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# Lessons from the Wilderness

For the last 15 years or so, I've spent a great deal of time in the backcountry, mostly backpacking and living off bare essentials. Life on the trail to some may seem harsh and unappealing, but I think it offers a worthy contrast to our daily lives. This contrast can breathe new life into a soul.

It does for me. For starters, in the wild, with only my camp on my back, I know I can't make mistakes, and I must exercise careful planning and execution in order to stay alive. This means having a good back-up plan to everything I do. For example, when traveling solo, what if I twist my ankle eight miles from the trailhead? What would I do? Would I make a brace and try to walk out? This type of plan-B thinking readies my mind for disasters, so I can overcome certain challenges.

This is exactly the type of fortitude a modern-day pioneer needs, in order to live efficiently and to harness as much as he or she can from their mind and their surroundings, by always thinking of plan-B, C and even D. You

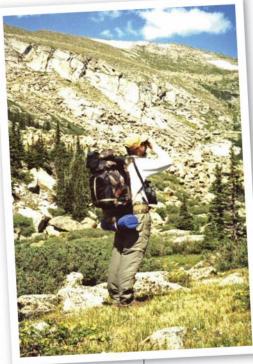
just never know how many obstacles will come before you.

In a nutshell, here are four valuable things backcountry exploring has taught me, and how I can transfer each lesson to being a better pioneer in my daily life.

#### **Teaches Self-Reliance**

Pioneer living is all about being more self-reliant. This means, thinking outside the box whenever you can, and formulating a good plan. Wilderness travel promotes self-thinking a lot. For example, my daily rations on the trail are oatmeal in the morning, bagel and jerky for lunch, and a dehydrated pouch of food (and maybe a tortilla or two) for dinner, while in between snacks are trail mix and various energy bars. It's a simple food supply, but it fills me up just fine and promotes healthier eating.

Eating this sort of menu every day reminds you that you really don't need all those restaurants, greasy fast-food joints, and extravagant food offerings. Sure, treating yourself once in a while is fine, but a true pioneer can look at simple foods and begin to recognize ways to refine those a bit for daily consumption at home. This is how the pioneers before us did it and why we should follow suit. After years of eating freeze-dried food from the store shelf, I often make my own now using a Cabela's dehydrator, this way I can utilize fresher ingredients and tastier menus. You can do the same thing for home, too.



#### **Institutes Toughness**

Want to really enjoy life? Well, each time I come home after a week-long wilderness trip, life seems a whole lot easier. Why, because trail time has really toughened my body and mind. From fetching my daily drinking water, to overcoming one mountain valley to another, to sleeping on a one-inchthick Thermarest pad, it all makes me a bit more willing and tolerating. It straightens my attitude, whether I'm gliding along in life or up against a rock. In that respect, it's the most valuable trail lesson.

#### **Draws You To Nature**

Every year, I seem to draw closer to nature. I think much of it has to do with my time on the trail, where I feel like a part of nature rather than a spectator looking on. I think this is crucial as a modern pioneer. After all, pioneering life is about being a good steward of our environment, by utilizing natural methods in how we live and eat, and to partner with nature instead of being a simple user of it.

Our natural resources are absolutely vital to our existence. Remember, without trees and forests, we have no oxygen.

Without watersheds and clean water, we have no way to stay alive. Nature is to be embraced, respected and highly valued. The best way to do this is to get to know it, first hand, by drawing in close to it. Being on the trail is perhaps the best way to do this, where TV, the phone, and city life won't quickly pull you away from it.

#### **Brings New Perspective**

One of the greatest lessons to traveling the backcountry is that it makes you appreciate the luxuries all around you. In the wilderness, everything is so crude. Back at home, there's running water, a refrigerator and pantry full of food, and the Internet! Imagine how those before us felt with only Spartan resources and living conditions. They fought off harsh weather, predators, and even enemies with simple courage. They relied on each other to work through life and to manage obstacles. They formed tight-knit relationships with each other. Life on the trail has a way of prompting these same values.

Being a good pioneer is all about simplicity, recognizing the good things in life and valuing nature and those around you. Life on the trail is the best medicine there is for establishing this approach.

IOE BELL

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# Bringing Back Historic Wood Bison Herds in Alaska

A HUNDRED WOOD BISON currently await deployment into the Alaskan wild. These massive animals were flown via cargo plane from their captive facility at the Alaska Wildlife Conservation Center (AWCC) to a holding area closely monitored by the Alaska Department of Fish and Game.

There, Fish and Game workers will support the herd as they acclimate to a wild environment, as well as research and document the effects of reintroduction. The plan, they say, is to add bison to the herd until 2017, to ensure long-term population survival.

"Reestablishing the Alaska herd will not only benefit other species, it will eventually become a resource of Alaska to manage sustainably for the benefit of the people," said Safari Club International Foundation (SCI) president Joe Hosmer. "We are immensely proud to be involved in this monumental effort and to see wood bison released back in to their native habitat."

# Western Snowpack Melts Early, Little Remains

WEST-WIDE SNOWPACK has mostly melted, according to data from the fifth 2015 forecast by the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

"Across most of the West, snowpack isn't just low – it's gone," NRCS Hydrologist David Garen said. "With some exceptions, this year's snowmelt stream flow has already occurred."

Garen said that for much of the western US, the snowpack at many of the stations is at or near the lowest on record. Months of unusually warm temperatures hindered snowpack growth and accelerated its melt.

# Did You Know?

The refreshing scent we all smell in the air after it rains doesn't come from the most refreshing source. That earthy hint our noses are detecting actually comes from actinomycetes, a bacteria that grows especially well in woodland and other areas with soil where it's damp and warm.





# $\ll$

#### LIGHT-UP TENT

Big Agnes has a line of tents featuring an illumination system. This includes the Rocky Peak 4 tent, with light-emitting diodes integrated within the tent. It turns on and off with a switch so there's no feeling around for handheld lighting anymore. The tent features two doors and a vestibule, reflective corners, and 57 square feet of floor space. Takes three AAA batteries. **MSRP \$349.95.** 

> Visit bigagnes.com

#### **ROOFTOP CARGO BAG**

Let's start with the coolest thing about this product from Yakima: No cargo rack required. The weatherproof CargoPack has adjustable mounting straps that'll work with pretty much any roof type. It also means you can bring it on a plane or strap it to a rental car. The bag has 16 feet of cubic space and features weather-tight sealed seams and EVA-molded panels. **MSRP \$219.** 

Visit yakima.com



#### **SNAKEPROOF BOOT**

The Original Muck Company offers the men's Pursuit Snake Boot, which is a snake-proof/strike-proof hunting boot. The exterior material is layered with a full rubber coating and 4 mm of neoprene. XpressCool fabric lining ensures feet are cool in the heat. These boots are also waterproof, feature anti-friction sockliners and have EVA midsoles with rubber outsole pods. MSRP \$224.95.

> Visit muckbootcompany.com



#### **MOSQUITO REPELLER LANTERN**

The Mosquito Mister Lantern from Terminix is an all-natural, environmentally friendly way to keep mosquitos away. It automatically releases a botanical lemongrass solution and keeps them out of areas up to 300 square feet. This lantern is non-toxic, features mist settings of light, medium and heavy, comes with a remote control and hanging loop.

Visit terminixallclear.com

#### SPECIAL EDITION VIKING VI

This 2015 special edition off-road utility vehicle is built to bring the whole family. This 6-occupant machine achieves driver and passenger comfort with a leading 115.6" wheel base that smooths the ride and allows for a roomy interior. With matte silver paint, aluminum wheels, a soft sun top, mud flaps, overfenders, underseat storage and bed rail accessory mount, this beast comes fully loaded. Conquer any terrain with vehicle's 686cc. liquid cooled, fuel injected SOHC power plant and an on-command 4WD system that lets you dial between 2WD, limited-slip 4WD and fully locked differential 4WD. And don't hesitate to bring any gear you can think of — the Viking's





#### **KEEP IT IN YOUR POCKET**

Carry a knife that is built for everyday use in and out of the shop, conveniently in your pocket. Designed by award-winning knife maker Ken Onion, this 2.3-inch stainless steel, black blade is covered with a corrosion-resistant coating to protect it from shop chemicals and dirt. A textured grip with an integrated flipper allows for fast opening and when closed the Rave is equipped with a deep-carry pocket clip, allowing it to be kept at ready for any ioh

Visit snapon.com

#### **ALL-PURPOSE TOOL**

Trucker's Friend originated as a tool for pro truck drivers, but it's good for anyone needing a handy tool that can pry, pull, pound, or hack. This includes a curved axe, hammer and nail puller, pry bar, tire-chain hook, ice and debris remover, and wire twist. The finish is rust resistant and the tool weighs in at 2.6 lbs and is 19.25 inches long. Lifetime replacement guarantee. MSRP: \$59.95.

> Visit innovationfactory.com



> Visit Yamahamotorsports.com

# **Pioneer Game Pouch**

Here's a simple game carrier that's easy to make and useful for small-game hunting.

> By Darryl Quidort

Blood was dripping down my pant leg. Don't worry, it wasn't mine. I was hunting with my flintlock squirrel rifle and had hung a recently killed squirrel from my belt. The dripping squirrel blood was staining my hunting clothes. What I needed was a waterproof, blood-proof, game pouch. Since I hunt with a flintlock rifle, I wanted to make an authentic "pioneer" game carrier using old-school methods. That meant no buckles, no zippers, and certainly no Velcro. What material did they use and how did they do it?

Early settlers had linen cloth, and linen thread, made from the flax plant. Later they had muslin, made from the cotton plant and fustian, a mixture of cotton and linen. Cotton "canvas" was used for tents and tarpaulins in the early 1700s. Lewis and Clark took oiled linen (oilcloth) with them on their Journey of Discovery in 1804.

American pioneers used several different methods to waterproof fabric. Most of their methods were unsatisfactory, toxic, or even dangerous. Pine pitch, tar, acetate of lead, and sulphate of copper were used. Later, when gasoline became available some writers recommended using it for waterproofing. Yikes! Presumably, the oil used to make waterproof oilcloth was linseed oil. Linseed is flax seed. Linseed oil would be worth a try. However, modern linseed oil has dryers in it, but raw linseed oil dries very slowly. It may take weeks or even months to dry, depending on the temperature and humidity.

Beeswax was probably the safest and most common water-proofing agent used by the American pioneers. It is easily available and non-toxic. Although fabric waterproofed with beeswax can be flammable, it isn't as flammable as many of our modern, synthetic materials. While researching how the settlers used beeswax, I learned something interesting. Honey bees are not native to North America. They were brought here by the earliest Colonists. In 1750,

Peter Kalm wrote that bees had been imported with the early Colonists, but by that time bees had been around long enough that no one remembered how they got here. Kalm noted that the Indians called them "English flies." Beeswax is made by the worker bees and forms the honeycomb that stores the honey in their nest.

For my own "old school" game pouch I decided to use an old piece of cotton canvas and to waterproof it with beeswax. Canvas of various weights can be purchased at a dry goods store, fabric shop, or reused from an old tent. New canvas will shrink, so wash it first. Beeswax can be purchased from bee keepers or craft shops. Waterproof bags, folders, and pouches can be made in any size needed. I didn't need a large game pouch, 10x12 inches would be large enough to carry a couple of squirrels.

Follow these five steps to make your own game pouch.

"Beeswax was probably the safest and most common waterproofing agent used by the American pioneers."

The 12x25-inch rectangle of canvas will be folded and sewn to make a 10x12 pouch with a 5-inch flap.



Turn the pouch inside out and paint the melted beeswax on the fabric to waterproof (blood-proof) it.



Stitch the ends of the shoulder strap to the back corners of the pouch at an angle.



A series of double holes punched through both parts of the shoulder strap allow for length adjustment

#### HOW TO MAKE YOUR OWN POUCH

#### STEP 1

First lay the canvas out flat and use a carpenter's square to mark out a rectangle 12 inches wide and 25 inches long. Then divide the 25-inch length into three parts, 10 inches, 10 inches, and 5 inches. Folding the 10 inch parts together will form the pouch. The 5-inch part will be the flap.

#### STEP 2

Next, fold the bottom 10 inches up and sew the sides together to form the pouch. Canvas can be hand-sewn or machinesewn. Stitches can be visible when sewed on the outside or hidden by turning the pouch inside out, as I did. Double the edge of the 5-inch flap over and sew it to keep it from unraveling. I didn't need a catch on the flap as it folds down far enough to lay flat by itself.

#### STEP 3

Stain the pouch, if you choose, by soaking it in strong tea, coffee, or a bath of walnut husks in warm water. My canvas was white, so I made two cups of coffee. After wetting down the fabric with one cup, I relaxed and drank the other cup while the pouch soaked. The result was a nice greybrown colored pouch.

#### STEP 4

Melt the beeswax in a double boiler or carefully in a microwave oven. Turn the bag inside out and use a paintbrush to apply the melted beeswax to the fabric. Most of the melted wax will be absorbed by the cloth but some will remain on the surface. Use a hair blow dryer to keep the wax melted until it sinks into the fabric. Press the pouch into shape and let it cool before turning it right side out.

#### STEP 5

A 1½-inch-wide leather shoulder strap can be sewn on the back of the pouch. Sew the strap on the corners of the pouch at an angle so the bag will hang easily at your side in use. The shoulder strap needs to be adjustable for length so that various amounts of clothing can be worn under it. I made my shoulder strap in two pieces and punched a double row of holes in them. By adjusting the holes, and running a leather lace through them, I can vary the length of the shoulder strap as needed.

The finished pioneer game pouch is inexpensive, lightweight, blood-proof, and fits close to the hunter's side until needed. MP

# survival 101





# survival 101





(left to right) Before you start it is important to collect quality accelerants that will help start small twigs and tinder alight. Collect everything you need before you start. This fire was started with wet materials with slivers of birch bark and cedar bark and needles. Old pine stumps or kno often include heartwood containing concentrated pitch. This pitch burns hot and is a super fire-starter. Smash stumps and knots apart with large rocks or an ax, and whittle away slivers. Several species of birch are common in northern or high-altitude regions. The bark is easily collected from

#### Fire is life. Fire is security.

Long ago a friend and I, on a summer backpacking trip along the crest of an isolated 10.500-foot mountain range, lost camp and were forced to sleep out and wait till morning. It was June and, initially, I foresaw no problems. By dawn we were so hypothermic and exhausted, we literally crawled to a patch of warming sunlight and collapsed. By the time we awoke from this stupor there was no time to even think about relocating camp, so we made a retreat (I returned to retrieve our gear a few days later). That hard lesson stuck with me for life. I now never do anything outdoors, from leisurely spring morel/shed-antler hunting, to summer fishing, to wilderness elk hunting, without carrying surefire fire-starting materials. However, "surefire" changes with seasons, habitat and prevailing conditions.

#### **Getting Started**

In basic terms this means carrying matches or a cheap cigarette lighter. In mild, dry weather this is more than sufficient. In more severe conditions additional preparation is necessary. This is when you want honest waterproof/windproof matches (placed in

a waterproof container), windproof lighter – or a flint and steel, plus an old 35mm film canister or watertight pill bottle filled with reloading powder as an accelerant. A nimrod with a Leatherman and a pocket-full of firearms cartridges always has this option open.

During wet and blustery fall/northern hunts (Alaska comes to mind) I carry my "tea kit." This consists of a titanium cup holding strike-anywhere matches in a Ziploc bag, quality windproof lighter (fully recharged), English tea bags, full fuel canister and micro backpacking stove nested into a waterproof stuff sack. The works weighs less than a pound. Piping cups of black tea have saved the day on many cold outings. I once used the stove to dry arrow feathers before stalking and killing a gorgeous Alaskan mountain goat with a recurve. Most importantly, the intense, prolonged stove flame allows starting fire with wet material.

#### **Natural Accelerants**

Reliable fire starting, besides a beginning flame, starts with proper accelerants. This means highly-combustible material producing enough flame to dry and torch larger tinder. My favorite natural accelerant is birch bark, which grows in the wet, cold environments where reliable fire starters are needed most. The bark of even green birch or one that's been laying in weather for years - burns like kerosenesoaked paper. Peel it off in thin layers, put a match to it and it bursts into a hot, oily flame. When traveling to harsh environments I carry collected bark in Ziploc bags.

Another great accelerant is slivered pitch wood. This is common anywhere pines grow, via ancient stumps or knots of rotting logs. I recall when a friend and I left camp on a hot July day fly-fishing a remote mountain trout stream. Miles from shelter a sudden thundershower arrived out of the blue, culminating in an inch of hail blanketing the ground. Dressed in shorts and T-shirts we quickly became hypothermic. Everything was soaked. I found a rotting Ponderosa stump, smashed it apart with big rocks, dug out some chunks and whittled away the wet exterior with a pocketknife to expose the resinous fat wood. Carving away slivers, I created a small pile. I set a match to those slivers and produced smoky flames hot enough to dry smaller twigs, then finger-sized twigs, ultimately creating a warming pyre.



live (without killing the tree) or dead trees as needed or stored in plastic bags when traveling to places where it is not native. Birch bark contains natural oils which will burn even green or wet. Peel thicker bark into paper-thin layers for better results when the material has been rained or snowed on, or cut it into thin slivers for effective accelerant. 

Author Patrick Meitin makes extremely effective fire starters by stuffing a pill bottle with guncleaning patches and saturating them with household WD-40. They burn like lighter fluid, and can double as gun care in wet environments.

I've also had decent luck - when no other options existed - shredding the inner layers of fibrous red cedar (north) or blueberry juniper (west) bark. Peeled off in lavers and rolled roughly between the hands it turns to fine fibers that catch flame easily. Another decent alternative is pine pitch. While it does require a prolonged flame to ignite (a torch lighter, for instance), once it catches it burns hot, like burning wax or plastic.

#### **Natural Tinder**

To really get the ball rolling you'll need reliable tinder. These are toothpick- to pencil-sized twigs, grass stems or pine needles that are reasonably dry and/or reasonably combustible. This is most pointed immediately following rain or snow when starting a fire is most challenging. The best in my experience are lower-canopy twigs of sappy pine or fir, the upper boughs often sheltering lower branches from the brunt of moisture, the sap acting as low-grade waterproofing. Pinecones can also prove excellent, especially those dripping with sap.

The better alternative when possible is seeking western packrat nests (especially beneath rock overhangs) or eastern tree-squirrel nests (especially from hollow trees). Packrats and squirrels collect small sticks, leaves and such that make perfect tinder. When not under cover. tear into the heart of such materials to reveal drier tinder within.

#### **Extreme Measures**

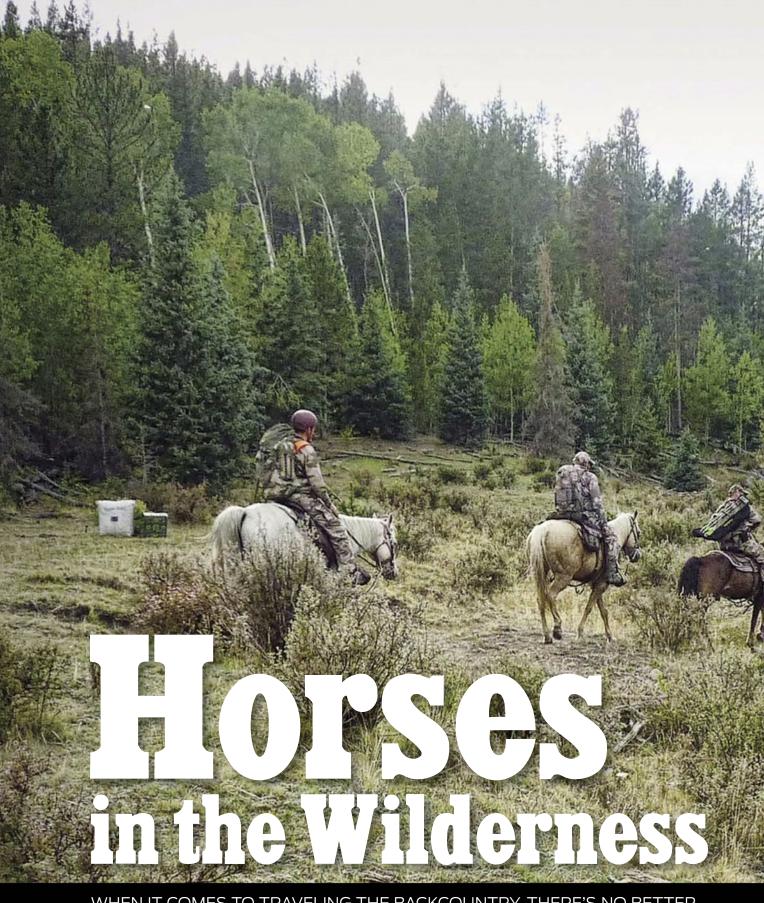
I'm always fascinated by primitive fire-starting techniques such as bow-and-drill or flint and steel. But let's be honest - you're not going to get a fire going with primitive methods and natural accelerants/tinder while shivering in a rain-soaked Alaska tundra, Colorado alpine ridges or in the Pacific Northwest rainforests. Such settings and conditions require serious preparation, because as I've discovered on more than one occasion in Alaska, in this saturated landscape, green wood (and conifer needles) actually burn better than dead. You've got to create some serious heat to get the ball rolling here, and when you need it bad, when you need it to survive, there's no time to waste.

Forget romantic notions. Petroleum products are in order. A Ziploc bag full of table candles cut into six-inch lengths is a good start. In a sheltered area this saves matches or lighter juice by getting a

sustainable flame started, while also providing prolonged heat to start tinder burning. On a basic level, large gun-cleaning patches soaked in WD-40. stored in a snap-lid pill bottle, are a good start (also allowing you to lubricate wet firearms when needed). Another option is securing a screwtop container (like a large powdered Gatorade tub), filling it with tightlyrolled cardboard and pouring melted paraffin (canning) wax to fill the voids and returning the lid. A small piece of wax-soaked cardboard burns long and hot. In conjunction with these materials, a can of Zippo or Ronsonol lighter fluid, or MSR backpacking-stove bottle of diesel fuel (better than white gas or gasoline, which flares and burns out quickly), is excellent insurance. Of course, any number of commercial "fire paste" or fire-starter wafers are also available.

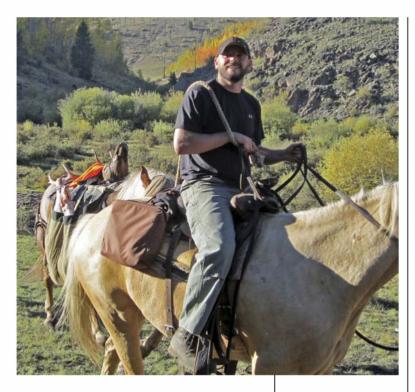
That icy, teeth-chattering summer night on that high mountain crest as a teen still sticks in my mind. I made a vow the following day that never again would I suffer such an uncomfortable, spooky night. From that day on I always set out prepared to start a fire as needed in any conditions. Are you prepared for such an emergency? MP





WHEN IT COMES TO TRAVELING THE BACKCOUNTRY, THERE'S NO BETTER COMPANION THAN A TRUSTY FOUR-LEGGED HELPER. By Brian Brown





#### **Basic Horsemanship**

Older than the 'Ford vs. Chevrolet' debate and possibly more complicated than "the chicken or the egg" discussion are the different methods of horse care, proper saddling and packing. There are definitely "do's and don'ts" when it comes to riding and pack strings, but the fundamental ideas are the same. The best way to learn is by watching an experienced wrangler and spending time learning handson. Horses need proper feed to get going in the morning, which requires you to wake up at least an hour earlier than normal to allow them enough time to digest prior to saddling. They also need to be taken to water at least a couple times a day and even if you are tired after a long ride, they need a hearty evening feeding to ensure they are ready to go the next morning. The proper way to saddle depends on which horseman you ask, but always begins with a good brush down, then a saddle blanket paired with a good pad. The saddle should be located a couple finger widths behind the front shoulder and the cinch should be tight enough to keep the saddle from rolling without limiting the horse's breathing. Your horse will usually let you know if it is too tight by whinnying or even biting – I have scars to prove it. Saddle sores are avoidable with proper saddling and tack, but happen occasionally - be sure to properly treat these with topical treatments and rest.

This bull was harvested almost seven miles from camp and the pack out only took a couple hours round trip with the help of horses, saving lots of time and blisters in the process.

(opposite) Heading back to the trailhead after a successful hunt while enjoying the changing colors of the fall.

It's easy to become distracted while riding in the backcountry but always be aware of your horse and the surroundings, especially around water, rocks and downed trees. Make sure to work with your horse moving your body with the horse's motion; lean forward in the saddle during strenuous climbs and lean back while descending steep slopes. Guide and control your horse using the reins but avoid yanking on them, as it can injure the horse's mouth and cause them to act out. Be firm in your commands, making sure the horse knows what you are asking of them and that you are in control. Often, less experienced riders allow the horse too much freedom and in turn the horse will take full advantage. Regardless of how frustrated you get with your horse, punching, kicking or whipping will not help. You are picking a fight with a 1000-plus pound animal and when push comes to shove, it will win.

#### **Packing**

Arguably the best part about using horses is letting them do the heavy lifting for you. There are a variety of pack saddles available to the backcountry horseman, including sawbuck or decker saddles, hard or soft panniers, and mantie tarps or over-the-saddle bags. Again, having someone with pack string experience teach you the basics will be the best way to decide on a setup that will work for you. Start by laying out all your gear and separate into individual loads for each packhorse invest in a hanging scale and ensure weight is equally distributed on either side. Pack fragile gear in hard panniers and use soft panniers for everything else. Use tarps or top bags for light or bulky items like sleeping bags and pads. Make sure not to overload your top load - a good rule of thumb is the top load should weigh less than a third of the total weight of both sides. Be sure that anything fragile you put on a horse is protected because inevitably

"Using horses to get around in the backcountry minimizes wear and tear on your body and allows for a more comfortable camp than you are willing to carry on your back."





that horse will bump into every tree and rock along the trail. The best loads are packed tight, balanced and don't clank and rattle like a toddler rummaging through the kitchen pots and pans.

When it comes to weapons, rifles are best protected in a saddle-mounted scabbard, but in my experience, the best way to transport a bow is attached to a backpack on a rider's back. Packing out your trophies is fairly simple, especially if you keep the quarters on the bones, as it makes for

equal weight distribution. Your trophy's antlers can be difficult to get cinched to the saddle and tend to get loose easily, so take your time and use plenty of cam straps.

#### Own, Rent or Hire?

Owning your horses allows you to train them the way that best fits your style. You can adapt to their personalities, attitudes and quirks, and use them however and whenever you see fit. After the initial purchase of your horses comes the responsibility of any veterinarian bills, feed and pasture costs and daily care, along with acquiring and maintaining all your tack.

Renting appears as a promising option to reduce cost, as the tack is generally included in the rental, but I would caution that you

Looking out the back doors in cold weather barbed wire could not contain these horses with tasty crab apples laying in

the vard.

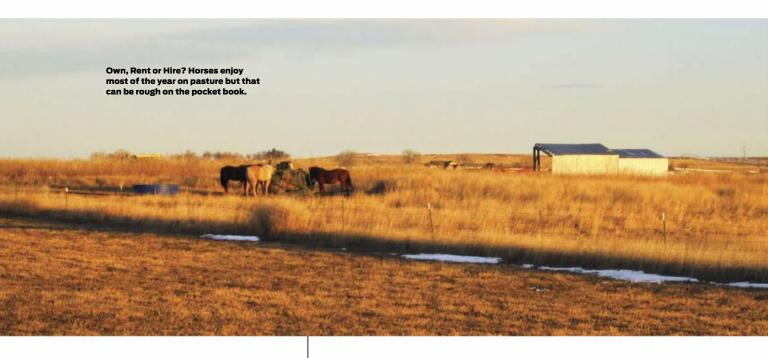
(top) Trigger is an example of what we call a guide horse, which means he is easily startled and terrified of moose, so he is limited to experienced riders and guides.

## LAWS, ETHICS, AND COURTESY

- > When using public lands, know the local laws regarding registration, feed and grazing requirements and water restrictions
- > Minimize damage to the natural resources by sticking to established trails when possible, use tree-saving straps and certified weed-free hay or feed if packing in feed.
- If you meet a group of riders on the trail make yourself known early – just a simple hello will do. Quietly stepping off the trail and waiting in the shadows while the other group passes may seem like the right thing to do but this often ends up startling the horses, resulting in a rodeo. –B.B.

take time for extensive research if you plan to rent horses for a backcountry excursion. There are plenty of horror stories of renting stock that are lame, inexperienced in the backcountry and even blood-shy. Unless you have established a relationship with someone or a company, be very leery of borrowing someone else's horses without them present. Should something go awry, you will be responsible for fixing or replacing any damaged goods and ultimately have a higher safety risk during your trip.

Hiring an outfitter who offers pack-in or guided trips is good option and will simplify your trip, as all you need to do is show up at the trailhead with your gear. Aside from the horses, they will provide all the required tack and get it to the trailhead; handle feeding and saddling during your trip; and you do not have to worry about off-season care. There is also benefit to having a professional who is familiar with each horse's personality and can provide you with the information you need to have a successful and safe trip. The downside to this is cost, since you are not only renting the animal but hiring experience as well. This



# EQUIPMENT AND CARE

- > Check your tack daily for damage and replace any worn, torn or cracked straps and cinches
- > Pick your horses' feet daily and have them shoed if heading to a rocky area
- > A couple lash or cam straps stashed in the saddlebags will help tighten loads or repair broken straps.
- In a pinch, a rock or two can be used to balance out uneven loads. A can of beer or soda works well too, conveniently weighing just under a pound each, but they can be punctured going down the trail so make sure they are not on top of your sleeping bag or clothes. —B.B.

# "In the end, using horses in the backcountry not only gets you where you want to go, but provides some companionship along the way."

may be the best compromise for someone who only makes a couple trips each year and is a great way to learn the ropes, so to speak, if you want to eventually have a pack string of your own.

Riding horses through the backcountry is as much a part of the wilderness as the trees and mountains that brought me there in the first place. There have been some good quotes muttered at the trailhead over the years, like "this isn't my first rodeo, but it's still a rodeo" or "if your horse goes to bucking - hold the hell on" and there is some truth to both. Any trip to the hills with horses is bound to have some challenges, but experience combined with preparedness and common sense will minimize these struggles. In the end, using horses in the backcountry not only gets you where you want to go, but provides some companionship along the way. I believe Winston Churchill said it best, "There is something about the outside of a horse that is good for the inside of a man." mr





# Making It

ONE OF THE BEST WAYS TO PRESERVE FOOD. WHETHER FOR THE HOME OR TRAIL. IS TO USE A DEHYDRATOR, HERE'S HOW TO DO IT RIGHT. By Kristi Cook

Food preservation has concerned almost every culture since the beginning of time—from the ancient Egyptians to our pioneering ancestors. Depending on the location, excess bounty was often frozen on ice, dried in the sun, cured with salt, or even buried underground. Modern culture is no exception, as grocery stores line shelves with frozen produce, canned goods, and boxed meals. However, preserving food at home is still practiced today as many of us simplify our lives by hunting, gathering, and growing our own food supply. While canning, freezing, and other processes are certainly valid weapons in the food preservation arsenal, drying food is the oldest, simplest, and least expensive method to use, making it the first choice for many home food preservers. ...

#### **Dehydrating Benefits**

Dehydration contains many benefits as compared to other options, including commercially prepared foods. Unlike freezing and canning, dehydration requires no expensive freezer or fear of power outages, uses minimal electricity and the tiniest of storage space. Yet, the life expectancy of dehydrated food is roughly the same, depending on the type of food, storage conditions, and quality of the dehydrating process. As compared to commercially prepared foods, home dehydration requires no artificial additives or preservatives, retains much of the food's nutritive value, and costs pennies to make. Startup costs are also at a minimum, making home food preservation possible even for the smallest budget.

#### **Selecting a Dehydrator**

Dehydration preserves food by removing the moisture necessary for bacteria, yeast, and mold to grow. Therefore, the model you select needs to include a heat source to draw out moisture and a fan for moving heat throughout the unit while simultaneously pushing moisture away. Both features are readily available in most models regardless of price range, yet are not always included—so read specs carefully.

"Unlike freezing and canning, dehydration requires no expensive freezer or fear of power outages..."

While moisture removal inactivates food spoilers, these organisms can continue to multiply during the drying process if incorrect temperatures are used. Therefore, temperature control is an absolute must for safe food preservation and is not an area to cut costs. Look for an adjustable temperature range from 90 to 160 degrees, which covers foods from herbs, to flowers, to fruits, veggies, and even jerky. Most dehydrators come with a guidebook detailing specific temperatures required for various types of foods and should be heeded.

Dehydrator styles are much more flexible and more about personal preference than efficiency—in most cases—due to individual needs, available space, and budgets. Here are the pros and cons of both styles.

#### STACKABLE UNIT PROS

- Good models are available for under \$50
- Top and bottom mounted heat sources are available in all price ranges
- Several inexpensive models are available with temperature control and fans
- Food is loaded onto stackable trays
- Flexible capacity with purchase of additional travs
- · Generally lightweight, facilitating mobility
- Small footprint requires minimal space



## TANGY STRAWBERRY FRUIT LEATHER

2 cups whole strawberries, capped, with blemishes removed

12/3 cups unsweetened applesauce or freshly peeled, steamed and mashed apples

Purée ingredients until smooth. Pour onto lightly oiled fruit leather tray. Dry at 135 degrees, or according to manufacturer guidelines, for 4–8 hours until tacky and leathery. If uneven drying occurs, carefully cut or tear away finished sections. Return remainder to dehydrator, checking frequently. Roll finished leather in plastic wrap. Store in refrigerator until needed. –κ.c.

#### STACKABLE UNIT CONS

- Rear mounted heat sources unavailable
- Top and bottom mounted heat sources produce uneven heat distribution
- Frequent tray rotation needed to ensure even drying
- Liquids may drip on bottom mounted units causing malfunction
- Additional trays/accessories must be purchased separately
- Lower priced models must be closely inspected to ensure fans are included

#### SHELF UNIT PROS

- Shelves loaded into fixed boxes allow for ease of 'peeking' during drying process
- Rear mounted heat source and fans provide more even heat distribution
- Convection heating available, offering silent operation and reduced electricity usage
- Tray rotation is reduced or eliminated
- Larger capacity available without additional tray purchases
- Often made of sturdier construction than stackable units

#### SHELF UNIT CONS

- Considerably more expensive than stackable tray units
- Convection heating can double drying time, reducing flavor and nutrients
- Inability to expand total capacity
- Tray rotation may still be needed
- · Heavier weight inhibits mobility

Once you've made your style selection and double checked fan, heat source, and temperature control availability, you may want to consider additional features such as auto shutoff, timers, included trays, liners, or other gadgets. If your budget is tight, or you just want to save some money, portable timers with auto shutoff like the ones used for growing plants or running aquarium lighting do the job nicely and often can be found sitting around the house, or someone else's, free for the taking. Timers often are a bit pointless due to the variability in drying times between batches of identical food, requiring regular monitoring despite the timer. So don't let these features, or the lack thereof, have too much influence on your budget.

What money you do have for extra features is better spent on fruit leather and mesh liners, additional trays, or jerky guns. While most models usually include a single leather or mesh liner and a minimum number of trays (in the case of stackable units), you will quickly discover that your strawberry patch or pea crop was bigger than expected. Rather than set up multiple batches, extra liners and trays easily turn two loads into one. A rule of thumb for es-

timating needed capacity is approximately 12 square feet for a half-bushel of produce. A quick look at the unit's specs will help you determine how much space you may need to add.

A word about wattage—don't get too hung up on spreading your dollar around a big number. While the higher the wattage, say 1000 watts, indicates faster drying as compared to 500 watts, that is not always the case. Other factors such as moisture level in food, ambient air temperature, humidity, and overall unit design also play significant roles in determining unit efficiency. So again, spend you money in other areas first before breaking the bank for more wattage.







#### **What to Dehydrate**

Virtually any fruit or vegetable, from berries, to squash, to green beans, can be dried, as well as lean meats. Foods may be chopped, sliced, diced, shredded, or puréed. As with style selection, what and how you prefer to dry is often based more on personal preference than on what someone else says. For instance, some say lemons dry very well while others claim a bitter effect. Some don't like the taffy quality of dried watermelon; others crave it. However, high fat foods such as marbled meat, fatty nuts, milk, and eggs are not recommended for home dehydration by many sources due to the inability to properly remove sufficient quantities of moisture to inhibit spoilage.

#### **Dehydrating Basics**

Now for the fun part. Dehydrating is a very simple process requiring only a few basic guide-

(right) Cabela's makes a variety of food-processing tools, including heavy-duty commercialgrade dehydrators. This 80-liter model features 12 nonstick drying racks for a total of 28 square feet of drying space, in addition to offering 1,600 watts of drying power. Other details include an aluminum interior with built-in light and a digital thermostat/timer. It even has a built-in drain reservoir.

lines to get started with fruits, veggies, and herbs (however, meat drying is beyond the scope of this article).

#### FRUIT

Often the first foods to be dehydrated by novices, fruits offer a plethora of tasty choices. Let your imagination take over, mixing and matching flavors with what is readily available and in season. Use dried fruits in trail mixes, cereals, granolas, breads, and muffins—anywhere you can imagine.

To preserve the best flavor possible, pick ripe fruit, cut out blemishes, slice into uniform pieces, and work quickly. Some fruits need to be pretreated to prevent browning, such as apples or peaches, while others do not. Some go either way. Experience is often the best teacher; however, suggestions from the dehydrator's handbook are helpful, as well. Several pretreatment options are available, yet the simplest is to slice fruit directly into a mixture of





ascorbic acid (available at most grocery stores), or fruit juices containing ascorbic acid such as pineapple, orange, lemon, or lime, and soak for approximately five minutes. Load onto trays, and dry at approximately 135°F. Dipping fruit in honey or honey infused juices are also natural options, just be aware of the added sweetness and calories.

Fruit leathers are even simpler to make and require no pretreatment. Simply select your fruit or mixture of fruits, purée in a blender, and pour evenly onto a lightly oiled fruit leather tray. Dry until tacky and leathery. (Brittle leather indicates over drying.) Adding applesauce to purées is an excellent trick for not only extending valuable fruits, but also adds a touch of thickness to the finished product.

Check for doneness once fruits or leathers are flexible and leathery. Remove a piece or tear off a slice of leather and let cool. Tear in half and squeeze. If any moisture beads form, the food is not dry and further drying is needed.

#### VEGGIES

Any vegetable can be dried; however, some do fare better than others. For instance, lima beans tend to not rehydrate fully, while green beans can be tough to chew even with rehydration. Yet, again, each person has different likes, so experimentation is key. Dried veggies can be used in almost any recipe, usually after rehydrating first, such as soups, stews, casseroles, quiches, bean dishes, and more.

Vegetables are dried in the same temp range as fruits and often need to be blanched to lock in nutrients and flavor. As with fruits, pick at peak ripeness, remove blemishes, and slice uniformly. Steaming and boiling are acceptable blanching options, each producing slightly different results depending on the food. However, microwave blanching is not recommended as parts of food become partially cooked and can lead to food spoilage during dehydration. Most guidebooks provide a list of recommended blanching times for individual foods.

Most vegetables are dry when brittle, tough, or crisp with no signs of moisture present.

Make certain to pack tomatoes and onions immediately upon drying as they readily absorb moisture in the air leading to spoilage.

#### **HERBS**

Herbs are among the simplest items to dry requiring almost no prep work. Select the best stems or leaves before plants begin to flower. Harvests should be taken early in the morning before rising heat reduces the aromatic oils. If

## DEHYDRATED VEGETABLE STEW

(All ingredients are dehydrated unless otherwise noted)

- 1/2 c diced potatoes
- 1/4 c peas
- 1/4 c corn
- 1/4 diced carrots
- 1/4 c sliced okra
- 1/4 c diced onions
- 1/4 c diced tomatoes

5 c canned or fresh vegetable, chicken, or beef stock salt, pepper, and other preferred seasonings to taste

Heat stock over medium heat to a simmer. Add vegetables, cover and soak for 15 minutes. Remove lid and bring to a boil for 5-10 minutes. Reduce to a simmer, add seasonings, and continue cooking until desired tenderness is achieved. Optional: After boiling, carefully transfer ingredients, including liquid, to a slow cooker. Cook on low for 6 to 8 hours. — K.C.

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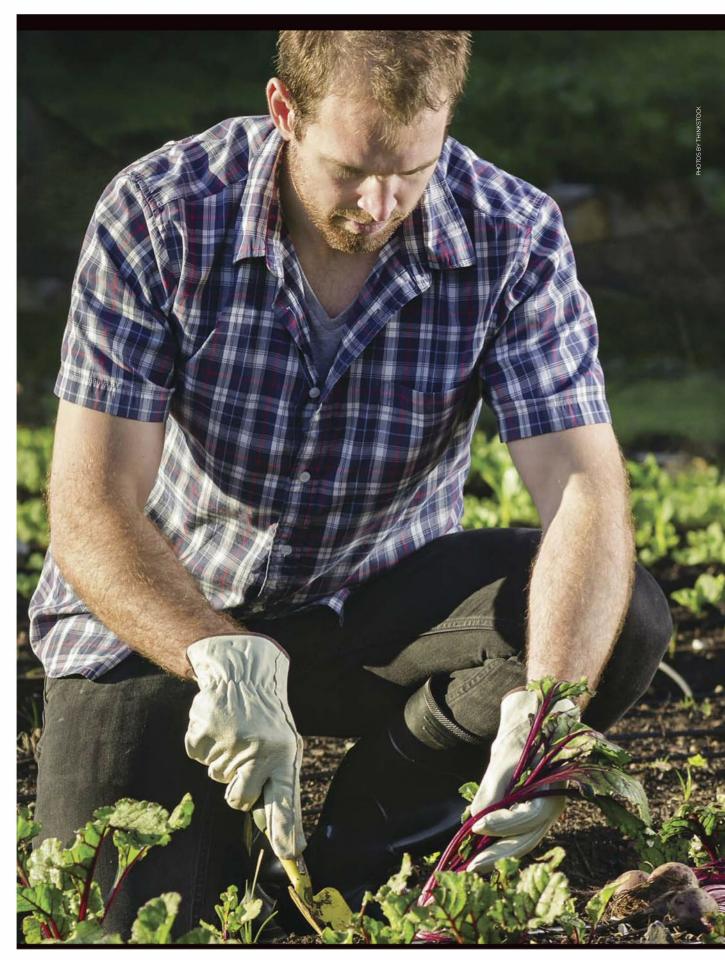
possible, avoid washing herbs because it dilutes flavors by removing oils from leaves. When necessary to remove insects and dirt, wash gently and quickly with cool water. Load trays in a single layer and slowly dry, usually between 90 to 100 degrees until brittle. To store, crush leaves into an airtight container and place in a cool, dark place. Use as you would any store bought herb.

#### **Storage**

Place cooled foods into airtight containers, such as recycled glass or plastic jars, plastic zipper bags, or vacuum-sealed bags and store in a cool, dark place. Most foods will keep for several months or longer stored in this manner. However, you can extend the shelf life even longer with minimal loss in quality by placing well-packaged items in a deep freeze.

#### Rehydrating

Many people choose to eat dried foods in their dehydrated state, particularly fruits and jerky. However, rehydration is as simple as drying, requiring only a handful of patience and a little water. Soak food in an amount of warm water equal to approximately 2 1/2 times the volume of food for 15 minutes and then simmer for 30 minutes to 2 hours, depending on the food. Add reconstituted foods and remaining water (to catch the water-soluble nutrients) to your recipe and continue as if using fresh foods. MP





# Pioneer Gardening

WHEN IT COMES TO SELF-SUSTAINED LIVING, A THRIVING BACKYARD GARDEN IS A MUST. HERE'S HOW TO DO IT RIGHT. By Dana Benner

vegetable garden of some sort is a must for every person considering themselves a modern pioneer. It is hard to believe, with the choices available at every grocery store, that large commercial gardens have not always been there. Gardening has been a way of life from the earliest days of colonial settlement and before, and they are more important today than in times past. The cost of food is always increasing and knowing how it was grown offers peace of mind not available with food bought in a store. This article will cover how I garden, and the lessons I learned along the way.

### "Gardens need two basic things: sun and water."

#### Three Ways to Do It

The modern pioneer has three options when deciding to have a garden. Option one is to believe all of the hype in the garden magazines, which tell us to go out and buy the latest and the greatest. They try to tell you that you need to use a certain variety of plant, fertilizer and pesticide, and if you don't your garden will not produce as you expect.

Option two is to look back to the ways it has always been done. Our forefathers learned to do with what they had available. As long as it got the job done that is all that mattered. No need to go out and buy that fancy stuff.

Option three is to combine both options one and two. Sometimes the old ways work best (if it isn't broken don't fix it) and sometimes some of the new technology does make sense and will make your job easier. The choice is up to you. For my garden I have decided to go with option three, though I do lean more toward the lessons from option two.

The history that is currently being taught in our schools would have you believe that when the first Europeans arrived on our shores what they found was a country of untamed wilderness. What they really found was a great deal of cleared land and a people with a culture much different from the one the new arrivals had left behind in Europe.

The Native people had very structured social groups and while many were semi-nomadic, some built permanent villages. Though some of the Native groups did things a little differently from each other, most had gardens, both large and small. Somewhere around 60 percent of all the food grown in the world originated in the Americas, and were at least semi-domesticated by the Native people long before the Europeans arrived. Some examples of commonly grown plants that can trace their heritage back to the Americas include, maize (corn), potatoes, tomatoes, squash and pumpkins, beans, peppers and sweet potatoes (not to be confused with yams).

# HEIRLOOM SEEDS

Generally speaking, heirloom seeds are those seeds that have remained unchanged for at least 50 years. Most are open-pollinated, with the plants growing from those seeds being true to the parent plants. For me, getting those seeds meant going to the people at Botanical Interests. I chose heirloom seeds over the more common, readily available hybrids because I will be able to use the seeds from this year's crops to replant next year. Many of the seeds produced by hybrid plants are sterile and thus will not reproduce crops.

This is very important for those whom are trying to build up a seed bank for future use. Many of the seeds commonly sold at discount stores and in the big box stores are .hybrids that are developed in a laboratory or have been artificially treated in some form or another.

These artificially engineered seeds are called GMOs (Genetically Modified Organisms). Many of the seeds produced by these plants (which will grow from the seeds provided in the packets) are sterile. While this is good for the larger seed producers as it means you will have to buy new seed every year, it is not good for those of us who are looking at the long term and are trying to prepare for things to come. Heirloom seeds are more expensive, but you will only have to buy them once. Not only will they provide you with seed to plant for years to come, but they will provide plenty of seed that can be used in trade. They are like money in the bank. When buying seed, whether from Botanical Interests or from anyone else, always read the package to make sure what you are getting. -D.B.

"The early Native farmer didn't have access to power equipment like we do today. They also didn't have access to the soil enhancers and fertilizers."

It was these Native people who first taught the early colonists how to grow these native plants and it is those lessons of old that I drew upon when I started gardening.

The soil in New England, where I call home, is extremely hard to work, being sandy, acidic and full of stones. A great deal of hard work, even with modern tools, is needed to work the soil into a workable condition. Imagine trying to do this job with tools made of stone and bone. The early Native farmer didn't have access to power equipment like we do today. They also didn't have access to the soil enhancers and fertilizers. For that reason most of the Native farmland was located on the floodplains of rivers, where nature would deposit nutrients needed for good crop growth. Even with that the Native farmer would rotate their fields every year or two to allow the soil to recover.

#### Where to Start

This is probably the biggest problem facing people who are just starting out. Before you decide what to plant you need to figure out where to plant. Not everyone is blessed with having hundreds of acres of land to work with. Don't let that deter you. It doesn't matter if you have a large tract of land or a small city lot, you can still have a garden.

Gardens need two basic things: sun and water. Your first step is to locate the place in your yard that gets the most sun. Once you have found that spot you need to decide the size of the garden you want to make. Remember the larger the garden, the more work it requires to maintain it. If you are just starting out then I would recommend you keep it fairly small at first.

The size of my yard limits me to the size of the garden I can make. When I first started I did some research at the Mashantucket Pequot Museum in Connecticut; the Quiet Valley Farm in Pennsylvania and The Fort at No. 4 in New Hampshire. What I found was that many of the





(above, left) It doesn't take much to start a garden. This is the first step, which is to turn the soil, all which can be done with a shovel. (above, right) Once the section is turned and raked, the next step is to mark out the planting rows as shown in this photo. (right and bottom) In may, a well-done garden will begin to show promise. By June, it should be coming to life. These beans are planted with squash as the Native people would have done it. The tipistyle trellis shown here will allow beans to climb.

Native people had individual family plots, as well as larger stretches that were shared by the entire village. The smaller family plots would have measured somewhere between 10x10-foot to 20x20-foot in size. Though I would have loved to have a 20x20-foot garden, I settled on a 13x17-foot area instead. Starting in early April, when the soil could be worked, I picked a spot in the backyard that got the most sun, and got started.

Even though it would have gone much faster and easier if I had broken ground with a gas powered tiller, I didn't have one, so I used hand tools. I didn't go as far as using stone and bone tools; instead opting for modern steel hoes, rakes and shovels. The soil was extremely rocky and the work was very slow going. Eventually I did get all of the soil turned. After raking, and more raking, to get as many rocks out as possible (an almost hopeless task around here). I added organic matter to the soil and then started the turning process again, followed by more raking.

#### **What To Grow**

When deciding what to plant I have learned over the years to stick to what grows well in your area, what stores well and above all else, what your family will eat. If you or your family doesn't like eggplant, then don't plant it. It is that simple. Some plants, whether you like them or not, don't do well in all areas. You can try them, but don't get upset if they don't produce like you thought. Use this as a learning experience.





# **TRULY AMERICAN FOODS** FROM THE **GARDEN**

When I started gardening, many years ago, I decided that I wanted to stay true to my heritage. I researched the way my Native American ancestors farmed, I traveled and learned from Native nations across the United States and I put into practice the lessons I learned. What I found out is that many of the commonly grown food crops we so cherish today and the way that they are prepared for the table. have their beginnings right here in America.

The main component of most gardens, here in New England at least, are what the Native people called The Three Sisters: corn, beans and squash. There are many reasons why these crops are called this, the most obvious one being that they were often grown together, with each one benefiting from the other. Though tipi-style trellises were often used while growing beans, more often than not, beans were planted right alongside corn, where the corn stalk would act as a trellis for the beans. In return, the beans replaced the nitrogen that the corn so desperately needs, back into the soil. Did the Native farmers understand the science behind what they were doing? I doubt it. What they did know is if they planted these two crops together, they got better yields of both. Squash and pumpkins were then planted in the same mound, with the large leaves of the squash acting as a form of weed control. Despite the size of the squash and pumpkin leaves, they will not keep down all of the weeds, but they do help. More important they helped shade the mound and thus reduce water loss. Of these three American plants, the most important was corn.

Corn was the main ingredient of most meals. Cornmeal, cracked corn, parched corn and whole fresh corn were used. The number of ways corn was used are too numerous to list here, but a few include popcorn, corn bread, succotash (a mixture of corn and beans), corn chowder, grits and roasted corn on the cob. Cornmeal was, and still is, used in the same way that wheat flour is used (European colonists introduced wheat and other grain crops to North America). Because of its extensive use, Native women spent many hours every day grinding corn into meal using hand grinding stones. Large grinding stones, the ones we see in gristmills, were one of the contributions brought by the colonists. The ground meal was often mixed with dry and fresh fruit and nuts to make many varieties of bread. It was also used to make porridge called nausamp or "saump." Saump was a mixture of cornmeal, nuts (acorns, chestnuts, etc.), fresh or dried fruit and maple syrup. The mixture was then added to a clay vessel of berry tea and re-heated and allowed to thicken over a small fire. There are numerous variations of this recipe: it all depends on what family you listen to. The early European settlers added molasses and brown sugar to this mix and it became the basis of what is often called "Indian pudding". Cornmeal was also used as a thickening agent in soups and stews, the same way wheat flour is used today. Whole and cracked corn was added to soups stews and later to chowders (the chowders we know today come about after the Europeans introduced cattle to the area, thus providing milk and butter). Green corn. with the husk still on, was often put right in the hot coals to be roasted on the cob.

Beans were another staple. Beans could be cooked separately, mixed with other vegetables or added to soups, stews and chowders. By far the most popular method and one readily adopted by the colonists were baked beans. New England Native people had no ovens, so to bake beans; the beans were put in a clay pot of water. The pot was then lowered into a hole with hot coals in the bottom. This hole acted as an early oven, cooking the beans. More water would be added to the pot as needed. This recipe was later altered when the colonists added molasses, brown sugar and bits of pork.

Squash, both summer and winter, and pumpkins are found in gardens across the country. Summer squash, in its many variations, with the yellow crookneck being the most popular, are very easy to grow and can be prepared numerous ways, to include roasting, boiling and baking. Among Native people the squash blossom was often added to stews or eaten raw. The winter squashes, like butternut, acorn and buttercup, and pumpkins, while they take longer to grow, were valuable food sources during the winter months because they kept so long.

Potatoes, often associated with the Irish. originated in South and Central America. Brought to Europe by the Spanish, the potato became a mainstay in the kitchens throughout Europe. During the 1600s, the potato was brought to North America by the colonists. Today no garden in New England would be complete without them.

These are just a few of the familiar foods we know today that had their beginnings in the Americas. All of these crops have been exported to Europe a long time ago, with numerous varieties resulting from that exportation. No matter what variety of squash, bean or corn that you use, rest assured that they are all traditional foods of the Americas. - D.B.

Due to the cost involved I try to stay away from buying already started plants that are readily found in garden centers and large box stores, preferring to grow right from seed. In my area our growing season is too short for planting the seeds of warm weather crops like tomatoes directly into the garden so for this reason I usually start my tomato seeds in the house and then transplant them into the garden. Instead of buying plastic pots, I use plastic water bottles, which I cut in half, using the bottom half to plant my seed. These water bottles are readily available, cost nothing and reuse something that normally ends up littering our roadways. When I am through with them they end up in the recycling bin. The plastic containers (water bottles) aren't the only things that get reused. Like Native people who came before me, nothing goes to waste around here. Discarded fencing turns into growing platforms for vining cucumbers and old broom and rake handles, as well as poles made from cleared trees, become the material for trellis for the beans.

The danger of frost is ever present in New England until the middle of May, so I used this time to gather the seed I would need. Seed selection was extremely important because of the short growing season that we have here. In this part of the country we usually get our first strong frost by early October, but there is always the chance to get one in September.

While the different Native people throughout the country grew crops that were common in their area, there were three main crops that most grew: corn (maize), squash and beans, commonly referred to as the "Three Sisters." In New England the people also grew pumpkins and sunflowers, among other plants. Further south, in the Mid-Atlantic and Southern regions, the Lenape (Delaware) and Cherokee also grew crops such as peas, tobacco and onions.

#### **Customizing Your Garden**

Into my garden I decided to plant summer and winter squash, pole and bush beans, peas, tomatoes, potatoes, cucumbers and pumpkin. For the first time this year I am also trying cantaloupe, though I have little hope. When choosing seed, I could easily go to the store and buy packets of beans, squash and any other seed that I want to, but I don't. Instead, I have decided that I want to use heirloom seeds (see sidebar) as they would produce plants that are closer to what my ancestors would have used. These seeds also tend to produce plants that are hardier, though usually smaller than the common hybrid plants that are available today. Heirloom seeds are more resistant to drought and insects and in the long run they need less care. As New England is known for hot, dry

summers and the fact that I would not be using any pesticides, it meant that the heirloom seeds are a win/win prospect for me. Another thing that makes me go with untreated heirloom seeds; no GMOs (Genetically Modified Organisms). For me, getting those seeds meant going to the people at Botanical Interests for both my seeds and plenty of advice.

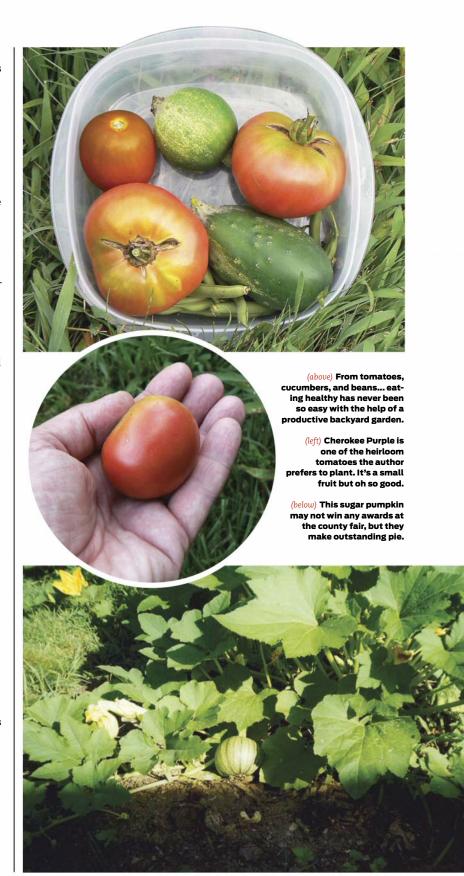
With the soil prepared, early May finds me pushing the envelope a bit. The anticipation of my garden often gets the better of me and I start planting. If you do this be prepared to lose some crops. From historical records there was a certain way that the Native people planted their gardens, so I decided to do it their way.

In many Native villages, beans, corn and squash were all planted together in one garden. After all, they had to get the most production from a limited amount of space. The amount of food that the Native farmer could produce now could mean life or death come winter. This same way of thinking applied to the pioneers of old as well. In one grouping anywhere from five to seven corn seeds would be planted, along with three bean seeds. The idea behind this was for the pole beans to use the corn stalks as a trellis. Not all groups used this method. The Penobscot in Maine used a wooden, tipi shaped trellis made out of tree limbs for their pole beans instead of planting them with the corn. As I do not plant corn, I use this method with my pole beans (I have since changed my method. I replaced the poles with some metal trellis I had found at the local dump and was able to salvage. Remember to think like the pioneers of old and reuse and repurpose anything you can). By mid-May, when other people are just putting their seed in the ground, my garden is well on its way (sometimes).

#### **Reaping the Reward**

When the first week of July rolls around I usually begin harvesting both the pole and bush beans. By the end of July I am picking the first of the summer squash and both the winter squash and pumpkins are bearing fruit. When having a garden it doesn't always work this way. Sometimes Mother Nature will throw you a curve ball. A sudden frost, flooding rains or a drought may cause you to lose crops. I know as it has happened more than once to me. Such is life when you live close to the Earth. You have to deal with what is presented to you.

By using good seed and the techniques of those who have come before me I am usually able to produce enough vegetables to not only eat throughout the summer, but also to store for the long winter that is sure to come. I am even able to produce enough to share some of the harvest with my neighbors.





# GOLDENSEAL, A ROOT FOUND THROUGHOUT NORTH AMERICA. By Jason Houser









# Home Away From Home

WHEN IT COMES TO SIMPLICITY AND VERSATILITY, NO OTHER WILDERNESS SHELTER BEATS THE TRIED-AND-TRUE TIPI.

By Brian Brown

ATIVE AMERICAN TRIBES of the West relied heavily on bison for survival, requiring them to nomadically shadow the herds of bison across the plains. This meant their shelters had to be portable and, thus, the tipi (or teepee) was born. The design was a conical shape which provided plenty of living space. Tipis are capable of withstanding unpredictable weather but are still portable enough to break down and move as required to stay on the buffalo. The first "mobile homes" were tipis.

Historically, tipis were constructed of animal hides sewn together and stretched across wooden poles. The shape is suited to handle high winds because the surface area exposed to any one direction is relatively small, allowing wind to pass around

the shelter instead of taking the full force. Aside from the shape, modern day tipis show little resemblance to the ones from the past, however, the basic concept is the same.

Today's materials are either lightweight and packable silnylon or stronger canvas. Canvas eliminates condensation problems but is much bulkier.

The structure of a tipi is usually composed of a single pole in the center made of either aluminum or carbon fiber. Another option is to hang the shelter from a tree or an external frame. This opens up more usable space on the interior since you are not constantly working around the center pole.

This style of shelter offers a large amount of space for its weight. Tipis are packable, quick to pitch and a wood burning stove can be optionally added. ...







## Going Floorless — Concerns and Solutions

Most of these shelters are sold without a floor and, initially, many people struggle with the idea of ditching the floor with worries of water leakage, bugs and unwanted visitors during the night. The problem with floored or double-wall shelters is they are typically heavier than floorless shelters, compared to the space they provide. Any water, mud or uninvited guests are basically trapped inside a floored shelter getting your gear wet and dirty and, in some cases, even causes damage. Awareness of surface drainage, obstructions and wind direction is the key to proper site selection regardless of the type of shelter you are carrying. I have weathered some torrential downpours and blizzards in floorless shelters and the water never seeps in more than a couple inches from the outside. Not having a floor allows you to duck into your shelter to avoid a fast moving storm without worrying about tracking mud or water inside. As far as those pesky blood sucking mosquitoes, I can't explain exactly why, but for some reason the few that make it inside are attracted to the peak and do not seem to bother you much. The creepy crawlers like spiders, snakes and scorpions could be an issue depending on the location, but for the most part, they are more of a concern than a reality. Rodents can be curious, especially if camped in an established campsite where they have scavenged food previously, but keep a clean camp and they usually don't bother too much. In my experience not having a floor allows for any uninvited guests to leave as quickly as they came.

The largest drawback to these shelters can be condensation because of the single wall design combined with silnylon material that does not "breathe," causing moisture to gather on the inside of the shelter. The only thing worse than getting rained on is getting "rained on" inside your shelter if you bump the walls. After using these shelters all over the West, condensation has been minimal, but in wet and humid climates it can be unavoidable. Integrated vents combined with pitching the shelter above the ground by several inches to allow air circulation reduces or eliminates condensation build up. Using a stove, a liner or even both are great options to reduce condensation, especially during the colder months when the extra warmth is well worth the extra weight.

Using a lightweight bivy sack, which provides an additional layer of protection inside these shelters, not only keeps the bugs and critters at bay, but also protects my sleeping bag, keeps me on my sleeping pad and adds a bit of warmth to my sleeping system. These are not required and rarely do conditions require com-





pletely zipping up the bivy, but for the small weight penalty (less than 8 ounces), it's been a worthwhile addition. Another option is a "nest," which is pitched inside the tipi and allows an enclosed space within the shelter. My wife still struggles with the floorless idea so a nest was a bit of a compromise for us. The nest, which takes up half of the inside volume, allows a sheltered sleeping area with the rest of the shelter open for cooking, hanging out and gear storage. Floorless shelters are not perfect for all occasions but for most backcountry adventures, they will save some weight and bulk from your pack while providing more room to spread out gear and weather any storms.

## **Traditional Style**

When camping close to the road or using pack animals for the heavy lifting, it's hard to beat a tipi for a base camp, especially during later season hunts. These tipis are the traditional cone shape and vary in size from four-man tipis up to 24-man "mansions." For most, the eight- and 12man versions offer the best compromise of size and weight. Compared to a wall tent, tipis give up some usable interior volume with the lack of vertical walls but make up for it in a lighter weight package with fewer parts that are easier to pitch. There are several companies making and selling these shelters but Seek Outside, Kifaru and Titanium Goat have proven track records with their shelters all being made here in the U.S.



## TIPI MATERIALS

> Silnylon offers the most economical cost for the weight and pack ability. It is also available in several thicknesses - the lower the number, the lighter, but it also decreases the durability. 30d is typical with 70d as a good choice for increased strength without adding too much weight.

Cuben Fiber is the lightest but also much more expensive. It does not stretch like typical silnylon but is not very resistant to abrasion and should not be used in shelters with a stove.

Canvas is the most affordable option and virtually eliminates condensation issues but is much heavier and packing is almost limited to livestock or motorized movement.







The 12-man version made by Seek Outside in Western Colorado is basically a "Hilton" in the backcountry at 9'8" height, 18'10" diameter, providing 280 square feet of covered space yet only weighs 13 pounds complete, including the thicker 70d material. This is a large footprint that will require some time to find the right camp spot but provides plenty of usable space for three to four guys sleeping on cots with lots of gear and a stove, but will sleep up to 12 in a pinch. Simple tasks like being able to stand up to put your pants on or having the ability to walk around can make a world of difference when weathering a storm or toughing out difficult hunting conditions. The built-in sod skirt helps cut down on drafts and seal out bugs while the dual doors with covered zipper make getting in and out easy without allowing water to drip in. A large peak vent helps reduce condensation and provides an exit for any smoke that escapes the wood burning stove. The side guy outs increase the interior volume and aid in a tight pitch, reducing any flapping during high winds. These guy outs also offer a very handy and well-thought-out feature that Seek Outside refers to as "flexi-pitch," which allows you to actually stake out the shelter using these points, reducing the overall size and footprint if the area you are camping in does not allow for the normal footprint.

## **Hvbrids**

Seek Outside offers the Backcountry shelter (BCS) and Kifaru builds the Sawtooth, which are hybrid-style tipi shelters that retain the cone shape, but have a footprint that is either oblong or rectangular, resulting in more usable floor space. While these offer enough room to stand up, the height is not enough for walking around inside. The trade off is a smaller footprint that is easier to find a suitable camp spot for and less weight to pack in. These shelters are very well designed to maximize space while retaining the weather resistance. This style of shelter requires two poles. There is a main taller pole close to the front and one additional smaller pole toward the rear, although the latter can be left at home in favor of cutting one in the field or guying it up from the outside. The design allows for two or even three people to sleep toward the back of the shelter with plenty of room for gear and a stove toward the door. With no stove and minimal gear, these shelters could sleep five, if needed. The Sawtooth weighs in at around 5 pounds with a 7 foot height and over 130 square feet of covered floor space. These may be the perfect backcountry shelters for guys who carry camp on their backs but want to be able to walk in their shelter without crawling.



## **Pyramids**

When I first starting backpacking, I went the traditional route and saved my pennies for a quality two-person dome tent. That tent treated me well for many trips into the backcountry, however it was almost six pounds and really only had enough room for 1 guy and gear. Not to say it didn't work for my wife and I plus our 100 pound boxer, but it was cozy — too cozy to share with my hunting partner. My search for a lighter shelter kept coming back to the smaller pyramid style shelters because of the larger amount of space they provide for the weight. After much deliberation I settled on a 9x9-foot pyramid tent made by Oware that is 6' tall at the peak, weighs 28 ounces but offers 81 square feet of covered floor space. This shelter has ridden in my pack for more miles than I care to count and continues to be my "go-to" shelter. While the smaller pyramid shelters do not offer stand up heights there is still enough room that you are not crawling in and out and do not have to get dressed laying flat on your back. The square bottom offers more usable floor space than their round counterparts while still maintaining the wind shedding shape. Aside from the Oware pyramids, Seek Outside offers their Lil Bug Out (LBO) along with the Cimarron and Bear Paw Wilderness Designs. The recently released Cimarron improves on the pyramid design by offering a rectangular-shaped base with two doors while keeping the weight low.

Another option is a canvas pyramid shelter mine is made by Davis Tent out of Denver. Measuring 10x10-foot with a 9'6" peak height, it offers plenty of interior volume, allowing for two guys on cots with gear. This tent has been packed many miles on horseback, paddled across several lakes on canoe trips and has been home sweet home on more car camping trips than I can count, yet still looks like new. This is one shelter I do not plan on adding a stove to, since the canvas does such a good job minimizing condensation. Plus, a simple gas lantern provides plenty of heat to take the nip out of the air on those cold nights. Originally I ordered it without a floor but was sent a floored model (they were out of stock). While I am appreciative of the great customer service with a "free upgrade" that made my wife happy, the floor has been a bit of a thorn in the side since any water that gets stuck inside pools and gets gear wet. Cutting out the floor would be simple but the wife gives me "that" look every time I bring it up, so it stays... for now. mr









## TIPS&TRICKS

- > Placing a rock or log under the center pole keeps it from sinking into the ground.
- > Using reflective cordage on guy outs when possible reduces the risk of tripping and also makes your shelter easier to find after dark.
- > Adding a stove jack, if not already installed, allows for the option of adding a wood stove that provides warmth, reduces condensation and helps to dry out gear after bad weather.
- > For shelters 6' or less in height, consider lashing or coupling your trekking poles to use as the center pole instead of the dedicated center pole.
- > Don't skimp on the stakes and guy outs they are part of the structure, ensuring a tight pitch, reducing annoying flapping in high winds and keeping the shelter form beating itself up.



## · HUNTING

## Gustom Black Gu

FOLLOW THIS INSIGHT FOR BUILDING A REMARKABLY ACCURATE AND BEAUTIFUL BLACK-POWDER RIFLE. By Michael Pendley

ROM THE TIME of the first Europeans landing on the continent, a reliable firearm was more than a convenience; it was a matter of life or death. Because of this importance, custom rifle builders were in high demand. These artisans worked in wood and metal to produce a tool that not only functioned perfectly, but expressed a bit of both the owner and the maker's personality.

The production rifles of today lack the ability to convey personality. Luckily, there are a handful of custom rifle builders still practicing the trade. Many of these gun builders will work with the customer to tailor the rifles style and appearance to the new owner's desire. From barrel shape and caliber, to lock style, to the wood that holds it all together, a rifle made to your specifications will be treasured for a lifetime.

So how do you go about getting the perfect rifle? The first step is to talk to as many rifle builders and shooters as possible. Check your area for antique rifle clubs or shoots. Handle several styles of rifle and shoot as many as possible to find out what fits you. What are some of the things that should be considered when designing your dream rifle?

## Style

Rifle styles vary greatly in size and shape. The German style large caliber Jaeger rifles were popular with early colonists. This short and heavy rifle was designed to hunt thick timber where fast snap shooting was often needed.

Jaeger rifles were not necessarily accurate for long range shooting and their large calibers used a lot of lead, something early Americans often found in short supply. Rifle builders soon began to experiment with smaller calibers and longer barrels for better long range performance and increased bullet efficiency.

This experimentation led to the formation of the longrifle, a sleek, slender and graceful rifle of medium caliber. This style of rifle suited the early pioneer style of long range hunting trips

and shots of greater distance. Their longer barrels burned large powder loads more efficiently and increased accuracy, making the smaller calibers just as effective for hunting as the larger caliber Jaeger style rifles.

Yet another style of rifle emerged as early explorers headed west and came into contact with even larger game than they were accustomed to back east. The bison, elk and grizzly bears the hunters encountered required a larger bullet than the sleek longrifles could deliver.

To meet this need, St. Louis Missouri gunmakers Jacob and Samuel Hawken began building a "plains rifle" that shared attributes of both the longrifle and the German Jaeger. The plains rifle featured a larger caliber in the .50 to .53 range and ranged all the way up to .68.

A collection of custom firearms built by Rick Anthony over the years. Note the different woods and subtle stock shape difference



PHOTO COURTESY OF MIKE ANTHON



## Caliber

The caliber of a custom rifle largely depends on its intended use. Choices range from a dainty .32 caliber suitable for small game, to the popular .45 for deersized game. Perhaps the most popular and best all-around choice for large game is the .50 caliber. Heavy enough for most large game, the .50 is still small enough to have relatively light recoil and be accurate at longer

If your plans include the largest of game, like elk or bear, calibers like .54, .58 or even .62 might be the better choice. These larger calibers can be loaded with lighter powder charges when used for smaller game. Such large calibers necessitate a large rifle and, with that size comes increased weight, something to consider if your hunting style includes lots of walking.

cated, a well-designed and timed flintlock is very efficient and is still preferred by many custom rifle builders.

Starting in the 1820s, a new style of lock emerged. Known as a caplock, this new ignition style employed the use of small brass or copper cups that were partially filled with fulminate of mercury, a mildly explosive compound. In place of the flintlock's frizzen and pan, the caplock employed a tube shaped nipple. The caps were placed onto the nipple and were ignited by the force of the hammer striking the top of the cap. The resulting explosion sent sparks through the hollow nipple and into the powder charge. The benefits of this new system included a more weather resistant firearm and a faster ignition time. Percussion caps are still available today and this lock style is still a popular choice among gunmakers.



The location for each piece of a custom gun is hand carved into the stock. This space will hold a patchbox, a small compartment used to hold the patches needed for reloads.



Once the stock's general shape is roughed out on a bandsaw, the barrel channel is hand cut into it. The shape of the barrel be accurate.



Careful measurements are taken in order to ensure that each piece fits perfectly into the stock. Here, the shape of the barrel is marked out onto the stock blank before carving.

## "Heavy enough for most large game, the .50 is still small enough to have relatively light recoil and be accurate at longer ranges."

## **Lock Style**

From the time of the first colonists setting foot on the North American continent up until the 1820's, the most common style of powder ignition in firearms was the flintlock. The flintlock consisted of a piece of stone flint held by a spring loaded hammer. A trigger pull releases the hammer, causing the flint to strike a steel plate, or frizzen. This action resulted in a shower of sparks being directed into a pan holding a small amount of fine gunpowder that, once ignited, flashes through a small hole at the base of the barrel and ignites the larger charge of powder behind the bullet. While this style sounds compli-

## **Rate of Twist**

There are three basic rates of twist used for blackpowder rifles today. The rate of twist is the description of how many inches it takes a grove of the rifling inside the barrel to make one full rotation around the barrel and is mainly based on the type of ammunition to be used in the firearm.

The longest is 1 in 66, meaning it would take 66 inches of barrel length for the rifling to make a full rotation. This rate is mostly found in firearms designed to fire patched lead roundballs. These projectiles don't benefit from a fast spinning action.

On the opposite end of the twist rate spectrum is the 1 in 32inch. This fast twist imparts a



The same hand tools used by early American gun makers still work today. In fact, most custom gunbuilders prefer hand tools over power tools.



Decorative carving lines first get laid out with pencil, then cut into the stock with hand carving tools. Decorative engraving gets cut into a stock. The work is completed in a slow and meticulous manner in order to avoid unrepairable mistakes.



Rick Anthony checks the fit of rifle parts on a rifle under construction. Each piece is checked, the stock inlet adjusted, then checked again until the fit is perfect.

great deal of spin to the projectile. This rate is most effective for long lead slugs. These slugs become more stable as their spin rate increases, thereby increasing long range accuracy.

The most common rate is a compromise of the two. The 1 in 48-inch twist rate is designed to shoot both patched roundballs and longer lead bullets equally well.

## The Build

Once you have settled on a style and caliber of rifle, it is time to choose a riflemaker. Most custom gunmakers will have examples of their work on hand for you to view, or they will be able to provide you with reference names of customers who will allow you to view their guns. Bear in mind that, much like the early days of North American exploration, the demand for quality handmade rifles outstrips the number of suppliers. Be prepared to hear about wait times from several months to several years for popular makers.

Don't want to wait that long? Another popular option is to build your own rifle. Companies like Lyman, Davide Pedersoli, Traditions and Dixie Gun Works offer kits with everything needed to build a rifle, including finished locks, pre-carved stocks and finished barrels. These kits are an excellent way for novice gun builders to break into the hobby.

A step up from the kit rifles is a true custom rifle build. To get the full story on the process of constructing a rifle from parts, I talked with custom builder Rick Anthony of Breckinridge County, Kentucky. Mr. Anthony began shooting black powder guns in the 1970s with a Thompson Center flintlock rifle. A stock carver since childhood, Anthony decided in the early 1980s to build himself a custom blackpowder rifle. That first gun lead to a lifetime of custom builds that continues on a smaller scale today.

Over the years, Rick has built a bit of everything. "I have built a variety of types of muzzleloaders, including half-stocks, fowlers, York, Bucks, Lancaster, Christian's Spring, and southern mountain styles. I personally prefer the early Lancaster County school guns by gunmakers such as Dickert, Haines, and Gonter, and the very early guns by Albrecht and Schreit," says Anthony.

Most of the guns Rick builds are flintlocks, he prefers the long, rich, three hundred or so year history of the flintlock style verses percussion cap style rifles. Rick says, "A properly designed and tuned flint lock is extremely fast and reliable and a joy to shoot. A poorly made flint lock is a real headache and has given rise to the perception that only a caplock mechanism is useful, when in fact, I have experienced many more hangfires and misfires with percussion than with a good flintlock."

When questioned about buying finished locks or purchasing kits or parts and building it yourself, Rick stated that finished lock systems are much easier for the beginning rifle maker. He stated that lock kits allow the builder to fine tune the lock to his or her specifications and are less expensive than finished drop ins, but cautions that purchasing a kit and assembling it yourself to save money is rarely a good investment. "A kit lock requires many hours to do it properly, and that may not offset the small amount of money saved."

On the subject of barrels, Anthony recommends spending a bit more for a quality barrel. His preferences are those made by The Colerain Barrel Company www.colerainbarrel.com and the Rice Muzzleloading Barrel Company www.ricebarrels.com. He also prefers a swamped barrel for appearance and balance. A swamped muzzleloader barrel is largest at the breech, then tapers gradually to a narrow point six to eight inches before the muzzle, before flaring back out a bit at the muzzle end. Many of the German style rifles featured this type of barrel contour. It allows for a more slender forearm and adds to the overall grace of the rifle.



A well-built and tuned flint lock can be just, or even more, reliable than a percussion cap style lock mechanism. Notice the piece of flint held by the jaws of the hammer. As the hammer falls, the flint strikes the steel frizzen.

Once you have your lock and barrel, it is time to work on the stock of the rifle. Stocks are available at various finish levels ranging from completed models ready to accept a barrel all the way out to a block of wood. Rick likes to build his own, "I carve all my stocks from a blank- a plank of wood approximately five feet long, ten inches wide and two and a half inch thick of curly maple, walnut, or sometimes cherry. A beginner should probably use a pre-carved stock, or at least a semi-inletted stock that has the profiles already established. The initial layout of the profile on a stock blank is critical. Every component location is dependent on the placement of the other components. For example, the location of the touch hole or vent in the barrel, determines the placement of the lock, which determines the location of the trigger, which in turn is used to lay out the trigger pull length. A properly designed longrifle should fit the shooter with regard to length of pull, drop at the comb, drop at the heel, and cast off. Carving a stock from a blank allows lots of flexibility in these regards."

Rick recommends that any beginning rifle builder spend a great deal of time doing research before starting the carving process of a rifle stock. Internet forums, videos on gunbuilding and handbooks such as "The Gunsmith of Grenville County" by Peter Alexander, "Rifles of Colonial America" by George Shumway, and "Recreating the American Longrifle" by William Buchele.

Once the shape of the finished stock has been researched and decided on, the carving can begin. With the exception of a bandsaw to rough out the initial lines, all carving and in-

"I carve all my stocks from a blank—a plank of wood approximately five feet long, ten inches wide and two and a half inches thick of curly maple, walnut. or sometimes cherry."

Gunmaker Rick Anthony dressed in garb of the appropriate style for the firearms he builds. Period specific style camps and shoots are a great way to research rifle styles.

letting on a rifle stock can be done with hand tools such as chisels, gouges, rasps, and files. Anthony admits that working with hand tools is a bit slower than using power tools, but reasons that mistakes tend to be smaller and easier to repair when using hand tools.

He starts by roughing out the shape of the finished stock. Next, the barrel channel is drawn out and chiseled to the fit of the barrel, then the lock mechanism is inlet into the wood, and the ramrod groove and hole into the stock has to be drilled. Finally, the trigger, buttplate, ramrod pipes, muzzle cap, sideplate, and triggerguard are inlet into the wood.

Once the rifle stock has been completely carved, inletted and sanded, it has to be finished. The traditional stain for blackpowder rifles is a product known as Aquafortis Reagent. Once the Aquafortis has been applied, the wood is exposed to a heat source until the finish darkens. After the desired color has been achieved, a protective coat of linseed oil is applied to the wood.

While a rifle may be considered by many to be nothing more than a tool, they are more than that. As much as a painting, a sculpture or a song, a custom rifle is art. This quote from Rick Anthony sums that feeling up perfectly.

"My favorite thing about building a gun is while I am removing all the extra wood, and establishing the profiles and lines, that I am seeing a rifle emerge as if it were coming alive, and having the satisfaction that I have taken some wood, brass, and steel, shaped each piece one at a time, and the end product is a functional thing of beauty, worthy to be passed down for generations. That is a satisfaction that is rare in today's throw away world."



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My hunt usually begins the first week of January and the weather in that part of Texas is, in most cases, very accommodating for a comfortable hunt. On this year's trip, I would be hunting management type whitetail deer, wild hogs and exotics, such as axis deer and blackbuck. I'd also be helping the ranch owners out by trapping the ranch, in an effort to help reduce the predator population. Fox, bobcat and raccoon are tough on the wild turkey population out there and it was no problem to throw out a few sets while hunting. It also makes for an even more exciting trip, being able to check traps in the morning while on the way to areas that you will be hunting.

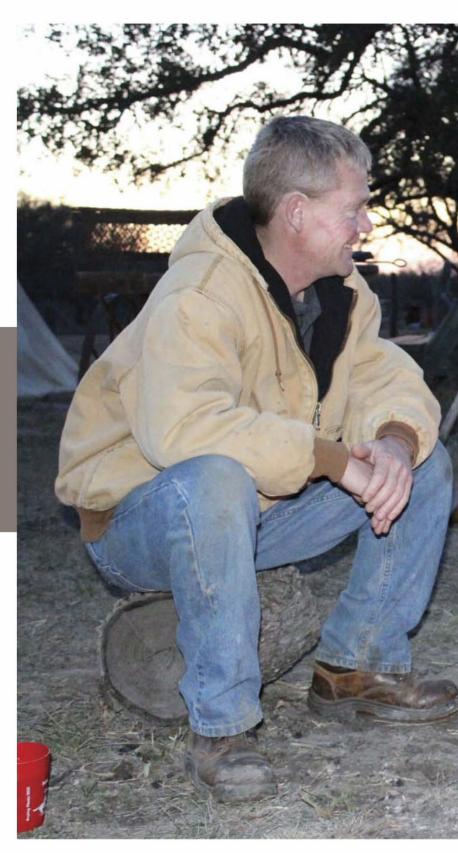
My main goal on hunts like this is fun and relaxation, as well as filling the freezer with meat. My business is very busy during the fall, so my hunting season is usually cut a little short (or at least I feel like it is) and this allows me some much needed time in the field.

"I'd also be helping the ranch owners out by trapping the ranch, in an effort to help reduce the predator population.

## **All Bases Covered**

On this trip I would be hunting with my 54-caliber flintlock rifle, as well as a flintlock 12-gauge shotgun that I had been experimenting with, shooting a 69-caliber round ball. The shotgun, being a smooth bore, would limit my distance to a maximum distance of 50 yards. But my rifle was good out to twice that, so I had all the bases covered for this hunt. Weather started rainy and nasty, so the trapping end of the trip was put off for a day or two until it dried up some, but the hunting started off with a bang.

The first day found me in search of wild hogs and whitetail deer, looking for the chance to take them down with my 54-rifle. Hog sign was everywhere and I knew that it was just a matter of time and getting the wind in my favor before I would be in the hogs. With my wife at my side, just to enjoy the experience, we had a hog coming to us along a game trail well before daylight. The









## "Trying to take my time and not rush my aim, as I did earlier, I settled into the shot."

pig was so close that it was tempting to try a shot by looking down the rifle barrel in the predawn darkness. Not wanting to take a chance on a bad shot, I elected to wait and see what came down the trail after this one, hoping for better shooting light. It wasn't long before we could hear the sound of pigs talking to one another, as they do while walking through the woods, as well as the ticking of rocks as they made their way to our location.

In the early morning light, I could make out the hogs. My rifle sights were still not as visible as they could have been, but I felt I had a good shot at a nice pig making its way past us. Wanting to show my wife Lisa the effectiveness of a flintlock rifle, for the first time, I rushed the shot. As the smoke cleared after the crack of the rifle, it was clear I had missed. It wasn't only that shot; I missed another a little later in the morning as we stalked up on three unsuspecting hogs that rooted up the hillside not 30 yards from us. I have literally taken truckloads of game with a flintlock rifle, but was trying too hard to make it happen with my wife along. I promised myself and her that the next shot would be a good one and later that day, I was able to make good on that promise.

## Trying a New Location

With a new location that looked promising, with fresh sign everywhere and unmolested hogs, we settled in for an evening hunt. It took just about an hour before we began to hear the sounds of an approaching herd of hogs. I spotted the hogs and picked out the largest of the group of three sows and several yearling pigs. Trying to take my time and not rush my aim, as I did earlier, I settled into the

shot. The distance was long for me at about 75 yards, so I had to really control my breathing and squeeze the trigger. When I felt good about the shot, I touched off the rifle and hogs exploded off, all in one direction; with the smoke and distance, I had no indication of a hit. I looked over at Lisa, disgusted with my shooting and said, "let's go," as I reloaded the rifle.

Walking down to check out where the hog had stood, I still had no idea that it was a hit, not 15 yards away. There lay my hog on the ground, with a blood trail that a blind man could have followed. The rifle had performed like it always has in the past and this time I did my part. So, with a much better feeling about my shooting and Lisa getting to see her first flintlock kill, we set about the task of field dressing the hog and looked forward to the next morning's hunt.

The next day we would be trying to deer hunt as well as indulge in the ever-present chance to take a hog while in the field. The weather had begun to dry out, so we would also be setting a few traps that day for predators. As luck would have it, I was able to take a nice doe that morning with a clean shot to the neck, dropping the doe in her tracks. This would allow us to spend the rest of the day setting a few traps before the evening hunt.

With traps set and the meat taken care of, we set out for an evening hunt. While venturing out that evening I noticed a herd of blackbuck hanging out in an open area of the ranch and decided that I would hunt that area later in the trip. We didn't have a chance at anything that evening, but watched a huge whitetail buck chasing a doe all evening, making for an enjoyable end to an already great day.





## Settling In

I found the blackbuck in an open area with a rocky ridge running along the crest and a tree line for cover. With that in mind, I went to work on constructing a brush blind using both dead and green brush to help hide my location from the very cautious blackbuck. I had hunted blackbuck on this ranch before but with no success. I felt that I really had a chance this time. Lisa decided to stay in camp and give me a better chance at the blackbuck on my own, since I was on the ground and needed a close shot for the smoothbore. I settled in for the hunt with an

added sense of excitement. I had seen the does in this herd but not the buck that had staked his claim to the harem. Blackbuck are very territorial and will defend an area from other bucks, so I was excited to lay eyes on this buck as soon as I could.

The does began feeding their way past me in my blind that evening and the wind was in my favor - the plan was working for me. One doe after another filtered past me, with many closer that 15 yards, all the while never knowing that I was hiding in the brush so close to them. Then came the heart stopper – the buck appeared! A mature breeding blackbuck is one of the most beautiful sights in the world, and a true trophy. This buck had it all. Mature. with a jet black hide and long curling horns, he was indeed the trophy of a lifetime. With all the does around me it was impossible to move, even with the brush for a blind and cover; I simply could not move my barrel with the does so close.

As luck would have it, the does fed on past me allowing me to begin moving my barrel in the direction needed to make the shot. All went well in what seemed like the hours it took to reposition my gun barrel and shoulder the gun for a shot. As I cocked the hammer on the flintlock, the buck that was at the time broadside, at an easy 15 yard distance, decided to chase a nearby doe and bounced out to now 30 yards, still well within my self-imposed 40 yards. At the flash of sparks and the crack of the fowler, my 69-caliber round ball found its mark. An end was brought to a quest that had taken me several years to complete, taking a fair chase blackbuck with a flintlock.

I can't express enough the sheer enjoyment of a hunt like this – an ample variety of game to hunt at a time when most seasons are closed. Do yourself a favor; do a mixed bag late season hunt like this sometime.

There is no better way to extend your season while filling your freezer with delicious wild meat. **MP** 

· HUNTING ·

# Plentiful Avarmints

SOME NON-GAME WILDLIFE MAKE FOR GREAT OFF-SEASON PLINKING AND HUNTING. By Thomas C. Tabor

ANY HUNTERS IMPATIENTLY look forward each year to the coming of hunting season, but all too soon it comes to an abrupt conclusion, often leaving them with an uncomfortable void in their life. Whether you are a bird hunter, deer hunter, or the pursuer of small game, the feelings at the end of the season are all the same — emptiness and a desire for the next season to begin. But for some of us, we have found a way of filling that huge gap and that is in the form of hunting the nongame species of varmints and predators. Virtually every state has a variety of these "undesirable animals" that are available for the taking and, in some instances, come unburdened by seasons and limits.

A coyote is a smart and crafty critter that frequently is the target of a significant degree of harassment and that persecution only makes them more of a challenge. With the exception of incidental encounters, the best way to be successful when hunting coyotes is through the use of calling. This can be done using either a mouth or electronic call. The methods used for calling coyotes could cover several magazine articles, or possibly an entire book, so I will restrict my comments here to a minimum. Some electronic calls, like the author's MAD Ultimate One, comes with the added bonus of a built-in, remote controlled decoy, with the ability of keeping the coyote's attention on itself rather than the hunter. There are, however, a wide variety of other decoys that can be used, some of which are stationary in nature and others are remote controlled.

A common problem that some predator hunters fall victim to is too much calling. Whether using a prey-type call, like a wounded rabbit, or an actual coyote yelper or howler style call, it is best to start out at a fairly low volume.

You do so because there could be a dog just over the adjacent hillside or in the close proximity brush patch and too loud of a call could spook the 'yote. A series of calls lasting about 15 or 20 seconds should be adequate followed by possibly five or 10 minutes of complete silence. After that, if nothing shows itself, you can repeat the calling with a little more intensity in order to reach any outlying animals.







There is virtually no pattern in which a coyote may react to the calling. Some will cautiously try to sneak in all the time, scouring the area for any sign of a trap or danger; others will seemingly throw caution to the wind and literally come running toward you. But no matter how the coyotes approach you avoid the acute eyesight of the animals.

The typical rifle calibers used for coyotes range from the .243 on the upper end of the scale, loaded with a lightweight bullet like a 55-grain, down to the various .22 and .17 caliber centerfires. I've killed coyotes with a wide variety of rifles and cartridges, but my first choice would likely be either a .223 or .22-250, equipped with a fairly high magnification variable scope.

## **Marmots**

Marmots can be a great deal of fun to hunt as long as you can locate large enough colonies to keep your gun barrel warm. The marmot is a hibernating critter, which keeps them below ground and away from your aim generally until about late March or early April. Look for the marmots in the rocky terrain, in and around heavy rockslide areas, adjacent to

(above) Coyotes are among the most plentiful and widespread predators. They are crafty and challenging to hunt.



Tom's MAD Ultimate One electronic predator call came all-inclusive with a decoy attached to the top. The use of a decoy can provide a significant advantage when hunting predators because it can sometimes keep the animal's attention focused on it rather than the hunter.

agricultural farm lands where they have plenty of food sources and where a source of water is nearby. Marmots prefer the higher terrain, as many experts indicate that they are best found between 6,000-feet and 14,000-feet above sea level. I have, however, encountered shootable populations at significantly lower elevations but not in as large numbers as the higher dwelling colonies.

When in marmot country, you should look for the animals sunning themselves on the rocks during the daytime and listen for their unusual high-tone whistle that has lead some people to calling them whistle pigs. A flat shooting cartridge is best. Many hunters prefer a caliber like a .223, 22-250 or even one of the centerfire .17s, but if you are in an area where shots are typically 100 yards or under, one of the rimfire .17s could produce good results as well. It's good, however, to keep in mind that a fully mature marmot can sometimes weigh upward of around 12 pounds and, because of that, they can sometimes be tough to anchor. So, if you choose to use one of the rimfires, you need to place your shots carefully. In the springtime, however, the adolescents begin to wander out the den and those smaller individuals may only weigh in at two or three pounds.

## **Prairie Dogs**

I frequently think of the prairie dog as the holy grail of varmints. They are widespread throughout the western prairies and when you find yourself situated in a good area, a prairie dog hunter may fire more rounds in a single afternoon that most other hunters shoot in their entire lifetime. Prairie dogs are responsible for a great deal of damage to farm and ranch lands both in the form of the grasses and grains that they devour and the dens that they dig. The overburden from the excavation of the dens frequently covers a considerable amount of the ground surrounding that area, resulting in choking out the vegetation underneath. And those holes constitute a particularly nasty trap to step into by man and beast. Because of these nuisances, access to shooting prairie dogs is frequently given with smiles and good wishes by landowners.

One of the nice things about prairie dog hunting is the comfort at which they can be hunted. We often bring along some form of portable shooting bench we erect around the perimeter of a large colony and, in at least one outing, we even loaded the shooting bench on a trailer to increase its mobility. That great innovation was topped off with an umbrella to keep the nasty prairie sun off our balding heads.

Typical prairie dog calibers range from as small as a .17 Mach 2 or .22 LR, all the way up to the largest of varmint cartridges. Which cartridge you select depends largely on the range at which you prefer to shoot.

## **Ground Sauirrels**

of acres.

There are a lot of similarities between prairie dogs and ground squirrels (sometimes less than affectionately referred to as "sage rats"). Those commonalities are in the form of both their physical attributes and the way they are hunted. The ground squirrels are, however, frequently smaller in size, which translates into making them a little more difficult to hit at long range. The other major difference lies in the fact that ground squirrels hibernate while prairie dogs, in the normal sense, do not. Sometimes the range of the two species overlap, but the ground squirrels seem to prefer to dig their dens near, or in, cultivated farm ground, while the prairie dog can be found well away from any cropland. Both critters live in colonies sometimes consisting of hundreds or thousands and can spread over hundreds

Look for ground squirrels adjacent to agricultural lands and particularly around alfalfa fields, where farm crops can be eaten. Compared to the prairie dog, the ground squirrel is a bit more sensitive to the weather conditions. If it is too hot, too cold, or too windy they will frequently head below ground until those conditions have subsided. They typically do not come out of hibernation until

"There is virtually no pattern in which a coyote may react to the calling."

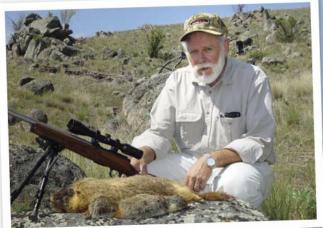
where they will remain until the following spring. Because of this limited period of activfrom April to about May. In the later season, even if they are still above ground, the taller grasses will make locating and shooting them much more difficult.

Because of the similarities between the prairie dog and ground squirrels, the firearms and equipment needed to hunt both species are essentially the same – flat shooting calibers and a high degree of scope magnification.

## **Jackrabbits**

The jackrabbit is a species that is starkly different in many ways than most other varmints. Those differences, however, only add to the appeal of hunting them. My personal favorite way of hunting this particular critter is to walk them up in the evening and attempt to shoot them while on the run with a rimfire rifle. A .22 LR or one of the .17 rimfires has the potential to work great in this venue. It seems that jacks spend a great part of their day below ground in their dens, but begin to wander out as the sun starts to set. So if you have to spend the day attempting to reduce the population of prairie dogs, why not spend the last hour of daylight trying to walkup a few jacks?





Sometimes you get lucky with an overlapping habit of a couple of different vermin. In this case both a big yellow-bellied marmot and a ground squirrel fell prey to the author's Cooper Firearms .17 HMR.

The characteristic lope of the jackrabbit appears to make it a fairly easy running target to hit, but most shooters become quickly awakened by how difficult such a target can be. It has always struck me a bit funny that when they are being shot at, the speed at which they are traveling never seems to change. It doesn't seem to matter whether they are under a barrage of gunfire from several hunters or simply making their way casually across the prairie.

I feel a few words of caution are called for here. Many varmints and predators become infested with flees, ticks and are plagued by a seemingly unending list of diseases and, for that reason, handling those animals should be done with extreme caution. When we are hunting many of these critters, we take along a few bottles of hand disinfectant, sometimes rubber gloves and wash and cleanse our hands frequently. And of course, before taking up the challenge of hunting any species including varmints and predators you should always check the local game department regulations for restrictions or prohibitions on those animals.







"The characteristic lope of the jackrabbit appears to make it a fairly easy running target to hit, but most shooters become quickly awakened by how difficult such a target can be."

## RUGER'S NEW GUNSITE SCOUT RIFLE



The Ruger Gunsite Scout Rifle comes with the option of installing a long eye relief scope using the Picatinny rail, or a conventional style scope installed in the traditional manner over the top of the receiver like this Redfield Battlezone scope.

There are a lot of really great rifles available for use on varmints and predators, but possibly one of the more diverse choices is a rifle recently released by Sturm, Ruger & Company - the 5.56 NATO/.223 Remington chambered Ruger Gunsite Scout Rifle. The unique makeup of the Gunsite Scout starts with its ability to accept a traditional-style scope, possessing the normal eye relief of about 3-inch and mounted over the top of the rifle receiver. Or, you can mount a long eve relief style scope out in front of the action, utilizing its Picatinny rail base. Or, you can simply take advantage of the iron sights on the rifle, which consists of a blade front sight and a peep sight in the rear. But, the diversity doesn't stop with those diverse sighting options. The rifle's attractive black/gray laminated stock is adjustable for length of pull by simply installing or removing any of the three half-inch spacers located between the recoil pad and the buttstock. This ability makes this rifle a very good

choice for young shooters and allows the rifle to essentially grow the youngster, or for anyone that has longer or shorter arms than the average person.

Sharing a lot of similarities to a jungle carbine, the Gunsite Scout is fast handling, uniquely attractive and durable. It comes with milled-in scope bases (for a traditional style scope mounting), a set of rings, colored to match the other metal, Picatinny rail (for a long eye relief scope mounting), muzzle flash-hider, a 10-round removable magazine and a 3-position safety.

I tested one of these rifles a short time back and found the accuracy to be great even when shooting factory-loaded ammunition. Many of the groups were under an inch at 100-yards and the trigger pull was exceptional. Because of this rifle's short overall length, ranging from 37" to 38½" (depending upon how many spacers are installed in the stock), it makes the Gunsite Scout extremely quick to point and fast handling. —7.7.

## **SPECIFICATIONS**

Manufacturer > Sturm, Ruger & Company

Model > Gunsite Scout

Calibre > 5.56 NATO/.223 Remington

Weight > 7.10-pounds

Sights > Blade front sight and adjustable peep sight in the rear

Action > Bolt

Barrel > 16.10-inches

Stock > Black and gray colored laminated wood

Magazine > Box style removable magazine with a capacity of 10 rounds

**MSRP** > \$1,075.00 to \$1,139.00

-HUNTING-

## More Birds in Your Bag

HOW TO INCREASE THE NUMBER OF FEATHERED FOWL IN YOUR GAME POUCH. By Thomas C. Tabor



ERY LITTLE FORMALIZED TRAINING is available for a wing shooter; most of us had to learn our hunting techniques and methods either on our own, or from someone else that may have, over the years, established their own bad shooting habits. In both cases, poor and improper methods of shooting can severely limit our success. I certainly fell into the first category, but after a half century of putting shot to birds, I have learned a few things that have helped me become more successful. Hopefully the following hard-earned knowledge can help you as well.

## **Proper Stance**

Sometimes a flushing bird can surprise you, catching you unaware and ill-prepared for a shot. Obviously, in those instances there will be little time to properly position your feet and body for the best possible outcome. However, there will be many other occasions where those time restraints aren't so inhibiting; it is those times

that a properly positioned stance and body can result in a higher degree of success. A fairly common error shooters fall prey to is leaning too far forward or back in an effort to support the weight of the shotgun. In both of these positions, the pupil of the eye is not positioned for the best view of the bird. The position that all wing shooters should strive for is an almost completely upright stance with only a slight forward lean at the waist. The feet are best positioned with the heels about a foot apart and turned at a 45-degree angle in the direction of the intended target. This position allows the shooter the widest and most diverse ability to swing either left or right and up and down and the best possible view of the target. ...



## **Both Eyes Open**

Most activities are done with both eyes open, so why is it that most shooters feel compelled to shut their non-sighting eye when firing a gun? Doing so only results in limiting your vision, severely restricting your peripheral view and lessening your depth perception. I know it is a difficult habit to break, but keeping both eyes open when shooting a shotgun or any other firearm will increase your ability to hit your target.

## Beads are Meant to be Ignored

Beads and sights to adorn your shotgun barrel provide little functionality and are best ignored. Unlike the sights on any other type of firearm, beads on a shotgun should serve only as a vague reference to determine whether the scattergun fits the shooter or not. If you have to align the beads after the shotgun comes up to the shoulder, the shotgun does not fit you properly. And while ribs on a shotgun seem to have a great deal of appeal and make the gun a bit prettier to look at, when it comes to wing shooting the same rule applies to them as well.

(bottom) One of the author's favorite game birds to hunt is the California valley quail. These are extremely fast flying birds that require fast gun handling techniques to be successful.

(opposite) Being proficient at duck hunting requires many of the same tactics as upland bird hunting. Like an upland bird hunter, the waterfowler must be able to calculate the proper lead, be assured that the cheek stays anchored to the comb of the stock and have good follow-through if they expect to be successful.



While rifles and handguns are sighted, shotguns are pointed. In other words, shooting a shotgun should be an instinctive process. As the gun comes to the shoulder, the eyes should never have to be focused on the beads or the rib, but only on the intended target. If the shotgun properly fits the shooter, it will be aligned each and every time precisely in the same way. So, in order to find out initially whether the shotgun fits you, I would suggest bringing the gun to your shoulder several times looking for any deviation in location of the beads as they relate to the rib and the intended target. If that sight picture remains the same each and every time the gun is mounted, I would suggest you move on to the next step and try patterning the shotgun on a stationary target to make sure the pattern is impacting where you want it to - the rib and the beads are best ignored from that time forward.

## **Keeping Your Head Anchored**

Any competitive shotgun shooter will tell you there is no larger problem faced by shotgunners than the tendency to pick their head up off the comb of the stock. Trap shooters frequently refer to this problem as "peeking" at the target. This problem occurs subconsciously by the shooter in an effort to get a better look at the target. The movement is so slight the shooter seldom recognizes they are actually doing it. A matter of only a few millimeters separation and there is a very good chance you will be watching your bird fly away unscathed. How do you prevent this from happening? Certainly making a conscious effort to always anchor your cheek firmly on the comb of the stock will help, but also getting in the habit of mounting the butt of the stock high on your shoulder, keeping your head erect at all times and always bringing the shotgun to your cheek rather than bringing your cheek to the shotgun will go a long way to keep your "peeking" to a minimum.

## A Moving Shotgun is a Killing Shotgun

A lot has been said about follow through when shooting at crossing targets, the lack of which is responsible for many missed shots on birds. A short time back, I had an opportunity to partake in a training event at Aimpoint's new American Sportsman Shooting Center, located just outside of Dallas, Texas. While this training consisted of shooting rifles at moving targets, many of those exercises would coincide nicely with shotgun wing shooting. One such exercise was using what they called a Simgun that included a shooting scene projected on the wall of the room. The computerized software tracked the path the gun took while following an animal - in this case a wild boar. It also recorded the point at which the trigger was pulled and the point at which the bullet made impact. Seeing those items presented on the projected image on both the wall and the computer screen further convinced me how important it is to never stop your swing. When the swing has been interrupted, it became obvious the shot would nearly always impact behind the animal.

There are two basic shooting methods commonly employed by wing shooters, often referred to as "sustained-lead" and "swing-through." Both rely heavily on the need to keep your gun moving even after the trigger has been pulled.

The sustained-lead method involves pulling ahead of the bird and matching its speed before squeezing off the shot. This is the method employed by the vast majority of bird hunters. The swing-through shooting method requires the shooter to approach the moving target on the same path that the bird is taking, but at a faster rate of speed than the target is flying. Just after the barrel passes the bird, the trigger





(left) Having your feet in the proper position when taking a shot will increase your odds of success. The best position would be to have your feet separated slightly and set at a 45-degree angle from the body. A couple of crucial things to keep in mind when bird hunting are: 1) Keeping both eyes open while shooting will allow you get on the bird quicker and provide better depth perception and 2) If you expect to hit the birds you must keep your cheek anchored firmly on the comb of the stock.

(bottom) Timing is crucial when swinging on a fast crossing bird and something as minor as the position or your finger on the trigger can sometimes mean the difference of a successful shot or you left scratching your head trying to figure out why you missed the shot.

is squeezed. The additional speed at which the shotgun is continuing to travel automatically provides the necessary target lead. But no matter which of these methods you choose to employ for your wing shooting, you must always stay cognizant of the need to keep your shotgun moving and never stop your swing until well after the feathers fly.

## **Finger Control**

Rifle and even handgun triggers are "squeezed" and, for lack of a better word, shotgun triggers are "slapped". In most cases when shooting at a bird intent on escaping the dinner table there is seldom time to "squeeze" a trigger, as any good rifle shooter would be doing. Because of this difference very minor things can sometimes offset the timing needed to make the shot a successful one. Sometimes something as minor as where the trigger makes contact with the shooter's finger can result in disrupting the timing needed to make the shot a successful one. If you look closely at the underside of your trigger finger, you will find the flesh is pretty squishy throughout, except where the joints are. If the trigger makes contact with one of those softer squishy areas, it can affect the timing of your shot. For that reason, it is best that the trigger always be placed directly at the crease in the first joint of the finger.

## Don't Rush the Shot

A common problem is not taking adequate time before pulling the trigger. Fearing the bird is about to get out of range, some hunters rush the first shot out the barrel. But unless the bird has flushed prematurely at a significant distance ahead of you, in most instances you will have plenty of time to get your shot off while the bird is still in range.

Unfortunately, in the heat of the moment your mind sometimes doesn't recognize that fact and the shots become rushed. No one knows better than me how hard it is to take that fraction of a second longer to get on the bird

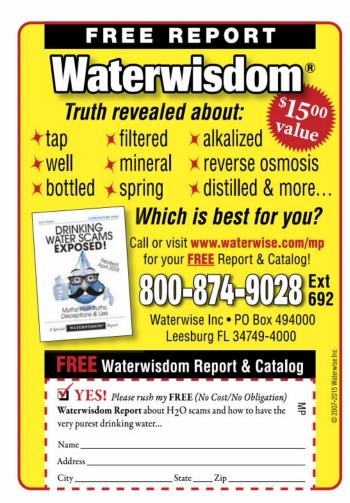
## "As the bird first comes into view, your eyes should hone in on it, tracking its every movement in flight."

when you're keyed up and the adrenalin is pumping, but you must train yourself to do so. As the bird first comes into view, your eyes should hone in on it, tracking its every movement in flight. Actually, the most difficult shots to make are usually those when the bird first flushes, because they are frequently attempting to gain altitude and it is much easier to hit the bird after it has leveled off in flight. Only after you have locked onto those movements with your eyes should your shotgun be moved to the shoulder. In reality, that span of time may be only a fraction of a second, but if the process is reversed and your gun comes to the shoulder before you have completely locked your eyes on the target, you may wind up trying to spot shoot the bird rather than properly following through with the shot.

## **Fearing the Recoil**

It is an illogical response to fear the recoil of a shotgun, but most of us, to varying degrees, fall prey to flinching. I've known shooters where every time they pulled the trigger, it appeared they were going to stick the end of their gun barrel in the dirt in front of them. I also knew one very experienced 27-yard handicapped trapshooter that even underwent hypnosis treatments to get over this flinching. Amazingly enough, both of these shooters were very good shots, but I often wondered how well they could have been if they could simply get over their flinching. Mind control is the only way I know to stop flinching - one of the best methods of which is to practice using a snap cap in the chamber of your shotgun. Practicing in a simulated hunting situation is the best and I frequently use songbirds for such training. Not only does this dry-fire practice help you to get over any flinching problems you might have, it will help you to smooth out your swing and allow you to be able to better calculate the lead needed to make the shots.





# Henry Survival





# IF YOU WANT THE ULTIMATE SURVIVAL GUN, THIS IS IT.

By Thomas C. Tabor

AYBE YOU ARE looking for a lightweight firearm that doesn't take up a great deal of space in your backpack and could be used to put a grouse on the spit of your campfire, or on the dinner table back home. In this type of situa-tion, a handgun could suffice, but if you are like me, you might find hitting a small target with a short-barreled handgun more of a challenge than you would like. Or, maybe you would like to have a gun with you while canoeing, but fear if you should upset the canoe, it would immediately sink to the bottom of the river or lake and be lost forever. Or, possibly, you are simply looking for a firearm that can be hidden and protected from the elements, just in case some disaster or emergency occurs that would be best faced while armed. Sure, you could put any one of the firearms you already own in that type of situation and they might work out fine, but I believe I have found a better choice for these situations and many others.

#### "The most unique trait of this particular rifle is its ability to be quickly





#### **Birthing the AR-7**

Decades ago, the U.S. Air Force commissioned the design of a rifle to be used in the event of a plane crash or other disaster by their pilots. They sought a compact, small caliber rifle that could be easily broken down, but quickly reassembled when the need arose. The result was the development, in 1958, of the ArmaLite AR-7 Explorer by the M-16 inventor Eugene Stoner, which the U.S Air Force adopted a year perwork for the Survival AR-7 indicated a weight of 31/2 pounds, but my own scale showed it came in fully equipped at slightly under 4. Nevertheless that is a lightweight rifle that would be great for when weight is a critical component to be considered.

(above, left) The official pa-

(above, right) To release the action from the stock the shooter simply turns the turnkey-type latch located inside the pistol grip.

When broken down, all of the parts of the Survival AR-7 rifle fit nicely inside the buttstock of the rifle.

later. This design proved worthy of that military application and eventually led to adoption for civilian use as well. Several companies began marketing this design, including the most recent Henry Repeating Arms Company.

#### **How to Assemble**

The Henry-produced U.S. Survival AR-7 is a semi-automatic design chambered in .22 LR and appropriately marketed under the banner "Don't leave civilization without one." The most unique trait of this particular rifle is its ability to be quickly and easily broken-down, or reassembled, within a matter of seconds. When in the unassembled state, the barrel, receiver and extra magazines are all stored inside the hollow plastic buttstock, which forms a 16-1/2-inch long, protective package. In order to disassemble the rifle, you simply unscrew the barrel nut, which connects the barrel to the receiver. No tools are needed for this task; your finger will suffice. In order to remove the action from the stock, simply turn a knob located at the end of the pistol grip (again, only using your fingers). Once both the barrel and action have been removed, those components can be stored inside the buttstock by prying the stock cap off and placing them inside in their designated locations. One of the three supplied magazines can stay installed in the rifle and can remain loaded or unloaded. The other two extra supplied magazines also have appropriate storage spots inside the stock. To reassemble the rifle, simply reverse the procedure by removing the stock cap from the butt of the stock in order to extract the parts. To ensure the proper and con-

#### and easily broken-down, or reassembled within a matter of seconds."

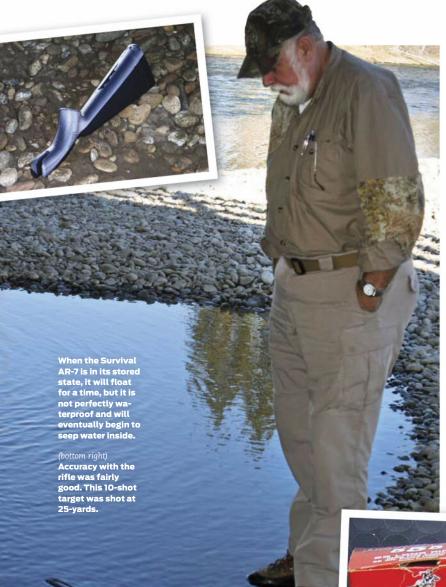


This is a very durable rifle that is extremely weather-resistant. The plastic stock is impervious to any normal amount of wear and damage. Storage inside the buttstock also works to provide a substantial degree of protection against the elements and even allows the rifle the ability to float on top of water. I did find, however, that the seals weren't 100 percent air or watertight because water eventually began to seep inside when I floated the rifle in the river. While I'm not exactly sure if that would result in the rifle's eventual sinking, its ability to float initially should allow a person adequate time to retrieve it from the brink of disaster.

The unique barrel design consists of a steel inner-rifled barrel that has been surrounded with a thick and tough layer of ABS plastic, and then further protected by a coat of Teflon. The receiver is also coated with Teflon, making the entire rifle very weather-resistant. The sights consist of a fluorescent plastic insert blade in the front that is dovetailed to fit into the metal ramp and a very basic and simple peep sight in the rear. To make a horizontal adjustment to the bullet impact point, press the front blade sight either to the right or left within the dovetail slot. To adjust vertically, loosen the single screw that holds the peep sight aperture plate for repositioning. A move upward would result in moving your bullet impact point in that same direction and lowleased by the shooter moving his or her finger forward while inside the trigger guard, and then withdrawing it in a downward fashion. @ The barrel, action and the magazines all fit nicely inside the buttstock of the Survival AR-7. ® When installing the barrel, the notch in the receiver is meant to match up with the silver-colored pin in the barrel. • The fluorescent-colored plastic front sight is dovetailed into the built-in ramp.

ering the aperture plate would result in lowering the impact point. I actually found it necessary to make a slight adjustment to both sights in order for my bullets to impact where I wanted them. To move the front sight, I simply laid the rifle on my workbench and, using a standard screwdriver, I pressed the side of the blade against the sight to move it. Adjusting the rear sight was even easier by loosening the screw and slipping the aperture plate a tiny bit higher.

The 8-round magazines slip into place just ahead of the trigger guard and are released by pushing your finger forward inside the front of the guard. The safety is the typical type - a lever along the right rear portion of the action. Placing the lever in the forward position signifies moving the bullet out the barrel, while the rear position places it on safe. In order to open the chamber, there is a charging handle that kind of resembles a black-colored piece of .22 brass. To open the action, the charging handle can be pulled outward for better leverage. When not in use, it can be pushed back in, making it almost flush against the bolt.



is first removed, the rifle receiver is unable to fit inside the stock for storage.

My Henry Survival AR-7 Model H002B was black-colored throughout, but there is also a Model H002C which comes in a Mossy Oak Break-Up Camo pattern. Both rifles are of a similar construction and function identically, but the camo-colored model dons a higher price tag.

#### **Putting It To the Test**

Obviously, this rifle was intended to be a tool for survival. No one should expect it to have the same tack-driving accuracy of an expensive target rifle. Emphasis here is placed on versatility, compactness, durability and ease of use. Even still, I found the accuracy of my Henry AR-7 to be quite satisfactory and feel confident it would perform admirably in its intended function. I shot both Federal and Winchester ammo for my range testing, both of which were loaded with copper-plated hollow point 36-grain bullets. Both rounds produced similar results and shot very well. When unloaded, the balance point for the rifle is just behind the trigger guard and when the magazine is fully loaded that would likely move that point only slightly forward. That balance, combined with the slightly oversized buttstock and the overall lightweight of the rifle, seemed to make it a very steady aiming rifle. Within 25 to 50 yards, I feel quite confident I could put that grouse on the spit of my campfire every time I squeezed the trigger.

The stock is made of heavyweight, black plastic that has a non-slip type of texturing on the pistol grip consisting of a series of grooves. The plastic stock cap is also grooved to discourage slipping at the shoulder.

A scope can be mounted on the AR-7 by using the machined-in rail on top of the receiver. However, this is not the typical 5/8-inch rail design that is commonly found on many centerfire rifles. It is a 3/8-inch base system that many other .22 rifles utilize and can be accommodated with corresponding sized rings. Understandably, unless the scope





its ability to be easily broken down and the parts stored inside the buttstock. This ability not only makes it easier to pack and carry, it provides a degree of protection against the elements and abusive handling of the parts. In an emergency situation, however, speed of access and use is often a very crucial consideration. So, I decided to find out just how long it would take me to reassemble the AR-7 in the event of a crisis where time was of the essence. Starting with the rifle completely broken down and the parts stored inside the stock, I was surprised it took me less than 40 seconds to have the rifle fully assembled, loaded and ready for firing. Of course, that was with the magazine being fully loaded and stored inside the action of the rifle. Once the action was screwed into place and the barrel mounted, all that was needed was to withdraw the charging arm and move a cartridge from the magazine to the chamber.

So, is a Henry U.S. Survival AR-7 a good fit for you? Well, if your outdoors activities involve backpacking, off-road traveling, boating, or you simply like to have a firearm at your disposal for recreational or emergency use, it just might be. It is simply a unique style of rifle that's full of great possibilities.

## "I was surprised it took me less than 40 seconds to have the rifle fully assembled, loaded and ready for firing."

#### **SPECIFICATIONS**

**Manufacturer:** Henry Repeating Arms Company **Model:** Henry U.S. Survival AR-7 H002B.

Caliber: .22 L.R.

Weight: Under 4 pounds.

Overall Length: 35 Inches (assembled) and 16½ Inches (unassembled)
Sights: Fluorescent orange plastic blade front sight with a ramp base and an

adjustable peep sight in the rear.

Action: Semi-automatic.

**Barrel:** 15½ inches steel barrel surrounded by ABS plastic and Teflon™ coated.

Stock: Black plastic.

**Magazine:** Removal 8-shot capacity magazines (3 magazines included) **MSRP:** \$290 for the black Model H002B and \$350 for the camo Model H002C.

#### ·BUSHCRAFT ·

# Bobcat. Trapping

HEN I WAS 18 I walked away from a basketball scholarship at a small-time university, bought a battered '60s-model Toyota Land Cruiser and a tiny camp trailer and retreated to the high-country wilds of New Mexico's northern Gila to escape my parents' scorn. For five months, I fought persistent snow and mud and killing cold, trapping grey fox, coyotes and bobcats to accumulate a grubstake. This was in the early '80s when better coyotes were fetching \$70 and cats were averaging nearly \$500. I'd been trapping since childhood but learned a lot that winter. By early March, I'd caught 54 prime bobcats (and about 150 coyotes and the same number of foxes) and made enough cash to start a small outfitting business. The following year I caught nearly as many cats.

I really believed I had the bobcat thing wired. By the late '80s, the fur market crashed and burned and I moved on to other things, ceasing to even dabble in trapping. When I began hearing rumors of a fur-market rebound in the early 2000s I began digging equipment out of dark storage-shed corners. I missed trapping, as well as the freedom and intimate knowledge of the countryside it instills. I now owned ATVs and they kept overhead under control in this age of higher fuel costs, also allowing me to cover twice as much ground in half the time on the bad roads inherent to mountain terrain.

I gained trespass permission on a couple sprawling ranches and set to work. It proved a perfect program — writing one day, clearing my head checking traps the next. Yet I soon began to wonder if I'd lost my touch. I was catching as many or more grey foxes as I once had, all the coyotes I wanted (prices remained depressed during that period, though killing coyotes is what got me onto the ranches in question) but was struggling not only to catch bobcats but to simply find solid cat sign. At first I blamed it on my bait (my favorite "Pacific Call" was no longer available – though O'Gorman's Powder River Cat Lure proves a good substitute). I'd also noted cat tracks walking right past dirt-hole sets without breaking stride. With the first lasting snows it became apparent there just weren't the number of cats I'd once enjoyed. After several months trapping prime bobcat habitat I'd caught only a handful – a shame, as prices were skyrocketing.

I'd only caught all those cats in the '80s because there had, obviously, been so darn many of them. As I began to delve deeper, experiment with new techniques, discovering the importance of bobcat toilets and the bait-free sets required to catch them, I often mused if I knew then what I know now, I might have caught hundreds of bobcats. I would've been rich!

PUT MORE
VALUABLE
BOBCAT HIDES
ON YOUR
STRETCHERS
THIS WINTER
BY SEEKING
AND TRAPPING
WHERE THESE
FELINES
SCRAPE.

By Patrick Meitin





What I began to discover is while you'll invariably catch a few cats here and there with traditional baited sets, the larger percentage of cats just aren't interested in stinky coyote baits. The mature toms we target most pointedly catch their own food, certainly not scavenging roadkill. The first step in this new learning curve was that discovered I was catching more cats without bait, depending solely on urine and prudent gland lure alone – in many cases only urine.

#### **Visual Attractors**

I also began to learn just how visually-oriented bobcats really are, experimenting with various ways to bring cats closer to sets where their relatively poor noses (at least when compared to foxes and coyote) could take over. I hung legal attractor "baits" such as Christmas ornaments and even silver beer cans above sets with fishing line. I say legal, as most states prohibit use of natural materials near or above sets for fear of catching raptors such as hawks, owls and eagles. Another trick is to hang a single turkey wing feather on a point or ledge set away from but overlooking your set site (in conjunction with other visual clues I'll discuss in a moment) with fishing line, a small swivel installed in the middle to eliminate tangles. This small attractor, opposed to an entire rabbit or upland bird wing, as has been standard for such ploys for centuries, seems to move better and grab the most attention. Check trapping laws in your state, as there will normally be a minimum distance imposed.

More importantly, I began to construct mock scrapes to attract cats to my sets. This

Author Patrick Meitin caught this gorgeous, \$350 tom on a cat toilet discovered in a sandy side cut to a larger canyon bed. He would eventually catch four prime cats in that spot, all mature toms.

"I began to discover I was catching more cats without bait, depending solely on urine and prudent gland lure alone — in many cases only urine."

involved, when possible, fresh scat collected from cats I'd managed to catch, saving them in Ziploc bags, or picking them up on the trail (even if it happened to be coyote scat). The basic idea is to imitate a cat scratch or scrape, a place where a bobcat has left his mark with urine or droppings (most often both) before scratching material over it like a cat in a litter box. This means creating a scratched spot with gloved fingers, sprinkling some urine into the created pile, and setting the scat on top like a cherry on an ice cream sundae. If I use gland lure at all, I place it inside one edge of the trap funnel (more in a moment) as a distraction. Any cat passing such a setup will definitely stop to investigate. Obviously, such attractions are most effective when placed along likely cat travel-ways (washes, rimrock ledges, old roads or trails) or topography funnels (ridge lines, saddles or rock gaps).

#### The Walk-Through

The trick, then, becomes getting a cat to step into a trap while checking out your mock scrape(s). I found the most reliable way to accomplish this is via the walk-through set – though often simply providing a clean stepping spot adjacent the scrape is enough in certain instances. The walk-through works best in desert sand washes, beneath rimrock



Cat scrapes are typically found in the same kinds of places; in loose sand, duff or pine needles with good drainage and where the scrape material remains relatively dry along regular travel-ways.



ledges, or wider pine- or cedar-duff clearings beneath umbrella-like trees (these are also places where you'll commonly find natural cat toilets, which I'll get to in a moment). My basic setup includes a single set located between two scrapes, material arranged to assure cats step right on the pan of the trap while passing between the scrapes.

Precise trap and funneling material placement becomes an art form. The goal is for the cat to step on the middle of the pan, assuring he has less opportunity to recoil out of the jaws (cats are fast after all) and providing a solid hold - not just toes. Avoid the common inclination of many cat trappers to set pans for hair trigger responses. I want a cat to fully commit to the step that triggers the trap, shifting all weight to that single foot when the pan goes down. For cats specifically (and due to freezing conditions in mountain habitats) I prefer compact but powerful traps like Victor's #1.75 or Sleepy Creek's #1¾ four-coils. They're fast and they'll punch through a frozen layer of dirt. I avoid trap covers, especially traditional wax paper, as they can crinkle to give the game away. Instead I place a square of pink wall insulation under the pan and shift right over the works, first assuring the trap is bedded solidly and will not shift, placing rocks or sticks beneath frames and jaws as necessary.

You must then funnel cats into this trap. In wider spots, like washes or beneath ancient trees, create a line of material to each side of your set, a log to one side, a dead cedar branch on the other, for instance. The cat can jump over these obstacles (as can passing deer or coyotes, which you don't want in your cat sets) but he won't. He's fixated on the scrapes you'll create to each side of this barrier. Along ledges and cliff overhangs I look for spots where a tree trunk and rock face create a pinch point. Around the trap itself (placed with spring levers to open ends) arrange

(above, left and center) To start an effective walk-through set you first bed the trap securely, assuring it does not tip or rock. This is also the time to bury any extra chain or drags and chain. Lift the free trap jaw and use a stick to push a small square of insulation beneath the pan. This will prevent clogging, but gives when stepped on.

(above, right) The author shunned trap covers — waxed paper or boiled canvas — long ago. He has found he gets better results on all predators, particularly cats, placing soft insulation beneath pans and shifting over the entire trap.

(below) Bobcats have always been the prime target for western trappers, because they are consistently worth so much more. Trapping good numbers of cats requires targeting them specifically.



sticks and stones, larger stuff outside the jaws, smaller, non-clogging material used as you work inside the jaws, taking care to avoid placing anything more substantial than pine needles at the jaw contact points. Mark the pan carefully and prudently frame this target, covering the pan itself with nothing but shifted sand or dirt. I like cedar or pine needles for this work. Place a "stepping stick" at each end of the opening, something the cat will step over, no bigger than a lip-balm tube. Rest assured, any cat passing through that set will put his foot into the clean pan area and shift his weight onto it to trigger the trap.

Surprisingly, with enough study and in particular spots, I've found all such funneling becomes superfluous. Simply creating the clean spot over the pan adjacent a natural or created scrape is enough to manipulate where a cat will step. It's all a matter of placing material – even the lightest material – where you don't want your cat to step, leaving the clean spot where you do. I've caught a lot of cats this way in shallow caves and overhangs (a huge plus when dealing with wet weather or snow).

#### **Natural Toilets**

Cats are clean animals and driven by habits. Anyone who owns a house cat will tell you this. As such, bobcats regularly make use of cat toilets (for lack of a better term) just as house cats use litter boxes. And just like the litter box cats prefer to do this business in a soft media such as loose sand (desert washes, dry creek beds or cliff overhangs) or pine and cedar duff found beneath old, sheltering trees (ponderosa pines, alligator junipers and cedars). With enough experience you develop an eye for attractive places, though not every spot with all the required requisites will hold cat toilets. This means covering a lot of ground afoot, and keeping a sharp eye peeled while driving through cat country.

# THE WALK-THRU SET | Step By Step



- f A. Begin constructing the walk-through by adding larger funneling objects just outside the trap jaws but where they won't interfere with working parts.
- B. Add "stepping sticks" at each end of the trap jaws and shift clean, dry material over the entire trap.
- C. It's important to never lose track of exactly where the pan is, as it factors heavily in how to proceed. If it helps, use a small stick to brush it completely clean.
- D. Now use lighter material, preferably spiky conifer or cactus needles, arranged to "bullseye" the pan, avoiding placing anything on the pan itself. Try not to place anything at jaw contact points to avoid clogging.
- E. Here is your finished trap set; the pan a clean, natural stepping spot, all other options subtly blocked with large or small material as appropriate to allow proper trap operation.
- F. After the trap set is constructed, use your fingers to create mock cat scrapes to each side of the trap, adding cat urine and scat to complete the illusion. A couple drops of cat gland lure to one side of the trap funnel is also good.
- G. The author uses a stick, pushed into the clean spot of the walk-through, to demonstrate what happens when a cat walks through such a set.

In western New Mexico, there was a particular circumstance I witnessed enough to view it as a rule. Snaking sand washes spilling out of rough mountain foothills held frequent cat scrapes and toilets, but not in the cliffy, boulder-strewn topography you'd expect. The big toms more often wandered to the very edges of the roughest terrain, constructing scrapes where washes spilled into open desert or sage flats. As scrapes and toilets do serve as territorial markers, I often guessed it has something to do with this, the washes just as likely serving as travel routes while seeking prey such as rabbits. You'll also frequently discover cat scrapes along forest or ranch roads, sometimes randomly. More often they are found on corners where there is pine or cedar duff, a sand fan or deteriorated log mulch, and other times near piles of logs.

I always take the time to hike out any cliff and rimrock, especially isolated examples, walking the bases out, hitting the rim tops while returning. In snowy mountain country, the best possible discovery is a cat toilet located beneath an overhang or in a cave. This is common because cats hunt packrat nests in such spots and generally prefer the driest places available to deposit their scent and droppings.

The most common toilets are less conspicuous cat scrapes, which are made by individuals. The more obvious are full-blown group or territorial toilets. The individual scrape is normally good for the single cat which made it (always worth the effort of course), though the nature of scrapes can mean others will eventually pass by, making it worth the effort to keep a trap in place even after catching a single tom. Territorial toilets vary in size, from those used by two or three cats, to the holygrail jackpot of toilets, the toilet that keeps on giving. Of the latter, for example, I once caught nine prime toms from a single toilet along a remote Western New Mexico cliff line. Checking that set required a four-mile round trip hike (discovered while elk hunting, and likely the reason it'd remained undiscovered), but was worth every minute. Finding productive cat toilets is a year-round activity. Keep your eyes open, or invest in little side trips while out fishing or hunting during the off season and you just never know what you might find.

Knowing when you've found cat scat and not more common predators such as coyote can cause confusion. Generally, discovering scrapes and scat in tight quarters — rock overhangs, caves or cliff edges – points to a cat. Open-ground scrapes, such as those beneath trees or at road corners, are as often made by coyotes. One quick tip-off is cat scat



(above) Author Patrick Meitin poses with a decent day's catch. The six grey fox were typical in Western New Mexico — the prime tom bobcat makes the day. He caught that cat off a mock-scrape set along a known travel-way.

(below) While some view trapping as something in their blood, it really boils down to money. The foxes, coyotes and ringtail cats in this photo essentially paid for expenses. The bobcats are where the author made his money. more often resembles segmented "Tootsie Rolls" and typically turns pure white when aged. Cat scat is also more likely to consist completely of vermin hair, whereas other predators are as apt to consume berries and other vegetable matter.

With prices on fur such as coyotes and grey fox fluctuating wildly year to year, specifically targeting consistently lucrative bobcats has become more common. When it comes to trapping cats, focusing on toilets, or constructing no-bait mock-scrape sets, increases your take on bobcats while also minimizing unwanted coyotes and foxes (as well as setwrecking skunks).



# Effective Trap Prep

IF WE WANT TO MAKE A BIG CATCH DURING TRAPPING SEASON, WE HAVE THINGS THAT NEED TO BE DONE BEFORE WE CAN EVEN THINK OF LAYING STEEL.

By Jason Houser

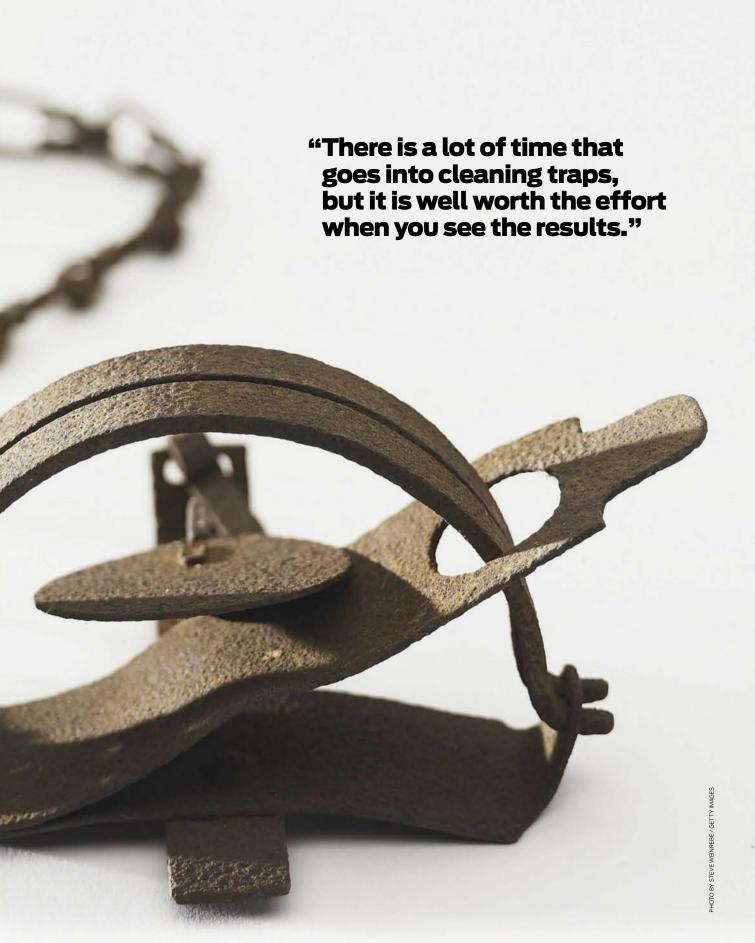
There is more to successfully trapping than making lures and setting traps, hoping that an animal might walk by and step on the pan. That rarely happens.

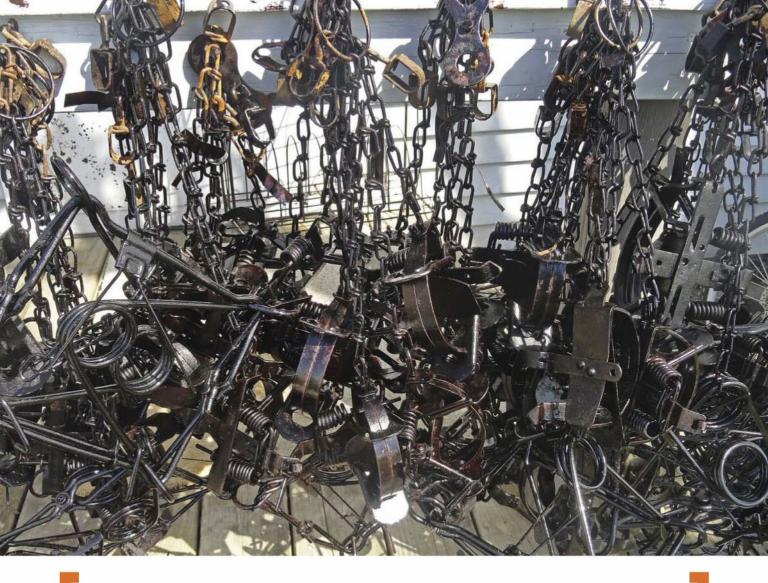
What many new trappers do not realize, and some experienced trappers ignore, is the importance of getting their traps ready. This is something that needs to be done to catch a good number of animals.

Both new and old traps need to be cleaned before using. There is a lot of time that goes into cleaning traps, but it is well worth the effort when you see the results.

New traps arrive from manufacturers with a light film of oil on them. Before anything can be done with new traps they first have to be cleaned to remove the oil. This is done by boiling water in a large kettle. Many trappers add a caustic, such as a toilet bowl cleaner or lye, to aid in the cleaning process. Do not add caustics to boiling water, as this could cause the water to erupt and cause injury to anyone in close range. Always add the cleaning agent to cold water before it begins to boil. Avoid contact with boiling water. Wear eye-protection and protective clothing, including rubber gloves, when handling caustics. I cannot overemphasize the importance of safety when dealing with boiling water and caustics.







# "Old traps need to be cleaned from time to time to remove mud, dirt and other contaminants such as the odor of a previously caught animal."



(top) A well-waxed finished trap is just what you need when season rolls around. These are all properly treated and ready to go.

(left) New traps come from the factory with a coating that must be removed before dying. Once the water is boiling, rapidly immerse the traps into the water bath. After the traps have been immersed for about one hour, oil will rise to the top. Do not pull the traps back through the oil; instead, pour the oil off the top, and then remove the traps. This will prevent the traps from picking up an oil coating again. When the traps are removed from the water, place them in a cool, damp location until they're completely covered with a light coating of rust.

Old traps need to be cleaned from time to time to remove mud, dirt and other contaminants such as the odor of a previously caught animal. This should be done at the end of trapping season before placing the traps in storage. Begin by removing any large pieces of debris by hand. Once that has been done follow the same process that is used for new traps.

All cleaning of traps must be done outside, over an open fire using a large kettle. Never clean traps inside a building.

#### Coating

After traps have been cleaned and have taken on a light coating of rust, it is time for the next step in treating your traps.

#### Dve

Dyes are a type of camouflage for traps. They work with the rust that is already on the traps to give them a dark color. Place the traps in a large tub, then cover with clean water. Bring the water to a boil, then add the dye solution. There are many good dyes on the commercial market, in both liquid and powder form. There are also many natural materials that work well, including sumac, maple and oak bark, and walnut or butternut hulls. When using a natural dye, large quantities yield best results (1/2 bushel of dye material per 10 gallons of water). Add the bark or hulls, immerse the traps in the boiling water and leave for one hour before removing. Add water as needed to keep the traps completely covered.

Commercial dips are also available to dye traps; most have to either be mixed with water or gasoline. There is no boiling involved. Simply dip the trap in the black dip for about 30 seconds. It will take on a black color. Do this early in the summer and any odor of gasoline will heave away before trapping season begins.

Do not dye new traps that have not first been cleaned or developed a light coating of rust. Dyes need to work with the rust to get a good covering.

good covering.

#### Wax

Waxing traps is up to the individual trapper. I prefer to wax all of my traps for the added protraction and lubrication that it provides.

One of the most popular waxes used among trappers is odorless trap wax that is available from any trapping supply dealer. Waxing a trap is best done by immersing the trap in hot wax. Wax that is slowly melted to 230 degrees is best. If it starts to smoke, the wax is too hot and the heat needs to be lowered. Melted wax is very dangerous – when it's in a liquid form, it is just as flammable as gasoline or diesel fuel.

(top to bottom) Walnut hulls makes a good dye for traps. To apply wax, first melt the wax at a slow heat. If it starts to smoke, the heat is too high. Also, remember, wax is very flammable. Be sure to wax all traps away from buildings. Commercial dips are available to dye your traps without having to start a fire.



Never use an open fire as a source of heat for melted wax. A small camp stove works well for waxing traps. All waxing should be done away from buildings and other flammables. Avoid dripping wax on the heat source as you remove the traps from the hot wax. It is best to use a container that completely covers the heat source, such as a two-gallon metal bucket.

When the solid wax is added to the container, let the wax melt slowly at a low heat.

Trappers should use a short piece of wire added to the trap's chain to help handle

the trap safely while in the hot wax.

Immerse the trap and chain in the wax until the trap becomes the

same temperature as the wax.
Remove the hot trap from the wax
by lifting straight up and allowing
the excess wax to drip back into
the container. Hang the trap up to
cool. Do not let wax come in contact with the heat source.

Always wear eye protection and protective clothing, including rubber gloves, to avoid burns. Traps need to be cleaned and dyed before they are waxed.

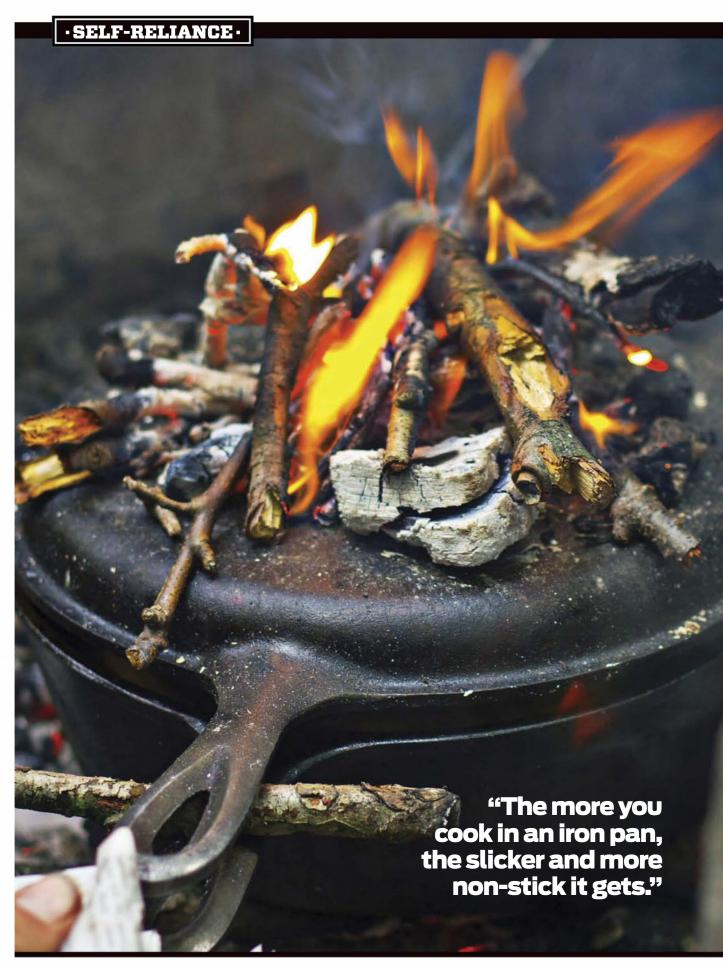
Never put wet traps into melted wax, as this can cause a dangerous steam and even a possible explosion of the wax. When done waxing, allow the wax that is remaining in the container to cool and harden before removing

and storing. Do not allow the wax to

begin smoking during the waxing process. If it begins to smoke, turn down the heat.

When the traps are dry, file the wax from the top and end of the dog, along with the inside of the pan notch. Never wax conibear traps. A waxed conibear trap is all but impossible to set.

Taking the time to get your traps ready is well worth every second. It might feel like there is more you could be doing than spending time over hot flames, cleaning, applying a dye and waxing traps, but these little things could very well mean the difference between fair catches and very good catches.





NOTHING BROWNS MEAT OR SEARS STEAKS LIKE YOUR GRANDMOTHER'S CAST IRON PAN. By Michael Pendley

Cast iron is hot these days, and for good reason. Be it a simple skillet, a dutch oven with a tight fitting lid, a muffin pan, griddle, grill pan or even a small camp grill, there is almost nothing that can't be cooked in or on cast iron.

Lodge Manufacturing, in South Pittsburg, Tennessee, is experiencing all-time high demand for its American made cookware. Since Lodge has been casting in its present location since 1910, an all-time high demand is saying something.

What makes cast iron such a good choice? The reasons are many.

#### Versatility

No other cooking medium transfers so seamlessly from cook top to oven as cast iron. This allows food to be seared over the high heat of a cooktop then finished in the lower, more even heat of the oven. Cast iron is equally at home on the grill, campfire or outdoor campstove. Iron Dutch ovens are even solid enough to allow the placement of hot coals directly on the lid for an even bake of camp breads and desserts.

#### **Durability**

Unlike other pans, cast iron only gets better with age. The more you cook in an iron pan, the slicker and more non-stick it gets. About the only thing that will permanently damage a cast iron pan is to drop it on a hard surface or to go immediately from extreme heat to extreme cold. Both instances can cause the metal of the pan to crack.

#### Value

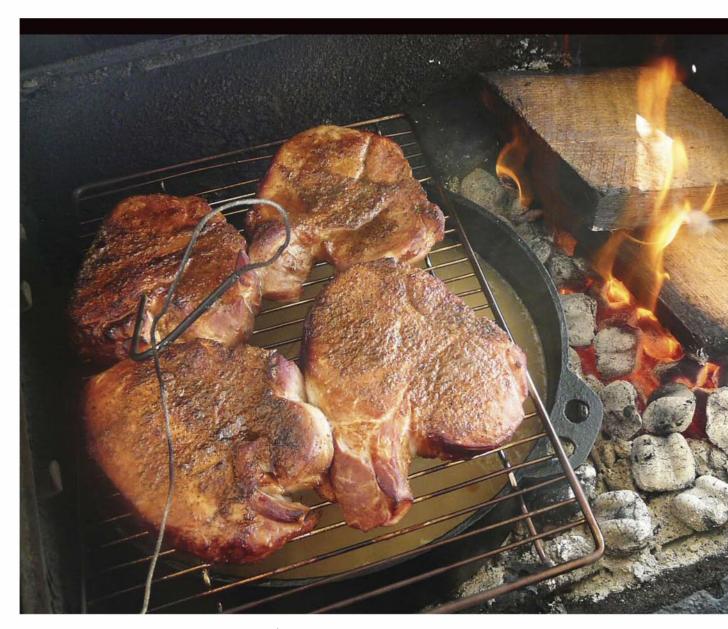
Compared to other types of high quality cookware, cast iron is a relative steal, cost-wise. Since it lasts just short of forever, it can also often be found at yard sales and consignment shops for next to nothing.

#### **Heat Retention**

Ever notice how the cooking temperature drops in an aluminum or non-stick pan when you add cold food? The thickness and density of cast iron helps to prevent that from happening. As the pan absorbs the heat, it spreads evenly throughout the metal. This helps food to brown and cook evenly across the pan.

Note that the same qualities that hold the heat in a cast iron pan also make it a bit slower to come to temperature in the first place.

When using cast iron, be sure to allow ample time for the pan to pre-heat before you begin cooking anything.



#### **Natural Non-Stick Surface**

Non-stick cookware coatings have been around for several years, and, while they are better than they used to be, they still aren't very tough. Couple their fragile nature with today's health concerns over the possible negative effects due to the coating breaking down and entering the food on a molecular level under high heat applications, and many cooks are giving their use a second thought. A well-seasoned cast iron pan is naturally non-stick. With today's pre-seasoned pans, a safe, slick cooking surface is closer than ever.

#### **Health Benefits**

Using cast iron to cook is beneficial to your health. According to Mark Kelly, with Lodge Manufacturing, every dish cooked in a cast iron pan releases a small amount of iron.

"Some physicians even prescribe cast iron cookware to their patients with anemia," Kelly says.

#### **Use and Care**

Cast iron is forgiving; there aren't a lot of things that you can do to it that can't be repaired. That said, following these simple tips will keep your pans in top condition for years to come.

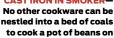
#### Seasoning

In order for cast iron to perform at its peak, it must be seasoned. While Lodge Manufacturing now offers their cookware seasoned at the factory, other manufacturers do not. Seasoning simply consists of layering the outer metal with a microscopic coating of oil. Because the iron is slightly porous, particularly when heated, the oil works its way into the other layer of the metal. A well-seasoned pan will cook all foods with ease, even highly acidic tomato-based sauces.

The oil used can vary, everything from commercial seasoning blends of oils to vegetable shortening to coconut oil to bear fat or lard. After trying several for years, I have decided

"...Using cast iron to cook is beneficial to your health."





the smoker.

(top right) A well-seasoned cast iron pan can easily handle even highly acidic tomato-based foods like this pot of chili without damage to its seasoning.





that it is the method of introducing it to the pan more than the type of product used.

The following method, by Jeffery B. Rogers, has worked well for me and is the seasoning method I use most often now.

Heat the oven to 200 degrees. Put the skillet in the oven upside down and allow it to heat to 200 degrees. Approximately 20 minutes should be fine. Remove the skillet from the oven. Apply a liberal amount of Crisco shortening. I apply this with lint-free painter's rags. After applying the Crisco shortening, wipe it all off with an absorbent paper or shop towel.

Put the skillet back in the oven upside down. After putting the skillet in back in the oven, increase the oven temperature to 300 degrees and set a timer for 15 minutes.

After 15 minutes have passed, remove the skillet and wipe again - lightly. You will notice that when you remove it this time, any excess oil will have begun to pool. This is good, but the timing here is critical - you don't want the oil to get cooked on like this.

Place the skillet back in the oven upside down. Increase the oven temperature to 400 degrees and let it go for two hours. Allow the pan to cool completely in the oven.

Using this method, I have seasoned both new pans (other than the pre-seasoned Lodge cookware) and older pans that I have cleaned and restored, with excellent results.

#### Cleaning

Once you have your cast iron seasoned well, you will want to protect it by cleaning it correctly. Most of the time, a quick rinse under hot water followed by a light scrub with a bristle brush is sufficient. I like to place the pan back on the warm burner to dry. For years now, many cast iron cooks have sworn against using soap of any kind on their cast iron. Lodge's Kelly says not so fast, "Mild soap and hot water are fine for cast iron," just be sure to dry the pan well and wipe with a bit of vegetable oil before storing.

For those times when a quick rinse and scrub aren't sufficient to remove cooked-on bits, other methods can be used. One of the best tips for cleaning cast iron includes the use of coarse salt. While the pan is still warm, toss in a handful of kosher salt into the pan and scrub with a dish rag. The abrasiveness of the salt will scrub off stubborn stuck-on food. Once clean, rinse, dry and apply a bit of oil.

Still can't get the pan clean? Scotch scrub pads or even stainless steel chainmail pads manufactured solely for cleaning cast iron are available. Used with gentle care, such products will clean stuck-on food without damaging the pan.

If all else fails, add an inch or so of water to the pan and place on a medium-high burner. Let the water boil, gently scraping at the food every few minutes with a spatula. As the water boils,





the stuck-on food should begin to soften. After a few minutes, remove the pan from the burner, pour out the hot water and wash as normal.

One cleaning method to avoid with cast iron is the dishwasher. The harsh detergent and forced hot water of the modern dishwasher will strip the protective seasoning from the pan and often leave it with a thin layer of surface rust. If your favorite pan accidently gets a trip through the pots and pans cycle, dry it thoroughly and re-season from the beginning.

#### Restoration

One of the most appealing aspects of cast iron pans is that cookware that might be approaching 100 years old can still be found at a bargain price from yard sales, thrift stores, antique shops and salvage yards. Don't let surface rust or years' worth of caked crud dissuade you from buying a pan that interests you. There are many methods available to restore the pans to like, or even better than, new condition.

(from top) A simple electrolysis tank can be constructed from a rubber container, some iron rebar and a battery charger. These tanks will clean even the most neglected old cast iron cookware gently and effectively. The sacrificial metal (in this case, rebar) should be located close to, but not touching, the pan to be cleaned.

#### **Surface Rust**

Unseasoned cast iron will rust. Although it may look bad, surface rust on a pan is easily removable and makes an outstanding bargaining chip to get a low price on a nice piece. One of the simplest ways to remove light rust is a 30-minute soak in equal parts white vinegar and water. After soaking, remove the pan from the vinegar bath, rinse, and then scrub with a stainless steel scouring pad or steel wool. If rust spots persist, repeat the process until the pan is clean.

If the pan has more than surface rust, or if it has years of debris stuck to the sides and bottom, then a stronger method of cleaning may be needed. One way to accomplish this is with heat, be that from a fire or the self-cleaning cycle of your oven. Bear in mind that, even though heat (fire) has been used to clean cast iron for decades, it does involve some risk to the pan. Excessive heat can warp or crack a pan. The tempering of the metal can also be affected by excessive heat, causing discolored spots in the metal that will no longer take seasoning. If fire is used to clean the pan, rake coals to the side of the hottest part of the flame and closely monitor the piece, removing it as soon as the crud seems to crumble. Self-cleaning oven cycles can also be problematic for the tempering of the pan and can actually cause a small fire inside the oven if there is enough flammable material stuck on the pan.

A much safer method is to use a lye-based spray-on oven cleaner like Easy Off Heavy Duty. Place the pan inside a garbage bag and spray (wear rubber gloves and eye protection while doing this) the entire surface well with the oven cleaner. Seal the bag and place into a large rubber storage container or pan. Place the container, out of reach from children or pets, in a warm spot for two to five days' time. After two days, open the bag and check the pans. If the crud remains firm and the cleaner has started to dry, reapply more oven cleaner. Check periodically until the stuck-on bits have turned into a thick, brown goo. Remove the pan from the garbage bag and clean well in hot water with a bit of mild soap.

While the oven cleaner method works well, it is time consuming and expensive if several pieces need to be restored. A more efficient and less costly method is to set up an electrolysis tank. Electrolysis tanks, or E tanks for short, use electric current to remove corrosion and crud from the pan. One to two overnight sessions in the tank are usually all it takes to clean an old pan.

The components of an e tank are simple. A 12-volt battery charger with a manual setting, a rubber or plastic storage container big enough

to hold the pan being cleaned, a sacrificial piece of metal (rebar, stainless steel rods, angle iron or any non-coated metal except aluminum will work), water and Arm & Hammer Washing Soda (not baking soda).

Begin by filling the tub with water and dissolving two tablespoons of washing soda per gallon of water. Place a wooden dowel or two by four across the top of the container and suspend the pan, completely submerged, inside the tank with a piece of wire. Place the sacrificial metal into the tank and clip the positive clamp from the charger onto it. Clamp the negative wire to the pan to be cleaned and turn the charger on. When the e tank begins to work, you will notice fine bubbles around the pan. Since the e tank cleans faster on the side of the pan closest to the sacrificial metal, turn the pan every few hours throughout the process. One or two overnight sessions will generally clean even the crustiest of pans. Since the process sometimes emits flammable hydrogen gas, it is best done outside with adequate ventilation.

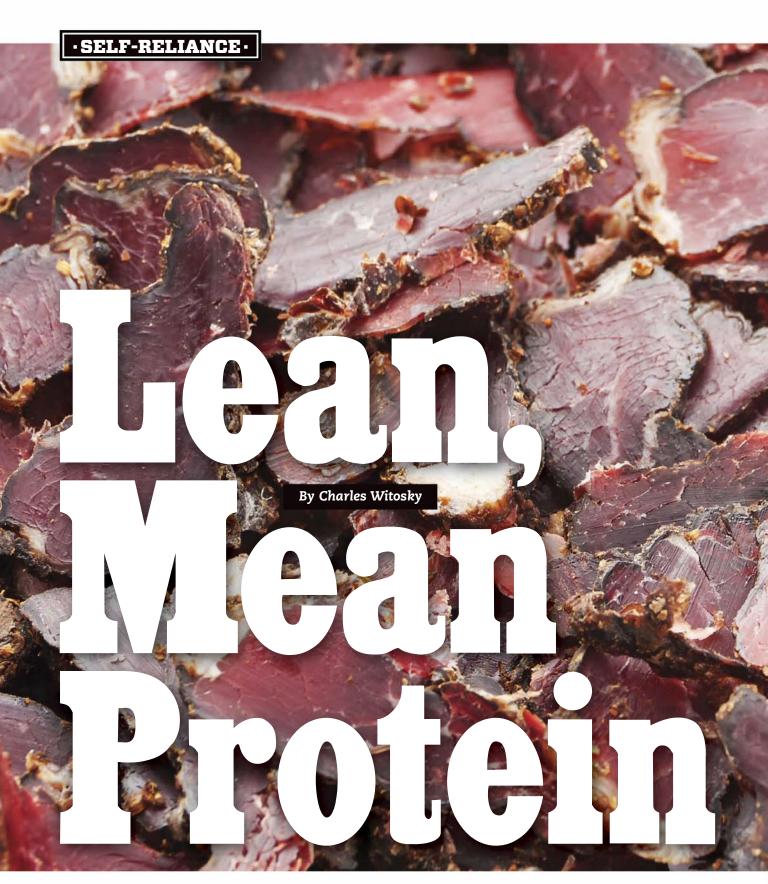
Regardless of the cleaning method used, it should be followed by the seasoning process listed above.



With each use, the seasoning of the pan will get progressively slicker. If, at any time in the pan's life, the seasoning becomes compromised or the outsides of the pan become covered with burnt-on food, simply re-clean and season to make it like new again. With a bit of care, a quality cast iron pan will last several lifetimes, something no other pan can offer. MP

A Lodge employee transfers molten iron from the furnace at the Lodge Manufacturing plant.





SQUELCH YOUR HUNGER BY MAKING YOUR OWN TASTY AND NUTRITIOUS JERKY.





"There's no better way to cook, store, and eat meat in the wild than making your own jerky."

#### **Never Go Hungry**

Being an outdoorsman means being able to survive outdoors no matter the circumstances - including when you forget some of your supplies. Most of the time what you forget to bring is easy to forget: batteries, duct tape, a hammer, or extra socks. However, there are circumstances when you might forget something as important as your entire pack of food. If that happens and you're planning to be out there for an extended period of time, you might consider turning back and camping in your back yard.

But what about if the trip is just going to be for a few nights? You can survive that. Just eating nuts, (non-poisonous) berries and mushrooms, and maybe a little tree bark here and there can get you through. Then, once you're tired of that and craving some real meat, you're going to have to work hard at it. There's no better way to cook, store, and eat meat in the wild than making your own jerky. Jerky can be made out of any meat, the most notable ones being beef and venison, but supposing you don't have that kind of time, squirrel and rabbit will be your next best options. You can even make fish jerky if you're looking for a real easy meal.

Here's a step-by-step process of making jerky of any kind in the wild.



#### JERKY RECIPE

> While you're probably not very picky when you're in the middle of a hike with no food, you might be a little more selective about the food you eat when you're back at home. The jerky that you can make in the middle of the woods, while it might be edible, won't taste like the stuff you'd make in your kitchen, mostly because you don't have access to the spices that you'd have at home. That's why we have other ingredients besides meat and smoke. Here's a recipe for a tasty, flavorful jerky that you can make at home. This recipe will make four pounds worth of jerky.

#### Ingredients

- 4 pounds of your meat of choice. If you want regular beef jerky, London Broil or round steak is best to use.
- 1.2 teaspoon salt
- 1.5 teaspoons garlic powder
- 1.5 teaspoons fresh ground black pepper
- 4 tablespoons onion powder
- 3/4 cup Worcestershire sauce
- 3/4 cup soy sauce

1 teaspoon hot sauce (or more if you like it hotter)

#### Preparation

- > Cut the steak into slices roughly a 1/4 inch thick. Mix together all ingredients, then put the meat and marinade in a bag, seal it and shake it well to mix all of the ingredients. Place it in the refrigerator for 12 to 24 hours.
- > Once you're ready, place one oven rack on the highest level and one of the lowest. Put a large cookie sheet or foil on the bottom to catch any drips, then preheat the oven to 175 degrees.
- > Remove the meat from the marinade and blot it dry. Either insert toothpicks through the tops of the strips of meat and hang them from the top oven rack, or stretch the strips across the top oven rack, side by side.
- > Bake the meat in the oven for three to five hours, or until the meat is to your desired consistency.

#### Start With the Sun

Step 1: Establish Your Domain. The first step in your jerky-making experience is to set up a campsite in an open area, as you're going to need room to alternate sleeping and cooking, because the jerky process is slow-going. Most importantly, find a sunny place. This will help the jerky dry faster, getting you on the move and away from animals who get a whiff of your culinary process and come looking for a snack.

Step 2: Find Your Meat. You can absolutely turn any kind of meat you want into jerky – with the caveat that you must to be able to catch it. Squirrel and rabbit traps aren't hard to set and making a spear is easy as long as you have your knife. If you're using small animals like these, try and take down several of them so you can make a robust amount of jerky. If, on the other hand, you've got an elk or deer to clean, then you should have no problem creating enough jerky to last you through the winter with just one carcass.

Step 3: Clean Your Meat. Set up a flat area (typically this will just be a tarp laid on a flat part of the ground or a table), gather your tools, and get to work. It's best if you have a knife, a pair of pliers, and a pair of scissors.

Step 4: Set up your Dryer. A dryer is a contraption that holds your meat off of the ground. You can build it like a spit, a tripod, or just a rack of sticks suspended in the air. All that you have to make sure of is that you can fit a small fire underneath it.

Step 5: Build Your Fire Underneath Your Dryer. It's very important to note that this fire is not to dry or cook the meat, so you do not need to build a big fire. The fire is only to create smoke to keep bugs from infesting your meat. After you've started your fire, observe it for a few minutes to see if there is any wind that is blowing the smoke in any direction but up. If there is, put up a wind barrier.

Step 6: Cut Your Meat. If you've properly cleaned your meat, then cutting strips won't be difficult. Cut it into as thin or thick of strips as you please, but the thinner they are the faster they'll dry and the easier they'll be to eat

Step 7: Hang the Meat on Your Dryer And Let the Sun Do Its Job. Make sure that as much smoke hits each piece of meat as possible. While it doesn't dry the meat out any faster, it lends a smoky flavor while staving off bugs. It





## HOW TO **PROPERLY CLEAN A SQUIRREL**

Step 1: Gather your materials. An ideal list includes a knife, a pair of pliers, a pair of scissors, and a bucket, but you can get by with just a knife and a bucket.

Step 2: Cut its paws off. When cutting off the front paws, cut as close to the actual paw as possible. When cutting off the back paws, cut right after the carpal pad (the black pad on the back side of the paw that is part way up the limb). From here on out, put everything you cut off into your bucket.

Step 3: Skin it. Lay your squirrel belly down. Fold its tail over its back so that you can see its anus. Use your knife to cut completely through the bottom of the tail. Make sure that you cut at the very bottom so that you don't actually sever the tail from the body, because you need the tail to still be attached by the skin that covers its back. Your cut should have exposed the flesh at the very bottom of the back of the squirrel. From there, hold your squirrel by the legs so that its head is facing the ground.

Place the tail under one of your feet and step on it as hard as you can. Pull the back legs upward, removing skin from flesh. The skin isn't going to completely detach. At this point, you will be looking at a skinless squirrel from the belly up, with the skin dangling from the head of the squirrel. Leave the tail under your foot. Then either use a pair of pliers or your hands to pull the belly skin off. Pull until not only the belly skin has peeled away, but so has the skin on its back legs.

The skin will also not detach here, either.

Step 4: Cut off the head and legs. Cut the entire head off, taking the dangling skin along with it. This is important because while it is best to eat every part of the animal that you can, recently there have been squirrels found with brain disease. As for the legs, cut off as little as possible. We're only doing this to get rid of the skin but want to preserve as much meat as we can.



## "The fire is only to create smoke to keep bugs from infesting your meat."

Step 5: Cut off its genitals (if applicable). If you've caught a male squirrel a good way to tell the age is to look at its testicles. The more hair there is on the testicles, the younger they are. If the testicles are larger and hairless, they're older. In any case, cut off its testicles and penis.

Step 6: Gut it. Use your knife (or scissors if you have them) and cut straight up the stomach, starting at the navel. Cut through the ribs and out through the neck. Lay the squirrel on its back

and pull out every intestine you find. The heart, lungs, livers, and kidneys, are all edible, so save those. Throw the rest in your bucket.

**Step 7:** Wash it. In the river, in a puddle, or however you can. Just make sure that it's nice and clean and not bloody.

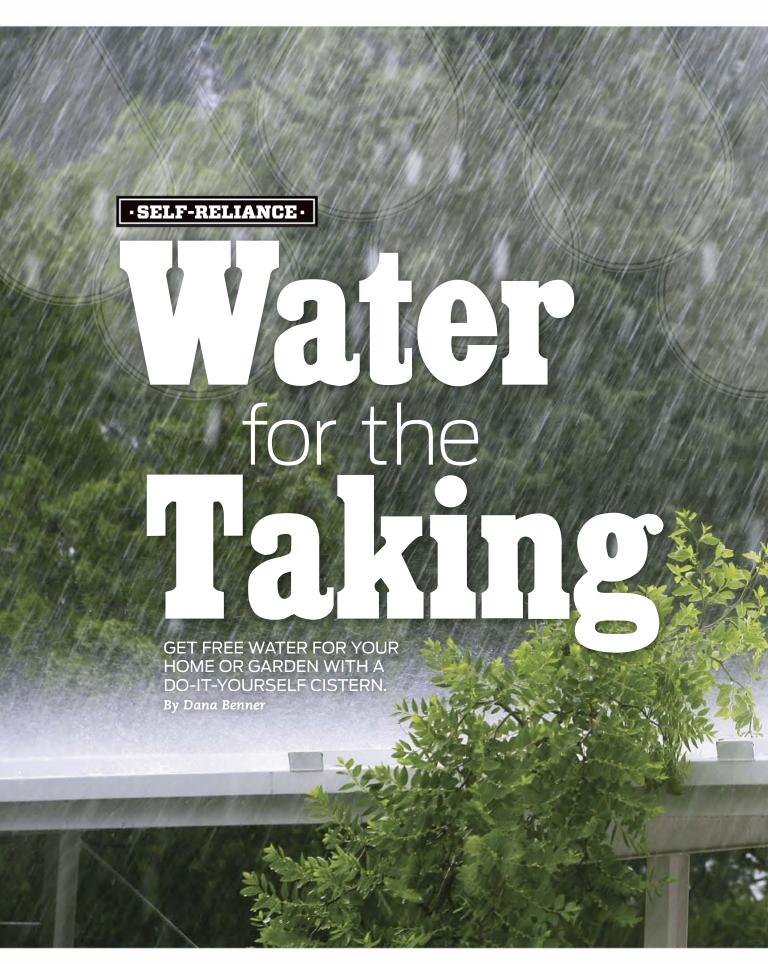
Step 8: Dispose of the parts you aren't going to use. Throw them as far away from camp as you can. You can even throw them in the river; fish will eat them.

will probably take a day and a half for the meat to completely dry out and become jerky, so take this time to go fishing, looking for more berries, or just enjoying the world around you.

Step 8: Store Your Meat. If you happen to have a plastic bag, put the meat in there. If not, wrap it up in a towel and bury it in your bag. You don't want a bear trailing you to get your jerky. Finally, put out your fire and you're ready to move on to your next destination.

So there you have it. You know how to find, cook, and store meat that can last you a few days in the woods, or longer if you've felled a bigger animal. And you don't have to do this just when you forget all your other rations — you can do it just for fun or to practice for when you finally get to hiking the whole Appalachian Trail.









My design was very simple. When it rains the water comes off my roof and is caught by metal gutters which then transfer the water to the ground and away from the house. To make the cistern work I would simply tap into the gutter and allow the water to run into the container. All I needed to do is to figure out a way to access the water from the cistern, without removing the cover, to water my garden. I went ahead, drew up my plans and gathered the materials for the project.

(from left) A recycled pickle barrel makes a great vessel for holding rain water. Saved plumbing parts are al-ways handy for fixing many things around the homestead. Any basic on/off spigot will work for the project. tube of construction grade all-purpose adhesive. The tool list includes an electric drill with both 13/6-inch and 1/2-inch drill bits, a 1/2inch round rasp or a file, a jig saw and a utility knife. With the list made I went to work gathering everything I needed.

Like the pioneers of old, I never throw anything away as you just never know when you may need it. So I headed for the shed to see what I could come up with. I had an old 33 gallon plastic trash can with a lid. I also found an old 34-inch garden hose I had meant to repair but never did; a bicycle inner tube and a shut off valve that would work. All I needed was the adhesive which I picked up at the

local hardware store for \$5.



Though I had all of the material I needed to get started, I really didn't like the trash can idea. Though it would work, I wanted something larger. By searching through the stuff of a few friends I was able to find, and obtain through trade, an old 55-gallon plastic pickle barrel with a lid.

Just the item I wanted.

#### **How It Functions**

Are you using the cistern as a source of water just to water your garden, like I am? Or is your intention to use it as a source of drinking water? Do you intend to run water over a distance through a hose? These and a host of other questions need to be asked and answered before you go any further.

My cistern is to be only used to water my garden and I have no intention of hooking a hose to it. For that reason my cistern is going to be gravity fed, which means I'll let the water's own weight push it downward and out once I open the valve. To get the most water pressure, the barrel needs to be elevated so it is sitting higher than the ground. Obviously the higher the cistern is the better. It is the same principle that makes the water towers in small towns work. When I need water I just

# A SCREW SAVED IS A PENNY EARNED

> Have you ever been in the middle of a project and needed a screw, nail, bolt or nut? I have and thankfully most of the time I have been able to put my hands on that one piece that I have needed without much trouble. The reason for that is the number of containers I have containing an odd assortment of screws, nails, nuts, bolts and other small pieces of hardware. These containers, mainly empty coffee cans, have a home on the shelves in my shed.

It is impossible to figure out just how much money that these cans of stuff have saved me over time, but I am sure that it is not a small amount. While the cost of an individual screw (or nut, bolt, etc.) may only be a few cents, how much does not having what I need cost me in time and fuel (to say nothing about aggravation)?

So recycle a coffee can and start filling it with those oddball pieces of hardware. It may not seem like much now, but it all adds up. You will be glad you did when that time comes, and it will, when you need a nut and you have one in your can. — D.B.





The author shows how easy it is to drill a hole through the bucket to insert the hose portion.

These options would also apply if you had a larger garden.

ing. Second, I would use a pump to get the

water out because the longer distance the

water has to flow, the greater and more con-

#### Where to Start

stant pressure it will need.

The very first thing was to find where I wanted to locate my cistern, picking the gutter system that was the closest to my garden. It was at this time I figured out that I wouldn't be able to elevate the cistern. I opted to put it on a platform instead.

Once that was done I marked the spot where I wanted to drill the hole for the on/off valve. I also marked the lid where I wanted the down spout of the gutter to be located. Now the fun begins. Taking the drill and the 13/16 inch drill bit, I drilled the hole for the valve, about 3 ½ inches up from the bottom of the cistern. While I still had the drill out I changed out the 13/16-inch bit for the 1/2-

"The total cost of my home-made cistern was \$5 and a little elbow grease."

### NEVER THROW IT OUT

> The pioneers of old never threw anything out that could possibly be used again. To these people the idea of repair, reuse and recycle was a way of life. Fast forward to today and you will find me doing the same thing. Today we live in a throwaway society, but many of the items that we throw away can be brought back to life with a little effort. There are plenty of items in my home that I have kept working, saving me a nice amount of money.

Eventually everything comes to a point where it is beyond repair. Even though it does happen all is not lost. Everything from household appliances to old bathroom and kitchen fixtures can be cannibalized. Most old appliances are made of metal. All sheet metal is saved, flattened out and then used for other projects. All wiring is removed. What can be saved is saved: what can't be saved is recycled. Nuts, bolts and screws are thrown in the "coffee can". When it comes to plumbing devices, all clean piping and valves can be saved for later use. While the saved pieces may never fix a toilet again, some of the plastic plumping and valves may find a new life somewhere else.

The next time something quits working, before you throw it out, see what it would take to fix it. If it can't be fixed then see what you can save for later use. That is what the pioneers who came before us would have done and so can you. —D.B.

inch bit. I then drilled a hole in the area that I marked out on the lid. When the time comes this hole will allow access for the saw blade.

Turning my attention to the larger hole, I fed the section of garden hose through the hole. The key here is to have as snug a fit as possible. While the hose diameter is ¾ of an inch, the threaded male end is larger and that is the reason for the larger drill bit to make the hole. I wanted the male end to fit snugly into the hole, but not go through it. If it doesn't fit in the hole use your rasp or file to

widen the hole, small bits at a time.

Having the larger hole means that there will be plenty of play around the hose itself which in turn will lead to leaking water, thus defeating the entire purpose. To combat this issue a seal of some sort needs to be made and this is where the bicycle tire inner tube comes in. Cutting the inner tube into two, three inch sections and splitting each piece gave me two pieces of flat rubber. I then made a mark in the center of each rubber piece to indicate where the hose would go through. Using my utility knife I put a slit in the rubber where I had made my mark.

Coating one side of each of the rubber pieces with the adhesive I put one piece on the inside of the barrel and one on the outside, making sure to line the slit in the rubber with the hole drilled in the barrel. This will form a waterproof gasket sealing anywhere the water could flow out. Once dry I put more adhesive on the section of garden hose where the hose itself meets the threaded male end and then, from the outside, insert the hose through the slits in the rubber until it is firmly sealed in place. I then allow everything to thoroughly dry.

While the adhesive is drying I turn my attention to the lid. Using my jig saw I cut the hole that will fit the downspout from my gutter. The jig saw blade readily fits into the predrilled hole and the cutting only takes a few seconds to complete.

#### **Finishing Up**

Everything is cut and in place. Your cistern is almost ready for its big debut, but there are still a few minor things that need to be done first. The on/off valve requires simply screwing it onto the male end of the garden hose section. Next comes positioning the cistern where you want it. In my case it meant lifting it up onto the small platform I had made and then lining it up with the gutter's downspout. Testing the cistern for leaks needs to be done at this time. I put just enough water in the barrel to cover the hose and the hole drilled into the side of the barrel. No leaks were discovered and everything worked perfectly.

Is a cistern the answer to our water problems? Absolutely not, but it may just help you weather the dry times.

Rain is always good, but a rainstorm will only water your crops one time and then it is gone. Using a cistern to trap and store some of that rainwater allows me to keep watering in between those storms.

The total cost of my homemade cistern was \$5 and a little elbow grease. I would say it was time and money well spent. MP



The possibilities of collecting rainwater are endless, so begin saving money now.

# The Essential Woodsman's

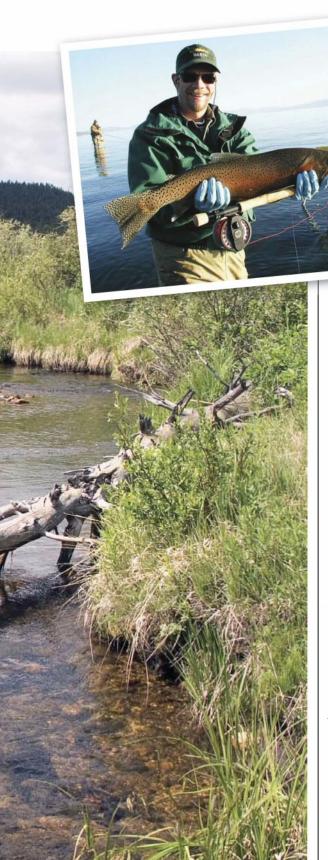
WHEN IT COMES TO SURE FLY-FISHING ACTION, NOTHING CAN MATCH THE HIGHLY VERSATILE AND RELIABLE PHEASANT-TAIL NYMPH.

By Lou Phillippe

ishing is an important part of my outdoor lifestyle. I live on a mountain stream, within walking distance of several trout lakes. While the aesthetics of the pursuit are important (things like the solitude and the challenge of deciphering the mysteries beneath the water), deep in my heart what I really want to do is catch fish. Lots of fish, and big ones, too, even if I carefully release most of them. My fishing pack and supply cabinets contain dozens of fly boxes stuffed with thousands of options, for trout, bass, panfish, salmon, steelhead, salt water species, even carp. I've been tying flies for five decades, and during that time have collected a veritable museum of flies. My boxes of "rejects" could stock a decent-sized fly shop. Yet it seems that almost anywhere I fish there is one fly I begin the day with, and it almost always out-fishes every other fly in my menagerie. •••









### **Deadly & Versatile**

When interviewed by outdoor writers and asked by other anglers on the stream or lake, the inevitable question arises: "If you had to pick only one fly to catch a fish, what would it be?" My answer is the Pheasant Tail nymph. No debate. Besides being one of the simplest flies to tie, from natural materials most woodsmen have ready access to, it is one of those treats that can be fashioned to imitate almost every freshwater insect and crustacean, can mimic small crabs and shrimp in the sea, and it looks buggier and becomes more effective the more it is chewed on by fish. And it is versatile. It can be dead-drifted down deep, floated in the surface film, stripped to scoot along the bottom, and slowly pulled to imitate various swimming nymphs. It can be presented with fly or spin tackle, even with a length of line tied to a willow switch. When fishing an unfamiliar stream, some form of Pheasant Tail is invariably the first soldier I send into battle. It is even deadly through the ice - I've paid for all my ice fishing gear and electronics, and then some, from derby cash prizes awarded for large trout caught on a Pheasant Tail tied on a weighted jig hook.

The simplicity and effectiveness of this fly exemplifies the pioneer spirit. It is easy to craft for even the most beginner fly and lure makers. It's extremely durable. It is basically constructed from nothing more than pheasant tail fibers, some light wire, and whatever sort of fur we might have around the shop. Even dryer lint or dog and cat fur can be used for the thorax if no wildlife fur is available. A bead can be added to the head for extra attraction, so long as our wives and daughters

"When fishing an unfamiliar stream, some form of Pheasant Tail is invariably the first soldier I send into battle."



"With this basic pattern I've landed giant brook trout and Atlantic salmon in northern Quebec, steelhead on the Great Lakes tributaries, all varieties of trout in the Rockies, including the famous Lahontan cutthroats of Nevada's Pyramid lake, and panfish on warm water ponds."

don't notice us robbing their jewelry-making kit. A bit of flash from Christmas tree mylar or a cellophane bag can imitate a nymph wing case or the shell back of a scud or shrimp. And, best of all, no fish can resist it when presented correctly because it looks like tasty morsels they eat all day. A woodsman with a simple rod, like the telescoping Tenkara I described in an earlier article, and a small box with assorted Pheasant Tail patterns, can be assured of catching fish in a stream under almost any circumstances. A fly rod isn't necessary; It can be fished effectively with a spinning rod, either with a small split shot lead weight a foot above it, or trailed slowly behind a clear casting bubble.

With this basic pattern I've landed giant brook trout and Atlantic salmon in northern Quebec, steelhead on the Great Lakes tributaries, all varieties of trout in the Rockies, including the famous Lahontan cutthroats of Nevada's Pyramid lake, and panfish on warm water ponds. Variations of it are popular among some savvy Pacific salmon fly fishers. Two weeks ago I caught two huge "rolling-pin" suckers when dead-drifting it through a trout hole on my local river. In short, it is perhaps the most versatile and effective fly in existence, and one of the oldest of the named modern fly patterns. Frank Sawyer, a river keeper in England, first published the "Pheasant Tail nymph" pattern nearly 60 years ago, but the basic idea of the pheasant tail fibers as a primary fly material and style likely dates back centuries. Dame Juliana Berners famous tract published in 1496, "A Treatyse on fysshyng wyth and angle", describes a style of soft hackled fly that most certainly was tied with pheasant tail fibers in some manner. In other words, "If it ain't broke, don't fix it!"

### **Proving Its Worth**

A few years ago on a trip to the Patagonia region of southern Chile, my cousin Michael and I were slaying big rainbows on a small Pheasant Tail drifted below a large foam beetle. The beetle drew a strike now and then, but its basic function was to serve as a strike indicator and suspend the nymph at the right depth where the fish were holding in the current. Michael drew a strike from a monster in a deep bend pool that took us on a wild chase a hundred yards downstream through the rapids before locking down in a massive hole. He kept the pressure on and eventually the fish moved toward us, perhaps curious about what was nagging at him. When we saw the thick brown submarine as long as his leg, we both gasped. We were using fly tackle suited for rainbows up to maybe six pounds. His son,



Evan, slipped downstream of the leviathan, and lacking a net of adequate size, managed to tail the beast and beach it. It was a 19 pound Chinook salmon, caught on the very same size 16 fly I use back home for small brook trout in the stream in front of my cabin!

Another time I was fishing a Colorado lake famous for summer hatches of large tan mayflies called "callibaetis". In early afternoon the hatch began, and within a few minutes the surface of the lake was blanketed with big speckled mayflies, floating like miniature sailboats as their wings dried before taking flight to mate. Yet hardly any trout were rising anywhere, even though there were thousands of helpless morsels within easy reach. Suspecting they were feeding on the swimming nymphs, I quickly tied on a slender Pheasant Tail nymph, cast it out with a small split shot a foot up the leader, and within 10 seconds I was fast to a strong three pound rainbow. For the next hour I hooked or landed a big rainbow or cutthroat on virtually every cast. Other anglers were thrashing the water with dry fly imitations, occasionally drawing a strike, while I quietly educated every fish within reach until my arm and shoulder ached. Since I was out in a float tube, nobody knew what fly I was using, only that I was catching every fish in the lake. No one bothered to ask, either, probably assuming I had the magic dry fly.

### A Breeze to Tie

The Pheasant Tail is very simple to tie, even for novices. It can be crafted using a pair of needle nose vise grips or large forceps held in a bench vice if no fly tying vise is available. The simplest of the patterns involves wrapping the thread from front to back on the hook to provide a base, before lashing down five or six pheasant tail fibers near the bend so the tips extend back as a "tail". Before wrapping the pheasant fibers forward, secure a length of very thin copper wire just in front of the tail fibers. After rotating the thread back to the eye of the hook, wrap the fibers

clockwise tightly around the hook to the front and secure them with several turns of the thread. Then wrap the wire like a rib counterclockwise and secure it behind the eye. This wire rib adds a little flash and holds the fibers together when fish teeth shred them. Leave the remaining ends of the pheasant fibers hanging loose to resemble "legs". Finish the head of the fly with a few turns of thread and secure it with several half hitches, coat the head with clear nail polish or fly head cement, and you're ready to fish.

More involved variations include dubbing a few turns of muskrat, rabbit fur, or peacock behind the head and adding a thin strip of mylar flash on top of that as a wing case. Dubbing is done by moistening the fingertips and "spinning" a small bit of fur onto the thread to make a thin yarn. Many anglers add a small gold bead to the head of the fly for added weight and flash. For faster water, a bit of lead wire is often added to the hook shank before the pheasant tail fibers are wrapped. But no matter how you construct it, you won't go wrong as long as the primary ingredient is pheasant tail fibers. I've had great days when my fly was so shredded it had broken fibers sticking out from all directions. It's just a "buggy-looking" thing, no matter how it is presented. The rattier it looks, the better it performs.

My favorite pattern for stream fishing has a dubbed fur thorax of brown hare's ear fur, topped with a thin mylar strip for a wing case, with a small gold brass or tungsten bead at the head. I wouldn't be afraid to tackle any river, anywhere, with only a box of Pheasant Tails in various sizes and weights.

(left to right) Hand tying the Pheasant Tail Nymph in three steps. Step 1, start by securing the pheasant tail fibers and gold rib near the hook bend.

Step 2. wrap the fibers

and rib forward and tie them down with three or four turns of the thread.

Step 3, tie the ends back and clip to length, then finish the head with several half-hitches. Coat with head cement or nail polish and go fishing.

### -SELF-RELIANCE -

# Natural Weather PREDICTING WEATHER IS TOUGH, EVEN FOR THE WEATHER MAN, BUT WHEN YOU'RE IN THE BACKCOUNTRY AND NEE TO KNOW HERE'S AN OLD-FASHIONED.

YOU'RE IN THE BACKCOUNTRY AND NEED TO KNOW, HERE'S AN OLD-FASHIONED METHOD WORTHY OF CONSIDERATION. By Darryl Quidort

eather sticks are a traditional means of predicting the weather by the use of a natural material. Made from a balsam fir tree, the dried sticks turn up in sunny weather and turn down as foul weather approaches. Many people believe they can predict tomorrow's weather by the movement of the weather sticks.

It seems no one knows just when or where they originated, but they are said to have originated in the Northeast United States or in Southeastern Canada. Some say they were "invented" by the Abenaki

Weather sticks are available for sale from many sources. In eastern states, farm supplies, gift shops, pet stores, even grocery stores are well stocked with their own variation of weather sticks. They can be purchased online as Old Time, Balsam, Farmer's, or Woodsman's weather sticks. I was surprised at the price of \$10 to \$20 for such a simple stick, when you can easily make your own.

### **Making Your Own**

To make your own weather stick, look for a small balsam fir tree about an inch in diameter. They often grow in thick stands within second growth timber. Cut out a 4 inch section of the trunk above and below the spot where two small branches, about 24 inches long, reach in opposite directions. Then, strip off all the bark and needles, leaving only the trunk section and two small bare branches. The bark strips easily when the sticks are freshly cut. Without bark, the branches will dry quickly.

After drying, the weather sticks can be nailed under the eaves of a barn or cabin. Be sure to mount the branches upside down from the way they grew on the tree. Then, just watch them as they move in relation to the weather. The sticks will turn up into a nice "smile" when the weather is good and down into a "frown" when the weather is bad.

There are variations to this approach. A single small branch, ¼ inch in diameter, attached to a section of trunk, will work just as well. Even a single balsam fir branch cut from the tree and stuck into a hole drilled into a base plate will work. One account says that a small sapling, cut off at ground level and stripped of all branches and needles will respond as a weather stick just as well as any other method. Weather sticks will last for many years. Some have been in use for as many as 20 years and are still working.

### **How Do They Work**

I made my own weather sticks last summer and have been mystified by them ever since. Yes, they do work. But how do they work? This has been studied many times and there is a lot of confusing and conflicting information, ideas, and opinions available on how and why they work.

First, there is the "reaction wood" theory. As a branch grows out from the tree there is a difference in the tiny wood cells on the top of the branch when compared to the cells on the bottom of the branch. The bottom cells are said to be under compression from holding the branch up. Thus, some stimulus in weather patterns causes the branch to bend up or down because of the difference in the wood cells. However, a weather stick made from a small sapling, cut off at ground level, disproves this theory. It still works, even though it has no "reaction wood" because it grew straight upward.

There is also the "barometric pressure" theory of why weather sticks work. Barometric pressure is the weight, or pressure, on the earth created by the atmosphere. The pressure rises and falls in relation to weather patterns. A school teacher once had her class make weather sticks and record, and graph, the daily changes in barometric pressure and movement of the sticks. However, she reached no conclusions. I couldn't see any correlation in her records and my own records didn't prove this theory either.

Next is the "relative humidity" theory. This theory suggests that balsam fir trees naturally hang their branches downward in dry (low humidity) weather to conserve moisture. The branches are then spread upward in wet (high humidity) weather to absorb moisture. One study, found on the internet, used an enclosed box fitted with a humidity controlling system to scientifically prove that the branches moved in response to changes in humidity.





### "From my records I noticed that the higher the temperature is above the dew point, the higher the sticks rise up into a "smile."

Some people claim that they can predict the weather by the movement of the sticks. Others argue that weather sticks don't actually predict the weather, they only react to weather changes. One guy said he was going to send a weather stick to his TV weatherman, "Because I think the stick works better than he does.'

Weather sticks are fun to make, interesting to watch, and are a great conversation piece. For a great outdoor learning experience, I suggest helping some youngsters make a weather stick. Then sit back, watch the fun, and try to solve the mystery. m

down in good weather, up in bad, just as the branches on the tree. This theory could be true, but is the phenomena really that simple?

Watching my weather sticks has been very interesting. The changes can be drastic. I've seen them wrapped into such a tight upward curve that the sticks seemed in danger of breaking. The very next day the sticks were curved down, with rain water dripping from the tips. I tried keeping records to solve the mystery and I ended up just where many others have ended up. I don't know how they work!

My best guess is the "dew point" theory. The dew point is the temperature at which water vapor in the air condenses to liquid water, or dew. From my records I noticed that the higher the temperature is above the dew point, the higher the sticks rise up into a "smile". As the temperature drops and nears the dew point, the sticks move down. Temperatures at or below the dew point cause the sticks to "frown". The movement of the sticks is not instant, but they do seem to follow this theory. Of course, dew point is closely related to relative humidity. Maybe the movement of the sticks is caused by a combination of both theories.

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·SELF-RELIANCE·

# You Need One More Knife

WITH REPLACEABLE
BLADES, A LIGHTWEIGHT
PIRANTA KNIFE MIGHT
BELONG IN YOUR GEAR
EVEN IF YOU ALREADY
OWN A LOT OF KNIVES.
By Brian Brown







A quality fixed blade knife is hard to beat for backcountry versatility, while a well-built folding knife is more practical for every day needs. Regardless of a knife's style or design, the only thing worse than not having a knife is having a dull knife. There is a song titled "Always keep an edge on your knife" by Corb Lund and the Hurtin' Albertans; the lyrics are filled with some good life lessons, but the title rings true for any outdoorsman. For most of the year, I enjoy putting a knife to stone or steel and the satisfaction of shaving off a few arm hairs afterward. However, each fall, while working as a hunting guide, I need to process more than my share of big game animals, re-

sulting in lots of dull knives. This is when I really despise sharpening. During one of these hunts a client handed me a Havalon Piranta folding knife with replaceable surgical blades and the idea of a blade that never had to be sharpened intrigued me.

Havalon Knives offer several different styles of knives with many different blade options for skinning, caping, filleting and even sawing. Aside from being lightweight and reasonably priced, the replaceable blades are scary sharp and eliminate the need for sharpening. At first I was skeptical – the Piranta was too light, the blades were thin and changing the blade seemed like a great way to end up needing



### "Aside from being lightweight and reasonably priced, the replaceable blades are scary sharp and eliminate need for sharpening."

stitches, but after using it on the first elk, I was convinced. In no time, all four quarters, back straps and tenderloins where bagged. Changing blades took only a couple seconds each, but I only ended up needing two blades for the whole job. Cleaning fish is also very fast, like the old cliché "a hot knife through butter" and filleting was much easier because the blade has some flex. Another benefit is that a typical fixed blade knife and sheath paired with a pocket sharpener will weigh just under a pound while the Piranta with sheath and five to six blades weighs just a couple ounces. The blades will not stand up to prying or twisting, so there is a bit of a learning curve

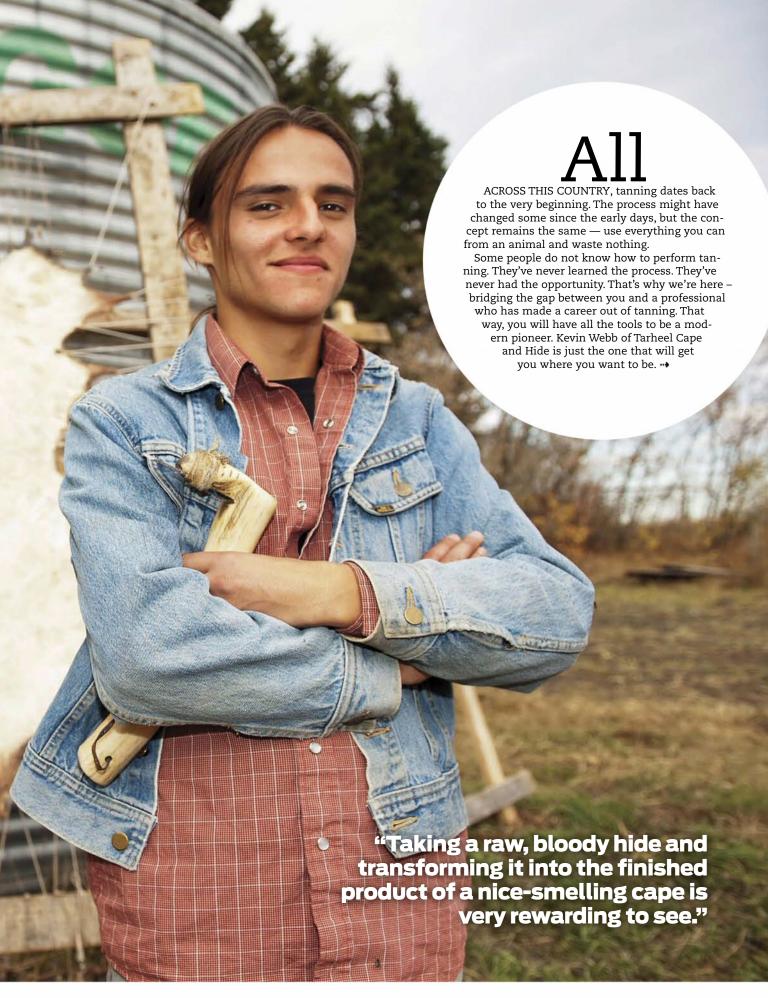
compared to typical knives. The best way to remove the old blade is by either using pliers or intentionally breaking it before replacing it with a new one.

I'm not sure it exists, but the search continues for that one perfect knife which means I am going to need a bigger knife "box". Havalon Knives are specialized tools best suited for field dressing your trophies from the field and water and combined with a quality folding knife for camp chores, will cover almost all your needs on back country excursions. The Piranta has become my "go to" knife for backpack hunting and fishing trips, when size and weight matter.

- A small multitool with plyers will make changing the blades easier but is not required
- When installing a new blade open the wrapper about half way, without removing the blade out of the packaging. Then, grip the blade inside the wrapper to protect your fingers when attaching it to the handle.

   Make sure to pick up and pack out
- your dull blades and the wrappers In a pinch the blade can be touched up on a stone or steel.







Tanning is a good way to use all parts of the animal. Plus, you get a nice rug out of the deal once you're finished.

### **Tools of the Trade**

There are certain things you need to have on hand if you want to tan properly. Just as with any job, your end product will vary depending on the tools you use; much is the same when tanning hides. The things you need include: a scalpel, fleshing knife, salt, acid pickle, shaving machine, tanning solution, oil and stretcher.



It's important to have the right tools. They make all the difference.

### STEP 1

The obvious first step is to skin the animal. Once this process is done, it's important to pull the cape away from all bones and then flesh the animal using a scalpel. It's crucial to remove all meat and tissue from the cape; leaving behind pieces will make a mess of things and you will not be happy with the finished product. Most commercial businesses use fleshing machines. You'll likely be using a knife, so this step will not be a short one.

### STEP 2

Next, salt the cape. This removes the remaining fluids from the hide and pulls moisture out. Allow it to sit. Re-salt a couple times. You will know it needs resalting if it clumps up.

### STEP 3

Then place the hide in a bucket of water and wash it. Remove all of the residue left over from salting. Make sure the hide is smooth and salt-free before pulling it from the bath.

### STEP 4

The next step is to put it in an acid pickle bath. This process takes some skill and time to complete. There are numerous recipes out there; shop around to figure out which one is for you and easiest to do given the resources you have. Take it out after the allotted time given the specific ingredients in the solution.

### STEP 5

The next step is to thin the hide. Again, most commercial tanneries do this with a shaving machine.

### STEP 6

Now it is time to "tan" the hide. Submerge the cape in a tanning solution. This preserves the hide and keeps it in the state it will be in for years to come. How long you leave it in will depend on the hide and the purpose.

### STEP 7

Now pull the hide from the solution and allow it to dry.

### STEP 8

Then oil the cape and hang it up again. Allow it time to completely dry.

### STEP 9

This step pertains to "breaking the skin." Commercial tanneries put capes in fur-dressing tumblers to do this. You don't likely have one. Instead, use a little elbow power to "break the skin" and loosen the hide.

### STEP 10

The last step is likely the simplest. It's time to stretch the hide. Pull the cape tight and stake it down somehow so that it stays in place. Leave this over a period of time.

### From the Man

Kevin Webb knows a thing or two about tanning. He has been tanning since 1991 and owns his own tannery, Tarheel Cape and Hide. That's why we asked him for his personal take on tanning and why people should use this practice.

"I would say trapping and hunting go handin-hand with tanning," Webb said. "Without sportsmen, the art would be lost. Taking a raw, bloody hide and transforming it into the finished product of a nice-smelling cape is very rewarding to see. I hope hunting and trapping continues for years to come."

### Why You Should Tan

There are countless reasons why you should tan hides. Tanning has many benefits and can be very rewarding. The reasons to participate are definitely worth the time and effort that is invested.

Tanning hides will give you a feeling of satisfaction. Using as much as you possibly can of the animal you've harvested is very important. Contributing to this effort by tanning the hides will add to this ongoing process of utilization. Hides that have been tanned also have their uses. You can use these tanned hides for numerous things.

The best way to appreciate the animal is to use as much of it as possible. Use them for leather. Use them for clothing. Use them for whatever you want.

Tanned hides also make excellent wall and floor coverings. Use them to decorate your home.

Tanning adds value to hunting. It boosts our image for the better when non-hunters see us using the resource to its fullest extent.

Tanning is a tradition. Taking part in it is a great way to preserve our history and ensure our future is filled with the heritage we have learned.

### **Maintaining Full Use**

The outdoors are in the hands of humans to protect, manage and enjoy. The best thing we can do is to appreciate and not take advantage of it. Part of that process is using all parts of it. Most hunters just toss the hides after cleaning the animal.

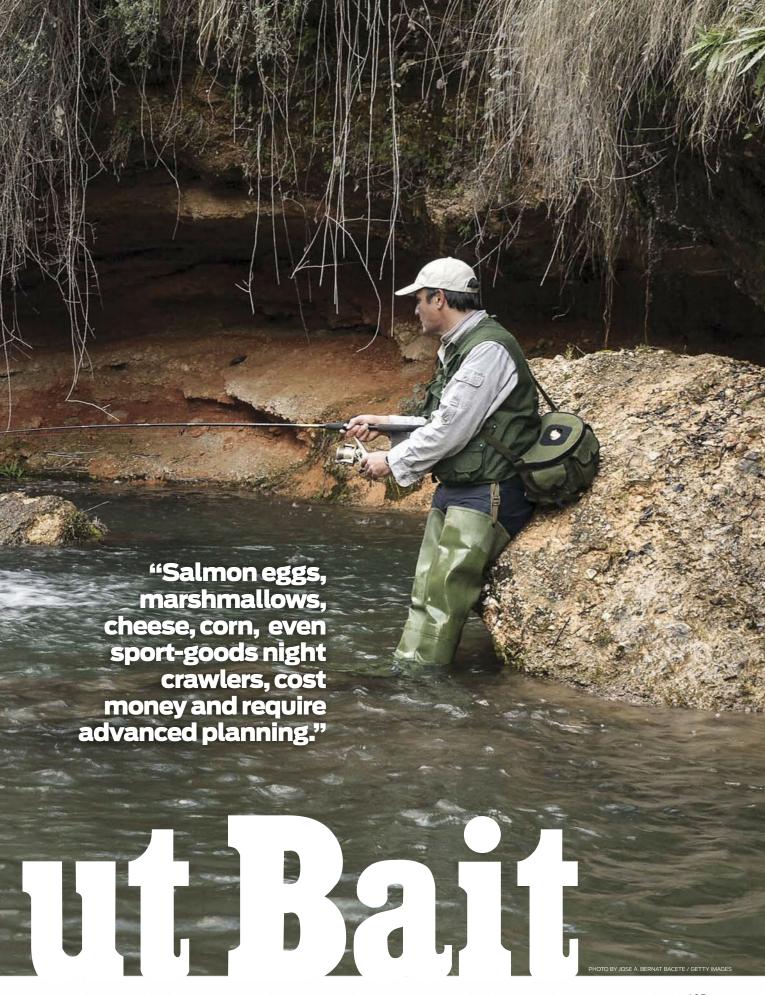
Use everything. Even the hide.

Tanning is a pretty special thing. It is part of our hunting heritage. It's part of our way of life. It's part of being a modern pioneer. Take part in it.

Make sure you do your part to keep this tradition alive. Without us, just like with any other tradition, it will die with us if we do not pass it on.









### **Angle Worms**

About 40 years ago I caught my first trout, a stocker rainbow, in a small Arizona stream with a worm I dug up near a cabin we were staying in with friends. The lowly worm remains one of trout fishing's most reliable baits. I often wonder if worms actually wander into trout waters that often, but no trout will pass one up when presented properly. The iconic fly fishing movie "A River Runs Through It" treated the coffee can of angle worms in derisive terms, but there's no way around the fact untold numbers of trout have met their end inhaling a wormfestooned fishhook.

Collecting worms isn't difficult, but is a bit more involved than random digging. Garden-variety earthworms, as well as larger night crawlers (found in northern latitudes), prefer moist, fertile soil with plenty of organic material. In fact, worms are an integral part of breaking down organic matter, creating healthier soil. Worms in your home garden are a good thing, and where they should be left. You'll find more worms in low-lying or wet areas with plenty of rotting vegetation. Farm-pond edges, heavilyshaded creek beds and marsh edges, springs and out-building eves are normally good places to start. I also find plenty of worms

The author's wife, Gwyn, threads on a worm dug from the backyard while enjoying some spring trout fishing. The carrier is a vintage metal box she picked up in an antique store.

(below) Worms, angle worms and garden hackle are trout favorites. All you need to collect is a shovel, a can to put them in and a little effort. Worms are most plentiful on moist, rich soil. around farmsteads, where old roofing tin or piles of debris are common.

Night crawlers appear after rains during summer, most often under the cover of darkness. This is a fun enterprise for kids, setting out across a lawn or open pasture with flashlights, seeking the large invertebrates. You've got to be quick; as soon as light hits them they'll dive down and disappear. Blood worms, so called because of their dark red color, are normally found in manure around barnyards or horse sheds.

Collecting worms intact is easy: flip up a chunk of moist Earth, set it in a clear spot, and break it apart with your hands. Of course you'll need something to put them in. The classic coffee cans are actually a bad idea, as worms quickly overheat in such vessels. A small foam cooler, or better yet, a worm box constructed of porous fiber board, with loose, moist soil added, is best for keeping worms cool but handy.

You'll encounter arguments on how to best rig worms. There's the ball-of-worms approach, piercing worms side to side and sewing them on the hook until you run out of length; and the threading approach, starting the barbed point into one end of the worm and running the hook through the hollow middle until the entire hook bend and shank is covered, even threading the worm up the line if needed. Which you choose really depends on what kind of fish you're targeting. The glob-of-worms is best for inhalers such as catfish and carp, while threading is generally best for nibbling trout. I miss fewer strikes and lose fewer worms by threading.

How you present a worm depends on water type. In still waters worms are usually sent to the bottom, the basic rig consisting of a sliding sinker stopped by a swivel — a 1-foot leader holding a hook. In weedy lakes a bobber is placed one or two feet above the sliding sinker to keep the works out of fouling moss or aquatic vegetation. The assembly is cast into a

likely spot and left to sit. In streams and rivers you'll want your worm to act naturally, casting upstream of likely holes, allowing the worm to tumble through, picking up and recasting as the worm passes through the holding water. This can be accomplished with hook and weight, or with hook and bobber, depending on water depth, clarity and water speed.

### **Grasshoppers & Crickets**

The Orthoptera family, including caelifera (grasshoppers) and rhaphidophordae (crickets), are quite popular with trout of all species. In many cases, trout keyed onto hoppers turn their noses up at anything else. Hoppers and

beneath stacks of old lumber or



crickets are highly nutritious and offer big bites allowing trout to fatten up before a coming winter. Hoppers are a late-summer and earlyfall concern, roughly July through September in most trout waters. Crickets can appear nearly any time from spring through late fall, weather permitting. Hoppers and crickets are highly productive in nearly any trout water, but are especially so in running waters with overhanging grass, brush or trees where it's most common for the insects to fall into the water. You'll also see a higher incidence of hoppers in the water when their flight plans are interrupted by wind.

Catching hoppers and crickets can prove hit and miss, but during the right season success can very well depend on it. The mistake most anglers make is attempting to catch hoppers during warm midday hours. Get the kids involved and this can actually turn into fun, but really isn't very productive, as most hoppers fly when spooked, or at least hop into disguising cover instantly. The better approach is to collect hoppers when they're less active during cool sunset and dawn hours. Recall, Nick Adams, in Hemingway's incomparable short story "Two Big-Hearted River" collected his hoppers early in the morning by rolling over logs, where they'd retreated against the cool of night. I've found I can catch all the hoppers needed for a day's fishing at sunset, scanning bare tree branches five to six feet off the ground where they climb to catch the last warming rays of day.

Storing grasshoppers is a problem, as they become quite active once warmed and easily escape. There are commercially-made hopper/cricket cages, but I find it easier to collect and retrieve them for fishing by dropping them into plastic soda bottles. I awl a hole in the lid and thread a short length of cord through, tie a knot, then tie a loop outside the lid, allowing a loose end to dangle inside the bottle. I can drop dozens of hoppers into a

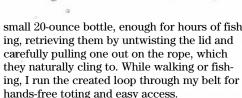
### (clockwise from top left)

The ugly hellgrammite is actually the larva of the Dobsonfly. They are common along streams and rivers across the country and easily collected by flipping rocks at water's edge.

Though the front pinchers of the hellgrammite look fearsome their bite is no worse than a baby's pinch. This is of little comfort to many, but those who get past the aversion find they are excellent trout bait.

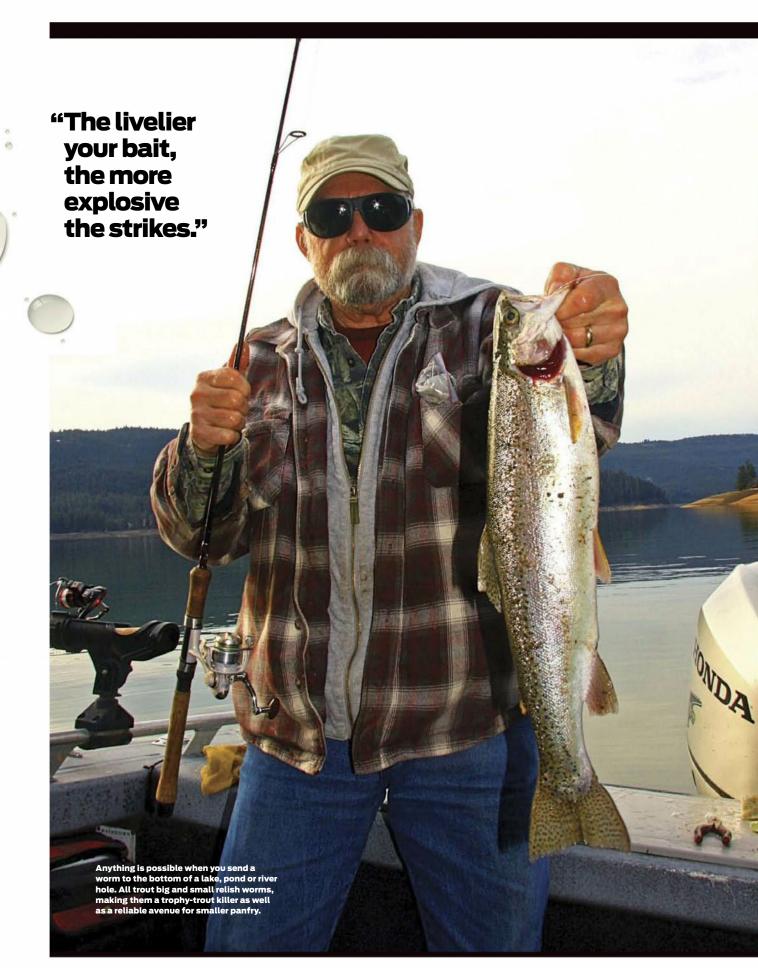
Trout of all tribes love grasshoppers. They are big treats and full of protein, helping late-summer trout fatten up for the coming winter. When they are present they are quite plentiful, catching them during cool hours is most productive.

You'll find crickets by flipping over logs, pieces of bark or rocks. They can be trapped with a large plastic bottle with bait in the bottom, buried with the opening tilted upward. Crickets enter to investigate the bait and can't climb back out.



Crickets are less reliable because they're creatures of darkness. They can sometimes be trapped by burying a large plastic bottle containing bread or apple parings so the opening is at ground level and the bottom tilted lower. Crickets enter to take the bait but cannot escape. I normally seek crickets around old farmsteads or junkyards, looking under discarded lumber, roofing tin or other such cover. While out in the natural woods, try flipping over pieces of bark or roll over logs to find dark-loving crickets (and other worthwhile trout baits).

Fishing these trout treats sometimes requires a delicate touch, though you certainly can skewer one on a hook and send it into a deep pool with a pinch-on weight (which I've certainly done). This is sure to drown the hopper or cricket after a few drifts, but is nonetheless effective.



If you want to have much more fun, drift a live, kicking hopper or cricket on the surface. This is accomplished by hooking the hopper or cricket through the hard saddle about 1 1/2 feet below a clear bubble. Cast above where you expect fish to hold and allow it to drift through. The livelier your bait, the more explosive the strikes. This is especially fun on creeks or clear rivers where you're able to enjoy the anxiety of watching a trout rise. sometimes from many feet below the surface. Remember, though, in most instances the tighter to grassy or brushy banks your bait rides, the more fish you'll catch. I've fished several miles of a favorite stream during late summer, catching few trout. But as soon as I remembered to cast tight to the bank, I began catching trout in nearly every "fishy" place encountered. A simpler method is to fish a hopper/cricket on a fixed length of line and a long rod (cane poles work especially well for this) without weight or bubble, stalking undercut banks, overhanging bushes and grassy corners and dabbling bait with zero surface drag.

### Hellgrammites

Hellgrammites, the large, spooky larva of the Dobsonfly, are common in creeks across the United States and prime fish food. In New Mexico's Gila River system hellgrammites were especially abundant and the bait of choice, even while fly fishing nymphs. These nastylooking bugs were sometimes pinkie-finger sized, most slightly smaller, and quite easy to collect as needed by flipping rocks at water's edge. Trout (and the trophy smallmouth bass of those waters) seldom passed them up. The real problem with hellgrammites is their wicked fore-end pinchers, which make them unpopular with some people. Hellgrammites, after all, will bite, their large pinchers about as lethal as a pin prick but disconcerting nonetheless.

You find hellgrammites in shallow, clam flats covered in water, right up to the dry shore itself. Flip and turn fairly sizeable rocks, especially flat ones, and you'll eventually find the big, ugly larva. The trick is to then pluck them up with your fingers and drop them into your bait can before they have an opportunity to pinch. While baiting up I grab them behind the head to keep them under control.

Fishing hellgrammites is straight forward. Hook them through the hard collar behind the head and send them through deep pools a foot below a couple split shot. The trick is to tap along the bottom without too-frequent hangups in the deepest pools. Hits are usually swift

and spirited, not the nibbling taps of worm fishing. Set the hook immediately, as any resistance will cause them to drop the bait instantly.

### Other Natural Baits

You just never know what natural baits will turn up once you arrive on a trout stream, river or reservoir. I recall a trip to the White Mountains of Arizona when buzzing cicadas had hatched by the buckets. Since they were congregating on tree branches above the water, I deduced trout would be feeding on those hapless enough to fall into the stream. And that was certainly the case. Every trout I caught that day – including some of the best that water had ever produced for me – felt as if their bellies were full of marbles.

As an avid fly fisherman I've long known how important beetles can be as trout food – they are, after all, the planet's most abundant insect species. You'll normally come across beetles while flipping debris such as logs while seeking worms and crickets, as beetles like the same moist, dark places as those insects.

Finally, as gross as it may sound, maggots are deadly-effective trout bait, especially when water temperatures are cooler early and late in the season. The biggest problem with maggots - besides the very thought of them — is collecting them for bait. This normally starts with road kill, or providing a host animal such as a nongame jack rabbit or woodchuck. Allow the flies to lay their eggs and given a couple weeks your dead thing will be infested with writhing maggots. Now the fun part: use a small plastic cup or storage ware with snap-on lid, filling it with moist sawdust or finely-shredded egg carton and spooning maggots in while attempting to minimize decayed material. The sawdust or paper fiber helps to clean the maggots somewhat and they'll remain ready for use in the refrigerator for up to a couple weeks.

Collecting natural baits saves money, allowing you to make use of natural resources far from home or adjust to prevailing conditions on your favorite water. In most cases it's an endeavor your kids, nieces or nephews will find just as exciting and fun as fishing itself, helping you keep nippers engaged and happy in the outdoors. You can also feel good knowing you're feeding trout something they can actually digest (should they steal your bait and get away) and not something of questionable chemical makeup that can kill them (trout cannot digest corn, for instance). MP

(below) Author Patrick
Meitin flipped logs and
rocks until he came across
a black beetle. Hooked
and sent to the bottom,
this trout didn't stop to
wonder what a beetle was
doing on a lake bottom in
early spring.





### past pioneering

### Sewell Newhouse 1806-1888

### > By Darryl Quidort

**Sewell Newhouse** (also spelled Sewall) is undoubtedly the most well-known name in the history of trapping and animal-trap manufacturing. Old advertising literature promotes Newhouse as a knowledgeable outdoorsman, experienced trapper, and skillful blacksmith who was said to have "invented the steel trap." However, many historians question that colorful reputation.

Born in Brattleboro, Vermont in 1806, Sewell moved with his family to the frontier of Oneida County, New York when he was 14 years old. There were many Oneida Indians living in the area and young Sewell is said to have spent time afield under their guidance.

Sewell worked as a helper in a local blacksmith shop. He was about 17 when he fashioned his first animal traps from the steel of old axe heads. A blacksmith trained Sewell in the art of properly tempering the springs for his traps. The main problem with early traps was springs breaking under use. Sewell's springs were reputed to hold their strength even in ice water and not break when the trap was sprung. He handforged those first traps for his own use and for trading with the local Indians for valuable furs. Over the next 20 years Newhouse took over the blacksmith shop and with a hired hand, John Eddy, he made many more traps. Records show that by 1848 Newhouse and Eddy were selling from 1000 to 2000 hand-forged traps each year.

Newhouse traps were double-spring style, with a pair of trap jaws and a long, single bend spring on each end. The jaws were pinned to heavy posts bolted through the frame using a large square nut.

Newhouse traps were strong and heavy. An early #4 Newhouse beaver trap weighed about five pounds. The same size trap manufactured today weighs only half that.

In 1848, Sewell, along with his wife and their young son, joined a religious commune. The Oneida Community had recently been founded on the banks of Oneida Creek by John H. Noyes. It was based on the idea that a perfect life could only be lived if people sacrificed everything to the Community's interest. At first Sewell worked at clearing land and planting crops. Needing more funds, the Community turned to other endeavors. One of the most successful businesses the Oneida Community engaged in was using Sewell's knowledge of trap-making.



"The Great Bear Tamer." The Newhouse #6 trap was used for grizzly bear and African lions. It is not legal for use today.

By 1852 there were three men working under Newhouse's direction making traps by hand at a forge. As the story goes, a Community member took a trunkful of Newhouse traps to Chicago and showed them to a large hardware company. After looking the traps over the buyer said, "I'll take all you've got". Several more men went to work under Sewell Newhouse to produce traps. Modern machining techniques replaced the hand-forging processes. Traps were shipped to Chicago, New York, St. Louis, and Alaska. The Hudson Bay Company purchased traps for their Canadian posts. Within five years the Newhouse trap became the standard.

By 1860 the trap-making business was taking in \$100,000 a year for the Community and it would never again fall below that figure. Details and information on spring tempering techniques were regarded as a trade secret and were never revealed. Several sizes of traps were produced, from the small #0, meant for weasels, to the huge #6 grizzly bear trap that weighed nearly 50 pounds. Newhouse



The Newhouse beaver trap is heavy, strong, and was in demand by North American trappers for nearly a century. It is still preferred by some trappers today.

traps were unique because any part would interchange with a like model of trap. A damaged spring or jaw could easily be replaced if needed. Newhouse traps were often copied in both style and size so the Community began stamping their springs with their name, "S, Newhouse, Oneida Community, NY." After 1860 the pans were also being cast with the Newhouse name.

In the following years, Mr. Newhouse became the supervisor of trap-making. He never let the quality of the traps bearing his name diminish. Until his death, in 1888, Sewell Newhouse personally inspected each trap to make sure it was up to his standards. After his death, trap-making continued at Oneida Community until 1925 when the business was sold to the Animal Trap Company in Lititz, Pennsylvania.

One of the reasons the trap business did so well was the advertising campaign the Oneida Community undertook to market the traps. "The Trapper's Guide" was published in 1865 and went through many editions for the next 50 years. This booklet advertised Newhouse traps, contained trapping instruction, trapping tips, and trapper's testimonials. The book promoted Sewell Newhouse as a great outdoorsman and built his reputation as a wise trapper..

Today, a century and a half later, it is hard to separate fact from fiction. We know Sewell Newhouse didn't invent the steel trap. Blacksmiths were producing steel traps as early as the 1600"s. Sewell wasn't born until 1806. Was he a trapper at all? In his book, "The Steel Trap in North America", researcher, Richard Gerstell, wrote "the widely held, but highly distorted, picture of Newhouse as a skilled woodsman, wilderness trapper, Indian trader, and inventor of the steel trap in all probability grew largely out of the Oneida Community's advertising activities. Very little factual information about Sewell Newhouse was ever recorded. We will never know if he was a great trapper and woodsman or if he was simply the product of an advertising campaign, but we do know his famous Newhouse trap was one of the best ever produced for catching fur-bearing animals. MP

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