobbered with a 15-year mandatory-minimum sentence.

And that’s just the beginning. Not only does Our Hero John Ashcroft want those kinds of persecutions (and that’s no typo) of gun owners in every state of the Union, but the Bush administration is on record as wanting further federal restrictions on firearms owners. The fact sheet for Project Safe Neighborhoods states, “In addition to strict enforce-
ment of existing gun laws, the President supports expanding instant background checks to close the gun show loophole and banning the importation of high-capacity ammunition clips.”

There is no gun-show loophole. “Closing the gun-show loophole” is a propaganda term to disguise the administration’s desire to register and control every private transfer of firearms. Licensed dealers who set up booths at gun shows are already bound by the same paperwork and “instant-check” waiting periods as all other dealers. The only firearms transfers that take place outside the government’s scrutiny are those between private parties. Yes, these transfers include some sales by unlicensed gun owners at gun shows. They also include the ad you place in the classifieds to sell your old deer rifle and the act of proudly giving your old Boy Scout .22 to your son.

**Individual rights lies and the “ratchet effect”**

What we’re seeing here is what Margaret Thatcher called the “ratchet effect.” It explains how governments always get bigger, richer, and more controlling while you and I get less free. A “left-wing” administration passes all kinds of laws to expand government power. The “right-wing” screams bloody murder about the loss of freedom. But the moment a “right-wing” government gets into power, it fiercely enforces and even expands all those laws and government programs it used to hate. You can see it in the way Republicans defend such things as Social Security, Medicare, and federal education programs—all of which they once condemned (rightly) as socialism.

But nowhere do “right-wing” administrations get nastier than when they’re enforcing “law and order,” as Mr. Bush and Mr. Ashcroft are doing with Project Safe Neighborhoods. Who cares if the laws are just? Who cares if they’re merciful? Who cares if they’re sensible? Who cares if they’re constitutional? All that matters is that they give an excuse for increasing government power and create the illusion of “doing something about crime.”

The voters fall for it. But unfortunately, so have thousands of gun-rights activists and weary gun owners who ought to know better.

There’s more, lots more, that could be said of our Great, Freedom-Loving Attorney General (like why he announced, in August 2002, his desire to build detention camps where any American citizens he identified as “enemy combatants” could be warehoused indefinitely, stripped of their constitutional protections...and why he refuses to tell Congress how his agents are using the expanded wiretapping power they got in the USA-Patriot Act). But there’s one more gun-related, question left unanswered.

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**What Ashcroft and Schumer have in common**

The following list is taken from an article I wrote with Aaron Zelman of Jews for the Preservation of Firearms Ownership. It lists just a few of the anti-gun positions Democrat Sen. Charles Schumer and Republican Attorney General John Ashcroft share in common:

- Not allowing us to buy inexpensive handguns (“Saturday-night specials”)
- Not allowing us to buy handguns with high-capacity magazines
- Not allowing us to buy short-barreled shotguns
- Not allowing us to buy semi-automatic rifles with a military appearance
- Not allowing us to buy fully automatic firearms (or being allowed to buy them only at exorbitant prices and after paying exorbitant taxes to the government)
- Forbidding us to own guns if we’re one of the millions of non-violent felons
- Forbidding us to own guns if we’ve ever (even decades ago) been convicted of a large group of misdemeanors
- Forbidding us to buy guns if the FBI’s “instant-check” system is down
- Forbidding us to buy guns if we won’t give a Social Security Number
- Forbidding us to defend ourselves with firearms on airplanes, in courthouses, and hundreds of other public places
- Forbidding trained schoolteachers, principals, or parents from defending school children against Columbine-style rampages
- Forcing us to keep our guns locked away or disabled in our homes so we can’t use them against a violent attacker
- Forcing us to beg government permission and submit to fingerprinting and criminal background checks to carry a handgun (if they allow us to carry one at all)
- Wanting us to tremble before 700 special prosecutors whose sole mission is to arrest and jail people like us

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**Why the heck is Sen. Schumer suddenly sounding like “Mr. Rights Guy”?**

Part of the reason may well be that Senator Schumer is now representing all of New York state, while anti-gun Representative Schummer stood only for the vituperatively anti-gun citizens of one part of New York City. Those upstate farmers like their firearms, and even before he became their senator, Schumer’s slipperiness had inspired his fellow politicians to create the verb “to schume”—meaning to change position on issues, depending on which way the political winds blow.
But there’s a bigger reason for Schumer’s switch-over, and again it’s one we all need to be aware of if we’re serious about keeping our right to keep and bear arms.

Until a few years ago, the standard anti-gunner tactic was to claim that the Second Amendment didn’t protect an individual right—that it merely protected the right of states to form National Guard units or other varieties of government-run militias.

Then respected constitutional scholars began to look into that question and the overwhelming majority concluded (sometimes to their own chagrin, since they were not necessarily pro-gun) that the “states’ rights” or “militia rights” position had no historical or constitutional standing. Sanford Levinson, Joyce Lee Malcolm, Akhil Reed Amar, Eugene Volokh, David B. Kopel, Robert J. Cottrol, Raymond T. Diamond, David Hardy, Stephen P. Halbrook, Don B. Kates, Glenn Harlan Reynolds—male, female, black, white, Catholic, Protestant, Jewish, atheist, left-wing, right-wing, libertarian—one by one the voices came from great universities and influential law journals: The Second Amendment protects an individual right.

At the same time, other researchers like John Lott, criminologist Gary Kleck, and attorney Richard W. Stevens were showing, through the use of empirical evidence, that people were safer having firearms than not having them.

And if that weren’t enough to put the stake through the heart of traditional anti-gun arguments, some of the most famous anti-gun researchers, like the CDC-funded Dr. Arthur Kellermann and Emory University’s Michael Bellesiles (author of Arming America, a widely praised book claiming that guns in civilian hands were uncommon before the Civil War) turned out to be...well, shall we say ever so slightly careless with their data and their interpretations of it. The scandals over their faulty methodology (and over Bellesiles’ out-of-the-air creation of “historic” records and his custom-tailored rewrite of the famous 1792 militia law) are resounding to this day.

Heavens, what’s an anti-gunner to do?

Well, what most anti-gunners have decided to do is...sound exactly like Attorney General John Ashcroft. And be exactly like John Ashcroft and the Bush administration.

We peons still cheer when we hear some politician endorse our individual right to own firearms. But we might feel differently if we better understood their reasons.

In serious intellectual discussion on the issue, the “individual rights model” is now referred to as “the standard model” of Second-Amendment scholarship. Therefore, the language of individual rights is the only language to use if you expect your peers or anyone else to take you seriously—no matter where you actually stand on the issue.

So if you’re an anti-gunner, you just use the magic phrase “individual right,” then add to it all the old talk of “reasonable regulations,” “safety,” “for the children,” “vigorous enforcement of existing laws,” “closing loopholes,” “and eliminating gun-violence” and—voila!—you’re an instant Second-Amendment supporter all the while you’re ripping the guts out of whatever’s left of that sad, battered amendment.

And we, poor naïve fools looking for any ray of hope in this increasingly anti-gun, anti-individual, anti-freedom world, hear this slimy, self-serving, utterly cynical political slop and turn cartwheels in our joy.

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They’re laughing their heads off at us, people. And they should be. We deserve it as long as we continue to allow ourselves to be soothed into losing.

If you don’t want to get screwed by politicians, pay attention. You’ve heard of sleight of hand? Well, politicians use sleight of mouth. They want you to watch their lips instead of what they actually do. Ignore their flapping mouths. Don’t cheer their meaningless speeches—nor their letters or their press releases. Watch their actions. By their deeds you shall know them. Δ

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2 Notice how many of these prior convictions are for things that wouldn’t have been a crime at all if not for that notorious modern re-run of Prohibition, the Drug War?


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Phantom Solar
—the crucial invisible system needed before you install solar

By Jeffrey R. Yago, P.E., CEM

Are you planning to install a solar photovoltaic system to reduce your utility bills? How would you like it if your first solar electric power system had invisible solar panels, produced just as much free power at night as in the daytime, cost substantially less than any other system currently on the market, and was never affected by bad weather? Sound too good to be true? Actually, there really is something that does this, and it should be the first thing you buy before considering the purchase of any other solar power system.

It all started when I was asked to install a solar photovoltaic system on a couple's home. They lived in a typical 1,500-square-foot, three-bedroom home with attached garage, located in the suburbs of a large city. Their electric bills were getting higher and higher, and that south facing roof of their garage was just perfect to mount a solar photovoltaic array like they had been reading about. There are many different types of solar power systems, but most require batteries, a generator, and lots of controls and wiring modifications.

A new trend in solar installations is the packaged grid-tie system. These systems are easy to install and will reduce your electric bills, but they do not provide any backup power if there is a utility outage. Since by definition, the utility grid is the “battery bank” to absorb the solar electricity produced by the roof mounted solar array, this system cannot function if the utility grid is not operational. These systems consist of a roof mounted solar array, an inverter usually located on an outside wall next to your electric meter, and cables connecting the roof array to the inverter and the inverter to the home’s electric panel. Since there are no batteries, these systems take up little or no interior floor space and can be installed in less than one day.

In most southern latitudes of the United States, you can expect a solar photovoltaic system to generate power for about five hours per day in the summer months and four hours per day in the winter. A more northern latitude may only produce full power for four hours in the summer and three hours in the winter. These systems will still generate some power during the non-peak sun hours, before 9 a.m. and after 3 p.m., but these are reasonable monthly averages considering some days may not have any solar collection at all due to overcast skies.

Typical solar system costs

If you live in a state that requires the local electric utility to purchase excess solar generated power, you can install a typical 2400 watt (DC nameplate rating) solar photovoltaic system which will cover about 250 square feet of South facing roof area. This system would actually transfer about 2000 watts of 120 volt AC power into the grid after efficiency losses. This averages 8 kWhs per day (2000 watts x 4 hrs/day) or 240 kWh/month.

Since the electrical consumption for single family homes in the United States averages 1,000 kWhs per month, this grid tied solar system will only offset part of the total metered electricity. However, there may be many sunny afternoons when no electrical loads are operating in the home and the solar system can transfer all of its output back onto the utility grid. If your local utility allows these connections, they will provide an electric meter that will separately record the electric flows in both directions.

Although many electric utilities at best only grudg-
ingly accommodate customers wanting to sell electricity back to the grid and will try to credit this “sell back” electricity at the lowest rate possible, some electric utilities in the United States are at system capacity during summer air conditioning and promoting these individual solar electric systems could help reduce their system afternoon peaks. Some states and utilities are offering rebates and “buy down” programs to encourage the installation of solar systems. If this is available in your area, be sure to include this credit in your cost analysis which can substantially reduce the payback period.

Now let’s review my client’s situation in more detail from a cash flow point of view. The solar PV system they want to purchase will produce 2,000 watts (AC) after power conversion losses and will cost $16,000.00 or about $8.00 per watt, not including installation. This is fairly typical for a complete packaged system in this size, although the unit cost for solar modules has dropped to below $4 per watt for large quantity commercial installations.

Alternate plan
What would happen if our homeowners took less than one-quarter of the $16,000.00 they were about to spend and purchased something that would give them the same monthly utility savings? What would reduce their electric bill the same 8 kWhs per day as the solar system? We soon found out by inspecting their home and making a list of their lights and appliances. They had a 12-year-old refrigerator that consumed 2.7 kWh of electricity per day. We also noted that all of their light fixtures had 75 or 100 watt incandescent bulbs resulting in over 213 kWh per month electrical consumption just for lighting.

Their 10-year-old dishwasher consumes 300 gallons of hot water per month (based on 6 loads per week).

<table>
<thead>
<tr>
<th>Monthly Utility Usage/Savings Table</th>
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<tr>
<td><strong>Electrical Loads</strong></td>
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<td>Clothes Washer</td>
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<td>Dish Washer</td>
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<td>Kitchen Refrigerator</td>
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<td>Corridors &amp; Stair Lights</td>
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<td>Fax Machine Timer</td>
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<td>Unplugged Chargers</td>
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<td>Unplugged Audio/Video</td>
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<tr>
<td>Water Heater (Standby Losses)</td>
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<tr>
<td><strong>TOTALS (Per Month)</strong></td>
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Helpful appliance energy usage websites

- Consortium For Energy Efficiency www.cee1.org
- DOE Energy Star Program www.energystar.gov
- Association of Home Appliance Manufacturers www.aham.org
- Energy Commission Appliance Information www.energy.ca.gov/efficiency/appliances
- The Most Energy Efficient Appliances for 2001 //aceee.org/consumerguide
- Home Energy Saver Estimator //hes.lbl.gov/hes
Their older model clothes washer consumes 700 gallons of water per month (based on 4 loads per week). The energy to heat this water represents almost 90% of the total energy usage for a standard washing machine and 80% for a standard dishwasher. Their old style electric hot water heater had outside surfaces that were warm to the touch which indicated minimum tank insulation was causing high standby losses.

**Metered data**

Our test metering of their audio/video equipment indicated that it was consuming a total of 9 kWh per month when turned off, just to keep all of the components ready to respond to their individual remote controls. We also found several “wall wart” type plug in transformers for cell phone and pager chargers that were not charging anything. There were also other electronic devices not being used but still consuming power including two portable phones, a phone answering machine, and a clock radio. These devices were metered at 2 to 3 watts each which sounds insignificant but remember, these loads are operating 24 hours per day, 365 days per year, resulting in a total electrical consumption of 15.1 kWh per month for these standby loads.

We metered their fax machine at 11 watts in standby mode, which is actually low since we have found many fax machines consuming over 18 watts when not in use. Fax machines are considered a 24-hour per day load, but substantial utility savings can be realized by plugging a fax machine into a wall outlet timer. By limiting the operating hours to a typical 9-to-5 business day when most faxes are sent, the operating hours would be reduced from 8,760 hours per year to 2,920 hours per year, a savings of over 64 kWh per year. Another added benefit for this change is a reduction in the number of faxes you receive in the middle of the night advertising free Florida trips and toner cartridge replacement deals.

We all soon realized that it would be more cost effective to replace all low efficiency appliances and lighting in their home, than to keep everything the same and install a solar system just to offset their power losses. We decided not to worry about replacing the small appliances that only operate a few minutes per week, since their minimum run-time limits the impact of any load reduction technology we could apply to them. Examples of appliances we could not justify replacing included the kitchen blender, electric can opener, and garage door opener.

We began our study by creating an inventory of their main appliances and lighting fixtures to evaluate the utility savings and related costs if they were replaced.

These utility comparisons, which appear in the table, show how implementing these appliance and lighting changes would save an average of 300 kWh/month. This is greater than the estimated 240 kWh/month utility grid sell-back savings generated by the planned solar photovoltaic system.

**Action plan**

After considering this analysis, the homeowner replaced the clothes washer, dishwasher, refrigerator, and electric hot water heater with new, super efficient models at a total cost of $2,400. New Federal energy efficiency guidelines for appliances went into effect for refrigerators in 1993 and for dishwashers and clothes washers in 1994. Efficiency guidelines for many other appliances have gone into effect since 1997. If your appliances were purchased prior to these dates, you can assume they have low energy efficiencies. Do not make the mistake of relocating your old refrigerator to the garage or basement as your beer cooler, as this will be the highest energy wasting appliance in your home. All appliances and light bulbs that you replace should be given to charity or recycled.

All incandescent ceiling lighting fixtures in the bedrooms, family room, living room, corridor, and stairwell were replaced with fixtures designed to use dual lamp 13-watt compact fluorescent PL style tubes. All incandescent bathroom lighting fixtures were replaced with fixtures designed for recessed 50-watt halo-
gen PAR 38 style lamps. The 100-watt incandescent bare bulb light fixtures in the garage were replaced with a dual tube 4-foot fluorescent fixture having T-8 low energy fluorescent tubes. Be sure any fluorescent lamp or tube you buy has a “warm” color temperature rating, which will duplicate the color quality of an incandescent bulb. This is especially important in bathrooms and kitchens to avoid making cosmetics and foods appear off color.

I also recommend purchasing all light fixtures and replacement fluorescent lamps from a lighting distributor, as there are many low cost imported brands entering the market with low quality and short lamp life. My house has all fluorescent and halogen lighting fixtures and I have yet to change a bulb since moving in 1994. How many incandescent bulbs do you buy each week?

All outdoor incandescent porch and flood lights were changed to 40-watt halogen and put on motion sensor or photocell control. All bathroom and corridor light fixture wall switches were replaced with easy to install infrared motion control wall switches.

All cell phone, pager, and portable phone chargers were relocated to a common switched strip outlet “charging center” which is now manually turned off when not in use.

All audio and video equipment were plugged into a switched wall outlet so all of this equipment could be turned completely off by the room wall light switch when not in use. The exception for this is any satellite receiver that is required to stay connected for remote billing purposes.

Finally, all family members agreed to increase their efforts to turn off lights when not needed, to stop operating the dishwasher or clothes washer for partial loads, and not to let the hot water flow from faucets and showers any longer than necessary.

Replacing 16 ceiling light fixtures and 51 incandescent bulbs with high efficiency compact fluorescent and halogen lamps was going to cost $1,200.00. Adding this to the appliance replacement costs, gives a total lighting and appliance replacement cost of $3,600.00. Although not an insignificant amount of money, this was $12,400.00 less than the $16,000 they were about to spend for a solar electric system. The remaining balance would easily pay for a new fuel efficient car.

I realize this was not a true investment analysis since we are not including the life cycle replacement cost of the appliances or the time value of money in these calculations. However, my goal was to demonstrate the importance of having the most energy efficient appliances and lighting fixtures in any home before investing in a solar electric power system. Otherwise, you will end up installing a very expensive solar electric system that only makes up for the losses of your low efficiency lighting and appliances you chose not to replace.

Most new homes usually include low cost standard efficiency lighting fixtures and appliances to keep the total home sale price within budget. If you are currently building a new home or about to purchase a home under construction, be sure only the highest efficiency lighting fixtures and appliances are installed. There should be no incandescent bulb fixtures or incandescent bulbs remaining
anywhere in your home after a lighting upgrade, except for a decorative chandelier you may decide to keep. The increased cost for high efficiency lighting and appliances over standard efficiency contractor grade equipment will quickly pay back the difference in lower utility bills.

It was my goal to only consider energy saving modifications that you could make on your own without hiring an installation contractor. There are many additional modifications you could make that would also produce similar utility cost savings, but most require the services of an installation contractor and involve much higher initial costs. These major modifications include replacing any low efficiency air conditioning system, furnace, heating boiler, or well pump that is over 15-years-old; adding additional attic insulation; replacing all single-pane windows with thermal windows; and installing awnings or sun screening on any large east or west facing window areas.

Tracking your utility costs

Finally, do not just pay your monthly utility bills and discard. Keep a small notebook to record not only the dollar cost, but also the kWh of electricity, and the MCF or gallons of gas or oil consumed each month. Be sure to use the meter start and end read dates, not the billing date, to determine which calendar month each bill most closely represents. Due to fluctuating fuel costs, you cannot compare utility billing dollar costs from year-to-year, but you can compare utility consumption from current month to the same month in prior years.

If a particular month was unseasonably hot, cold or rainy, you should indicate this in your utility notebook for that month. This will be helpful in future year-to-year comparisons. Be sure to collect this utility billing data for the 12 months prior and 12 months after your own appliance and lighting replacement project to compare the results. If you no longer have these actual bills, contact your local utility for copies.

When recording your monthly utility bills, also calculate the unit cost, which is the total dollars due divided by total unit consumption. You will be amazed how they have added all kinds of state sales taxes, city utility taxes, transmission charges, utility surcharges, community benefits charges, distribution charges, fuel escalating charges, base meter charges, and demand charges to your base utility bill. You will find that this true unit cost is much higher than published rates for your local utility, as many utility bills are becoming a very convenient way for the government to raise hidden tax revenue without actually raising taxes.

Conclusions

By knowing your true monthly utility costs and the actual energy consumption for your home, you will have a much better basis to determine how quickly any future appliance replacement or solar photovoltaic project would pay back their initial installation costs. This unit cost information is extremely important in your decision making as some readers will be living in states having electric rates below 6 cents per kWh while others may be paying over 12 cents per kWh.

Light bulb and appliance costs are about the same from state to state, but the utility cost savings for implementing the same utility saving project could be double or triple from one state to another due to different utility rates. Do your homework and start tracking your own true utility costs. You may find it is not only time to install my “phantom” solar system, but a real solar system as well.

Jeff Yago’s latest text titled, *Achieving Energy Independence—One Step At A Time*, provides a very good introduction to solar power systems, and includes lots of ideas to help make your home as energy efficient as possible. It is available from the Backwoods Home Magazine Bookstore or by calling 804-784-0063.

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Only two 50 watt halogen flood lamps easily illuminate a large bathroom.

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FREE MONTHLY NEWSLETTER
Build a portable woodstove for $30

By David Scott Matthews

I had a problem. Other men love football, baseball, basketball, or golf. I love to hunt. And the animal I love to hunt more than any other is the Rocky Mountain Elk. Besides the majestic beauty of the elk themselves, I love the country they live in. I love the panoramic views, the crystal clear air, the glorious smell of the surrounding spruce trees, the golden beauty of the aspens. So, what was my problem?

I was thinking of giving up elk hunting. Temperatures in the Colorado Rockies during October frequently drop to well below freezing. The frigid nights would find me awakening frequently to nurse some semi-frozen body part. I would get up in the morning, exhausted, and stumble around the mountains all day, half asleep.

If I was going to keep going to Colorado each fall, I needed a wood stove for my hunting tent. More than that, there were certain characteristics that my stove had to have. It had to be lightweight. It had to be able to hold a fire overnight. It had to be big enough that I wouldn’t have to get up at night to stoke it. It would be nice if I could also cook on it. And it had to be cheap. With pre-made stoves selling for up to $400, I knew I would have to make my own.

Turning it over in my head for a week or so, I came up with a plan. A few days later, I had an attractive stove that could not only heat my big 16’ x 16’ hunting tent, but would be right at home in anybody’s tool shed, workshop, or vacation cabin. In addition, it had a relatively flat cook surface on which I could brew up my morning batch of coffee, bacon, eggs, and home fries.

Did I mention that I built it with no welding, using only a jigsaw, power drill, screwdriver, file (although, in many places, a grinder would have made the job faster and easier), ball-peen hammer, and a pair of pliers, for a total cash outlay of only about $30? And you can do the same.

Getting started

To make my stove, I bought a steel barrel with a removable top—the kind of lid that is clamped on by a lever lock. In our area these barrels sell for $5 to $10. Note: It is important that the top rim of the open barrel and the two raised bands around the middle of the barrel are of the same diameter. This is easy enough to check; just remove the lid and hold a straight edge (I used a 2” x 4”) so that it lies across both bands and the rim. If the straight edge contacts all three points, you’re OK.

Be sure you clean your barrel out before you start cutting. My barrel had once contained (and still held about 2 gallons of) the most delicious smelling fudge ice-cream topping imaginable. In my case, I didn’t want
to make a mess in my machine shed. In your case, your barrel may have contained flammable materials. The cutting process or the initial firing could cause such a barrel to explode. Don't take chances; clean it out.

To begin making my stove, I first took the lid and lever lock off the barrel, then removed and discarded the foam rubber gasket from under the lid.

Next, using a drill with a $\frac{3}{8}$-inch metal cutting bit, I drilled a hole just above the upper of the two bands. A metal-cutting blade in my jig saw made short work of cutting around the barrel about halfway from the high part of the band to the “flat” of the barrel. I quick-checked to see if my lid and lever lock were going to fit back on the barrel. They did.

This left me with the $\frac{2}{3}$ (bottom) section of barrel that would be the main part (body) of the stove, and the top $\frac{1}{3}$ that would be my material source for the door and draft.

Except for the above, all the cuts I made in my stove were made by first drawing the lines to follow with the jig saw. Then I drilled a “pilot” hole on the scrap side of the mark, which I enlarged with a $\frac{3}{8}$-inch bit. These holes were drilled at each corner where holes or parts had to be square. This allowed access to the jig saw blade. Square openings were drilled at each corner. Edges of all holes and cut-out components were filed smooth where burrs would be dangerous or impair use.

I used a flexible straight edge to mark a rectangular door opening 9 inches high by 12 inches wide on the upper section of the stove body, centered top to bottom between the rings. Then I cut it out using the jig saw.

Beneath the door opening, on the lower section of the stove body, I marked and cut another rectangular hole. This hole would be the draft opening and was 2 inches high by 4 inches wide. The bottom of this hole was 2 inches up from the bottom ring of the barrel.

I then moved to the top $\frac{1}{3}$ of the original barrel—my material source. From this I cut my stove door, draft door bracket, and draft door. The stove door is 10 inches high by 13 inches wide. The draft door bracket is 4 inches high by 10 inches wide with a 2 inch high by 5 inch wide hole cut out. This hole should be cut out 1 inch from the left side of the bracket, 1 inch from the top and bottom, and 4 inches from the right side of it. Be sure you cut the hole out first, before cutting the bracket out, as it would be much more difficult and dangerous to try to do it afterward. The draft door itself is 2¾ inches high by 5 inches wide with a tab extending from the left side 1¾ inches high by 2 inches wide. All edges were then filed and the tab on the draft door was bent outward, with the very end of it being curled back on itself to make a more convenient grip.

I drilled $\frac{3}{16}$-inch holes (this is the size I drilled all screw holes) 1½ inches apart, ¼ inch from the top and bottom edges of the draft door bracket. This gave me 7 holes evenly spaced along the top edge, and another 7 along the bottom edge. In addition, I drilled another screw hole centered top to bottom on the left side of the bracket. Then I centered the bracket over the draft hole in the stove. Note: since the hole in the stove is 4 inches wide and the hole in the bracket is 5 inches wide, be sure there is ½ inch of the bracket hole on each side of the stove hole. Holding the bracket in place, I marked where the corresponding screw holes needed to go on the stove. Then I drilled the holes where marked.

To install the draft door and bracket I put a screw through each hole, one at a time, placed three flat washers (If your washers are thicker than mine, you may only need two) on each screw as spacers, then pushed the screw through the stove body where I put on a flat and a lock washer, then a nut. Be sure you do not tighten any of
when the stove was burning "hot." Second, this would eliminate the need for a stovepipe collar to be made and attached to the stove top.

Next I drew a second circle, about five inches in diameter, centered inside what would be my stovepipe hole. I then used the jigsaw to cut around the inner circle. Then I made cuts radiating out from the inner circle just to the outer circle, about every ¼-inch. This formed a ring of tabs that I then bent downward, using my pliers, and flattened against the inside of the lid. I did a test-fit with the stovepipe and used the hammer to gently make any adjustments to the opening so that the pipe fit inside it smoothly and snugly.

I assembled the stove and did a test burn to see if the stove was working properly and to burn off as much of the original paint from the stove as I could. You may notice, in some of the pictures that accompany this article, that my stove originally had a 4-inch pipe. During the test burn I found that the stove did not draw properly with that small diameter pipe. The 6-inch pipe works much better.

Once the stove had cooled down from the test burn, I cleaned the rim of the lid and used stove cement to attach an appropriate length of stove gasket in the original gasket's place. I then clamped the lid to the stove body and allowed the cement to harden overnight. Since the rim of the stove body was somewhat uneven, I marked the lid and the body so that the lid could always be aligned in exactly the same way, thus minimizing gaps that could leak.

Then began the painting process. I chose to paint my stove because, to me, paint has a more pleasing appearance than stove polish. In the future, I may go over the stove with stove polish as my original paint peels off. Stove polish is more resistant to heat than paint and gives a more durable finish. You may choose to use polish in the first place. If, like me, you want to try paint, ask your hardware person for stove paint or barbecue grill paint. Paints designed for automobile engines are not resistant to high enough temperatures to be used on a wood burning stove. Follow the instructions on the can to prepare the stove and apply the paint.

The test fire

After giving the paint sufficient time to cure, I placed the stove on its stand and put the stove pipe (with a six inch damper installed) in place. Time for another test fire.

Be sure you do your test fire outside, in an open area, as the paint will smoke quite a bit the first time it gets hot. Wear fireplace or welding gloves to reduce your chances of getting burned. As your stove heats up, try working the draft. You may find that it sticks in a place or two. Use a flat tipped screw driver or similar tool to gently adjust the steel draft door bracket (not the door itself) so that the draft door moves fairly easily.

With a little experimenting, I soon found how to maximize the burning of my stove. By manipulating the draft and the damper, I learned how to make the fire burn hotter, cooler,
longer, etc. You should be able to do the same.

My $30 stove may not make me a better hunter, but at least now I will be able to sleep better, eat better, and just feel better in general while I am out hunting. That, in turn, might help me to better enjoy my time in the mountains and feel like spending more time out in them. As I said, my $30 stove may not make me a better hunter...but then again, it might.

While the paint on the stove was curing, I made a stand to keep the stove off the ground. I made mine by cutting off a 70-inch length from the bottom of a cattle panel and bending it into a circle. This was plenty big enough to support the stove safely, yet small enough to fit within the bottom ring of the stove. You could probably find an old automobile tire rim that would make a sturdy stand if you plan to use your stove inside a building. I painted my stand black to match the stove.

The stove will burn well as is, but I thought it might be made more efficient with the addition of a grate. That way air coming in the draft hole could spread out and feed the whole fire from underneath and the build up of ashes during burning would not prevent complete combustion of the wood. I made this similarly to the way I made the stand only using the bottom section of a hog panel and forming a ring approximately \( \frac{2}{3} \) the diameter of the stove. Then I used the top section of the original barrel (the part I had used for materials) as a template on a piece of expanded steel from my scrap pile. I scribed a line on the expanded steel, then cut out the circle using my jigsaw. When I put the ring inside the stove and placed the expanded steel on top of it, I had a stove grate that worked perfectly.

While the relatively flat stove top would work pretty well for frying, I wanted to make it even more versatile. By cutting a 20-inch by 11-inch piece of expanded steel and bending 3 inches of each end downward (leaving a 14 inch by 11 inch flat surface), I had a stovetop trivet. This I could place on the stove top where it would hold a Dutch oven in which I could prepare biscuits, chili, stews, etc. You could use a couple of dry building bricks in much the same way.

### Parts list:

- barrel — 1
- 10-24 machine screws — 27
- nuts — 27
- lock washers — 27
- flat washers — 72
- 1\( \frac{1}{2} \) -inch hinges — 1 pair (be sure you get all-metal hinges)
- 1 clamp tight window sash lock
- \( \frac{5}{8} \)-inch flat stove gasket — at least 70 inches
- stove gasket cement — 1 tube
- stove paint or polish — 1 or 2 cans

I just got back from Colorado. The stove got a good workout during our hunting trip, and I thought you might like to know that it passed the test with flying colors. The first night in camp we got five inches of snow but stayed snug and warm thanks to “Black Elk,” as someone in camp dubbed it. The second day, I threw together a pot of venison chili that simmered on the stove all day and was a hit with all who tasted it that evening. Every morning, the coffee brewed on Black Elk helped get the day off to a good start. The stove held fire all night or all day when needed. After a day spent slogging down muddy trails, we placed our sodded boots near the stove at night and found them warm and dry the next morning. Many of the other hunters in camp found their way to our tent just to see “that stove I heard about,” although I noticed they only showed up when it was particularly cold outside and spent more time enjoying the warmth than looking at the stove. \( \Delta \)
Disruptions in services during a disaster can be deadly to those who are not prepared for them. If the disaster occurs in winter, staying warm is likely the most urgent non-medical problem we may face.

Ten years ago, I watched a winter storm dump two feet of snow on Seattle, a city which almost never gets snow. Tens of thousands filled the city shelters. Their all-electric homes had frozen when the power lines went down. Even those with gas furnaces were without heat. Their thermostats quit, or their pilot lights turned themselves off when the furnace fans failed. Virtually the only people left at home were those with fireplaces or woodstoves.

With a little preparation and knowledge of cold weather survival techniques, they could have stayed home in safety, if not in comfort.

**General principles**

Stay dry and out of the wind. Water and moving air are the two fastest ways to carry heat energy away from the body. In a winter disaster, nothing is as important as getting into good shelter and staying there as much as possible. You can survive for a month without food, for a week without water, but even hours without shelter can kill in severe cold. It’s often safer to stay in an unheated house than to go looking for better shelter.

Insulate the smallest volume unit. If you have only a small heat source, close your house down to one room, and insulate that room tightly. The absolute smallest unit of volume is your body and your body is an excellent heat source. Capture as much of its output as you can by staying under wraps. Two or more people together can create a lot of heat.

Conserve energy. You don’t know how long the emergency will last. Don’t heat the house one degree warmer than necessary. Reduce trips outside to a minimum. Every time you open the door, you throw away several hundred BTUs.

If your toilet is not working, keep a “honey bucket” with a tight fitting lid inside the house. Line your “honey bucket” with strong plastic bags. Tie off full ones and stack them outdoors to freeze. You can dispose of them later, when services resume, or bury them when the ground thaws. Conserve your own energy, too. Plan for a minimum work schedule. You will tire quickly; fighting off the cold takes energy.

**House heating**

Do not depend on any central heater or furnace that uses power company electricity. Power is the first utility to go in any disaster, natural or man-made. All furnaces and most gas or propane heaters depend on electric fans or thermostats. But even if you make your own electricity, disruption of services may affect your ability to provide heat. Will you be able to refill your propane tank or buy generator fuel?

Plan ahead to keep your house livable in a cold weather disaster. Pick a room to heat. If you have a functioning heater, fireplace, or woodstove, that is the room where your entire family will live throughout the emergency. If you have a portable heat...
source, weigh the following factors: the ideal room is protected from wind and air leaks, well-insulated, low-ceilinged, small in area, on the top floor beneath an insulated ceiling, and it has good natural light.

You will never find this ideal room. In fact, some of these factors are mutually exclusive. Make the best compromise you can, then plan to make up for deficiencies. If the living room has a woodstove, but there’s a bad air leak under the door and lots of windows, you can make a fabric “door snake” and improvise storm windows.

For the door snake, cut a piece of sturdy fabric four inches wide and two or three inches longer than the door’s width. Sew it lengthwise into a tube, sew one end closed, and turn it right side out. Fill the snake with dry sand and sew the other end closed by hand. Place it against the door to stop drafts. You’ll have to replace it every time someone opens the door, but it will save an amazing amount of heat.

For the improvised storm windows, cut plastic sheeting three or four inches bigger than you need, roll the edges, and staple to the wall with a staple gun. Stretch the plastic tight, leaving a 3/8-inch gap between the glass and the plastic. A larger gap will allow air to circulate between them, transferring heat out of the house by convection.

Woodstove. Lay in a supply of good, dry oak, maple, ash, or other hard wood for emergencies, plus some lighter woods for kindling. Be sure to have an extra axe handle in case yours breaks. With a good woodstove and plenty of wood, you’ll have no warmth problems for your home.

Fireplaces are notoriously inefficient as room heaters. Most of their heat goes up the chimney, carrying warm house air with it. The rising air draws in cold air from outside the house. It may be warm right in front of the fire, but the total amount of heat in the house is reduced. There’s a fairly simple fix for this: install an air pipe from the outdoors, directly under the fire. Cold air is then drawn from the outdoors directly into the fireplace, where the fire heats it. Some heated air goes up the chimney, and some goes into the room, for a net gain in heat. It works pretty well, but it has to be done before the cold weather disaster strikes.

Kerosene space heaters work much better than fireplaces. They are cheap, portable, fuel efficient, and easy to store. Discount stores sell them for less than $150. Even a small one will heat a 16 by 20 foot room for a gallon a day or less. Kerosene will keep for years if you just add an algae inhibitor, and it is not explosive. Good quality kerosene costs three to five dollars a gallon or more, so it is a bit pricey for the long haul.

If you don’t have a woodstove or fireplace in a downstairs room, your best bet to stay warm may be an upstairs bedroom. Upstairs rooms are much better insulated than ground floor rooms. Heat rises, so the most important side of any room to insulate is the ceiling. Nobody insulates between the floors, but upstairs rooms usually have lots of insulation in the ceiling or attic. When the disaster strikes, it wouldn’t hurt to move extra insulation from above other parts of the house to the area directly above your chosen room.

Bedrooms rarely have more window area than is absolutely necessary, seldom have leaky exterior doors, and are usually carpeted—another source of insulation from the cold air below. If your house is already pretty tight, and you have another source of light, you may be able to make an upstairs bedroom really cozy by insulating over the windows. An inch or two of foam insulation, cut to fit the inside of each window opening, can work wonders. Use duct tape to seal any cracks. Even ordinary, fiberglass batting will help a great deal. You can remove some of the insulation during the day for light.

Don’t run any space heater with open flames in a tightly insulated room without adequate ventilation. At night, you can button up tight with the heater off. Just snuggle up with another warm body under blankets, or climb into a good sleeping bag such as an old Army down-filled bag. In the day time, people going in and out of the room provide adequate ventilation. If it starts to feel stuffy, pull the door snake away from the door, or even briefly open it a crack. Moderate, controlled ventilation causes much less heat loss than a small, uncontrolled leak that continues around the clock.

You will feel much more comfortable if you can eat at least one hot meal per day, or at least drink a hot drink in the morning. Contrary to manufacturers’ instructions, you can safely use a propane camp stove or barbecue indoors. Millions of homes already have natural gas stoves and ovens that run on the same principle as propane campstoves and barbeque grills. The actual danger is that propane is heavier than air, so it can collect in basements, where furnace or water heater pilot lights can ignite it. If you have a propane leak, you will smell it. If you suspect one, brush a solution of one part water to one part detergent on all connections and joints. Even tiny leaks will blow lots of bubbles. A small amount of propane will dissipate harmlessly in the air. The real danger is from a leaking tank that does not shut off completely. Store your propane tank out of doors when not in use to avoid these problems.

You and your family are not the only things in your houses that need to keep warm. Pipes will freeze and burst unless you leave the water running. Moving water resists freezing at temperatures as low as 20 degrees Fahrenheit. Adjust every faucet to provide a constant, steady drip.
“one control” faucets to provide a mix of hot and cold water to prevent the hot water pipes from freezing too. Adjust toilet float valves so the water level is above the top of the overflow tube. Disconnect washing machine hoses at the machine end, and let them drip directly into the drain. Do the same thing with the refrigerator ice maker or any other machine directly connected to water pipes.

Check faucets a couple of times a day to make sure they are still dripping. If they are not, or if temperatures are in the low twenties, you may want to turn off the water service to your house and drain all the water lines. Fill the biggest containers you’ve got with drinking water first.

Drain pipes can freeze too. This can be a worse problem than frozen water pipes, as they are often embedded in concrete and very hard to replace. Pour automotive antifreeze into floor drains, toilets, and sink or tub traps. Pour in enough pure antifreeze to completely fill the trap. The dripping faucets will dilute it. Use the recommended dilution chart on the antifreeze container for any drains that will not be used. Any drain that is being used regularly, such as a toilet, will need to be topped off with antifreeze after each use. Where water is dripping into drains, refill with antifreeze daily.

WARNING: do not use antifreeze where there is any possibility that someone may drink the water, even years later. For example, do not add antifreeze to a water heater tank. Even if you drain it later and wash it out, it can still contain enough residual poison to kill someone. Depending on your plumbing system, it may be possible to shut off the water heater, then drain it. Use a hose to run the water into a floor drain or outside. Leave the drain at the bottom of the water heater open, with the hose attached, then open the supply valve just enough to drip water into the heater tank.

### Roughing it

Excessive snow loads can collapse a roof, though most winter storms are not likely to destroy houses. But other disasters can still occur in winter, including fires, floods, earthquakes, toxic spills, and acts of war or terrorism. It’s been 20 years since I did damage assessments for American Red Cross Disaster Services, but some things don’t change. If your house is in danger of collapse, has already been destroyed or rendered uninhabitable, or if you are caught in transit, you will need to seek other shelter quickly.

Permanent buildings usually offer better shelter from the elements than tents, and are safer to heat, but can be very hard to insulate. Consider erecting a tent inside a garage or shed. Seal overhead doors with duct tape, and improvise insulation from loose hay or straw, crumpled up newspapers or rags, etc.

Baled hay or straw is good for building a quick, temporary shelter, but has a lower R-value than loose hay. A hay bale igloo can keep you plenty warm. Build up the floor of the igloo with bales, covered with a tarp, blanket, sheets of plywood or dry-wall, etc. Leave a crawl hole in the floor for the entrance. Cold air sinks, so you can keep your entrance open for light and ventilation, if it’s lower than the floor. Stuff loose hay between bales, and cover the igloo with plastic tarps, to keep out wind and water. Then bury the whole thing in snow. Snow makes a very good insulator. If you’ve got enough bales, make double walls and dump loose hay between them.

Don’t bother providing for fires or heaters. Your own body heat will keep you warm, and you don’t want to build a fire in the center of a tinebox. For light, improvise a lamp from a car taillight bulb, some wire, and an automotive battery. You can use electricians’ tape, or even duct tape, to connect the wires to the bulb and the battery terminals, but hose clamps work better. Such an improvised lamp with a fully-charged battery should be good for a hundred hours of illumination or more. Stretch your time by using flashlights briefly at night, with the “main” light off. Keep the battery inside the igloo with you. Just like you, batteries lose energy when they get cold.

### Cars

What if a disaster or emergency renders the whole area uninhabitable, or you get stuck in a blizzard? Your car can provide temporary shelter. It’s best not to run the engine for heat at all, if you have warm clothes and blankets in the car and there’s any chance you could have knocked part of the exhaust system loose. Running the engine could fill the car with deadly carbon monoxide. You’d never even know it.

If there is more than one person in the car, huddle together for warmth. One “space blanket” can keep two people warm enough to survive this way. If you absolutely must run the engine for heat, run it just long enough to warm up the car, then shut it off. There won’t be enough gas to run it all night anyway. You might as well conserve gas and minimize the carbon monoxide danger, too. Don’t play the radio more than a few minutes when the engine is not running. You want to be able to start the motor after the blizzard quits.

Melt snow to drink by putting it in a cup or other container inside the car. Eating snow will make you lose precious body heat. You’ll do much better if you have some hard candy or other source of energy on hand. Beef jerky is not good for winter survival. It makes you thirsty. Even if you have plenty of water handy, you will have to pee a lot, losing body heat in the process. If you don’t have food, plan to sleep a lot. Eskimos have a saying,
“Sleep is food.” The more you sleep, the less food you’ll need.

The worst danger in winter survival camping is not snow, but wind. Snow is actually a pretty good insulator. Stay inside the car and out of the wind as much as possible. Nevertheless, you do not want to get buried. Preserve air circulation by checking every two or three hours, to make sure you are not completely covered, and can get the door open. Let someone know where you are. If you have a cell phone, call 911. If you do get buried, at least they will know where to look.

You may have to abandon your car. Some friends of mine were stationed in the Philippines when Mt. Pinatubo erupted. They had less than an hour to evacuate, but they were prepared. The trunk of their car was stuffed with sleeping bags, a tent, a camp stove, and clothes, and each family member had a backpack with food for three days. Those backpacks served them well. The road was blocked by debris, so they had to abandon everything they couldn’t carry, and walk to the sea. Rescue ships were held up for a week by a hurricane, and for another week, crossing the Pacific. The tent, hot food, and hot drinks helped them survive for two weeks. Do not depend on your car for shelter. Be sure any tents, sleeping bags, and other emergency equipment in your car are easily portable.

**Improvised shelter**

If you are caught in the open in cold weather with no “real” shelter available, you have a true emergency. Two cardinal rules apply: stay dry and out of the wind. Use any available shelter from the wind—rocks, trees, etc. Cut or break branches from brush and trees to make an emergency “wikiup,” or rude shelter. Pile up brush to create a sleeping platform or mattress, to keep you off the cold ground. Insulate a wikiup with leaves, snow, clay, or dirt—the thicker the better. Keep door openings small and low.

Sleeping in unsupported snow caves is dangerous. If the snow collapses, you could be buried alive. It’s better to build an igloo. My Eskimo friend Nanook taught me how. Eskimos recognize seventeen different kinds of snow; only one is considered right for igloos. It’s the hard, stiff kind that doesn’t compress easily. If the snow is not hard enough to walk on without snow shoes, it’s not the right kind. Dig a five foot diameter pit in the snow, down to within two feet of the ground. Carve out blocks of snow with your shovel, and stack them in a circle on the edge of the pit. Lay each course of blocks in a slightly smaller circle than the last, and tipping each course further inward. The last block, or “keystone”, must be slightly tapered, and cut to fit exactly. Dig the entrance tunnel under the wall. Excavate the floor, inside the entrance, so it’s possible to crawl in and out. Fill cracks and smooth the igloo, inside and out, with hand-packed snow. A candle or small lamp will be adequate for light, and its heat will help pack and smooth the inside walls and ceiling.

If you are not an experienced snow-builder, or the temperature is not cold enough to prevent melting, it’s best to avoid igloos altogether. Instead, build walls of hard-packed snow, with brush or wood “rafters” to support a packed-snow roof. Not as elegant as a real igloo, but a whole lot safer than a badly built igloo.

**Personal warmth**

For most of us who live in cold weather climates, keeping warm in good shelter, without a functioning furnace, may simply mean dressing indoors the way we would normally dress outdoors. Because there is no wind indoors, it may even be simpler. A couple of sweaters can keep you quite warm, out of the wind and wet. I had a neighbor in eastern Washington State, where the winters are quite cold, who never heated his house at all. He had no pipes to freeze, so he and his family just wore lots of sweaters.

The basic principles of dressing for cold weather are dressing in layers, keeping out wind and water, and fitness for intended use. Wear thermal underwear indoors and out. When doing the laundry is difficult or impossible, wear regular underwear beneath the long johns to keep them clean longer.

Keep the layers loose. Still air is the best insulator. Thermals covered by pajamas and/or sweats make a comfortable indoor combination. Wool or flannel shirts, plus sweaters and sweat shirts, will keep you toasty warm in all but the most bitter weather. Layering also provides different levels of insulation for different activities. If you frequently change from sedentary to active roles, dress for the most active, and cover up with a robe or blanket when inactive.

Exercise can certainly keep you warm, but don’t work up a sweat. Sweating is supposed to cool the body, and it works all too well in cold weather. Exercise also uses up energy, which must be replaced with food. The best foods for cold weather are hot and high in fats and sugars.

American Red Cross Disaster Services recommends hot coffee (not decaf) brewed strong, with plenty of sugar and cream. Caffeine helps the body release stored energy, while sugar and cream are good energy sources themselves. Unfortunately, most strong coffee contains acid. This stimulates increased urination, causing loss of water and body heat. Low acid coffee is best, if you can find some that is not also low in caffeine. Do not use alcoholic beverages in cold weather. They may make you feel warmer, but at the expense of diminished circulation in the extremities, where you need it the most.
Retire early. There’s not much to do after dark in the cold, so you might as well be sleeping. Bedtime can be the best time of the day, with storytelling by Mom and Dad. Children should never sleep alone in cold emergencies. Another warm body can make a bed really comfy. If you have a stove or fireplace, heat bricks up just before bedtime, wrap them in a towel to prevent burns, and place in the foot of the bed, to keep little feet warm. It works for big feet, too. Many a cold, winter night, my whole family has piled in together, with seven people (and half a dozen hot bricks) in one big bed. I won’t say it’s comfortable, but it is warm.

Don’t put on too many clothes in bed. Loose, cotton pajamas or night gowns are about perfect. Many campers have learned that it’s warmer to sleep nearly naked than with lots of layers of clothing, if you have plenty of warm bedding. I’ve never heard a satisfactory explanation for this, but have verified it many times.

Frostbite & hypothermia
Frostbite is not usually life-threatening. It is caused by the freezing of skin and muscle cells, usually in extremities, nose, and ears. Frostbitten skin is grayish-white and has no feeling in it. Never pour hot water on a frostbite or rub it with snow. Because of the lack of sensation, you can tear or scald skin without the victim even knowing it.

Body heat is best. Place hands over frostbitten nose or ears. Place frostbitten hands or feet in underarms or between legs. If all else fails, briefly immerse the frozen part in lukewarm water. It hurts like fire as the feeling returns. Have the victim exercise frostbitten fingers and toes to increase circulation, and drink hot water or coffee. If feeling does not return, the body part is frozen. Seek qualified medical help immediately to prevent gangrene.

Hypothermia occurs when the core body temperature begins to drop. If someone is turning blue, or their teeth are chattering, they are in the initial stages of hypothermia. Get them warm right away. Get them out of cold clothes and under covers. If you can sandwich them between a couple of warm bodies, so much the better. Skin to skin contact helps. Give hot, sweet coffee or soup to drink.

In the final stages of hypothermia, people stop shivering, and become physically and mentally sluggish as body systems shut down. They may lose consciousness or stop breathing. Do not give up hope. Hypothermia victims, especially children, have been revived after hours without an apparent pulse or breath.

Nevertheless, get the victim warmed up as fast as possible. A warm bath (not hot) is the best way to do this, if you can arrange it under the circumstances. Do not leave him alone in the tub. He may lose consciousness again and drown. Give him hot but not scalding liquids when he begins to notice his surroundings. When he’s able to get out of the tub, pat his skin dry with the softest towel available. Rubbing may tear the skin if it has been frozen. Get him into a warm bed and keep him there until medical help arrives.

Resources
First Aid, American Red Cross—the classic first aid manual. Covers just about everything. Be sure to get the most current edition. Every home needs one.

What’s That Noise?! by Don Fallick, Holiday House Publishing, PO Box 27153, Salt Lake City, UT 84127. Comfort and advice for the first-time car owner.


Disaster Services Training Manuals, American Red Cross. Take the course. You have to volunteer for Red Cross Disaster Services, which is also not a bad idea. A
Homemade walnut stain

By Dana Martin Batory

Although I have a building filled with woodworking tools and machinery, I still like to practice what I call “organic technology” whenever possible by obtaining raw materials from my immediate surroundings. Most of the red and white oak lumber used in my Shaker style furniture is rescued from discarded shipping pallets. The cross-grained and knotty lumber, though much harder to machine, has a character lacking in furniture grade stock, and it’s free.

Usually I give my furniture a natural finish, but a recent customer insisted on a darker finish. I didn’t have any stain on hand so I put my mind to work. I caught sight of the walnut filled, walnut stained burlap sack outside the door and had my answer. After a little bit of experimentation I came up with a cheap water-based walnut wood stain that was quick and easy to make and produced a perfect finish.

The stain can be cooked on the kitchen stove, but it’s safer to risk smells and spills outside than in.

Use a utility knife to cut away the hulls of enough large American Black Walnuts (Juglans nigra) to fill a one-gallon can about \( \frac{2}{3} \) full. It doesn’t hurt if they’re slightly brown or black. Wear gloves and old clothing. The hulls will stain skin and cloth just as easily as wood. Place the hulls in a clean, one-gallon paint can and fill to the brim with warm tap water. For the purest stain, rainwater should be used. Allow the hulls to steep overnight. You can crack open and eat the walnuts while waiting.

The natural dye is extracted by slowly bringing the water and hulls to a boil. I brewed mine on a Coleman camp stove in the garage. Boil steadily for at least 30 minutes and remove from heat. Allow the water to come to room temperature. Fish out as much large material as you can and strain the rest through a coffee filter or a very finely woven cloth into a one-gallon plastic milk jug for storage. It will take about two gallons of water and hulls to yield one gallon of stain. Don’t allow the concentrate to freeze.

Use the concentrate as you would any water-based stain, but be sure to shake the stain thoroughly before applying with a brush or rag. The stain is best when applied “hot” or at least warm, never cold. Several light coats are better than one heavy dark coat. They are easier to brush on without showing laps or streaks.

Allow each coat to dry before putting on the next. You can judge the color obtained better when it is dry. The more coats of stain applied the darker the color. I’ve found that two coats over red oak usually give me the required shade. The stain will cause the grain to raise, so the wood will have to be lightly sanded before varnishing. ＄

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![A walnut stained pine two candle hanging sconce](image)

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By Paul Lamble

Over the 4th of July weekend, my wife and I learned an important lesson the hard way. We live near Kansas City, but for several years we’ve owned 40 acres in the Missouri Ozarks. It’s close to true wilderness, with immense old oaks, abundant wildlife, plenty of solitude, and only a single, axle-snapping dirt road in.

We visit our land frequently to camp, cut wood, and imagine where our cabin will rise in a few years after the kids are on their own. Often we would hike for acres under an unbroken canopy of hundred-year-old oaks and hickories. But that weekend we found an area where we could never do that again.

Several acres of the oldest and most beautiful trees in our forest had been cut. The land next to ours had recently changed hands, and our new neighbor was putting it to productive use by harvesting the timber. His crew had already cleared most of a hillside. Unfortunately, some of that hillside belonged to us.

Or so we believed, and here is where our lesson began.

When we walked the land with the realtor years before, faded survey tape hung in the low branches of the trees. This was pointed out as our western boundary, and that seemed perfectly adequate. The next spring, though, a ground fire swept through, consuming the tape. We knew where the line ran, but we couldn’t prove it.
That weekend when we first viewed the piles of treetops and the big equipment ready for more work, we realized we had to let our neighbor know of the mistake before more of our trees fell. We got his name and address from the county, and sent him a letter saying, in a reasonable, calm way, that we believed the logging had crossed our property line and that we needed to get it resolved. We didn’t phone him for two reasons. First, a letter gave us time to calm down and think through what we wanted to say. There was less chance of saying something we would regret later. Second, the county didn’t have his phone number and he wasn’t in the book.

Fortunately, when our neighbor called after receiving the letter, he was also reasonable and calm. He explained that he was confident he hadn’t crossed our line and that we were mistaken in where it ran but that he would stop cutting that area until it was worked out. He said that when he bought the land, the prior owner showed him where the boundary was. He did say that if it turned out he was mistaken, he would take responsibility, but he doubted there was an error. In the absence of proof, it was simply our claim against his.

Mistakes from the past

And the problem grew worse. Not only did we have no evidence of the line, but we soon learned that we didn’t even have a survey. Years before the land had been surveyed, but the company that did the work had long since gone out of business, and the records were transferred to a different company. Whatever documentation survived from the past was jumbled and confused.

Not only had our trees been taken, but now we had to question whether they had ever been our trees at all. I didn’t curse the realtor for the same reason I hadn’t called the sheriff or carried a rifle to my neighbor’s doorstep as all our friends had suggested. At that point, we simply didn’t know anything for certain.

Looking back now it seems insane that we owned 40 acres in a perfect square but didn’t have a survey to show where the four sides were. We were naive, and we were paying the price.

Our next step was to get a new survey. We contacted the company that received the original records and scheduled a visit. Because of their workload, several weeks passed before they came out. By then it was mid-August, when the temperature soared, horseflies bit, and leaves hung in the undergrowth and remaining trees. If we had the luxury of time, we could have waited until November when the leaves had fallen, the bugs were gone, and the temperature was more work-friendly.

Compounding the confusion was a missing peg at our northwest corner. The earlier survey referenced a pile of stones, but this wasn’t a legal definition, so we had to establish that point before we could find the line. This took extra days of research and marching through the woods. In the end we spent more than $1000 drawing an imaginary line a quarter mile through the Ozarks. But that gave us an indisputable western boundary, with steel pegs at two ends and stakes at regular intervals along it. Best of all, it was right where the survey tape used to hang. We were right, our neighbor was wrong, and now we could prove it.

The following weekend my son and I sank six-foot steel posts along this line and at our four corners, then painted their tops bright orange. I’ve never liked PRIVATE PROPERTY signs on trees. They’re unfriendly and jarring in the middle of the woods. But that day we added several to the remaining trees along our western line.

Weeks had passed since I’d last spoken to my neighbor, so when he received our second letter with a copy of the survey, he called to say he thought we’d forgotten the whole dispute. He also said he was upset to learn he did make a mistake. He apologized and insisted he never would have cut the trees had he known. Then he offered to compensate us.

Sorting it out

Valuing timber was not something either of us had any experience in. He knew how much a truckload of trees earned him, but it was impossible to estimate how many truckloads our trees made. Furthermore, different species had different values. That part of the woods had a mixture of hickories and several kinds of oaks.

To sort it out, I hired a professional forester. The state conservation department will value trees for landowners, but it won’t get into a dispute like this. I got a list of foresters and started by calling the first name and continued until I reached a human voice.

When we met the forester on our land on a beautiful Monday in September, he got right to work. He was methodical and thorough. He examined each stump, measured its diameter, and measured the distance between the two, taking into account any sliding the tree might have done when it fell. From this he could calculate the number of board feet the tree contained. He also noted the species. Then he painted the stump blue so we wouldn’t measure it again.

When I had described the cutting to him over the phone, I said there were maybe 30 trees taken altogether from the two acres. By the time he finished, he’d found 85 stumps and suspected there were at least ten more buried under the treetops. He recorded every detail and took all of the data back to his computer to calculate the value of the trees based on current, published timber prices.
A detailed report arrived a week later. It specified a dollar value for the trees that was more than we expected but less than the costs of the survey, the forester, and legal advice once we added them up. Fortunately, in a case of timber trespass Missouri law favors the victim, and the landowner is entitled to three times the value of the trees taken.

With all of this information in hand, we wrote our neighbor a third time, including a copy of the forester’s report. We outlined a worst-case scenario, showing all of our costs and the triple value of the timber. It came to a lot of money.

Then my wife and I did some soul searching. The trees were gone and wouldn’t be back in our lifetime. No amount of money was going to change that. Our neighbor seemed to have made an honest mistake that he regretted. Was it right to punish him to the full extent of the law? Did we want to be bullies who got rough justice then scurried back to suburbia? Did we want to create hard feelings with a man who would someday be our neighbor?

Yet we spent thousands of dollars because of his mistake. We lost our favorite part of the forest forever. The wood taken was equivalent to 10,200 board feet, enough to frame a 2,000 square-foot house. Most important, if we didn’t fight back, any of our other neighbors might take it as a sign that we didn’t care or wouldn’t object.

Two weeks of silence followed. Then a letter came, not from our neighbor but from his lawyer. He stated our demands were unreasonable, though he hadn’t actually demanded anything. We had merely outlined our costs and pointed out what a judge could award if we settled in court. Our plan was to suggest how bad it could be so that we might negotiate to a more reasonable number. Apparently they got the point because the lawyer counteroffered with an amount less than one-tenth of our total. Even if those trees had been trash timber, they would have brought more than his offer as firewood in Kansas City.

Now the dispute rests with our lawyers. I’ve tried to come up with compromises. I’m willing to average his value of the trees with the forester’s. I’m willing to forget the triple damages. I’ll take out the cost of the survey. If I had gotten a survey before we bought the land, this whole mess wouldn’t have happened. I’m told these things take time but eventually something satisfactory to both sides will be reached. In the end, I suspect the only ones who will be satisfied will be the lawyers.

Plans for the future

In the meantime we haven’t been idle. My wife and I have mailed a topographic map of the 40 acres to each of our neighbors, showing where their land touches ours and asking that they contact us if they have any question about where the property lines fall.

We’re clearing out the treetops that lie scattered across the two acres. One thing they have done for us is put a lot of firewood within easy reach now. In the spring we’re going to plant hawthorn trees there. They have fragrant flowers, and in the fall their tiny apple-like fruits will feed the deer and squirrels. It won’t be a mature forest again in our lives, but in five years it will be nice, and the remaining evidence of the unfortunate harvest will be turning back into soil.

There are many ways to look at a forest, and each way can be legitimate. My neighbor looked at his and saw acres of mature hardwoods ripe for harvesting. He could make a fair income and open the tree canopy to speed the growth of the next generation of trees. My wife and I saw our forest as wilderness, more alive and interesting than suburbia’s manicured parks. We could enjoy its richness, and the wind could be counted on to take down the right trees to open the canopy.

Both views can co-exist, and a clear property line is what makes this work. I respect my neighbor’s right to harvest his trees. I think he respects my right to enjoy a mature forest. The lack of a clearly defined property line hurt us. We’ve both learned hard lessons.

Lessons learned

• Have a survey done or get a copy of the most recent survey. The memory of a former landowner may grow faulty or be wrong to begin with. Make a survey a condition of the sale if you’re buying land. Record the survey with the county.

• Mark your border as you see fit: blaze trees, set out signs, raise a fence or line of posts, clear a firebreak, pile rocks, hang survey tape, plant hedge roses. Renew your markings yearly.

• Get to know your neighbors, or at least let them know you’re paying attention. Send them a copy of your survey. Walk the line with your neighbor and be sure you agree on where it lies. Goodwill and vigilance early is better than anger and regret later.

• Learn and understand what easements affect your property. Your neighbor may have the right to build a road across your land. Better to learn this in advance than when the bulldozer arrives.

• Learn your state’s rural property laws. In some states, a landowner must contact all of his neighbors before doing large-scale timber harvesting. He may also be restricted from cutting any closer than within twenty feet of his property line.

• If you have a dispute, stay calm, civil, and reasonable. Arm yourself with the objectivity of unbiased professionals. Don’t lose your fight by losing your temper. ∆
One President had actually been an executioner before becoming President of the United States. From 1871 to 1873 Grover Cleveland was the Sheriff of Erie County, New York, where the city of Buffalo is located. Among his duties was the responsibility to hang those condemned to die. As such, Cleveland tripped the lever twice and hanged two convicted murderers.

From the American colonial period until the War Between the States, dueling as a means of settling matters of “honor” was a part of the American social and political landscape. One of history’s most infamous duels took place on July 11, 1804, in New Jersey when Aaron Burr shot and killed Alexander Hamilton. After that, many states passed laws against dueling while others, such as New York, vowed off anti-dueling laws that had been on the books, but largely unenforced, for years.

But dueling didn’t go away immediately and among those who engaged in duels were several men who would one day become Presidents.

One, Andrew Jackson, was in two duels and, in one of those, he killed a man some 22 years before he became the seventh President.

His opponent was a political adversary, Charles Dickinson, and what precipitated the duel were unflattering remarks Dickinson made about Jackson’s wife.

Dickinson himself was a crack shot and a feared dueler and was noted for being able to get off a quick and accurate shot before his opponent could respond.

Jackson’s strategy was to wear an oversized coat so Dickinson would misjudge his shot. And it worked. At the assigned moment, both men brought up their guns and Dickinson, as expected, fired first. To his amazement, after he fired, Jackson was still standing. And this is where the duel gets murky. According to the protocols of dueling, you got one shot to make your point—and even a misfire counted as a shot.

Jackson aimed his shot and Dickinson, in accordance with the rules, stood his ground. Jackson pulled his trigger, but his pistol misfired. By the rules the duel was officially over. Jackson, however, calmly recocked his gun and brought it up again. Still standing his ground, Dickinson, along with the others in attendance, watched in amazement as Jackson prepared for a “second” shot.

This time, the gun fired, and Dickinson went down.

To some of those in attendance, by violating the rules of the duel, Jackson had committed murder.

Jackson and his seconds left the scene. It was only as they were leaving that Jackson’s seconds realized he had been shot. Dickinson, misjudging Jackson’s size, because of the oversized overcoat, had placed his bullet just to the left of Jackson’s heart.

That evening, Jackson sent a bottle of wine to Dickinson. But Dickinson never got to enjoy it. By the next morning he was dead. He also died without knowing his shot had struck Jackson. And, as his bullet had struck too close to Jackson’s heart to be safely removed by the medical procedures of the day, Jackson carried it as a reminder for the rest of his life.

What happens when an irresistible force meets an immovable object?

It sounds like one of those unanswerable questions. But, actually, if we take into Newton’s laws of motion and Einstein’s theory of relativity, the question answers itself.

First, let’s consider the immovable object. According to relativity, all motion is relative and there is no “absolute reference” against which anything moves. So, even the most massive object in the universe is moving relative to other things. In other words, immovable objects don’t exist.

What about irresistible forces?

According to Newton’s third law of motion, for every action (or force), there is an equal and opposite reaction (force). This accounts for the recoil of a rifle (the gases and bullet going in one direction, down the rifle barrel, push the rifle back, with a force equivalent, against the shooter’s shoulder), the thrust of a rocket (created by the escaping gases of the burning propellant) pushes the rocket in the other direction, and the force of a feather falling to the ground moves the earth, even if the motion is undetectable with anything we have for measuring today.

The net result of this is that while there are no immovable objects, every force, no matter how slight, is irresistible.

The only time the United States has been without debt was the year 1835. The debt as of 8/30/02 was $6,186,649,363,431.23—or about $21,463.45 per citizen.
Steppeing over rocks while on a remote trail is a good way to lose your balance and twist your ankle. Not so much a problem if you are near home, it becomes a major problem if you are miles from a trail. At best, you will have a slow, painful hike back. At worst, a rescue team may need to be called to carry you out.

Injuries to the feet are a potential problem for everyone who ventures outdoors, whether they are hikers, backpackers, hunters, or firefighters. Those who live in rural areas are also at risk, working in fields or in mountainous or hilly terrain.

Backpacker and podiatrist, Dr. Calvin Layland says, “Prevention is the key when hiking. Once you have a problem, you are in trouble.” He advises, “Foot problems are largely preventable and early treatment of those that do occur can stop them from worsening.”

Our lifestyle is the cause of many walking injuries of the foot. We tend not to walk or carry much weight during our normal daily activity, however, when we go outdoors hiking, hunting, or backpacking we carry heavy packs. Even when we are in good physical shape and wear the right boots, we still tend to overtax our bodies causing sprains (injuries to ligaments that attach bones to bones), strains (injuries to muscles or tendons), and tendonitis (an overuse injury of tendons which attach muscles to bones).

Common causes of injury are inadequate physical conditioning, wearing ill-fitting or stiff boots, carrying too heavy of a load, not stretching mus-
cles before hiking, and not taking adequate rest breaks.

**Preventing injuries**

Adequate physical conditioning at home will minimize foot and ankle problems or injuries in the backcountry. Exercises that strengthen the muscles of the knees, ankles, and trunk will improve balance and reduce the chance of stumbling and twisting an ankle. Lunges, squats, and stomach crunches done several weeks in advance of a trip will strengthen the muscles.

Make sure you have the right boots. Everyone’s feet differ in size, shape, and position, and improper fitting boots are the main cause of foot problems in the backcountry. Be sure to wear your boots enough to break them in before any long hike and don’t forget to make sure your toenails are properly trimmed to help prevent rubbing and blisters.

When selecting a new pair of boots, first evaluate their length. Try on a pair of boots your size while wearing the socks that you will wear while hiking. Tap your toes towards the front before lacing them. If they are the right length, you should just be able to fit your index finger between the back of the boot and your heel. After lacing the boot, you should be able to freely wiggle your toes without feeling the front of the boot.

Boots are designed to flex at the area of the ball of the foot, generally the widest part of the boot. Make sure the distance from the ball of the foot to your heel matches that of the boot and that the boot flexes where your foot does. Try flexing the boot while walking uphill (many stores have ramps to accommodate this), making sure that the heel does not come up more than about ¼-inch. Choose another boot if it does, as sliding in this area will cause heel blisters.

Foot volume is the space taken up by the foot. It varies tremendously among boots made by different manufacturers. There is no accurate way to measure volume, so judge it by the overall feel of the boot. There should be a supportive fit, adequate toe space, and no tight spots. You should have ample room to wiggle your toes and your feet should barely touch the sides of the boot. A boot that is too tight will cause blisters on the top of toes, pressure on the arch, and may restrict circulation, causing numbness as your foot swells during hiking.

If a boot doesn’t immediately feel good when you put it on, it will never be right. Don’t believe a salesman that tells you it will fit better if you
wear it for a while. Try different boots in different styles and by different manufacturers until you find the perfect one. Many better stores will allow you to “test drive” boots by wearing them indoors at home for a few days to make sure they fit.

“Flat-footed,” properly called overpronation, is the tendency for the foot to roll inward during walking. It is a common problem, often inherited, that causes loss of the arch of the foot, putting strain on the ankle and knee while jamming the toes against the end of the boot. Severe ankle pain often occurs when hiking. In some cases, a pair of foam-padded insoles, available at many stores, will help stabilize the foot better than the insoles that come with the boots. In more severe cases of overpronation, or if you have pain in the ankles while hiking, Dr. Layland advises visiting a podiatrist who can make custom-made orthotic insoles for your boots and shoes. By simply correcting the way one walks, the pressure is taken off the ankles and the pain stops.

There are other things that you can do to prevent foot and ankle injuries. Wear as light a daypack or backpack as possible since less weight on your back improves your stability and decreases the stress on your ankles and knees.

Hiking or trekking poles make you much more stable over rocky ground and take a lot of the stress off your legs when hiking uphill. Injuries are often caused by twisting a joint while trying to regain balance after a stumble. Poles will act as extensions of your arms, giving you additional points of stability. This is especially helpful when hiking down steep and rocky paths.

Stretching leg muscles, especially the quads, hamstrings, and calves, for several minutes before beginning hiking and after a cooling down period, such as lunch, is important to loosen the muscles to avoid injury to the ligaments and tendons.

Sprained ankles

Sprained ankles which are common backcountry injuries, are caused by tripping on uneven ground or over rocks and logs. The vast majority are inversion injuries, where the foot turns toward the middle of the body and the ankle turns outward stretching or tearing the ligaments on the outside of the ankle.

Signs of a sprained ankle include pain and swelling on the outer part of the ankle. With a minor sprain, such as one that stretches or partially tears ligaments, the individual should be able to bear their own weight and walk. If the injured individual cannot stand and put weight on his foot, suspect a complete tear of the ligament or an ankle fracture. Since it can be difficult to determine between these, splint the foot and ankle and evacuate the injured person for x-rays and medical care.

Standard treatment for any sprain or athletic injury is summarized by the acronym RICE—rest, ice, compression, and elevation. Take the stress off the ankle by resting to prevent further damage to the ligaments. Apply ice early to reduce the swelling and pain. It should be used for up to 20 minutes 3 to 4 times per day. Swelling will return once the ice is removed unless a compression wrap is used. Place padding, such as gauze, socks, or gloves, over the sprained joint and wrap with an elastic bandage from the toes up to and over the ankle. It should be comfortably tight and loosened if there is increased pain, numbness, or tingling of the foot or toes. Elevate the ankle to reduce swelling. Continue the RICE treatment for the first 72 hours.

Non-steroidal anti-inflammatory medications, such as ibuprophen (Motrin) 600mg three times a day with food, can be taken to reduce both inflammation and pain.

After the initial RICE treatment, if the individual can put weight on their feet, stop several times a day, wash your feet, and put on dry socks. Rest with your feet elevated to reduce heat and swelling. Many distance hikers carry several pair of liner and heavy socks, changing them three times per day.
foot and walk, the ankle should be stabilized to prevent further injury. This can be done in several ways. One to two inch cloth tape can be placed in a crossweave or basketweave pattern over the back of the foot, ankle, and leg. SAM splints can also be used to give enough stabilization for an individual to walk. With the boot or shoe on, wrap the SAM splint around the foot and secure with tape. They may need to be periodically adjusted or tightened. Splints can also be made from other available materials, such as strips of foam sleeping pads, blankets, or similar materials.

Achilles tendonitis

This is a progressive overuse injury of the Achilles tendon, the tendon that attaches the calf muscles to the heel. It may occur when walking or running uphill with a heavy backpack, often with cool and un-stretched muscles, or after long periods of hiking.

Symptoms include a dull ache or pain in the Achilles tendon, especially when jumping or running, mild swelling, tenderness to touch, and possibly a grating sound as the tendon rubs against its sheath. There may be no pain at rest. The individual will be able to put their full weight on the foot and will be able to walk, although in pain. Treatment includes rest, ice, compression, and elevation (RICE). Stretching the Achilles tendon gently keeps it flexible.

If the individual cannot walk or put their weight on the foot, the Achilles tendon may be completely torn (ruptured). The tendon may have snapped in half or pulled away from the bone and the individual will feel as though they were stabbed in the back of the ankle with a knife. Treat with RICE, splint the ankle, and evacuate the individual, as they may need surgery to repair the ruptured tendon.

Plantar fasciitis

Another overuse injury is plantar fasciitis, an inflammation of the connective tissue sheath that encloses the muscles and tendons of the bottom of the foot. Causes include excessive hiking or running, especially when the foot is improperly cushioned, the arch is inadequately supported, or when the foot is overloaded by carrying a heavy backpack. Our body is accustomed to carrying our normal weight and plantar fasciitis occurs when feet are suddenly burdened by this additional weight, Dr. Layland explains.

Symptoms include pain on the bottom of the foot that is worsened by bearing weight. Rest, ice compresses, and non-steroidal anti-inflammatory medications are used to treat plantar fasciitis. A splint may be worn at night to hold the foot in a neutral position and slightly stretch the plantar fascia. If the individual must continue to walk, the painful foot can be taped to provide arch support. Once you get home, see a podiatrist to determine if a custom-made orthotic may prevent future problems when hiking.
Blisters

Blisters are one of the most common, debilitating injuries in the backcountry. They are caused by the friction of rubbing between a boot and skin of the foot.

A reddened, sore area, called a “hot spot,” develops first and is a warning sign. If the rubbing continues, a pocket of fluid develops and the outer layer of the skin separates from the deeper layer causing a blister.

Blisters often form on the back of the heel when walking steeply uphill and on the tip of the middle toe or under the toenail when going steeply downhill. Moisture from perspiration of the feet or from getting your feet wet while hiking breaks down the skin and predisposes it to blisters.

Wearing a thin polypropylene or nylon liner sock under a heavier wool or wool-and-nylon blend can help. The liner sock wicks sweat and moisture away from the skin and any rubbing will occur between the socks, not between your foot and the boot.

Some people’s feet sweat more than normal (hyperhidrosis). They find foot powder or an aerosol antiperspirant used on their feet may help keep them dry, reducing the chance of blisters and Athlete’s Foot.

“When hiking, stop several times a day, wash your feet, and put on dry socks,” Dr. Layland advises. Rest with your feet elevated to reduce heat and swelling. Before putting your boots back on, put on dry socks, making sure to avoid wrinkles in the socks as they can cause blisters. Many distance hikers carry several pair of liner and heavy socks, changing them three times per day. The pair that was just removed can be tied to a backpack to dry and can be reused before being washed in the evening. Your feet will feel much better and you will avoid many blisters if you follow this advice.

After the first 15 minutes of hiking, stop to adjust boots and check for any hot spots. Any warm or sensitive areas should be treated with moleskin, Band-Aid Blister Block, Spenco 2nd Skin, or similar material which will act like a second layer of skin.

If you find yourself without any of these, you can improvise by using first aid tape or even duct tape, although it does not breath.

If a hot spot is allowed to continue, a painful blister containing clear fluid will rapidly develop over the irritated area. It may be small or large, but will eventually get large enough to burst on its own creating an open wound and potential for infection.

If a blister is small and intact, it may be treated like a hot spot with a protective covering. Sometimes it is helpful to cut a circular hole in the material, slightly larger than the blister, and place the hole over the blister. It must be thick enough to keep the blister from rubbing against the boot, even if several layers need to be added.

If the blister is large, it is better to drain the fluid to relieve the pain and remove the inflammatory fluid that can delay healing. Use a sterilized needle, scalp knife, or safety pin (to sterilize, heat over a match to red-hot and then let cool) to puncture the blister at its base and press the fluid out. Do not remove the skin over the blister or you will be walking on a painful open wound. Apply an antibiotic ointment over the blister to help prevent infection and cover with a protective covering.

Many hikers find Spenco 2nd Skin to be a better choice than traditional moleskin. It is a hydrocolloid pad that protects, cushions, and absorbs fluid from the blister, while acting as a bacterial barrier to prevent infection. It can be left in place for up to five days and will detach from the skin naturally, without tearing the skin off the blister.

If a blister bursts on its own you will have a painful open wound that is at risk of infection from the microorganisms on your foot. You will know if it becomes infected from the increased pain and the pus draining.
from the wound. Remove the dead skin overlying the blister with small scissors, clean the wound with soap and water, and treat like any other open wound, applying antibiotic ointment and a sterile dressing.

Other foot problems
Besides injuries, Athlete’s Foot and cracking skin are two irritating and painful conditions that plague hikers and other outdoorsmen.

Athlete’s Foot is due to normal fungal organisms present on everyone’s foot, both on the skin and nails. These fungi normally consume thick skin, called callus, keeping the skin soft. If unchecked, calluses will grow thick, crusty, and the skin will crack, a common problem among individuals who go barefoot or wear sandals all of the time.

In warm, moist conditions, the foot does not receive adequate ventilation and the numbers of fungal organisms rapidly increase. This leads to loss of all callus formation, making the foot more susceptible to blisters. The skin of the foot and toe becomes thin and the fungus begins to feed on live skin causing an itchy, scaly, red rash, most commonly between the fourth and fifth toes. They can crack, blister, or ulcerate causing painful open sores in what is called commonly known as Athlete’ Foot. On the soles of the feet, Athlete’s Foot presents as itchy, dry, flaking skin, sometimes with small blisters.

Prevention is the best treatment for Athlete’s Foot. Wash your feet daily, being careful to dry well between the toes. Keep your socks dry and wear liner socks that wick sweat away from the skin rather than cotton that stays moist. Once in camp, change into a pair of lighter shoes or sandals to let your feet ventilate better.

If Athlete’s Foot occurs, it can be readily treated with over-the-counter anti-fungal medications available as liquids, ointments, or powders. Treat until symptoms are gone, at least for a week.

When feet are too dry or shoes rub against the feet, a thick callus forms and cracking of the skin occurs, especially on heel, ball of the foot, and toes. These cracks become painful as they pull apart the live skin and do not heal well because the callus material is dead skin.

As calluses start to thicken, an individual can prevent cracking by wearing socks to increase moisture in the foot and by using creams that decrease callus formation, such as Ureacin-20, available from your podiatrist or physician. Thickened skin can be removed before it starts to crack by sanding with a sanding block available at a pharmacy or even with a sandpaper disk on a battery-operated drill.

Walking injuries are the most common, yet most preventable, injuries in the outdoors. Pre-trip physical conditioning, proper fitting boots and socks, daily foot care in the field, and early treatment of any problems will go a long way in making your trip an enjoyable one. Remember, “Once you have a problem, you are in trouble.”\[\Delta\]

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By Jackie Clay

In today’s hurry-up, prosperous world, bread has come to mean that white, pasty stuff you buy in the store and slap together into boring, equally tasteless sandwiches. Or it’s what contains that fast-food, mystery meat burger. But, there was a time when it used to be much more.

Not so long ago, breads were eaten at nearly every meal, and still are in many third world countries. No, I’m not talking about mushy store bread, but the real thing. Full of nutrients, satisfying and comforting, good bread truly is the staff of life, being the basis for many great meals—if not the meal itself during hard times.

Nearly all breads are easy and quick to make. And they are even better if you make them yourself, especially from your own grains, ground in your kitchen. No chemicals, no additives, no fillers. (Believe it or not, I saw a loaf of bread in a store lately that had cellulose as an ingredient—processed sawdust.)

To make breads even more valuable, they not only can be included in main courses, but also as desserts. Let’s look at a partial list of bread possibilities: muffins, rolls, white bread, whole wheat bread, rye bread, multi-grain bread, cornbread, popovers, corn tortillas, flour tortillas, pitas, biscuits, sweet rolls, cinnamon rolls, doughnuts, banana bread, zucchini bread, pineapple bread, hush puppies, apple fritters, hamburger and hotdog buns, pancakes, waffles, and a whole lot more.

I buy local wheat from a rancher, rye and other whole grains from an organic market. I usually grow enough corn to have cornmeal. All of these and more are ground in my kitchen, as I need them, and made into fresh breads for the table.

Now, I’m a more-than-busy person, but my baking only takes a couple of hours a week, all totaled. My “big” baking day is usually on Monday, when I bake white and whole wheat bread for the week. On other days, I’ll mix up tortillas, biscuits, corn bread, or rolls, in less time than it takes to tell. Like anything else, the more you do it, the quicker and easier it is. I can mix up a batch of biscuits from scratch in about the same time it takes to remove a roll of frozen biscuits from the freezer and place them on a cookie sheet. (Someone once gave our youngest son, David, a roll of those frozen biscuits. He brought them home, unsure of what to do with them. After leaving them on the counter until I got out of the garden, he asked how to make them, fascinated that biscuits could actually be in those little paper rolls. Well, it was hot that day, and that roll was plenty fat. David gave it a little tap and the cardboard roll exploded. KAPOW! Biscuit dough flew through the air. Some even stuck on the cupboard door. With big eyes, David declared he didn’t know store-bought biscuits could explode. Maybe he’d mix up a batch of homemade biscuits, instead.)

In addition to being more nutritious and tasty than store breads (and less explosive), homemade breads are very economical. Today, the average “better” breads are around $2.69 a

“And who will help me eat the bread?”
Son, David, reaps the reward for his flour grinding.
loaf. I can make two loaves of a far superior bread for less than a dollar, total. And that’s if I buy my flour, instead of growing my own grain or buying it from a local rancher.

Someone contemplating a self-reliant lifestyle would do well to give bread baking a serious study. Not only does it make homestead life much more satisfying, but it allows a family to save a lot of money, too.

**Grains for bread making**

*Wheat* is a commonly raised grain nationwide. The best wheat for bread making is hard wheat. Even hard wheat comes in “winter wheat”—planted in the fall, over-wintering to grow and mature in the summer of the following year, “spring wheat”—which is planted in the spring and harvested in the fall of the same year, red wheat, and white (or golden) wheat which is a lighter color. You’ll have to experiment to find your family’s favorite, although, all make very good bread.

You can easily raise wheat at home. I’ve done it a lot. And a small plot, about 10 by 100 feet will give you a bushel or more of excellent grain to grind for your table. It’s easy and fun to grow. Plant your winter wheat about six weeks before cold winter weather sets in and spring wheat when the weather is just warming up in the spring, after worries about freezing are over.

Till up your wheat plot and simply scatter wheat seed on top of the rough soil. Then rake or shallowly till the seed in so it is covered by about an inch of soil. Water well and keep evenly moist but not wet until germination takes place in about a week. Simply water as needed and wait for freezing are over.

The maturing wheat will get golden, with no green showing. Before it is so mature that it begins to fall from the stalk, cut your plot. The easiest and best way is to use a scythe with a grain cradle. This “grim reaper” style tool has a light frame attached to it which catches the grain stalks as they are cut off. Then you can bundle the wheat into a sheaf, tying it around the “waist” with a few straws of wheat. If you don’t have, or can’t borrow a scythe, you can cut your wheat with just about anything. I’ve seen people use hedge trimmers, string trimmers and even kitchen scissors. One tip: if you must use a power trimmer of some type, cut your wheat just a bit green so the shock will not shatter the wheat out onto the ground. Then dry it a little longer than you would otherwise.

The sheaves are then stood up in little tipis, or shocks, with one sheaf spread out on top, to shelter the grain from dew and any rain. You will know when your wheat is ready when you can take a head of wheat and roll it lightly between your fingers, and the grains easily fall out into your hand.

We create a threshing floor by laying a cheap plastic tarp out on the driveway, on a sunny, quiet day. Then lay an old sheet out on top of that. Gently gather up your shocks of wheat and bring them to your threshing floor. A few at a time, lay them out on the clean sheet, then flail the grain from the straw with a baseball bat. Or you use a homemade flail made with two sections of old shovel handle, one a foot long, the other three feet long, with a piece of cord four inches long tied through holes drilled in the ends of each. The long section is your “handle”, the short section, your flail. Gently beat the straw, loosening all of the grain. Then, with a clean pitch fork, shake and lift off the empty straw and stack it.

Repeat until all your wheat has been threshed. Gather up your grain, which also has bits of chaff, straw, and other debris. Now wait for a windy but dry day and winnow your grain. Spread out a large container. I use one of my wash tubs. Then pour the wheat slowly from a bowl, down to your tub, letting the wind clean your grain. Usually only a couple
pours will remove all dust, chaff, and debris. Your wheat is now ready to store. I use a new garbage can to protect it from insects and rodents. It is a good idea to stir your wheat every couple of days, to ensure it is completely dry; any moisture will cause your precious grain to mold. I simply stir the grain with my clean hand and arm. (It’s a wonderful feeling, too.)

If you have had problems with insects (weevils) in your grain, you may want to freeze your wheat, a batch at a time, before long-term storage. Usually freezing at 0° F for three days will prevent any insect problems later during storage.

Dry wheat, properly stored in a dark, airtight container, will keep perfectly for years; a perfect addition to a long-term storage pantry.

Rye is a second sister to wheat. As it is darker and stronger flavored, and with less gluten than wheat, it is used less often. But it is one of the hardiest of all grains and a good addition to your grain pantry. A small plot off the end of your wheat plot, say 10 feet by 25 feet, will provide all the rye you need for an average year. The growing and harvesting of rye is just like spring wheat.

Oats are very hardy and easily grown at home, however, there really isn’t an easy way to dehull them at home. But there is a relatively new variety of oats out which makes this a thing of the past. Naked hulled oats have no tight hull, so simply threshing them as you would other grain leaves them clean and ready to roll or grind.

I roll some of my oats for a coarser bread and for non-bread uses, such as cookies and granola. But I also grind some oats with my wheat, to use in multi-grain breads, making oat flour, instead of rolled oats.

Oats are super easy to grow at home. They are planted in the early spring, just after the cold weather moderates. They will take a frost, but a hard freeze can damage the stand. Plant corn bread. And he often stops right there. But my corn is used for corn tortillas, in multi-grain bread, many white breads, as a crunchy crust dust for pizza dough, bread sticks, hush puppies, cornmeal mush for breakfast, tamale dough, and Indian pudding for dessert.

Corn used for meal and corn flour is mature, hard, dry corn. Cornmeal is the gritty textured ground flint corn, where corn flour is silky smooth flour, ground from dried, uncooked hominy corn, with the “skin” removed by boiling in lime water until the skin will separate from the kernel.

It doesn’t take much room to grow a patch of corn for your own cornmeal and corn flour. A dozen 20-foot rows will provide all you can use in a year. (Remember, in a survival situation, you will use much more cornmeal than you may today.) I’ve made excellent cornmeal with “leftover” second ears of sweet corn that were not used at market or for my canning needs.

Wait to harvest your corn, until the plants are totally dry and rattle in a wind. The corn itself should not give under pressure from your thumbnail. I prefer to leave it on the stalk until a dry period in late fall to make extra sure the corn is dry and avoid chances of mold.

Pick your ears and shuck them, removing all of the husk and silk. If you have the room, somewhere insect and rodent-proof, store your corn on the ear, as it will keep very well that way. If not, shell the corn. A hand-turned corn sheller is one old-time tool that is very handy. Unfortunately, few of us have one. I usually just twist two ears of corn together over a
clean barrel or garbage can. With practice, you can shell a lot of corn this way in a few hours.

As with your other grains, be sure to stir the barrel of corn every day or two, until you are positive it is completely dry. With low-moisture corn, this is accomplished in a week’s time. Be sure. Mold spoils the whole lot.

Miscellaneous grains

There are a whole lot of grains, used by folks world-wide, other than wheat. They are tasty and very nutritious, but, unfortunately, they do not contain gluten, which makes bread rise nicely. I use many of these grains, in addition to my wheat, making a multi-grain bread. And I often make ethnic breads from these traditional grains, for variety and unique tastes. You might want to give them a try.

Millet, amaranth, barley, buckwheat, quiona, wild rice, brown rice and even “weed” seeds, such as pigweed, dock, and crab grass make excellent grains, especially in addition to wheat flour. These grains can be found at local food co-ops and wild-harvested around your homestead, in the case of “weed” seeds. As with any wild foraging, be sure of your plant to avoid problems.

Nongrain bread additions

There are many things that I often use in my daily bread making that are not “grain,” but help make tasty loaves, nonetheless. Among them are: hulled sunflower seeds, sesame seeds, poppy seeds, finely ground, dried squash and pumpkin, grated or dry powdered cheeses, powdered dried chilies, onion powder, tomato powder, ground dry beans, nuts of all kinds, acorn meal, and potatoes. I am a very causal cook, and I often experiment while baking breads. No one complains about the results either.

And of course, I use many fruits in sweet and dessert breads. These include candied mixed fruit, dehydrated cherries, cranberries, blueberries, raspberries, blackberries, apples, peaches, apricots, currents, and raisins.

Grinding your own grain

Home grinding your own flours is akin to canning—so satisfying, easy and, yes, even fun. I’ve always had to fight my way to the grinder. The kids always want to turn the handle and watch the flour trickle nicely out into a bowl.

There are many good flour mills. Obviously, the more expensive mills grind more flour per minute—and usually finer flour on one pass through—than do the economy models. Unfortunately, we’re not able to afford a $200-plus mill. So I bought a nice little hand-powered mill for $59, and have been very satisfied with it. It grinds all the flour for one baking of bread in 20 minutes. This includes two grindings, as one pass through the mill is not quite fine enough for my likes. I often use half-coarse flour and half the second grind, which makes a “wheat-nut” bread that we all like.

You can even use a blender, but because you can only process a cup or so at a time it will take you forever.

You will have to play around with a new mill, adjusting the grind to your likes and needs, as most are widely adjustable. Most mills will grind nearly all grains, from wheat to corn and even nuts. If you want to roll your own—oats, that is—you will need a mill that will perform this task or buy an additional rolling mill.

Why, you may say, should you bother grinding your own grain?
Well, it’s like gardening: everything tastes much better fresh. (Which is better, a store-bought tomato or one fresh from the garden?) You also know for certain what’s in your flour. No chemicals, pesticides, additives, bleach, or other dubious ingredients. And fresh, home-ground flour is so much better for you than store-bought flour (even store-bought whole wheat). Processed commercial flour removes over 24 nutrients from the wheat. Home processing removes very little indeed.

Bread baking basics
Most breads include wheat flour (for its gluten content and natural sweetness which make the bread rise and have a nice texture), a small amount of sugar or honey to feed the yeast, yeast to make the bread rise, a smaller amount of salt to keep the yeast in check and develop the flavors, shortening or oil, milk or water as a liquid, and sometimes eggs to provide color and richness.

I buy my yeast in one pound sacks. It keeps perfectly good on the shelf for a year or more. Mine is gone by then. This yeast is granulated dry yeast, and is much cheaper than the little packets. In fact three packets of three, which is how they come, cost the same as my one-pound bag. Check around. You might want to share with a friend if you are new to baking.

Both the milk and eggs can be fresh or dehydrated, so you see bread truly can be the staff of life in a survival situation, where you must cook out of a long term storage pantry. All of the ingredients are very happy in a survival pantry.

Make sure that all ingredients are at room temperature. Bread does not like cold. Mix your dry yeast in the amount of lukewarm liquid the recipe calls for, plus a pinch of sugar or honey. This lets it get to growing and makes adding it to your dough batter much easier. Then mix your dry ingredients in a large bowl, less one cup of flour.

This little trick I learned by experience. There is no foolproof recipe for bread. In different climates, with different humidities, with different flours, you may have to add considerably less or more flour to get the right consistency to your dough. It’s always easy to add more flour to your dough as you work it. It’s impossible to take flour out of a too-stiff dough. You can, of course, add more liquid, but that’s a mess and more work than I like. It’s better to hold back that cup of flour.

Usually, your sugar, salt, and shortening are added to the hot water or milk, then the mixture is brought down to lukewarm before mixing in the flour and yeast. Again, a little trick is to add half of your flour, especially whole wheat flour, to very hot liquids and beating it well with a whisk or wooden spoon. This helps it to rise better. Let this batter cool to lukewarm, then add your yeast and, finally, the rest of your flour, a cup or so at a time.

When your dough is so stiff that you can’t use your wooden spoon, turn it out onto a clean, floured surface; a counter top, table, or bread board. Flour your hands well and begin to knead the dough. This is done by first forming a ball, then, with the heels of your hands, shove down in the center of the ball hard. With your left hand, turn the dough ball slightly, and repeat, drawing the top to the center, and shoving down hard. It’s like dancing; invigorating and rhythmic and it’s good exercise.

At first the dough will stick to your fingers. Sprinkle a bit of flour on the board and on your hands and continue kneading. Don’t be timid about adding flour. You’ll add that cup you held back, and usually more. But don’t add so much flour that your dough is stiff and unyielding or your bread will be of low quality—but still better than store bread.

When you start, your dough will be crummy, sticky, and nearly unmanageable. After 10 minutes or so your dough will suddenly change before your eyes. And your hands. All at once, it will be shining, bouncing back from your touch. Firm, yet seeming to have a life of its own. It is now ready for setting to rise.

Grease a large bowl and place your prize dough lightly in the bowl.

After ten minutes or so of kneading, the dough will be shiny, smooth, and alive.
greasing the ball. Then lift it out and reverse the dough, so that the greased part is now the top.

I rinse a clean kitchen towel in hot water, then wring it out, placing it on top of the bowl. This seals out cool drafts and keeps the dough from drying out.

Place the bowl in a warm, draft-free spot to rise. This usually takes about an hour, but can take two or more, depending on your yeast, the weather, the mood of the loaf, or whatever. Wait for it to double in size. Many beginners can not wait and continue with their baking too early. This results in a loaf that is heavy and too dense.

Test the dough with two fingers, pressing lightly into the top of your dough ball. If the indentations remain for a minute, your dough is ready for the next rising.

Now’s the fun part, especially if you’ve been under a lot of stress lately. Turn the dough out onto your lightly floured kneading surface and pound it. Knead it a minute, then pound it again. This distributes the gluten and releases your stress. Baker’s Zen.

A few bread recipes require a second rising in the bowl, but most now have you divide your dough into two or more pieces and shape it to fit your bread pans (or fancy). Roll each piece of dough into a smooth, round ball, then gently pat it into the shape you desire, from bread pan to free-form shepherd’s bread or braids. It all tastes great.

Lightly grease your bread pans. If you are doing free-form breads, simply place them on a greased cookie sheet to rise and bake.

Again, cover the dough with your damp kitchen towel and set in a warm place to rise. Do not let the bread rise too far. It should rise almost double. It’s better not to let it rise all the way, than to rise too far. Don’t poke it this time, or your beautiful bread will have dimples when baked.

Preheat your oven. This is especially important for those of us who bake on a wood kitchen range. It often takes half an hour for the oven to reach 350°F, so be sure you preheat. Even a gas stove takes several minutes to reach baking temperature, and your bread will rise nicer if it is popped into a hot oven, rather than one that is in the process of heating.

So let’s give a simple bread recipe a go and see just how easy it is.

**Fail-proof white bread**

**Ingredients:**
- 1 Tbsp. dry yeast
- ½ cup warm water
- ½ tsp. honey
- 4 cups hot water
- 3 Tbsp. shortening
- 1 Tbsp. salt
- 3 Tbsp. honey
- 8 cups unbleached flour
- butter

Stir the yeast into ½ cup warm water and add the half-teaspoon of honey. Let sit until you are ready for it.

In a large bowl, add the hot water, shortening, salt, and the rest of the honey. Stir until honey is dissolved and the shortening has melted.

Sift five cups of flour into the liquid in the large bowl and beat well with a whisk or wooden spoon. Let the mixture cool to lukewarm and add the yeast mixture. Again beat well. Add the remaining flour, one cup at a time. You want a dough that you can barely mix with a wooden spoon, held just above the spoon part.

Flour your kneading surface and dump the dough out onto the board. Flour your hands and begin kneading the dough. Add flour, as needed (no more than a half cup at a time). If it is sticky, add more flour, a bit at a time, under the dough, and on your hands. When it seems more “workable,” let it rest on the floured board while you wash out the mixing bowl with hot water.
water. Dry it and return to your kneading.

Knead the dough ball until it feels alive and springy. Grease the bowl and rub the top of the ball in this grease, then turn it over so the top is nicely greased. Cover with a warm, damp kitchen towel and let rise in a warm place until doubled.

When the dough is ready (two finger indentations on top remain for a minute), punch it down well. Grease two bread pans and form the dough into two loaves, leaving the tops smooth and the ends neatly tucked under. Again, cover them with your kitchen towel and let rise until nearly double. Preheat your oven to 400° F. Bake at 400° F for 45 minutes until the top is nicely browned and sounds hollow when you tap it with your finger.

Remove the bread from the oven and butter the tops to soften them and give them a beautiful sheen. Remove them from the pans and let them cool (if you don’t have drooling family members hovering around begging and whining pitifully). We usually eat up a good chunk of hot bread as soon as it exits the oven.

Honey whole wheat bread

Ingredients:

- ½ cup warm water
- 2 Tbsp. dry yeast
- ½ tsp. honey
- 2 cups warm water
- 1 Tbsp. salt
- 2 Tbsp. honey
- 1 Tbsp. shortening
- ¼ cup chopped sunflower seeds
- 6 cups whole wheat flour
- butter

Stir ½ cup warm water, the yeast, and ½ teaspoon honey into a cup to proof. In large bowl, add two cups of warm water, salt, 2 tablespoons of honey, and the shortening. Beat until the shortening has melted. Add the chopped sunflower seeds, then add one cup of flour at a time until you have a medium batter. Add the yeast mixture. Add flour, while beating well. Stir the thickened dough with a wooden spoon until it is ready to knead, adding more or less flour, as needed. Turn out onto a floured board and knead for ten minutes. Grease the top and place the dough in a greased bowl and cover with a warm, damp towel until it rises to double in size. You may now punch down the dough and divide it into two loaves, or punch down the dough, and let it rise a second time for a finer loaf.

Place the loaves in greased bread pans and let rise until nearly doubled. Preheat your oven to 350° F.

Bake the bread about 45 minutes until tops are golden and sound hollow when tapped with a finger. When done, butter the tops and sprinkle with chopped sunflower seeds or sesame seeds, if desired.

Okay, we’ve made some traditional easy or everyday breads. Pretty darned good, huh? These are some of my everyday recipes. Remember, you can easily perk them up by making one “loaf” into pan of rolls by making golf ball sized balls and placing them side by side in a greased 8-inch by 8-inch pan. Or you can divide one loaf of dough into thirds and make three dough snakes and braid them beautifully, pinching and tucking the ends under. The braids are baked on a greased cookie sheet. I often make a glaze, using one teaspoon of egg white and one tablespoon of water mixed well and brushed on the risen loaves, then sprinkle poppy or sesame seeds on top. Bake as usual. They come out shining and crisp-crusted.

Besides these basic breads, I usually make several other everyday breads. The most common three in the Clay kitchen are spoon rolls, tortillas (Flour and corn), and biscuits. All are super easy and fast to make. And they taste great too. Here are my recipes for you to try.

**Half-time spoon rolls**

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<tr>
<th>Ingredients:</th>
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<tbody>
<tr>
<td>1 Tbsp. dry yeast</td>
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<td>¼ cup warm water</td>
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<tr>
<td>pinch of sugar</td>
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<tr>
<td>¼ cup warm water</td>
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<tr>
<td>¼ cup shortening</td>
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<tr>
<td>¼ cup sugar</td>
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<tr>
<td>1 tsp. salt</td>
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<tr>
<td>½ cup cold water</td>
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<tr>
<td>1 egg</td>
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<tr>
<td>3½ cups unbleached flour</td>
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<tr>
<td>butter</td>
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Dissolve the yeast in ¼ cup warm water. Add a pinch of the sugar and stir well. In mixing bowl, add ¼ cup of very warm water, shortening, sugar and salt. Mix well until the shortening melts. Cool with ½ cup cold water and one egg. Mix well. When lukewarm, add the yeast mixture, then stir in flour, a little at a time. The dough will be very sticky. You do not knead this dough.

Cover and let rise in a bowl till doubled. Grease muffin tins and using a greased ice cream scoop, knock down the risen dough and spoon one scoopful into each cup of the muffin tin.

Let it rise, again, until they double in size and bake about 10 minutes in a 375° F oven. Butter the tops and serve hot. Truly great. I also use this recipe for my hamburger and hot dog buns, shaping them on a greased cookie tin. Hint: make ‘em a little smaller than you think you should, as they get big during the rising and baking.

**Basic baking powder biscuits**

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<tbody>
<tr>
<td>2 cups unbleached or whole wheat flour</td>
</tr>
<tr>
<td>2 tsp. baking powder</td>
</tr>
<tr>
<td>1 tsp. salt</td>
</tr>
<tr>
<td>¼ cup shortening</td>
</tr>
<tr>
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</table>

Stir ½ cup warm water, the yeast, and ½ teaspoon honey into a cup to proof. In large bowl, add two cups of warm water, salt, 2 tablespoons of honey, and the shortening. Beat until the shortening has melted. Add the chopped sunflower seeds, then add one cup of flour at a time until you have a medium batter. Add the yeast mixture. Add flour, while beating well. Stir the thickened dough with a wooden spoon until it is ready to knead, adding more or less flour, as needed. Turn out onto a floured board and knead for ten minutes. Grease the top and place the dough in a greased bowl and cover with a warm, damp towel until it rises to double in size. You may now punch down the dough and divide it into two loaves, or punch down the dough, and let it rise a second time for a finer loaf.

Place the loaves in greased bread pans and let rise until nearly doubled. Preheat your oven to 350° F.

Bake the bread about 45 minutes until tops are golden and sound hollow when tapped with a finger. When done, butter the tops and sprinkle with chopped sunflower seeds or sesame seeds, if desired.

Okay, we’ve made some traditional easy or everyday breads. Pretty darned good, huh? These are some of my everyday recipes. Remember, you can easily perk them up by making one “loaf” into a pan of rolls by making golf ball sized balls and placing them side by side in a greased 8-inch by 8-inch pan. Or you can divide one loaf of dough into thirds and make three dough snakes and braid them beautifully, pinching and tucking the ends under. The braids are baked on a greased cookie sheet. I often make a glaze, using one teaspoon of egg white and one tablespoon of water mixed well and brushed on the risen loaves, then sprinkle poppy or sesame seeds on top. Bake as usual. They come out shining and crisp-crusted.

Besides these basic breads, I usually make several other everyday breads. The most common three in the Clay kitchen are spoon rolls, tortillas (Flour and corn), and biscuits. All are super easy and fast to make. And they taste great too. Here are my recipes for you to try.
Sift the dry ingredients together in mixing bowl. Add the shortening and mix it in with a fork, until pieces of the mixture are the size of small peas. Add milk until you have a moist, but not sticky dough. Turn out onto floured surface and knead lightly. Pat down to about half-an-inch thick. Cut the biscuits out of this. (I use a greased canning jar ring for this.) Place the biscuits on a greased cookie sheet touching each other in a rectangular pattern. Bake at 400° F for about 10 minutes or until the tops are lightly browned.

You may add ½ cup grated cheddar cheese for cheese biscuits, topping the biscuits with more grated cheese after they have risen in the oven for a crispy cheezie treat.

Served hot with butter and homemade jam, you can’t beat these easy biscuits.

**Flour tortillas**

**Ingredients:**

- 2 cups unbleached or whole wheat flour
- 1 tsp. baking powder
- 1 tsp. salt
- 1 Tbsp. shortening
- ¾ cup warm water

In mixing bowl, stir together dry ingredients. Mix in the shortening until the mixture resembles cornmeal. Add ½-cup water and mix. Add the rest of the water as needed. You want a dough that is moist, yet not sticky. Let the dough rest for fifteen minutes, covered with a moist kitchen towel. Divide the dough into 12 equal portions. Shape into balls and on a lightly floured surface, roll each ball into a thin round. You may trim them, using a saucer for a pattern. I don’t bother. My uneven tortillas look nice and homely, and taste just fine. Bake them on an ungreased cast iron griddle on the stovetop over medium heat until lightly browned for about 1½ minutes. Turn and bake on the other side. Serve warm. Like everything else, homemade tortillas sure beat “store” tortillas. They are actually tender and tasty. If you want to use tortillas for burritos, wrap the filling with warm tortillas or they will break, reheating them if necessary before filling.

**Corn tortillas**

**Ingredients:**

- 2 cups masa harina de maíz (corn flour)
- 1 tsp. salt
- 1 tsp. onion powder
- 1 tsp. chili powder (made from chilies only, not mixed spices)
- 1 cup water

Combine masa, salt, spices, and water in a mixing bowl and mix with fork until dough is moist, but not sticky. Let stand for ten minutes. Divide the dough into 12 balls. Using a tortilla press or a pie pan, press each ball flat, between sheets of waxed paper or plastic. I further roll each tortilla out with a rolling pin, keeping it in the waxed paper, as we like thin tortillas. Carefully pull off the top sheet, then turn the tortilla out into your hand and pull off the other sheet of waxed paper. Bake on a hot griddle (I like cast iron best) on the stovetop until slightly brown, then gently turn and bake the other side.

Corn tortillas are great, served warm with stews, soups, or even with jam for breakfast. Or you can make your own enchiladas, tacos, or nacho chips. One of our favorites is deep fried “raw” corn tortillas, served with homemade salsa, mixed with grated, melted cheese as a dip. There are seldom any leftovers. When you want to make nacho chips, simply stack your tortillas and cut them with a sharp knife, as you would a pizza—right through the entire stack at once. Then deep fry several at a time in hot oil. Salt, if desired, as soon as you remove from the grease to drain on paper towels.

Enchiladas are easy to make with homemade corn tortillas. Bake them. Then, while warm, dip them in enchilada sauce, fill, and roll up while warm. If they are cold, they’ll break up. No problem. Just reheat and dip or even make a layered enchilada casserole instead.

**Breakfast and dessert breads**

Besides the normal breakfast breads, pancakes, biscuits, waffles or corn bread, other breakfast breads are easy and fun to make and serve. One of my favorites is to use either biscuit dough or half-time spoon roll dough (with a little extra flour added so you can knead it) and make cinnamon sweet rolls or sticky buns. Instead of making biscuits or rolls, roll the dough out in a rectangle, about half an inch thick. Then, with your fingers, rub butter over the entire surface. For cinnamon rolls, mix ½ cup of sugar with a teaspoon of cinnamon and sprinkle liberally on the surface. For sticky buns, mix a cup of brown sugar with a teaspoon of cinnamon. Spread this out on your dough. Then add a handful of chopped nuts.

Roll up the dough carefully, jelly roll-style. Pinch off the ends and seam. With a sharp knife, slice into one-inch (biscuit dough) or two inch (half-time spoon roll dough) slices and place in a greased 8-inch by 8-inch cake pan. Bake at 350° F until the tops are nicely browned. All the preparation takes about 20 minutes. I told you it was easy.

One of our family favorites is Mom’s version of the old-time breakfast bread, Sally Lunn. Now there are about a dozen or more recipes titled Sally Lunn, all quite different. But I like Mom’s best. And it is very quick to put together.
Sally Lunn

Ingredients for bread:

- 2 cups unbleached flour
- 3 tsp. baking powder
- ¾ tsp. salt
- ⅛ cup shortening
- ⅛ cup sugar
- 1 egg, beaten
- ⅓ cup milk

Ingredients for topping:

- ½ cup brown sugar
- 1 tsp. cinnamon
- 1 Tbsp. butter

Sift the flour, baking powder and salt together. Cream the shortening and sugar together. Add the beaten egg. Next add the milk and mix into dry ingredients. Stir just to moisten. Turn into greased 8-inch by 8-inch cake pan. Make the topping by mixing those ingredients together then sprinkle it over the batter. Bake at 400°F for 20 minutes or until done. Serve with homemade butter and a glass of icy cold milk from that cow or goat in your pasture, and you are there!

We also like this as a dessert, with a bowl of sliced fresh strawberries, with sugar or a sugar substitute on them (Bob’s diabetic, so we do a lot of sugar substituting), and we pour this over the Sally Lunn, top it all with fresh whipped cream. Not bad at all.

Another old-time bread dessert is bread pudding. I know this sounds pretty disgusting to the uninitiated. But it is really good, especially served hot on a cold day. And it’s a good way to get rid of those chunks of old bread.

Bread pudding

Heat 3 cups of milk, add ¼ cup melted butter, ½ cup sugar, and 4 cups of bread cubes (torn bits of bread, bite-sized). Beat 3 eggs, and add ¼ teaspoon salt, 1 teaspoon vanilla, and a ¼ teaspoon nutmeg. Stir all together. Add a handful of raisins or other dehydrated fruit. Pour into buttered dish and bake at 350° for about 55 minutes until set. Serve with sweetened milk or whipped cream. Mom makes a sauce of two cups of powdered sugar, a stick of butter, one teaspoon of vanilla, and a ¼ teaspoon of nutmeg, which she creams together. She puts a spoonful of this on each serving of pudding while it’s hot. The sauce melts enticingly down the sides to blend with the whipped cream. Did I say we’re all in need of a diet? I’ll just go out and pull weeds for another hour.

I could go on about breads for another 500 pages, but you get the picture. They are so easy to bake, super tasty, and very versatile. I hope you’ll all join me today and mix up a batch of one of these favorites or maybe one of your own.

Jim Thomas
Horseshoes have a variety of uses and can actually save you money by recycling them after they come off the hoof. Once flattened out and cleaned, you’re ready to begin.

**Handles and tie-backs**

Small shoes can be used as handles for drawers and cabinet doors instead of using expensive hardware. First apply flat black spray paint and allow it to dry. Either bolts or small black plastic tubing, cut into ½-inch lengths, can be used to extend the shoe from the wood as shown in the diagram. Use two bolts instead of one, if needed. Depending on screw size, a drill may be needed to enlarge the shoe holes so that they will take the screw easily. Screws should be long enough so that they don’t quite penetrate the opposite side of the wood.

Try spraying a couple of small horseshoes gold and using them for curtain tie-backs. As with the handles, widen shoe holes with a drill and add a small block of wood (pre-drill holes in wood) to allow for the fabric. Curtains can also be “horse-shoe hung” using the same method. Carefully arrange the curtains around the shoe so that the wooden block remains hidden.

**Gun rack**

Take six large horseshoes and spray paint flat black or gold. Once dry, widen two holes on each shoe, accounting for placement on your rack. Then, from the scrap wood pile take two 2x2s and cut them both 20 inches long. For back supports (I didn’t use any on mine because my wall was wooden) use two 1x4s or 1x6s and cut them 3 feet long. Screw them onto the back of the 2x2s as shown in the diagram. When the gun rack frame is complete, stain or paint. Once dry, place the horseshoes on one side of the rack and, one shoe at a time, attach them with screws. Then flip the rack, and do the same to the other side. I recommend laying the entire rack down on the floor and actually arranging rifles on the rack first. Note that shoes on one side may need to be placed higher so that rifles will sit level. The rack can even be smaller than three feet if necessary.

To protect the wood stocks of your rifles, carefully wrap and secure a generous piece of felt or other soft material that you have on hand. The finished rack can be screwed directly into a wooden wall or hung with wire.

If your collection is large, this idea can easily be expanded to run from the ceiling to the floor and hold as many as 12 or more rifles.

Now if you don’t happen to have a horse at the present moment, go and collect old horseshoes from your neighbors that do have them. Just don’t tell them what you are up to and I can guarantee a steady supply.Δ
THE IRREVERENT JOKE PAGE

If you had bought $1000.00 worth of Nortel stock one year ago, it would now be worth $49.00. With Enron, you would have $16.50 of the original $1,000.00. With Worldcom, you would have less than $5.00 left.

If you had bought $1,000.00 worth of Budweiser (the beer, not the stock) one year ago, drank all the beer, then turned in the cans for the 10 cent deposit, you would have $214.00.

Based on the above, my current investment advice is to drink heavily and recycle.

Here's the scenario: On a chain of beautiful deserted islands in the middle of nowhere, the following people are stranded, each on their own island:

1. Two Italian men and one Italian woman
2. Two French men and one French woman
3. Two German men and one German woman
4. Two Greek men and one Greek woman
5. Two English men and one English woman
6. Two Bulgarian men and one Bulgarian woman
7. Two Japanese men and one Japanese woman
8. Two Chinese men and one Chinese woman
9. Two Irish men and one Irish woman
10. Two American men and one American woman

One month later on these absolutely stunning deserted islands in the middle of nowhere, the following things have occurred:

1. One Italian man killed the other for the Italian woman.
2. The two French men and the French woman are living happily together in a ménage a trois.
3. The two German men have a strict weekly schedule of alternating visits with the German woman.
4. The two Greek men are sleeping with each other and the Greek woman is cleaning and cooking for them.
5. The two English men are still waiting for someone to introduce them to the English woman.
6. The two Bulgarian men took one look at the Bulgarian woman and died swimming to the English Island.
7. The two Japanese men faxed Tokyo and are awaiting instructions.
8. The two Chinese men have set up a pharmacy, liquor store, restaurant, and laundry, and have gotten the woman pregnant in order to supply employees for their stores.
9. The two Irish men divided the island into North and South and set up a distillery. They do not remember if sex is in the picture because it gets somewhat loggy after a couple of liters of coconut whiskey. However, they're satisfied because the English aren't having any fun.
10. The two American men are contemplating suicide, because the American woman will not shut up and complains relentlessly about her body, the true nature of feminism, what the sun is doing to her skin and hair, how she can do anything they can do, the necessity of fulfillment, the equal division of household chores, how sand and palm trees make her look fat, how her last boyfriend respected her opinion and treated her nicer than they do, and how her relationship with her mother is the cause of her problems, and why didn't they bring a cell phone so they could call 911 and get them all rescued so she can get her nails done and go shopping.

The sheriff of the small town pulled over a Porsche that was doing 75 miles per hour in a 35-mile an hour zone. The wealthy man behind the wheel was steaming.

When he was finally brought before the local magistrate, he exploded, "I can't believe you stopped me. This town must be the butt of the world!"

The magistrate looked at him and replied, "And you must be what's passing through."
If you’re into guns at all, you’ve been hearing about Glocks. If you haven’t tried one yet, a defining experience in the world of modern firearms awaits you.

This gun began hitting American shores in the mid-1980s. It was created by a design team led by Gaston Glock of Austria, who had made a fortune producing polymer parts for other manufacturers and making his own polymer or partially polymer products, ranging from knives to entrenching tools for soldiers. Since a large part of his factory’s output went to military material, Glock was frequently approached by firearms manufacturers for bids on component parts that would be lighter and cheaper if made of polymer. Vertical manufacturing made sense to Mr. Glock: if it was profitable for gunmakers to build pistols with his polymer parts, it would be even more profitable to him to make the entire pistol.

Glock set to work with his engineers on a new sheet of paper to start from the ground up and craft a modern handgun that would out-do any other pistol or revolver in terms of what most of the military market wanted a handgun to do. Research showed them that the current training doctrine revolved around the “KISS principle,” which stands for Keep It Simple, Stupid. Gaston Glock wanted a gun that would be easy to use, conducive to good hits at high speed under stress with minimum training, and economical to manufacture and easy to repair.

The record shows that he succeeded beyond his wildest dreams. Carl Walter came on board, and knowing that American cops were also into the KISS principle, brilliantly marketed the gun to US law enforcement. The rest, as they say, is history: today, the Glock has gobbled up fully 65% of the domestic police service pistol market. Since armed private citizens in the USA tend to model off their police when selecting defensive handguns, the Glock now appears to also be the single best selling handgun to the “civilian market.”

Salient points

Years before, Heckler and Koch of Germany had pioneered polymer frame semiautomatic pistols with their P9 and P9S series. Some of us liked them a lot, but they were ahead of their time and considered “radical” in a very conservative marketplace. The HK P9S did not sell well enough and was discontinued.

What Glock had done was create a pistol that was striker-fired instead of hammer-fired, and with every pull of the trigger consistent from first to last. With conventional double action semiautomatic pistols of the period, there would be a long, heavy trigger pull for the critically important first shot, followed by a shorter and much lighter pull for subsequent shots. Teaching only one way to pull the trigger improved the student’s learning curve in the firearms training environment. When the regulatory agency that defines guns in the US, the Federal Bureau of Alcohol, Tobacco and Firearms, decreed the Glock to be double action for every shot, they opened the door to police departments who felt that a double action only (DAO) pistol was the safest in terms of preventing accidental discharges and shielding the issuing police department from civil liability.

Massad Ayoob

Fast forward to the present. The FBI has been issuing Glocks for some years now. The Glock 19 is the single most popular by far of the three 9mm pistols the NYPD authorizes for its roughly 40,000 armed officers. State troopers of Georgia, Illinois, Nebraska, New Mexico, New York, Oregon, and South Carolina are about to be joined by the troopers of Alaska in standardizing on Glock pistols. Countless municipal police and county sheriff’s departments have made the same decision.

I have been teaching the Glock for more than 15 years. It is the single easiest handgun system to teach a newcomer to handle and shoot well. Insert magazine, rack slide, and the gun is ready to fire. As noted, the trigger pull is always consistent shot to shot. Of the several options available, I strongly recommend and almost exclusively use the NY-1, or “New York Trigger” system as developed by Glock for the NY State...
Police. It is the most breakage-resistant of the available mechanisms, and because it gives a firm 8-pound resistance to the trigger finger from the very beginning of the pull, it reduces the likelihood of an accidental discharge. The standard trigger system uses a more fragile spring, and has a pull weight of only about 5 pounds on which there is a very light take-up for most of the 3/8ths of an inch the trigger has to travel to fire a shot.

There is no separate safety catch that needs to be manipulated. Those who think that a safety catch is a good thing in case the wrong person gets hold of your gun have the option of retrofitting their Glock with the manual safety device invented by Joe Cominolli. You can get one installed on your Glock by Rick Devoid at Tarnhelm Supply at www.tarnhelm.com, telephone (603)796-2551. I personally like this aftermarket modification as a “weapon retention” fallback.

The angle of the grip to the barrel is extremely natural, a’la’ the German Luger or the old Colt Woodsman .22 pistol. If you have to point toward what you are shooting at without being able to aim the gunsights, the Glock gives you a better chance of hitting your target than most modern handguns.

The key element that distinguishes the Glock is its high order of reliability and durability. A number of these guns have gone over 100,000 shots fired with minimum wear and little if any repair necessary. For those who don’t clean their equipment when they should, the Glock is extremely forgiving; I have to say it’s the single least “maintenance dependent” handgun on the market.

Accuracy? Gaston Glock never made his brainchild to be a target pistol. That said, they have done reasonably well in that regard. It is widely accepted that putting all shots into a four-inch target at 25 yards constitutes adequate accuracy for a police service pistol. All Glocks as currently produced can do that easily. Most do better. I have a compact .45 caliber Glock 30 pistol that has twice given me five-shot groups measuring an inch or less at a distance of 75 feet. Once it did that with Remington Match Target ammunition, and once it did so with a well proven combat load, Federal’s 230 grain Hydra-Shok hollowpoint. My Glock 22 will put five Black Hills 165 grain .40 S&W hollowpoints into two inches at 25 yards on demand. Its subcompact backup, the Glock 27, once put five Winchester 155 grain .40 Silvertips into an inch and a half at that yardage.

**Backwoods blaster**

Let’s examine the Glock from the rural lifestyle perspective which this publication celebrates. Backwoods living means extremes of weather. It means falls on rough ground that can cause a gun to be dropped in the mud, the snow, the stream, or the rocks. It may mean longer range shots than most pistols were designed for. It may mean isolation from such support services as gunsmiths and factory warranty stations.

The Glock is not temperature sensitive. It’s standard issue with the city police of Miami and Phoenix, and of Fairbanks and Anchorage. Several years ago at the National Tactical Invitational shoot, one stage required all of us participating to recover a Glock 21 that had been covered in sand, load it with .45 cartridges that had been buried in the same sand, and engage a target array. With most handguns, malfunctions would have been certain. The Glock .45 chewed up the sand and spat it out as its slide cycled and kept working.

Lightweight equipment is always at a premium outdoors, whether the endeavor is work or recreation. Thanks to its polymer frame, the Glock tends to be distinctly lighter than other handguns of similar power and cartridge capacity.

Various torture tests have seen the Glock frozen in ice, immersed long term in both fresh and salt water, covered with mud, and then fired, usually with no negative effect on function. In one police department test, a Glock 9mm was deliberately dropped several hundred feet onto a hard surface. One of the plastic sights broke off, but the gun remained functional, and it did not discharge the loaded round in its chamber upon the impact.

The frequency of repair rate is superior. My friend Jim McLoud owns the Manchester Indoor Firing Line in Manchester, NH, and maintains a broad array of rental guns for his customers to try out. Five big-name brands make up the rental handgun inventory. The guns take a lot of abuse. Jim tells me that at the end of a season, a little over half of the Brand 1 guns will still be working, and about half of the Brand 2 guns, while more than half of the Brand 3 and Brand 4 guns will have
gone down. Broken locking blocks, cracked frames—serious problems that a gun enthusiast can’t repair in the field. But what about Brand 5, the Glock? “Out of 20 new Glocks at the start of the season, I have 20 working Glocks at the end,” says Jim. “I might have replaced a few trigger springs, and that’s it.” A traditionalist who at first scorned the cheap plastic look of the Glock, Jim is now a believer who carries a Glock daily.

I see a helluva lot of Glocks shoot a helluva lot of rounds every year. All that is likely to ever break on them is the S-shaped spring that connects the trigger to the cruciform sear plate, and the plastic sights. The solution is simple: order the gun from the factory through your dealer with all-metal night sights and with the New York (NY-1) trigger system, which is much more rugged than the trigger spring it replaces. These parts can also be retrofitted aftermarket by any Glock armorer or gunsmith. Now, there’s nothing left in this robust mechanism that’s prone to breakage.

Though conceived as a close range battle pistol, the Glock acquits itself remarkably well at distances of 50 to 100 yards. I’ve had occasion to experiment with several of them at the latter distance. In one NRA Hunter Pistol match, I shot my Glock 22 at the miniature metallic critter silhouettes from 40 to 100 paces, and managed to win the open sight big bore class against long barrel Magnum revolvers and Thompson Center single shot pistols. On police-type humanoid silhouette targets, my last four runs at 100 yards gave the results in Table 1.

Clearly, the Glock adapts to outdoor living. New Jersey conservation officers have carried this pistol as their issue sidearm for years. They began with the Glock 17 and had excellent luck with 115 grain +P+ 9mm hollowpoints at 1300 feet per second velocity. They recently upgraded to the identical Glock 31 in the more powerful .357 SIG caliber, which launches a 125 grain bullet at 1350 foot-seconds or greater velocity. This is roughly the same power level as the .357 Magnum revolver, but in the Glock the officer has sixteen cartridges loaded instead of six. These fast-moving projectiles have a flat trajectory that lends itself to the long-range shooting that seems to be more likely in rural environments.

**Broad array**

Let’s look at the Glock models that are currently available in the US. The list in Table 2 does not include such anomalies as the .380 caliber Glock 25, produced strictly for export to benighted countries that don’t allow their citizens to own full power handguns, nor the Glock 18 selective fire machine pistol. The cartridge capacity figure includes the chambered round in a fully loaded gun, and reflects the full round-count the gun was designed for with pre-ban high capacity magazines, which are still available in limited supply at gun shows. Otherwise, all Glocks sold in the US will be ten-round capacity, except for specially marked law enforcement magazines.

For outdoor living, some models suggest themselves more than others. Marty Hayes lives on a rural training complex he owns, the Firearms Academy of Seattle. His choice for all-day carry is the Glock 22, loaded with Triton 135 grain .40 hollow-points at 1325 feet per second, getting roughly the same ballistics as the .357 SIG caliber that, as noted above, excels at long range.

However, consider the more powerful 10mm Auto. (The .40 Smith & Wesson cartridge is, in essence, a “10mm Short.”) Small arms expert Chuck Karwan lives in the Pacific Northwest. He has determined that the Glock 20, loaded with 16 135...
grain 10mm rounds at 1450 feet per second velocity, gives him more total energy on tap than any other fully loaded handgun he can carry. In bear country, he loads it with Pro-Load 200 grain jacketed flat nose bullets for deep penetration. Retired Stakeout Squad officer Jim Cirillo has gotten some spectacular performance from the Glock 20 in the hunting fields. Paco Kelly is another old law-dog who prefers the game fields to the streets, and his extensive and successful exploits afield with the 10mm Glock have been written up in Sixgunner, the publication of Handgun Hunters International.

**Table 1**

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**Table 2**

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</table>

**Considering downsides**

The manufacturer’s motto is “Glock Perfection,” but nothing is perfect for every need. Traditionalists cling to blue steel and checkered walnut, and nothing short of hypnosis or a twelve-step program will make them comfortable with a semi-automatic pistol whose frame is “plastic.” There are other seasoned shooters whose personal tastes and experiences leave them uncomfortable with any autoloading pistol that doesn’t have a manual safety; for them, there is the Cominolli conversion of the Glock.

A cardinal feature of the Glock mechanism is a trigger pull that is easy to master. As I’ve said many times, “The good news is, it’s easy to shoot, and the bad news is, it’s easy to shoot.” A short, light trigger pull that is conducive to good accuracy is also somewhat more vulnerable to accidental discharge. There is no such thing as an idiot proof gun. The Glock demands an experienced hand and a cool head at the controls when it is fully loaded. The New York trigger, which gives a firm resistance to the pulling finger from the beginning of the pull, is an effective answer to such concerns. It raises the nominal pull weight from the standard five pounds to about eight in the NY-1 module I strongly recommend, and have on all my carry Glocks. An NY-2 (“New York Plus”) model is also available, but except for the NYPD it was designed for, it has found little favor. The NY-2 increases pull weight to about twelve pounds, and in my opinion this passes the point of diminishing returns.

In summation, the Glock has earned its popularity. Its upsides are undeniable, and its downsides can be compensated for. These medium-priced handguns work, and often outperform much more expensive sidearms. I’ve won two state championships with an out of the box Glock 22 with NY-1 trigger and fixed Meprolight night sights, firing Black Hills’ excellent EXP load, a .40 caliber 165 grain Gold Dot hollowpoint at a decisive 1150 feet per second. This was in competition against guns that were supposedly more accurate and undeniably more expensive. The shooting was fast and furious and, in one case, precise at the 50 yard line. These guns prove themselves on demand.

No question about it. The Glock is here to stay.
Three ways to preserve your pumpkin

By Tom R. Kovach

Pumpkins you plan to put up should have a hard rind and stringless, mature pulp. They should be pumpkins that are otherwise ideal for cooking fresh. Small pumpkins (sugar or pie pumpkins) make better products.

Hot pack

Wash the pumpkins and remove the seeds. Cut into one-inch slices and peel. Cut the flesh into one-inch cubes. Add to a saucepot of boiling water, boiling two minutes. Caution: Do not mash or puree.

Pack hot cubes into hot jars, leaving one-inch head space. Fill jar to one inch from the top with boiling hot cooking liquid. Remove the air bubbles, wipe the jar rims, adjust the lids, and process.

Process in a dial-gauge pressure canner at 11 pounds pressure or in a weighed-gauge pressure canner at 10 pounds pressure:

- Pints 55 minutes.
- Quarts 90 minutes.

Freezing pumpkin and squash

Select full-colored mature pumpkins with fine texture. Wash, cut into cooking size sections, and then remove seeds. Cook until soft in boiling water, in steam in a pressure cooker, or in an oven. Remove the pulp from rind and mash. To cool, place the pan containing pumpkin in cold water and stir occasionally. Package, leaving two inches head space, seal and freeze.

Roasted pumpkin seeds

Roasted pumpkin seeds are always a fall treat. Here is one way to roast pumpkin seeds.

This method includes rinsing two cups of pumpkin seeds until the pulp and strings are detached. Boil the seeds for ten minutes in six cups of water with one teaspoon of salt added. Drain and dry the seeds on paper towels. In a bowl, add one teaspoon of Worcestershire sauce and three tablespoons of melted butter or margarine. Add the pumpkin seeds and stir well. Spread on a baking (cookie) sheet. Bake at 225° F for one to two hours. Stir occasionally and watch for burning seeds. Seeds should be crisp when fully baked. Pumpkin seeds are a good source of phosphorus, iron, and protein.

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Making baby food at home

By Michele Lightfoot

Homemade baby food is not only delicious and economical, it is simple to prepare as well. Being able to control the ingredients, choosing organic produce and meats, and combining favorite foods are some of the hidden benefits to making baby food at home.

While there are entire books on the subject, the process is relatively easy. Vegetables should be steamed, fruits should be simmered, and meat should be poached. The food is then blended in a food mill or food processor and refrigerated or frozen. Baby food can be made in batches small enough to last a few days and stored in the refrigerator or larger batches can be made and frozen for two months.

Choosing when to start your baby on solid foods is a very personal decision. Consult your baby’s doctor for tips on when to start and what foods to start with. Many doctors recommend starting baby on rice cereal. It is also advised to introduce one food at a time, over the course of a week. This will alert you to any food allergies your baby may have. Pureed apples and sweet potatoes are good choices once the baby is used to cereal.

The age and size of the baby will determine the type of food and its consistency. Young babies require fine purees with no lumps or strings. You will have to add breast milk, formula, or boiled water to loosen the puree enough for new eaters. Some parents use soy or rice milk in baby food. As the baby grows, the food can become thicker and with tiny chunks. The small chunks will encourage baby to gum, and eventually chew, the food. Your little one will soon learn to eat small dices of fruits and vegetables along with Mom and Dad.

Uncommon baby food

There are a few foods that need no preparation other than mashing with a fork or blending in a food mill: banana, avocado, and papaya.

If you dry home-grown fruits or vegetables, those can also be made into baby food. The dried food should be ground into a fine powder, or a coarse powder if you have an older baby, and reconstituted with breast milk or formula. A good example of dried food that reconstitutes well is dried apple rings. Also, potato flakes or chips, pears, green beans, peas and squash make excellent baby food.

Another unconventional source is canned fruits or vegetables. Canned fruits should be in water, if possible. If they are in syrup, they should be drained and rinsed. Then you can puree them and serve. Canned vegetables are just as simple. Use some of the water the vegetables are packed in to blend the food. Avoid canned vegetables that contain a lot of salt. Canned pumpkin, not pumpkin pie, was a favorite of my son.

Plain yogurt is very good to serve older babies. It may need to be thinned with breast milk or formula. Cottage cheese should be blended before serving and it, too, may need to be thinned.
Getting started

The equipment needed is basic. You must have pots and pans to cook in, something to blend the food into a puree, and containers to store the food. A steamer basket is useful for the vegetables. A blender, food processor, food mill, or baby food grinder all work well to create purees. Old baby food jars, rigid plastic containers, or ice cube trays work wonders in storing your concoctions.

Everything you use to make baby food should be very clean. Sterilizing the jars and utensils is recommended.

Basic recipes

Fruits, such as apples, pears, peaches, apricots, and plums should first be peeled and cut into small pieces. Pour enough water over them to cover completely, but take care not to add too much water. The amount of water you’ll need will vary with the size of your pot and the amount of fruit. Simmer until tender, usually 10 to 30 minutes.

The fruit can be stored in the refrigerator or frozen. Don’t thin the puree until you are ready to serve it to your baby. The best way I have found to freeze baby food is using ice cube trays. I fill each tray with the puree and pop it in the freezer. Once frozen solid, put the puree-cubes in freezer bags. This makes it easy to remove only a few cubes at a time. The puree can also be frozen in baby food jars or small can/freeze jars, always allowing space in the jar for expansion. Rigid plastic containers also work well. No matter what container you use, freeze baby food in small amounts for quicker thawing.

Another reason I prefer the ice cube method is the ability to combine different foods. I almost always make single-food purees. Then, I can combine different fruits and vegetables and see if my son likes them. For example, my son loved sweet potatoes but hated green beans. I combined two cubes of sweet potato with one of green bean and he didn’t mind. I gradually increased the amount of green bean and now, it is one of his favorites. Thaw the cubes in the refrigerator overnight. Jars and containers take longer to thaw, so you will have to plan in advance. If I need to rush the cubes along, I put them in a double boiler over boiling water. I try not to use the microwave for baby food, due to the uneven heating.

Vegetables, such as carrots, sweet potatoes, peas, green beans, squash, and potatoes should be peeled and diced. Steam them until they are tender. The time will vary, depending on the size of the pieces and the amount in the steamer basket. Once they are pureed, freeze them just as you would fruits.

If I want to add meat to my son’s diet, I puree whatever I am cooking, minus the spices and seasonings. After it’s fully cooked and pureed, I add it to his vegetables.

Warnings

Beets, broccoli, cabbage, carrots, celery, collard greens, lettuce, spinach, and turnips contain high quantities of nitrates, which can cause illness in babies. Limit the quantity of these foods in your baby’s diet.

Honey should never be given to a child under age one. Some honey contains botulism which can be deadly to babies.

On to “real food”

Once your baby has outgrown fine purees, or even the chunkier versions, you can still provide healthy meals. Dice fruits, vegetables and meats and let your little one feed himself. If you are letting baby feed himself, give him a little at a time. Measure what you give him and after he is done eating, put whatever has fallen into his high chair back into the measuring cup. This will give you an opportunity to see how well your baby eats.

If you have a child who doesn’t like fruits or vegetables, try being innovative. Instead of serving them fruit dices, try a blended-fruit drink. Blend one cup milk with ½ banana, ½ cup fresh berries, or ½ cup canned peaches. Make fruit-filled gelatin or try adding pureed beets. Sweeten vegetables with apples and pears.

Good food combinations

- plums and pears
- sweet potatoes and bananas
- green beans and any meat
- pumpkin and apples
- apples and blueberries
- banana and avocado

Resources

The “Ball Blue Book” has given me solid advice about canning and preserving. While there isn’t specific information about baby food, there are many guidelines you can follow regarding equipment use and sterilization. I also purchased the book, Feed Me, I’m Yours by Vicki Lansky. This book offers chapter after chapter of good tips and recipes for not only baby food, but other tips and recipes as well. There are two other books I have seen on the market, The Baby Cookbook by Karin Knight and Jeannie Lumley can be found at www.babycookbook.com and Super Baby Food by Ruth Yaron can be found at www.superbabyfood.com. I’m sure there are probably a few other books as well. Also, searching the Internet unearthed many sites devoted to making baby food. Use keywords like “making baby food” and “homemade baby food.”

Making your own baby food may seem a little overwhelming at first. After a few batches, you’ll realize how much easier it is than buying those pesky little jars.

Get self-reliant!

Go to: www.backwoodshome.com
Naturally colorful
How to produce your own dyes

By Marcella Shaffer

Dyes have been used since ancient times to add color to fabric or other items, and to oneself. Before the 19th century, commercial dyes were not available and dyes were primarily made from natural materials, generally whatever was available in a given region. In America, plants were the most common source of dyes, although dyes from minerals and animal byproducts were also used. The process in which a dye attaches to the material being colored is not completely understood, but is commonly believed that a chemical reaction takes place between the dye and the material, permitting the dye to be absorbed. Whatever the reason, life would certainly be less colorful without dyes.

While commercial dyes can produce perfect and uniform results time after time, natural dyes have a certain character that commercial dyes lack. Subtle imperfections create an illusion of depth and the rich, mellow, colors are a reflection of the earth itself. Color results will vary from batch to batch, making each dyed piece uniquely different and solely one of a kind.

Aesthetics aside, dyeing with a natural dye permits you to create something by hand from nature and is fascinating to do, as you experiment with different dyestuff and different fabrics and materials. Don’t be afraid to have fun and try different dyestuff. Sometimes the most beautiful colors are the result of an experiment. The table that accompanies this article presents some materials that are used for dyestuff. But don’t limit yourself to just these. Make dyestuff forays through forests and your garden, gathering material for experimenting. Some enthusiasts grow and cultivate their own dyestuff gardens.

Getting started

The first step in making your own dyes is to gather your dyestuff. If you are unfamiliar with plants, a good botanical field guide or a knowledgeable helper is handy to have along. Flowers should be picked just after they have reached full bloom, while their color is full and lush. Nuts and fruit are better when they are completely ripe. And bark, branches, roots, or leaves should be from mature plants. Fresh dyestuff is usually used, but most can be harvested, then dried for later use if you wish. Store dried dyestuff in a cool, dry, and dark place. Fruit should be frozen instead of dried for best results.

Containers used for the dyebath and the mordant bath should be non-reactive and made of glass, stainless steel, or enamelware without any chips. Some experienced dyers purposely use containers that are made from a reactive substance (like iron or copper kettles) to obtain a particular color, since it will effect the final color. Use large containers, 3 to 4 gallons in size to prevent overcrowding and unsatisfactory dyeing or mordant absorption. The container and amount of water should be great enough to permit swishing the material freely back and forth. Generally plan four gallons of water for one pound of material.

Soft water performs best, so if your water is hard or heavily chlorinated, capture rainwater and use it. Long handled plastic or wooden spoons are needed for stirring, but a clean stick with the bark removed will suffice. Cheesecloth, rubber gloves, stove, or means of heating, and a container or sink for rinsing the material is also needed. (Plastic containers can be used for rinsing.) After containers and other equipment have been used for dyeing, it should not be used for food preparation.

Fabric from cotton, wool, silk, or linen can be successfully dyed, as well as yarn, grasses, and reed. Fabric or other items made from man-made materials do not absorb dye as well. For best results the material being dyed should be “scoured” to remove any oil or residue before placing in the mordant bath. To scour silk or wool, gently simmer over very low heat for 60 minutes in water to which a small amount of mild detergent has been added. Cotton or linen requires more vigorous simmering for 1½-2 hours. Stir occasionally, very slowly and gently. After scouring, let the water cool, then rinse until all traces of the soap are gone. Grasses and reed should be soaked in plain warm water for 1 hour; soap is not necessary.

If dyeing yarn, it should be loosely gathered and looped to prevent tangling. Tie loosely in several places so the dye can penetrate under the knot. If dyeing pieces of fabric or clothing, avoid folding or bunching.

The material is now ready for the mordant bath. If time has lapsed since scouring the material, re-wet thoroughly before placing in the mordant. Placing dry material in the mordant or dyebath will cause streaking.

Mordant

Natural dyes are generally divided into two types by practitioners of natural dyeing; substantive, and adjective. Substantive dyes do not require a mordant, while adjective dyes do. Adjective dyes will rapidly fade or wash out unless a mordant is used, although some bleeding may occur.

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Mordant

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especially with berry or flower dyestuff. It is wise to launder dyed items in cold water until their colorfastness has been determined.

Mordant is a substance that penetrates deeply into the fibers of the material being dyed while the dye in turn, bonds tightly to the mordant. Some experienced practitioners mordant and dye at the same time, but it is usually best to mordant before dyeing unless you know what you are doing. The type of mordant used will affect the final color of the dyed product. Common cream of tartar or Glauber’s salts are often added to the mordant bath to promote even dyeing.

To make up a mordant bath, fill the non-reactive container with water, then slowly add the mordant to it. Avoid inhaling the fumes when working with a mordant, as some can be harsh, and store away from children and pets. Stir until the mordant is completely dissolved over a low flame, bringing the mordant bath to room temperature before adding the fabric because you don’t want to add cloth (or whatever) to a really hot mordant bath as it might damage to the material. With some mordants you have to heat it to boiling to extract the color, (like beets for example.) If you do this, then let it cool

<table>
<thead>
<tr>
<th>Dyestuff</th>
<th>Part used and approximate amount needed</th>
<th>Method of extraction and approximate time</th>
<th>Approximate dyeing time and resulting dye color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acorn</td>
<td>8 lbs./ Gather nuts that have matured and fallen.</td>
<td>Presoak in water 8-10 hrs., simmer 3 hrs.</td>
<td>1½ hours, simmering gently. Medium brown.</td>
</tr>
<tr>
<td>Beets</td>
<td>4-5 lbs./Wash and cut into chunks.</td>
<td>Boil 30-40 min. or until the color has bled out.</td>
<td>Simmer 30-40 min. Rich vibrant reddish purple.</td>
</tr>
<tr>
<td>Butterfly Weed</td>
<td>1½ bushel blossoms in full bloom</td>
<td>Presoak 1 hr. in warm water, boil gently 30 min.</td>
<td>30-45 min., simmering gently. Golden brown.</td>
</tr>
<tr>
<td>Coffee</td>
<td>1 lb. ground beans</td>
<td>Boil for 20 minutes.</td>
<td>Simmer for 30-40 minutes. Light brown.</td>
</tr>
<tr>
<td>Coreopsis</td>
<td>2 bushels blossoms in full bloom</td>
<td>Simmer for 45-60 min.</td>
<td>Simmer for 30-45 min. Rich gold color.</td>
</tr>
<tr>
<td>Goldenrod</td>
<td>2 lbs. blossoms in full bloom</td>
<td>Simmer 25-30 minutes.</td>
<td>Simmer 30-40 Yellowish-gold.</td>
</tr>
<tr>
<td>Madder</td>
<td>1 oz. dried roots, 1 lb. fresh</td>
<td>Presoak in water for 8-10 hrs, simmer 45 min.</td>
<td>Simmer 30-40 min. Reddish orange.</td>
</tr>
<tr>
<td>Pokeberry</td>
<td>4 gal. ripe black berries</td>
<td>Add 1 cup vinegar to bath, boil for 30-40 minutes.</td>
<td>Simmer 25-30 min. Reddish-brown.</td>
</tr>
<tr>
<td>Queen Anne’s Lace</td>
<td>1 bushel fully open blossoms and stems</td>
<td>Simmer 30 min.</td>
<td>Simmer 30 min. Green.</td>
</tr>
<tr>
<td>Rhododendron</td>
<td>3 lbs. green leaves</td>
<td>Presoak in water 8 hrs,</td>
<td>Simmer 30-40 min. boil 1 hr. Olive green.</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1 lb. cured leaves</td>
<td>Add 1 oz. cream of tartar, dissolve, boil 30 minutes.</td>
<td>Simmer 30 min. Warm brown.</td>
</tr>
<tr>
<td>*Walnut</td>
<td>3-4 lb./ Gather after nuts have fallen and turned dark. Use the pulpy outer shell.</td>
<td>Simmer for 20 minutes.</td>
<td>Simmer for 20-30 min. Rich deep brown. Color is easily adjusted by adding more shells.</td>
</tr>
</tbody>
</table>
down somewhat before adding the material to be dyed.

Before adding the material to the mordant bath, make sure it is wet. Dry material will not absorb the dye evenly.

After adding the wet fabric or material, heat the solution to a simmer over low flame, frequently stirring gently and slowly. Continue to simmer for one hour, do not let the mordant boil. Remove the container from the heat and let cool, then remove the material and squeeze out excess.

The following list contains some commonly used mordant and general amounts. Some varieties of mordant can be found at grocery stores or pharmacies, while others may be obtained from chemical supply houses or specialty houses that cater to those who use natural dyes. When mordant is obtained from a specialty house, follow the recommendations of the manufacturer as to the amounts to use.

- *Alum* (potassium aluminum sulfate) is the most commonly used mordant. It can be easily found in most grocery stores and is the same preparation used in pickle making. Alum has little effect on the color of the finished material. Use 1½ ounces per gallon of water and rinse material before dyeing.

- *Blue Vitriol* (copper sulfate) can be used at the rate of 1 ounce per gallon of water. It is especially useful when green is the desired dye color. Rinse fabric well after removing from the mordant bath.

- *Copperas or Iron* (iron sulfate) is a mordant but is more commonly used as an additive to tone down colors in the dyebath. Remove material from dyebath, add a pinch, and return material to the dyebath if the desired color is too bright.

- *Tannic Acid* will impart a brown tinge; therefore it is useful when brown colors are desired. Use 2½ Tbsp. per gallon of water and rinse material well before dyeing.

- *Tin* (stannous chloride) brightens colors, particularly reds and yellows. It is a harsh mordant however, and can damage delicate fibers. It can be used as an additive, as with Copperas.

### Dyestuffs

When using dyestuff in raw form, it should first be “prepared,” to obtain the most color from it. Begin by cutting bark, twigs, and roots into small pieces, shredding or tearing blossoms and leaves, crushing nut hulls, etc. Next wrap the dyestuff in cheesecloth and extract the color as explained in the table or follow the directions when using purchased dyestuff. If using dye powder, make sure it is completely dissolved.

Generally dye is extracted by soaking, simmering, or boiling in water. Refer to the table for extraction methods for some common dyestuff. (When experimenting with new dyestuff, you will have to try the various methods to find which works the best.) Continue drawing out the color until the dyebath has reached the desired hue or the dyestuff is exhausted. If the color of the dyebath is too pale, add more dyestuff and continue extracting. If the color is too rich, add water to dilute it. A sample piece of the material that you wish to dye is useful in determining the richness of the bath.

After the dyebath has been prepared, add the wet material to it and simmer gently until the desired color is obtained. Stir frequently so the dye penetrates evenly, carefully swishing the material being dyed, back and forth. Gently lift the material from the dyebath and squeeze out excess. Rinse until the water runs clear, and then allow drying.

Wash containers and equipment with warm soapy water after using. If you wish to save your dyebath for later use, store it in lidded containers in a cool and dark place. △
Ask Jackie

Canning safety, vertical log homes, achieving independence, cast-iron cookware, homesteading books, canning persimmons, and more

I just canned some tomato sauce and forgot to add the salt and lemon juice. I'm not concerned about the salt, but do I need to worry about the lack of lemon juice? I think that the tomatoes are high acid enough, but thought I would ask your opinion. Do I need to add the lemon juice and reprocess them?

Bob Windsor
windsor@centurytel.net

To be absolutely safe, you should immediately open those jars as soon as you realize you made a mistake. But, if they were my jars, I would just mark them with an “X” in permanent marker and make sure I didn’t use the tomato sauce for a recipe that doesn’t require bringing to a boiling temperature for at least 15 minutes and give the sauce an extra good look and sniff test on opening each jar. While it is possible for low-acid tomato sauce to develop harmful bacteria, the chances of it actually happening are quite low. Now this is just how I would handle your situation, of course.

Jackie

I need help! I am a single mom of three. I am on assistance and receive food stamps. I cannot work a full time job because I cannot earn enough to make up what they take away in benefits. I receive only $150 per month from my ex-husband. We live in the city, in a dingy rented apartment, and I can see no way to escape. I read your magazine faithfully, and desper-ately want to escape the pit I’m in. I want to live an independent lifestyle, but I can’t see a way out. Is there some way to escape this trap?

Carrie Rosamond
Denver, CO

Yes you can escape, and you don’t have to marry a millionaire, either. But it will take determination and plenty of hard work. We’ve been plenty poor, too, and have learned a lot. Some of it may help you. First, make the best use of the food you buy with your food stamps. You say you can’t work full time. That may be to your advantage. Work for yourself by cooking and baking from scratch. Not only will your family eat more nutritious and tasty food, but it will cost dramatically less than packaged meals such as turkey pot pies, frozen dinners, Hamburger Helper, etc.

But, you may say, we always have enough food stamps to buy those quick meals. The catch is this: by buying in bulk, on sale, case lots, and fresh produce to can yourself, you can not only “get by,” but you can get ahead. Develop a large pantry, and keep it growing. This will not only help you save money, but will help in the future even if hard times do continue for awhile. Buy your baking supplies during the pre-Thanksgiving sales, tomato sauce when it goes on sale for nine cans for a dollar. Study the supermarket prices. Write them down if you can’t remember them. The stores bank on you not knowing prices. One simple example stood out to me yesterday. We buy Pedigree dog food in a 50-pound sack from Sam’s Club for $14.99. I stopped in a popular chain grocery store after buying my dog food, and noticed that their 44 pound bag was $21.99. Now that’s a whopping $7 more. Human chow is no different. Learn the prices so you know when a sale is really a sale and when it’s just a come-on.

Learn to can food. It is extremely easy and lets you eat well on much less. You can usually find cheap or free jars and even canning equipment. Ask around, especially at senior centers. For clothing, shop yard sales during their last day. Folks often mark merchandise way down, so they don’t have to cart it away. Don’t haggle. Just say something like, “I have a really low, fixed income. I need those jeans, but I can’t pay that for them. Is there any way you could let them go for less?” Often you’ll not only gain your needed clothing, but a friend, as well.

Of course, we shop the Salvation Army and Goodwill stores regularly. Not only do we find great buys, but we have fun, too.

Housing is a real downer. One suggestion is to look for a place to care-
take. I would especially look for a place on acreage, where you could grow a nice garden and perhaps have a few chickens. Don’t fall into the trap of getting every animal you and your kids ever wanted. I see so many folks escaping the city trap to fall into the too-many-animals-to-support trap.

To find a place, you could place small ads in local shopping papers in more rural locations near you—or perhaps not so near, if you have an adventurous spirit. A great little newsletter is the Caretakers Gazette, P.O. Box 540, River Falls, WI 54022 for $29 per year (you can check them out at www.caretaker.org). I know $29 is a lot when you’re struggling, but maybe you can find someone, such as the local library, health food co-op, etc., who may be interested in sharing a subscription. Get creative. There are many listings each month for people looking for someone to caretake their home, ranch, or homestead. Some even offer wages.

My sister house sat for several families during her college years, enabling her to live in a really nice home instead of student ghettos. You might give it serious consideration. By caretaking, you could save some of your assistance and child support toward a down payment for a modest little place of your own out in the country.

In most places, you can find an older mobile home or a real fixer-upper for $35,000 or less on a small acreage. If you could save up a small down payment, your house payment would be less than the rent for many unsavory apartments. You could check out Rural Property Bulletin, a small monthly advertising magazine, with hundreds of rural listings for small acreage, small town bargains and more. Their address is P.O.Box 608, Valentine, NE 69201 or www.ruralproperty.net. It is $16 a year or $3 for a sample issue. You might also consider placing an advertisement for caretaking or buying, when the time gets right.

One thing I better mention. Do not—and I repeat do not—fall for those work-at-home or mail-envelopes-to-get-rich scams. That is all they are. If it sounds too good to be true, it is. Save your money for something worthwhile. There are hundreds of ways to earn money from home, such as a lawn maintenance small business, home cleaning, running chores for the older folks in your neighborhood, and more. You won’t make thousands of dollars a week, but you will earn a decent living. Perhaps your older children might enjoy helping out. Especially if they know you will be buying a small flock of chickens or a dairy goat with the money.

Does all of this sound like hard work? It is. But if you’re truly sick of the city and will do anything legal and moral to make a better life, you can do it. Good luck.

Jackie

I am one of your fans. I read your department first in every issue. So, now, of course, I am writing to disagree. In issue #75, you said that venison won’t stay good in a freezer more than a year. I have moose and caribou in my freezer labeled “98”, “99”, and “00”, and it’s in perfect shape. I have never understood how people get freezer burn. I have had my freezer since 1966 and it wasn’t new then. It has been moved 18 times, once dropped in a swamp, and it goes merrily on. When I think about living without electricity, I don’t know what I would do without my freezer. On another subject, I have seen letters written to you asking about homesteading. You always say homesteads are only available in Alaska, and only to Alaskans. First of all, I must mention that residency is required to keep the land out of the hands of speculators. Anyway, there is always state land available over the counter. The boroughs also dispose of land by sealed bid, out-cry auction and drawing. If by homesteading, they mean free land, there ain’t no such animal and never was. The federal homesteads, which were still going on when I came here, made it necessary to have money for improvements, living on while developing the land and to pay taxes. In other words, you had to have a source of income. There is no free land. You get what you work for.

Evlyn L. Preblitch
Anchorage, AK

Glad to have you read my stuff, Evlyn. And I’m real glad your freezer does so well for you. To tell the truth, I’ve never had such luck, nor my friends, neighbors, family or even people I’ve talked to here and there. After one year, the pork and venison, and usually chicken, fish, and beef, taste “off” from freezer burn. I used a freezer extensively for 10 years, and usually managed to use up almost all of the meat yearly. That which was left over usually was not real tasty. I had meat processed at local Locker plants, as well as that which I cut and wrapped myself. No dice. I hope other readers have the kind of luck you do. That’d be great.

I really prefer to can my meat. It’s “instant” meals and never goes bad, even years and years later. Yep.

By “homestead” land, readers do mean “free” land—yours to own by living on and developing. And, like you say, there just “ain’t no such animal.” It gets confusing because some folks advertise, saying they have information on how to get “homestead” land from the government. It is misleading advertising. The reason homestead land appeals to so many is that folks think their sweat equity can get them the homestead of their dreams, when cash is light in the pocket.

Then there are those like us, who would like to live right smack in the middle of the wilderness, with no developed land within a hundred
miles. This is not available with any of the government sales in Alaska. You have other private land right next door. Probably never any neighbors, but with our luck, some jerks would move in on both sides of us.

Jackie

I wish I knew half as much as you do. I, like you, love to cook, but most people think cooking from scratch is hard and time-consuming. It does take more time, but cooking is enjoyable. Can you give me a list of some good homesteading books and cookbooks? I’m disabled, but I want to get a job to start saving to buy a homestead. I want to grow and produce as much as I can instead of buying it. I don’t know how to do much, but I’m willing to learn. Can you tell me some of the old-fashioned ways of keeping food cool without electricity? Is using a wood cookstove hard? How about raising livestock? I haven’t done that, either.

Billy Stuart
Florence, MO

Go for it, Billy! My second oldest son, Javid (Yep, Javid. He’s from India) is paralyzed from the waist down and has very little use of his left hand but he enjoyed homesteading and even pitched in to help get fruit and vegetables ready to can. He held ears of corn under his chin to shuck them and even today, at 30, he laughs when I tease him about store corn not being as good as “chin corn.”

You are as disabled as you let people tell you you are. Of course some things are hard for some people, but there are always ways of working around them. In a wheelchair, Javid could still work in the raised beds in our greenhouse.

Cooking on a wood kitchen range is very easy. It does take a couple of days to get used to. For instance, it usually takes about 15 minutes to get the oven heated up to 350° for baking, so you need to allow for that. I just start firing up the stove when the bread’s done rising the first time. No trick to it, just training yourself to a different way. One tip: if the oven begins to bake poorly, there’s soot build up around it. It needs scraping out with the little stiff wire and tin oven cleaner, above, at the sides, and below. I love my wood range, as its top has just the right spot to do what you need, from a quick heat for frying to a slow heat to simmer a stew all day.

Raising livestock is not difficult and it is very rewarding. I would read up and start small, perhaps with half a dozen chickens or a trio of rabbits. After you get the hang of it, you might expand to a dairy goat or a feeder pig to raise for pork.

The most important factor for success in any livestock is housing, including fencing. If animals are warm and dry in the winter and cool and dry in the summer, they will do well. Add adequate good feed and available drinking water and the livestock will thrive.

My grandmother kept her food cool with an icebox, with ice being delivered every few days by the ice man, bringing large, dripping blocks of ice. But today, unless you have your own ice house, and a place to cut ice, the icebox is an expensive way to keep food cool. We have had good luck by running a plastic water line from our spring in and through an insulated box with a top on it. The water is about 40° and food keeps quite well this way. The old-timers carried this a step further by building an insulated stone or block spring house with a cement trough, through which spring water flowed constantly. Otherwise, you can plan not to have foods that need refrigeration. By cooking only small meals, with no leftovers, using only fresh, dehydrated and home canned foods for these meals, you can dramatically reduce the need to keep food cold.

As for a list of books, check out what BHM has to offer in the bookstore. There are many more that are available and not advertised in the magazine for lack of space. I also like Carla Emery’s Encyclopedia of Country Living for a wealth of homesteading information. Countryside Magazine also has a bookshelf with many very good homesteading books available. Countryside is also a great magazine which I find useful to our lifestyle (second only, of course, to Backwoods Home Magazine). Their address is W11564 Hwy. 64, Withee WI 54498-9323.

We read a lot in our house and have learned to do much of what we “know” from reading good information. See, I’m not so smart, after all. I wish you the best with your homestead life.

Jackie

How can I can persimmons? I know they freeze well, but I want a longer shelf life, maintaining their color. Have you ever used a steam canner and can you give me information on using one?

Elaine Berry
Visalia, CA

Persimmons are really better dried, looking like slices of dried fig, or eaten fresh. But you can home can them, if you’d like. Simply mash the very ripe persimmons and run them through a sieve, if you have a variety with seeds. Fill half-pint or pint jars with the pulp to within half an inch of the rim. Wipe the rim clean and put a hot, previously boiled lid on the jar. Screw down the ring firmly tight and process for 30 minutes in a hot water bath canner. A steam canner is not a safe way to can, as there is a possibility of the temperature not being even throughout the canner, jars, and food. A water bath canner is the safe way to process high acid foods. And it’s cheaper, too.

Jackie
I really liked your articles on building log homes. I wondered if you could write an article or tell me how to build vertical log homes and their advantages and disadvantages compared to horizontal log homes?

Jack English, Jr.
Topeka, KS

Glad you liked the articles. We really love working with logs and wood, in general. I am in the process of doing an article on vertical log building, but I'll give you some information here. Keep a look out in a future issue of BHM.

There are many advantages to building with vertical logs. First, a single person can build quite a large home alone, with no mechanical help. The logs are only eight feet long, or less, depending on the style of house. Most folks use a log of about eight inches in diameter, so the weight is not excessive, compared to a 1,000 pound, 40-foot log in a horizontal log home.

Another plus is that there is much less settling in a vertical log home than in the horizontal home. Also, by using short logs, you can take advantage of less-than-straight trees, discarding crooked sections. Some species of trees, such as smaller ponderosa pine often taper quite rapidly, making finding enough perfect trees for a horizontal log home difficult. With the shorter logs in a vertical home, this too is overcome.

But, like any other construction, there are a few drawbacks. First of all, the overall look of the finished home is not as popular as a horizontal log home. I won’t say as “attractive,” as I’ve seen many very beautiful vertical log homes. But others feel that the “only” log home is a horizontally-built one.

It does take a little more fussing to get the logs together, with no air leakage between in a vertical log home. With a horizontal log home, the sheer weight of the logs tends to compress insulating material, and even the pressure from one log to the next forms a seal. Vertical logs must be fastened together by a spline of plywood, or better yet, two splines, with an air space between them for added insulation. Just nailing them up and chinking the crack does not often suffice to keep the interior warm during cold weather.

There is a book, which I haven’t seen yet, but intend to order, on vertical log building. It also includes plans. It is available from Alaskan Cabins, HC1 Box 6107X, Palmer, AK 99645. The price is $15.

I would certainly consider a vertical log home, if it seems to suit your needs, ability, and soul. Good luck, and keep an eye on BHM for more details on construction.

Jackie

I have a dilemma. I purchased a brand new cast iron cook pot to make soups and stews. I followed the manufacturer’s directions exactly for seasoning. I then went ahead and made the beef stew. To my surprise, it was awful. It took the taste of the iron. Out the stew went. Again, I made stew after seasoning it once more and again it tasted like iron and made me very sick. I got no help from the company. Help!

Carol Womelsdorf
Oakville, CT

Bummer, Carol. Cooking with new iron can be challenging. First of all, are you, by chance, using a beef stew recipe with tomatoes or tomato sauce? That’d be my guess. The acid of tomatoes causes new iron to shed its taste badly into the stew. I’ve had absolutely no luck cooking any recipe with tomato products in a newer cast iron pot. Instead, I’d suggest trying a small beef roast or other roasted meat or poultry, along with potatoes, carrots, and onions, seasoned to your taste. Slowly oven roast, with the lid on, until perfectly tender. Add the vegetables during the last hour of cooking. After a time or two, give a stew a try again, only pick a recipe without tomatoes. I’ll bet it’ll be much better.

Breaking in new cast iron is trying, at times, but the end result is wonderful. Some of my Dutch ovens and frying pans are between fifty and a hundred years old, and better now than they were brand new. You can’t say that about any other cookware.

Jackie

I used to be able to purchase dehydrated pre-cooked dried beans from Indian Harvest. But they no longer sell them. I made my own red beans and rice mixes and they were wonderful. The pre-cooked beans and dried veggies would cook in the 30 minutes it took for the rice to cook. I was also able to make some really good dried soup mixes, which taste a whole lot better than the packaged kind sold in the grocery stores!

How would you go about making dehydrated pre-cooked dried beans yourself? Have you? I’m thinking that if I cooked the beans, drained them and then put them in my dehydrator, I could probably make my own. Should I put salt or sugar on them to help preserve them, or just do them plain?

Carol Womelsdorf
Oakville, CT

I have dehydrated pre-cooked dried beans of several types, primarily to carry on long canoe trips. This was a wing-it experiment, as I couldn’t find a recipe in any of my books. And I am not suggesting you follow my experiences. I’m only telling you what I’ve done.

I completely cooked my beans, using minimal seasonings; no sugar, no salt. When tender, I drained them and immediately spread them out on my dehydrator trays in a single layer. When they were completely dry and crispy, I removed them and placed
them in air-tight jars. They kept well and tasted great when used out of zip-lock baggies on the trips. Be sure to closely inspect any dehydrated food for signs of mold before using, boil for at least 15 minutes to kill any possible bacteria and sniff before eating. It’s only common sense.

Jackie

I was wondering how you can liver? I have a lot of frozen beef and pork liver that my family isn’t about to eat. I want to can it up to use for the animals, if need be, and wondered if I should cut it up small first, or leave in larger pieces. I have a lot of experience canning, and have all the equipment. I have canned meat before, but never liver. Just wondering how you would do it.

Jenny
AuntJenny6@aol.com

I would slice the raw, thawed liver into 1-inch pieces and pack into jars, to within one inch of the top. Add no salt or liquid. Wipe the top of the jar clean and place a hot, previously boiled lid on jar and screw down ring firmly tight. Process pints for 1 hour and 15 minutes, quarts for 1 hour and 30 minutes, at 10 pounds pressure. Adjust pressure, if necessary, according to altitude; check your canning manual. You must use a pressure canner. You could, if you wish, dice the liver instead of slicing it. Cats or small dogs would be able to eat it easier. But bigger dogs will just wolf down such a delectable treat!

Be sure you allow your canner to exhaust adequately, giving the meat time to warm up, before you close off your petcocks or steam vents. Otherwise it will not process long enough to kill harmful bacteria. Ten minutes of exhausting forceful steam is generally adequate.

Jackie

I’ve misplaced the issue of BHM with your advice on canning dry beans. I followed your instructions last year and we’ve had wonderful meals all winter thanks to you. Could you please remind me of the recipe? Also, do you can black-eyed peas with the same instructions?

I’ve followed your column for about three years now, and love to hear about your son, David. My daughter, Olivia, is about to turn five. Since you live out in the beautiful wilds of the world, do you homeschool? What advice do you have for the beginner?

Carmen Black
carmenblack@vol.com

Glad you enjoyed canned dried beans. They sure are a labor saver, aren’t they? And no worries about getting older beans tender! Here’s the recipe. And yes, you can do any type of dried beans or peas this way.

Any type of dry bean or pea:

Wash beans, soak in cold water overnight. Boil beans 15 minutes. Pack gently in jars to within 2 inches of top. Add 1 tsp. salt to each quart jar. Fill jar to within 1 inch of top with precooking liquid. Wipe jar rim clean, place hot, previously boiled lid on jar and screw down ring firmly tight. Process pints and quarts for one hour at 10 pounds pressure. Adjust pressure, if necessary, according to altitude. See canning manual. (You can also precook the beans in a seasoned tomato juice, which makes the beans similar to store-bought “pork & beans.”)

We began homeschooling David, but life got crazy for awhile, so we put him into our little public school down in the valley. There are seven children in the entire school, so he still gets plenty of one on one, as there are two teachers. I would sure encourage you to homeschool. We are 100% in favor of it for many, many reasons. And for heaven’s sake don’t fall for that “they won’t be socialized” crap. You’ll never find a friendlier, more polite, kind child than David….or most homeschooled children.

Talk to other homeschooling parents in your area. There are often small support groups who get together to provide not only support, but materials and field trips for their children.

Do be sure to follow the “legalities” in your area. Most homeschooling problems that we’ve seen came from parents who simply ignored the law and homeschooled. Sometimes you have to file an “intent to homeschool” form with your local school district. Ask and comply. It’s cheap insurance for avoiding future hassles.

Read homeschooling books and publications. You can either follow a formal curriculum or be more flexible and make your own to fit the situation. You’ll find that homeschooling is much less formal than “regular” school which is only one of the benefits for parent/teacher and child.

Jackie

A Veterinary Guide for Animal Owners
by Jackie Clay

Jackie Clay revised and updated this classic on veterinary care. Included are ways to diagnose and treat diseases and injuries in livestock and pets. This book helps you to know when to treat your animals or to check before you call the vet.

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November/December 2002 Backwoods Home Magazine
Book review: The Ballad of Carl Drega

Those who say sequels are never as good as the original, have not read The Ballad of Carl Drega, the follow-up to Send in the Waco Killers.

Following in the style of Waco Killers, Vin’s new book is built around his newspaper columns but it surpasses the first effort with much more added commentary and expansion of the material.

Although it entertains as it informs, this book is not for the faint of head. Unlike other authors, Vin’s no-holds-barred style of writing neither pulls any punches nor talks down to the reader. He writes for those who know how to read and how to think. He is a meticulous and tireless researcher and lays out the facts—often very disturbing facts—for all to see.

Subtitled Essays on the Freedom Movement, 1994 to 2001, the meat of The Ballad of Carl Drega is divided into sixteen chapters. It begins with the account of how New Hampshire citizen Carl Drega endured years of bureaucratic harassment and judicial indifference while trying to work within the system, but finally had enough and used lethal force to fight back.

From that springboard, Suprynowicz dives into topics like The Tyranny of Taxation, Are The Gun-Rights Lobbyists Being De-Clawed, Environmentalism as a State Religion, Sacrificing Children to the Government Vaccination Machine, Burn the Schools, Castrating a People Who Said ‘Can Do,’ and much more. The Ballad of Carl Drega is a great book for a cold winter’s day because what you read will set your blood to boiling. It is a volume every soccer mom, environmentalist, feel-good, knee-jerk do-gooder and politician should study because it will open their eyes to the reality of what fifty-plus years of socialist intervention and government expansion have done to this once proud land and the values for which it once stood.

You will read about Dr. Steven M. Beresford’s landmark lawsuit against the IRS and about how environmentalists use the power of government to force farmers and ranchers off their land.

You’ll learn how Sandra Dykes’ children were taken away from her after she resisted the advances of a male social worker.

You’ll come to know many unfortunate people as you read this book, people who have been marginalized, oppressed, lied-to, cheated, illegally punished, ignored, threatened, and even killed by their own government.

And if you believe the Second Amendment means what it plainly says, and that the NRA exists to prevent your gun rights from being abridged, you’ll want to lock your firearms away in case you lose your temper when you read the truth about how the NRA is, and always has been, a gun-control organization.

Justice Louis Brandeis said, “The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding.”

After reading The Ballad of Carl Drega, you will understand in great detail exactly what Justice Brandeis meant.

— Oliver DelSignore

Vin Suprynowicz’s new 696-page book, The Ballad of Carl Drega, is available from Backwoods Home Magazine for $27.95, including shipping and handling. Order from page 88 of this issue.
The last word

Fixing a broken jury system

“I blame every juror who let him go, every juror who sat on that trial and believed this man over those little girls. I will never understand. And that is why he was out. And that is why his sickness was allowed to do this.”

—Erin Runnion commenting on the acquittal, in a previous trial, of Alejandro Avila, the alleged murderer of her daughter, Samantha Runnion.

Even John Pozza, Alejandro Avila’s lawyer, was surprised when Avila got off in the molestation of two young girls.

“A lot of evidence that the prosecution or the police had gathered would give one the impression that there was evidence of guilt there...” Pozza said of that case. But Avila walked in 2001, and now, as the recently accused killer of Samantha Runnion, he will be tried for murder. The prosecution said it will seek the death penalty.

How could this happen? How could a man, apparently guilty of child molestation, have slipped through the grasp of “justice?” How could a jury of his “peers” look at the evidence, then let him go? Why, when even his previous lawyer, after seeing the evidence against him and believing “...there was evidence of guilt there...” was this man free to commit the ultimate crime: murder?

Before we try to answer that, let me pose some questions: Would we accept verdicts from a jury of 8 and 10-year-olds? Would the verdict of children be as good as a verdict rendered by adults? Of course not. Children are ignorant, emotional, and easily swayed.

Why, then, do we allow prosecutors and defense attorneys to filter out prospective jurors who are not ignorant or emotional, and can think independently? Why do we allow them to create juries that are essentially made up of adult children, jurors whose verdicts we often cannot respect, or even understand?

Let me pose another question: Would we accept a jury made up exclusively of the prosecutor’s family, friends, and well-wishers? Or one made up of the defendant’s mother, sisters, cousins, and school chums? Ridiculous, right?

But what do we think the prosecutors and defense lawyers are trying to achieve with their incessant “challenges”? Do we think they’re trying to seat an impartial jury? Of course they’re not. What they’re looking for is a jury that will be sympathetic to their case, and the public and an impartial jury system be damned.

How did this corruption of our jury system come about? Defense attorneys and prosecutors make their living by winning cases, not by getting justice. It does neither a prosecutor’s nor a defense attorney’s career any good to lose a case, even if he or she lost it because the defendant was obviously innocent or guilty. What neither of them wants on the jury is you and me and anyone else they believe will not be easily manipulated.

What is the purpose of a jury?

We can trace our jury system back to 1215 when English noblemen threatened civil war unless King John signed the Magna Carta which, among other things, guaranteed trial by jury to those accused by the state. Imagine how those noblemen would have felt if King John had said, “Sure, I’ll give you jury trials, but I handpick the jurors.” That would have been as good as no jury trials at all.

The jury system is supposed to serve both as a buffer between the citizens and the state and as a means of removing criminals from the streets. It makes no sense if jurors are chosen by the state—or by criminals.

A jury trial is supposed to ensure three things:

- When accusing the citizenry, the state acts in accordance with the law
- Citizens must get fair trials under those laws
- The laws themselves must be fair (It does us no good for a jury to simply determine, as the judges and prosecutors are so fond of saying, “the facts in the case,” if the laws themselves are bad.)

The solution to restoring a jury system that works as it is supposed to is simple: return to selecting jurors randomly, disqualifying only those with an interest in the outcome of the case. Yes, that means some ignorant, or emotional, or even bigoted people may sit on the jury, but it will also ensure that intelligent, unemotional, thoughtful people will serve as well. It will end the system where, because the prosecution and the defense try to ensure prejudiced jurors, we’re almost assured we will get jurors who are, at a minimum, ignorant, and at best—as in Avila’s 2001 trial—idiots.

The system of justice we are supposed to have, where the people serve as a buffer between the state and the citizenry, is not perfect, but it’s the best anyone has come up with so far.

Mrs. Runnion’s grief not withstanding, the reason we often cannot get justice in this country is because we have allowed the best legal system in the world to be stolen from the people by the lawyers. If Mrs. Runnion and a million other moms and dads had raised their voices years ago and had demanded we get our jury system back and stop allowing prosecutors and defense attorneys to shape juries for their own self-interest, there would be fewer innocents in jail, fewer criminals on the streets, and Samantha Runnion might be alive today.

— John Silveira
**Letters**

*(Dear Readers - Thank you for writing to Backwoods Home Magazine. The opinions and suggestions we receive from our readers are very important to us. We regret that we are no longer able to print or individually respond to every letter received due to the volume. We do read every letter received, and pass them along to the editor or writer concerned. We print a selection from our mail that best represents the views and concerns of our readers.)*

--- The Editors

**We’re bailing out**

We’ve been reading Backwoods Home for about 10 years now and find it to be by far the most practical and relevant magazine we receive. It is certainly the one we look forward to most eagerly. We will be bailing out of the rat race in about three years and building a solar house on some acreage we have near Concho, Arizona. The planning for this project has been greatly helped by your magazine.

Hugh and Lee Young
Temecula, CA

**Martha’s a beginner**

Jackie Clay’s articles are just great! She makes Martha Stewart look like a beginner. I do a lot of the same things here on my acreage that Jackie does, i.e. make soap, cheese, can, care for animals etc., but she has me beat! It’s a great magazine!

Lorraine Dotson
sheezarayne@earthlink.net

**Surplus firearms**

In the July-Aug. edition of Backwoods Home is an article by Jeff Salmon entitled “Surplus Firearms.” In the article he recommends several rifles as good buys and I must take exception to one of those.

On page 60 second column he states, “some, such as the Spanish 1916, are available in .308 caliber making them more palatable to individuals…” I feel a warning should be issued on that fact.

Yes, the rifles are in .308, but they are a major risk in our opinion. My son, our gunsmith, graduate of Trinidad State Junior College school of gunsmithing says that the pressure of the .308 is too great for this action which is built customarily for 7 mm equivalent of a strong 30-30. The .308 develops velocities of 2800 fps and 52,000 c.u.ps (copper units of pressure) while the 7 mm is under-loaded at 22 and 2300 fps.

NRA technical staff warned us against rebarreling Spanish Mausers to this caliber.

John R. Howard, Prop.
El Pueblo Gun Repair

**Health issue**

I really enjoyed the issue of Backwoods Home Magazine which addressed health maintenance. (Issue #75, May/June 2002) I use many of the supplements that John Silveira uses. I enjoyed his recent article where he addresses supplement use.

I wondered if you and John were aware of the CODEX health restrictions that have been going into effect in Europe. Vitamins and supplements have been severely restricted there. Pharmaceutical companies are cracking down and taking control of vitamins, herbs and supplements all over the world. If you do a google search on the internet under CODEX I am sure you will get information on this.

Citizens in many European countries can no longer buy supplements over the counter but must get prescriptions from their doctors. Amounts of vitamins such as vitamin C are strictly kept to the minimal RDA.

These restrictions will soon come to the United States if we do not contact our representatives in Washington D.C. Some day John may not be able to buy his supplements over the counter. The website doctoryourself.com addresses this subject.

Valerie Jamison
mikeandval@softsolutions.com

**Listening to Mac**

Have you folks ever thought about making the CD. “The Coming American Dictatorship” into one we can listen to? I sure would like to get one that has the articles being read so I can listen to it at work.

Thanks for the great magazine! I just renewed for another 2 years. As former talk show host Geoff Metcalf here in the SF Bay Area used to say, “Knowledge is Power.” Please pass a thank you to all involved in publishing the magazine.

Eric McIntosh
Redwood City, CA

**Thanks**

I was a charter subscriber to the old Survive magazine back in 1979-80. It was great, but ran out of steam. I subscribed to the Mother Earth News, it was part good, part bad. I didn’t care for their agenda. I subscribed to ASG/SRJ, it was good, but became politically correct and lost its way and folded. I’m thankful it did, because you took the chance of providing SRJ subscribers with a 6 month subscription. Your magazine is a breath of fresh air, full of commonsense and information, founded on correct principles. My only regret is that I’ve missed so much.

Don Eric Gray
Cypress Gardens, FL

O.K. I’m hooked! I was a regular reader of ASG, but never a subscriber. Instead I borrowed every issue from a friend. I was not terribly impressed with the first issue of SRJ. Then I moved away for most of a year. When I came back my friend
citizens army Silveira seems to talk about.
Second, I don’t think Silveira believes a citizen army will solve every problem. But, as in the case of the Swiss, if 30 and 40-year-old bankers and accountants have to go to war, you’re more likely to have a foreign policy of neutrality and—as in the case of the Swiss where almost everyone is armed—no one wants to invade them, either.

Dale Myers
Chester, NH

River rock shower

Over the years, Dorothy Ainsworth has written some excellent articles for you! Especially like the home building stories and “The zen of washday” inspired me to purchase ($75.00) a 1939 Maytag wringer washer. It does a better job than my state of the art washer.

But “A River Rock Shower” was another excellent article. The assembly directions and tips first class (esp. the erotic lovers listening to Rossini.) BUT how do you clean that Dorothy? You left that part out! It looks like it would be a bear to clean ... any info would be useful for that task.

You guys are super.

—Dorothy

Professional military

In the letters section of Issue #77 (Sept/Oct. 2001), Robert Takos comments on a professional vs a citizen military. He wrote: “Correct me if I am wrong but didn’t MacArthur use citizen soldiers to shoot the WWI vets in D.C. when they demanded their bonus ... Gov. used citizen soldiers to break up, sometimes kill, railroad and coal miners strikes? ... National Guard that shot those kids at Kent State?”

First, in several of these examples, particularly the soldiers who suppressed the bonus marchers and those who broke strikes, those military men were actually the small cadre of “professionals” who used to serve as the military’s core between major wars. They weren’t part of that

At the risk of stating the obvious, you always start at square one, and we born-and-bred city folk need it! Thank you for nourishing my dream of true independence. One day I will put all of your good advice to work!

Laura Cox
Killeen, TX

Watch for those snakes

I read all the time about how bad things are in the “government schools.” I don’t have kids and it’s been a while since I walked through the doors of a school. Guess I didn’t realize how little of our heritage kids are being taught until a few months ago.

My wife and I travel the country in our motor home. We were parked in Arizona and I was proudly flying the Gadsden flag from the top of our rig. A younger guy, I’d say 25 or so, walks up to me and says, “Is that your flag on that motor home?” I replied that it was. The man says, “What flag is that?” I explained that it was our flag in the Revolutionary War, long before the “Stars and Stripes.”

“You mean the Civil War?” he asked.

“No, the Revolutionary War, against the British,” I replied.

He gave me a look very similar to a brook trout and said, “Oh, I thought there were a lot of snakes in this area and we would get in trouble if we ran over them.”

So much for history classes. True story, I swear.

Ted Vaughn
Phoenix, AZ