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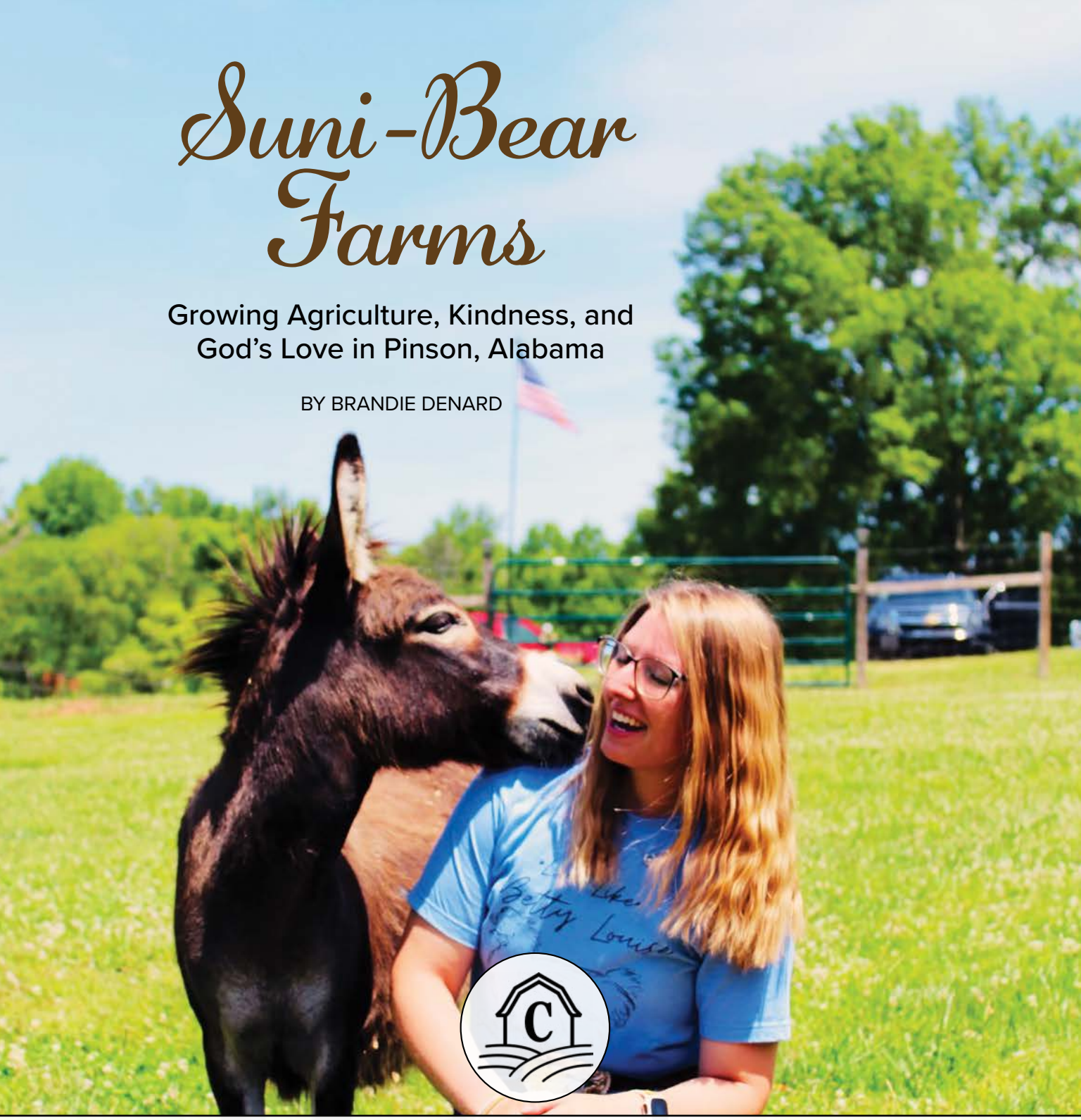
Suni-Bear Farms

Growing Agriculture, Kindness, and God's Love in Pinson, Alabama

BY BRANDIE DENARD



I AM COUNTRYSIDE

SUNI-BEAR FARMS BEGAN with a blessing. In 2019, when a small five-and-a-half-acre homestead in Pinson, Alabama, was gifted to Brandie Denard, she could never have imagined how deeply that moment would shape her future. What looked like a neglected piece of land to most was, to Brandie, the beginning of a calling — a space where she could cultivate her love for agriculture, nurture animals that needed care, and create a haven for people seeking peace, purpose, and a glimpse of God's creation. Today, Suni-Bear Farms stands as not only a working hobby farm but also as a place where faith, kindness, and agriculture come together in the most beautiful ways.

The journey to build the farm into what it is today has been anything but easy. Brandie and the people closest to her — family, friends, mentors — have spent countless hours turning dreams into reality. Furniture has been hauled, barn stalls built, pastures cleared, fences constructed in the blazing Alabama sun, and animals cared for through every kind of weather. There were days full of laughter, days full of tears, and days that tested strength and determination. But every blistered hand, every late-night chore, every shared prayer, and every act of generosity helped forge the farm into a sanctuary rooted in grit, faith, and love. Suni-Bear Farms is proof of what can grow when community comes together.

From the beginning, Brandie shaped the farm around a mission that remains the heartbeat of everything she does: "Where we advocate for agriculture, spread kindness like wildflowers, and show God's love to everybody." This mission is more than a motto — it's a promise. In a small urban community where many people have never stepped foot on a farm, held a chicken, or seen how food is grown, Suni-Bear Farms stands as a bridge. Agriculture can feel far away for those who didn't grow up in it, but Brandie believes deeply in its power to teach, heal, and connect.

Agriculture has taught Brandie patience when things grow slowly, resilience when seasons get tough, and gratitude for every small blessing the land provides. It's grounded her faith, strengthened her leadership, and deepened her appreciation for the responsibility of caring for God's creation. Through the farm, Brandie has learned that real influence doesn't come from titles — it comes from serving people well and stewarding the gifts God has placed in your hands.

Her love for agriculture has opened doors beyond the farm itself. Recently, Brandie stepped into a new leadership role as chairman for the Young Farmers of Jefferson County, Alabama. This role will allow her to advocate for agriculture across the county, build relationships with other farmers, and support the next generation of agricultural leaders. She was eager to dive headfirst into this new role in January.

Education has always been a big part of Suni-Bear Farms. Farm tours allow children and adults to meet the animals, learn about farm life, ask questions, and experience agriculture up close and on a smaller scale — often for the first time. Agriculture classes teach everything from animal care to gardening, the history of agriculture in Alabama, responsibility, and where food comes from. And now, thanks to Brandie's creativity and heart for outreach, the farm has launched a Farm-on-the-Go program (called Agventure Learning) bringing the farm directly to schools, libraries, community events, and anywhere else that welcomes them. Through farm tours, agricultural classes, and farm events, Suni-Bear Farms is planting seeds of agricultural knowledge in the hearts of future generations.

Kindness is another cornerstone of the farm's mission. Brandie's

famous kindness campaign, the Live Like Betty Louise campaign, is lovingly named after Suni-Bear Farms' beloved black Silkie hen, Betty Louise. Known for her sassy spirit, her gentle presence, and her ability to make every visitor smile, Betty Louise became a symbol of the farm's message: Live simply, love openly, and spread kindness everywhere you go. The campaign encourages people to carry that same Betty Louise sassy kindness into their daily lives.

Another growing part of the farm's outreach is the Leave It at the Gate sessions, a newly created program at the farm to give people a peaceful escape from life's noise. These sessions invite visitors to enter the farm, breathe deeply, and spend quiet, intentional time with the animals. No schedule. No rush. No expectations. Just peace, healing, and the chance to reset. Many people who come for these sessions find that time with the animals offers comfort that words can't provide. Whether someone is overwhelmed, grieving, anxious, or simply searching for stillness, Suni-Bear Farms and its animals give them a place to lay down their burdens — literally leaving their worries at the gate. Inspired by Psalms 23, "He leads me beside still waters. He restores my soul," we hope that every visitor who comes for these sessions with our herd helps restore theirs.

The farm's creativity also shines through in its farm shop and apparel line. Brandie designs and creates all her apparel on-site. Making everything by hand helps keep costs down for families and visitors, while also providing financial support for the farm's programs and the animals. The apparel reflects the heart of the farm: faith-filled messages, animal designs, farm humor, and uplifting reminders. Along with designing and creating her farm's own apparel line, Brandie also opens the door for mentorship opportunities. Young people interested in agriculture, small business, or simply needing a big-sister figure often find guidance, encouragement, and inspiration in Brandie's creativity and willingness to share what she's learned.

Every part of Suni-Bear Farms — education, kindness, mentorship, agriculture, faith, compassion, creativity — circles back to the mission that began it all. The farm is more than a collection of animals and pastures. It's a ministry, a classroom, and a safe haven. It's a spark of hope for both people and animals, and a reminder that God can take something small and grow it into something far bigger than we ever imagined.

Today, Suni-Bear Farms continues to bloom — shaping people, inspiring hearts, nurturing animals, and spreading kindness like wildflowers across Pinson and beyond. Through hard work, unwavering faith, and a deep love for people and animals alike, Brandie's dream has become a place where sunshine is shared freely, and every person leaves feeling a little lighter than when they arrived.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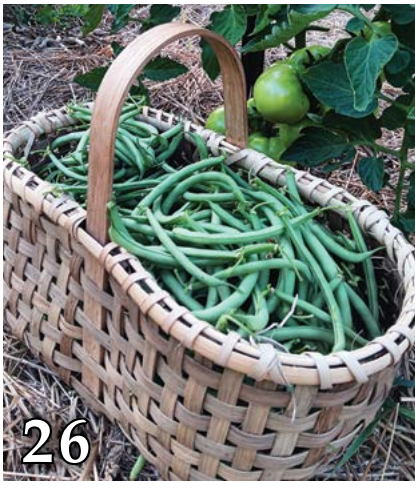

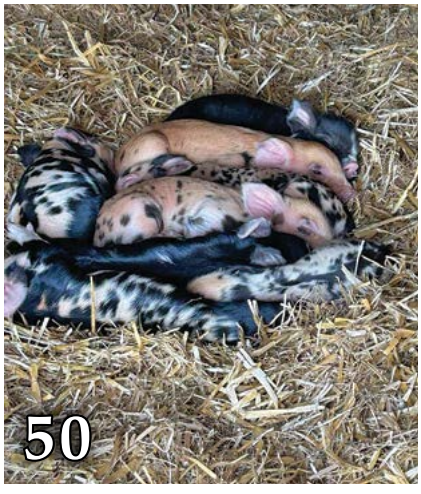

ON THE COVER

Having room for bison to roam and graze is important to the overall well-being of the herd and something we take seriously at White Bison Farm. — *Jodi Cronauer*

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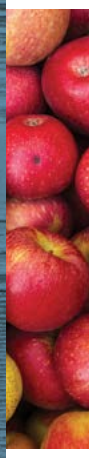

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Our Philosophy

At *Countryside*, our purpose is to inspire self-reliant living on any level.

We acknowledge that the path to self-sufficiency is as unique as the person who accepts the journey.

We strive to strengthen the homesteading movement by sharing the diverse voices and knowledge of today's practitioners.

We teach our readers how to grow and raise their own food; build, fix, and craft with their own hands; and walk as gently on this planet as possible.

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FROM THE EDITOR

"Wherever you go and whatever you do, may the luck of the Irish be there with you." — Irish Blessing

AS I WRITE THIS, I'M SNUGGLED UNDER A blanket with my pup. We're stuck in a major cold spell with a "feel like" temperature of minus 34 degrees Fahrenheit. Unfortunately, these below-normal temperatures stay in the forecast for at least another week. For those of you who live in warmer climates, I envy you right now.

While I look forward to spring and warmer weather, I also look forward to St. Patrick's Day. My mouth is already watering for corned beef and cabbage. When the stores have corned beef on sale during this time, I buy a few extras for the freezer because, for me, having corned beef just once a year isn't nearly enough.

Making the well-known St. Patrick's Day meal can't get any easier. I simply place the rinsed corned beef in my slow cooker, add ½ cup or so of water, and sprinkle the seasoning packet on top. I also add little red potatoes, carrots, and however many quarters of cabbage that I can fit into the slow cooker. I then place the lid on top and let it cook on low for 8 to 10 hours. If I'm home, I sometimes take the veggies out sooner if they seem to be getting done long before the meat is.

During warmer months, I like to thaw a corned beef, boil it for an hour or so, then place it on my charcoal grill (indirect heat) or my Traeger pellet grill. I let it slow-cook until the internal temperature reaches 160 degrees Fahrenheit. I then remove it, wrap it in foil or butcher paper, and place it back on the pellet grill until the internal temperature reaches 200 to 205 degrees. Cooking the meat to this temperature ensures the connective tissues have broken down, making the meat tender.

Lately, I've been watching videos on how to make corned venison from a venison neck roast, shoulder roast, ball roast, or shank. Because I have some of these roasts in my freezer from this past hunting season, I see homemade corned venison in my future.

If you're not a fan of corned beef but still want to celebrate with a special Irish meal, check out Rita Heikenfeld's article, "St. Patrick's Day Celebration" on page 54. Rita shares a delicious-sounding recipe for Dublin Coddle, a stew made with bacon, pork sausages, and veggies. She also shares recipes for beer bread, fruited soda bread, and Irish oat tea cookies.

Also included in this issue are articles on foraging tools, homesteading skills, chicken intelligence, maximizing your goat milk production, making your own turkey calls from river cane, and so much more!

Enjoy!

Ann Tom
Editor, *Countryside*

HAVE AN IDEA OR STORY TO SHARE, A QUESTION TO ASK, OR PERHAPS AN ANSWER TO A QUESTION? WE WANT TO HEAR FROM YOU!

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In Response to Jan./Feb. 2026 Question of the Month (What are Your Favorite Treats to Bake?)

BANANA BREAD

Combine ½ cup butter, 3 ounces cream cheese, 1 cup brown sugar, 2 medium bananas, 1 egg, ¼ cup sour cream, and cream well.

Add dry ingredients: 1½ cups flour, ¾ cup mini chocolate chips, 1 teaspoon baking soda, 1 teaspoon baking powder, ½ teaspoon salt, mix well.

Pour into a greased bread pan. Bake 325 degrees F for 60 to 75 minutes, until edges pull apart or when a toothpick inserted comes out clean.

MANDARIN ORANGE CAKE

Combine 1 cup flour, 1 cup sugar, 1 egg, 1 can mandarin oranges drained, 1 cup chopped nuts, 1 teaspoon baking soda, 1 teaspoon vanilla, ½ teaspoon salt, mix until well blended. Spoon lightly into a greased and flour pan, 7x11 inch or an 8-inch round cake pan. Bake at 350 degrees F for 30 to 35 minutes. Boil for 1 minute: ¾ cup brown sugar, 3 tablespoons butter, 3 tablespoons milk, and pour over warm cake.

Diana Johnson Lima, Ohio

A Successful Hunt in Many Ways

Another hunting season has just ended. I saw lots of does and fawns. I saw a huge mule deer buck lying down in a pasture just before the season opened. He, like the others, faded back into the thousand acres of deep, thick woods. The shooting area in Thurston County has two small herds of mule deer and whitetail deer that were brought into the county in 1906 by wealthy businessmen.

Hunting season has many memories, starting with going hunting with my dad on Fox Island. One of the most memorable hunts happened many years ago in southeast Washington state, hundreds of miles from our home.

A friend was diagnosed with a debilitating disease similar to MS. He couldn't drive a car, boat, ride a bicycle, and he could no longer fly a plane. He wasn't doing well, and according to his doctors, he didn't have much time left to live.

He was a Marine in the Vietnam War in the early '70s and was a good rifle shot due to his training. He had a .308 rifle but had never been hunting.

His 15-year-old son wanted to go hunting. He completed his hunter safety course and obtained a license. His dad called me and asked if I'd consider taking them both hunting, seeing that I'd been going since I was 12 years old.

I found a farm in southeast Washington that was over 2,000 acres and only allowed people with a handicap to hunt. My friend had a 36-foot motorhome, and I rented a 14-foot U-Haul for him to sit in with his electric scooter. His wife went along and was our camp cook and second driver.

I tried to think of what I could teach a 40-year-old dad and a 15-year-old son. I remembered something my had dad taught me when I first started hunting. He told me that we needed to walk like a deer. Deer make little noise when they walk, so I taught him to take four slow steps, pause, then four steps, and pause, looking around slowly while paused.

We set Dad up on a ridge in the U-Haul many miles from the farmhouse. We proceeded to hunt a ridge that would push any deer to Dad's area if we couldn't get a shot.

I took the high ground, and the son went along the bottom so that anything I kicked out would run to him. The son complained that it wasn't fair because we would push everything to his dad. I explained that anything I pushed would go down to him first. He pondered that and finally agreed to the plan.

We'd been hunting for about 30 minutes when I heard a shot from below me. I hurried down the ridge toward the shot, fully expecting to see a deer on the ground. There was the son holding a blasted tweetie bird. A tweetie bird! There were no deer within miles now.

He had seen a big animal that growled at him and ran out the other side of the brush patch. He said it was tan and had a very long tail. It was a cougar that was waiting in the brush after hearing his four-step deer walk coming nearer and nearer.

Praise God that he shot the tweetie bird, or he'd have been attacked by one large cougar. The landowner had seen two cougars the day before.

We had a great time, but no deer. My friend is doing better and back to normal after several years of his mystery disease. He was able to retire and is now in his mid-70s, enjoying life to the fullest.

Dennis Young

We want to hear from you!

March/April Question of the Month:

What is your favorite farm or household chore?

Send your responses to:
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Some of My Most Valued HOMESTEAD SKILLS

ARTICLES AND PHOTOS BY WREN EVERETT

I WAS RAISED IN A RATHER typical suburban family and went to college for an art degree. When I began my homesteading journey, I came in with no practical skills and had no one in my family to teach them to me. Thus began a long process of seeking out, attempting, and learning many skills that were totally foreign and unfamiliar to my up-to-that-point "normal" way of life. It was (and is) quite a ride, as I changed shirt collars, socioeconomic status, location, and lifestyle utterly and completely.

I'm now more than a decade past that starting point and have reclaimed many "old skills" back into my own hands. Some of those skills are my most precious — things I want to pass on to the next generation, filling a role that no one had filled for me. I can't impart them to you personally through this article, but by sharing how I learned them, maybe I can point you in a good direction to explore.

Seed-Saving

It amazes me that this crucial garden skill — one that every gardener once knew — has been largely cast to the wayside as a rather niche interest. You see, if you can't start a plant from seed, grow it to literal fruition, and save next year's seed from it, your garden is pretty much just as "self-sufficient" as air-conditioning or delivery pizza. (The veggies you harvest are, of course, healthier than said delivery pizza).

The prospect of knowing how to grow and save your own seeds may seem intimidating, but plentiful friendly resources are out there for the novice. I recommend learning how to save one species of seed (beans are a great place to start!), then two, and eventually you'll find yourself with my annual, happy problem of figuring out how to reorganize your pantry to accommodate your ever-growing seed cache.

Suzanne Ashworth's excellent book, *Seed to Seed,* is my go-to resource on the subject. I also humbly offer my own ever-growing list of seed-saving guides at *https://insteading.com/author/wreneverett*.

Animal Butchering

One of my big motivations for becoming a homesteader was the hope to take control of my own food production. As a part of that, I raise chickens for eggs and manure. Though meat-making hasn't been my focus, the birds still get old, and the most effective treatment is often a swift, decisive chop with a hatchet and a long soak in my

Saving seeds can take over a counter at times, but it's a happy mess.

Freshly plucked chicken about to be processed.

stewpot. In my area, however, local butchers refuse to process poultry. The only option for a small-scale homesteader like me, therefore, is to do the job myself.

Knowing how to butcher your own animals turns inevitable losses into edible gains. Old birds are given a swift, useful end, rather than wasting away. Hurt birds don't suffer but are given the same last rites a predator would administer if they were injured in the wild. Excess roosters feed the family, rather than having an all-out spur-stabby brawl every morning.

I butchered my first chicken under the guidance of a more experienced homesteader, and it's the best way I know to learn. Lacking that, you can turn to the internet or check out books from the library, but be aware — many folks make it seem like you need to buy half an industrial abattoir's supplies in order to turn a bird into a roast. All you need is a basic understanding of animal anatomy, a sharp knife, clean hands, and a clean processing surface.

Fire Know-How

I first learned how to build a fire by taking a matchless fire-building class when I was barely 20 years old. After that, my continuing interest in wilderness skills eventually led to a job leading backpacking trips for young teenagers. During those pre-homesteading years, building a safe campfire and cooking a meal over its warming glow was something I did "in the forest" to create the experience for the campers. I had no idea at the time that my familiarity with fire would eventually help me cook, clean, and warm my off-grid home. Now, I use fire every day in some capacity.

If you are likewise interested, knowing how to operate and use a woodstove or a wood cookstove is a great step toward rekindling (if you'll pardon the pun) the ancient relationship between humans and fire. They don't just function as off-grid heaters, either — they can cook, dehydrate, dry clothing, heat water, usefully clean up cut-offs from the workshop, and create ashes that are a beneficial addition to the garden (see my next point!).

Soil-Making

Many gardeners know that they're not really growing vegetables — they're making soil, and they happen to have plants growing in it during the process. I know that you can buy formula-made topsoil or chemical fertilizer in plastic bags at the garden store, but I'd much rather make it myself, naturally and non-wastefully.

Though it's going to sound really hippie-dippie to say so, I learned how to make soil from the forest. When I was the aforementioned camping trip leader, I spent a lot of time digging around in the woods, observing the rich, dark soil that accumulated after decades worth of fallen leaves decomposed. The natural, unguided beauty of it contrasted with the composting guides, books, and online instructions I'd read before. They made it sound like true compost could be achieved through only an alchemical understanding of the perfect ratios of greens and browns contained in a $200 store-bought composter. Reality was telling me, however, that all of nature knew how to do it unassisted.

I build soil in my gardens by recreating the forest floor that I once hiked through. Every bit of organic material that I can collect is piled up near the garden (or in

A fire getting started in my wood cookstove.

Homemade compost ready to enrich the land.

the chicken coop, to be worked over by my flock) to go through the natural cold-composting process that happens in every forest around the world. Leaves, grass clippings, kitchen scraps, manure, ashes, you name it — if it's natural, it goes in the pile to transform. I've been adding that material to my rock-ridden gardens for more than five years now, and they've slowly been building up a rich, precious layer of dark fertility that's both hard-won and deeply cherished.

Cooking from Whole Ingredients

We all know that convenience foods are quick, financially expensive, and nutritionally cheap. But the lie (because it truly *is* a lie) that cooking with "real ingredients" is too expensive for the average Joe has been inhibiting folks from even attempting this crucial skill. I'm not preaching to you, however; I reached adulthood with very little cooking knowledge or experience. But since then, I've dedicated myself to learning all the things I should've known — fermenting, sprouting, whole-grain sourdough bread-making, dried-bean-cooking, meat trimming, and vegetable-everything.

I started learning how to cook when I worked in catering after college. I asked the head chef a lot of questions, and she kindly tolerated my curiosity. What really got me learning how to cook, however, was just doing it. My first loaves of bread were bricks, I burned my first casseroles, and I overcooked the poor broccoli to mush. But I learned from my mistakes, kept trying new recipes, and now I'm not afraid of cooking anything. It took more than a decade to build up that knowledge, but it was worthwhile. With all the plentiful tutorials, recipes, and videos online, there's really nothing stopping anyone who wants to learn how to cook.

Obviously, this brief article can't give you the skills I've described, but if you also long to put real skills into your modern hands, I think this list is an excellent set of adventures to start. If I could get myself out of the skill-less slough of being a modern Millennial, you, too, can find a way to reclaim and relearn these old, precious, skills.

WREN EVERETT and her husband quit their teaching jobs in the city and moved back to the land on 12 acres in the Ozarks. There, they're learning to live as modern peasants: off-grid, as self-sufficient as possible, and quite happily.

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Tools left to right: Trowel, pruning shears, and Wild Harvest foraging tool.

My Top 10 Foraging Tools

ARTICLE AND PHOTOS BY DANA BENNER

FORAGING, BY DEFINITION, is the act of searching for food, and it's as old as humankind. No matter how our world has changed, foraging is still a viable option for filling your larder and keeping your family fed. Foraging is an important part of my life; along with hunting, fishing, and gardening.

Despite the romantic image of walking through the forest, basket in hand, and simply picking what you need, foraging has its potential dangers. More than once, I've been stung by ground-nesting hornets and bitten by nearly every insect known to man. Then there are the extreme cases of poison ivy, having the flesh ripped from my bones by thorns, poisoning from eating the wrong thing; the list could go on and on.

Life with outdoor pursuits presents risks, but the rewards are worth it. To make your time in the woods and fields more enjoyable and productive, this piece is about my top 10 foraging tools. Keep in mind that this is *my* top 10. You may have tools that differ from mine.

1) Guidebook

Foraging is a learned skill, and one that's best learned from skilled instructors. Even though I've been foraging for years, there's still much to learn. Out in the wilds, many things can, at the very least, make you really sick. For that reason, I always carry a good plant identification book. There are many out there, and I recommend getting one with good color photos.

2) Container

You'll need a container of some sort to carry your harvest home in. Some people swear by woven baskets, and while they have their place, I have found them inadequate when carrying berries. Believe it or not, I really like using a plastic pail because they normally have handles making them easy to carry.

3) Hori-Hori

The hori-hori is a digging tool, half-knife and half-trowel, that originated in Japan. While this tool started in the garden, versions of it have long been used to forage root crops. My version of the hori-hori is the Les Stroud Wild Harvest foraging tool. It's more robust than the traditional hori-hori, making it perfect for the unforgiving soils here in the northeast.

4) Digging Tool

As good as the hori-hori is, sometimes you need an honest digging tool. Some foragers I know carry a small shovel, such as a military-style entrenching tool. I like to travel light, so I usually just carry a simple trowel.

5) Garden Gloves

Wearing them seems like an obvious choice, but I know people who don't. Some things out there will do you harm if you're not careful. Think poison ivy, stinging nettles, thorns on blackberry and rose bushes, and scorpions, just to name a few. Play it smart and wear gloves.

6) Pruning Shears

There are many times when pruning shears will come into play. Think harvesting wild apples, cherries, or other fruit. I like making teas from the twigs and buds from sumac, blueberry, and raspberry plants, and they're best harvested with pruning shears.

7) Kitchen Scissors

When harvesting wild greens, the last thing you want to do is pull the entire plant out of the ground. Using a good pair of

If attainable, prickly pear cacti are on the top on the foraging list. This is where a sharp knife and a pair of gloves come into play.

Two of the many books I use as references.

A small shovel, like this one, may come in handy.

Fiddleheads are common, but some are better than others. Use your guidebooks to figure out which one is which.

Some of my tools: pruning shears, plastic bucket, gloves, and trowel.

kitchen scissors allows you to carefully snip off what you need.

8) Sharp Fixed-Blade Knife

I never cheap out when it comes to my knives, so once again, I turn to the bushcraft knives made by LT Wright Knives. Any one of them will do the job. There are so many uses for a good knife when foraging. You can cut rope, peel bark, or harvest mushrooms from a log. Bottom line is to make sure you have one with you.

9) Tarp

I use the term "tarp" very loosely. It could be anything from a six-foot-square piece of plastic to an old bed sheet. It's used to collect fruit and nuts that are falling from a tree. It's much easier to collect them after they fall than it is to climb into the tree. It's safer as well.

10) Cordage

There'll be times when brush and tree limbs will be located between you and the items you're looking to harvest. I don't like cutting brush and branches if I don't have to. This is the reason I carry cordage of some sort. Paracord is great, but your everyday coil of clothesline will work just as well. Simply tie the obstacle out of the way and then release it when you're done.

Rose hips are always a good find, but their thorns can do a number on your hands. Gloves are must.

When it comes to foraging tools, there's no shortage of items out there. What works for me in a Northeast environment may not work for someone foraging in the desert Southwest or in the Southeast. The trick is to learn the craft, ask other people, and then decide what works best for you. Just remember that people have been foraging and harvesting wild edibles long before there were any fancy tools.

The Sonoran Desert in Arizona is much different than my home in New Hampshire. If you're foraging here, your tools may be a bit different.

DANA BENNER has been writing about all aspects of the outdoors, the environment, and sustainability for over 35 years. His work appears in numerous publications including *GRIT*, *MOTHER EARTH NEWS*, *Countryside and Small Stock Journal*, *Backwoods Survival Guide*, and others. He also hosts outdoor programs on HCTV in Hudson, New Hampshire.

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THE HISTORY AND USE OF HAND PUMPS FOR WATER ON THE HOMESTEAD

ARTICLE AND PHOTOS BY GINA STACK

The water pump listed in the article that was by the torn-down barn.

IN THE 1960S, GOING TO "GRAMA'S" HOUSE in a very small town in mid-Illinois was always an adventure that took me back in time. Along with a beautiful turn-of-the-century home, complete with doilies and antiques, was the best thing ever … the cast-iron hand water pump situated right out the back door. (Another common name was "pitcher pump.") The back porch always had a fresh container of water from the pump, with a ladle for drinking. It was like a living museum. I loved pumping that pump and could never get enough of how wonderful it was to see that wonderful water bubble up and out, splattering everywhere! It was a joyous thing to me.

When I think about it now, with the Rural Electrification Act of 1936 that caused windmills to be decommissioned and water pumps to be disregarded, Grama really shouldn't have had that still operating, since she had water in the house by then. In 1920, indoor plumbing was available in only 1% of homes, and by 1940, around 50% still didn't have flush toilets or indoor plumbing. After WWII, though, most homes across the country were equipped with plumbing. I wonder how many people didn't like losing that freedom. Maybe my grandparents were some of those people.

Why didn't everybody keep this amazing setup just in case the electricity went out? You'd still always have water, so you didn't need a generator — unlike today. With the threat of collapsing electrical grids and unpredictable storms, many people are considering a generator to keep everything running, especially water.

Some of the hand pumps out there still work, such as the one at a farm down the road from us. At another farm close by, one was hidden from sight until the barn it was next to was torn down. There it was, still standing at attention, ready to serve, but not working anymore. Back in the day, I'm sure there was a well-worn path leading to it, as that was the water source for everything from doing dishes to watering the garden and filling a watering trough for livestock. Buckets had to be lugged back and forth daily for every day tasks, no matter the weather, and the winters where I live can be harsh. Having a water source for the farm was a lifeline and a huge blessing.

The first cast-iron pump was made in 1848 in Seneca Falls, New York. The concept was funded by Seabury S. Gould, the first president of Goulds Pumps. He was certain that this pump would outperform wooden pumps, with their difficulties. He believed the iron pump could be resilient and labor-saving in providing water for those heading

west, homesteads down south, and out east. This pump was the first of millions made in the U.S. Practically every state in the Midwest with farms had a hand water pump.

This pump had a plunger mechanism. A 25-foot hole had to be dug for the pipe to reach the water table; above ground, the pump was placed and connected to the pipe. Leather parts were used for a gasket and strapping. The leather stayed wet and usable with regular operation.

There were many manufacturers of cast-iron pumps in different styles, from crude to more ornate. There was such a demand that many businessmen jumped on the bandwagon to make a living from the pump industry.

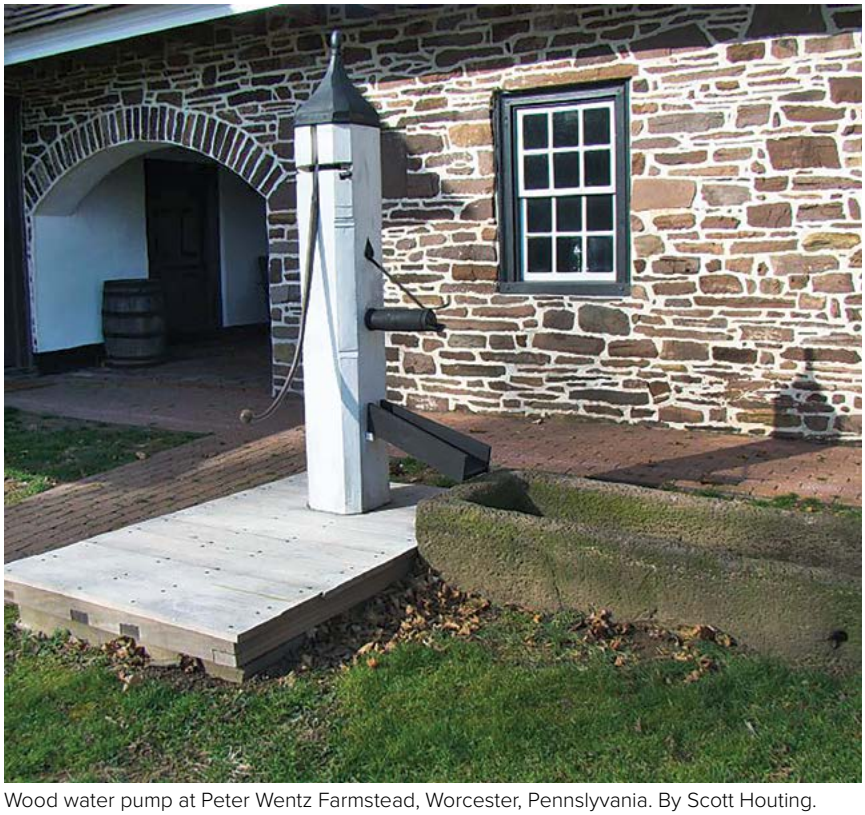
Before cast-iron pumps, water pumps were made of wood. Many of them were modeled after pumps in England and Germany, so, of course, the idea for them was brought to our country. They were being made here as early as the 1700s. The most common style is the old English wood pump. They were also known as wood-stock water pumps. The Pennsylvania Dutch made many similar to this style, too. They're still standing at museums and old farms in Pennsylvania today.

Making one of these wood-stock pumps was labor-intensive, and they were extremely heavy. It was basically a wooden pipe made from green, 10-to-12-foot logs, stripped of bark and cut into an octagon shape. A 2-inch hole was bored through it using an auger operated by two men. More logs were added until they reached the bottom of the well which required great precision and considerable physical effort.

These pumps used a vacuum process. A hollow piston inside was raised as the water rose with the pump handle going down. As the pumping continued, water was drawn up through the pump and out the spout. The handle was made of cast iron, and a decorative cap was placed on top.

Along with the many pumps out east, was a factory in Indiana that supplied these types of pumps throughout the Midwest until metal pumps replaced them.

If you want a cast-iron pump today, you can get one like Mr. Gould's at *mdpumps.com*. You could use it for a decorative touch, or you could look into having it installed. It's not as easy these days with all the requirements and restrictions, though. Personally, I'd love to have one, especially if the power goes out!



Wood water pump at Peter Wentz Farmstead, Worcester, Pennslyvania. By Scott Houting.

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GINA STACK is a freelance writer in southwest Wisconsin. She, along with her husband and son, reside on five acres with 22 laying hens (some as old as 10 years!), a large vegetable garden, perennials, and Lily the pug.

Beginner's Guide to Growing Roses

BY MICHAEL FELDMANN

ROSES ARE SOME OF THE most popular and beautiful flowering shrubs grown. From potted miniatures to beautiful outdoor clumps covered with plentiful blooms, there are seemingly countless varieties of roses for the home garden, with an enchanting array of colors and aromas. Growing roses isn't as difficult as you may think and it's certainly worth the effort for those who take pride in showy blooms.

Selecting

There are more than 150 species and many hundreds of cultivars. Breeders are constantly developing new varieties with brighter colors and rich aromas. The 'Robin Hood' rose is a vigorous grower and can bloom for six months each year in Zones 5 through 10. New varieties exist that can be grown as hedges. The most important condition for abundant flowering of the bush is a place for planting.

Siting

Roses are sensitive to light and heat, which means that they need to be planted in places that are well-lit and reliably protected from cold winds. The best place is the south and southeast side of a plot, for the rose enjoys the morning and afternoon sun. Shady spots are suitable only for climbing varieties.

Planting from Potted Rose Plants

Roses can be purchased as small potted plants or grown from seeds or cuttings. Seeds can also be used to propagate roses, but cuttings are faster and easier. Potted plants are more expensive but are a simpler way to start a rose garden. Plant roses in the spring. The size of the hole in which you plant your roses is a key factor in getting them off to a good start. Whether you're planting bare-root or container roses, you need to dig a hole deep enough and wide enough to accommodate the plant's roots and to allow for good drainage, since roses don't like wet feet.

If you're planting several rose bushes together, space them at least 3 feet apart to give the plant ample growing room as it matures. Roses are thermophilic plants, so as soon as the soil has warmed up well, but the buds haven't yet blossomed, you can plant. Before planting, carefully inspect the roots. Cut off all damaged parts and leave the remaining roots no more than 20 centimeters long.

Shorten the shoots on the bush. Leave strong shoots with six buds, medium-strength shoots with three buds, and cut weak and dried-out shoots completely. There are a couple of methods for growing roses from pieces.

Planting from Rose Stem Cuttings

Most rose varieties grow well from stem cuttings. A cutting from a healthy, productive stem

can produce its own root system and quickly grow into a new flowering bush. Although you can take cuttings throughout the year, those taken in late winter and early spring do well, because the plant is about to start sending out its new growth during this time. Stems 4 to 6 inches root easily when inserted in a potted mix and covered with a plastic bag to increase humidity. Cuttings root in about 8 weeks or when new growth starts.

Propagating Using Potatoes

The new plants can be planted in spring after all danger of frost has passed. Cuttings can also be easily rooted in plain potatoes. Stem pieces, with a 45-degree cut end dipped in honey or rooting hormone, should be inserted in a potato scored with a screwdriver beforehand. Even stem cuttings from bouquets can be used. The potatoes should be planted in pots or in the garden and covered with a jar or plastic bag.

Watering

Soil, temperature, and the surrounding plants affect how much water a rose needs. In temperate climates, weekly watering is usually enough. Two inches of water a week (4 to 5 gallons) may be all that is needed. If the soil is sandy or the garden is hot, dry, or windy, more frequent watering may be necessary. Care needs to be taken in areas where the soil holds a lot of moisture, as too much water can promote root rot.

Soil Considerations

Rose bushes must also be located in well-drained, fertile soil. You can grow roses in any type of soil, with the exception of marsh and salt marsh. Loam is ideal soil for a rose. Loam is moderately loose, that is, it's able to pass air well, absorbs and retains water and the fertile layer well. Roses must be located in well-drained, fertile soils.

Mulching

The soil under the roses can be mulched. This provides additional nutrition, improves the soil structure, retains moisture, and dramatically reduces the number of weeds. It's good to use shredded straw, rotted manure, leaf humus, or compost. Using tree park or nut shells will decorate the flower bed. Mulch the soil under the roses every spring as soon as the earth warms up and enough moisture is still stored in it. (The site should already be clear of weeds.)

Fertilizing

Though roses can thrive even when neglected, fertilizing will keep them healthy and blooming. It's best to fertilize on a regular basis. A store-bought fertilizer specific for roses is great. But numerous homemade methods can also be used. For example, banana peels supply potassium, the nutrient that promotes blooming. Just bury some banana peels at the base of the plant. Epsom salt, vinegar, kelp, molasses, and powdered fish meal are also good fertilizers.

A good rose fertilizer recipe is to combine 3 cups water, 2 tablespoons of molasses, 1 tablespoon of Epsom salt, 2 tablespoons of apple cider vinegar, 1 tablespoon of kelp extract, and 2 tablespoons of powdered fish meal. Eight cups of the resulting fertilizer should be applied in summer during the evening after the roses have been watered. The process can be repeated at the end of summer to encourage blooming till fall or winter.

The health and vigor of your roses depend on two things: the weather and the gardening practices you follow. You can't control the first, but you can the second. Roses prefer a planting site with good drainage and ventilation. Avoid shady spots and dense plantings. Good air circulation helps the leaf surfaces dry faster, which helps prevent disease. Good luck getting started.

MICHAEL FELDMANN is a journalist and garden writer with a serious enthusiasm for growing roses.


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NATIVE AMERICAN BEANS VARIETIES

ARTICLE AND PHOTOS BY JENNY UNDERWOOD

BEANS HAVE BEEN A STAPLE CROP THROUGHOUT THE ages. Many cultures have depended on them. Not only are they relatively easy to grow, but they're also simple to store. Native American tribes were no different in that many had their own special beans. These varieties were adapted to the specific areas and growing conditions of the tribes. I personally found this interesting, so I decided I'd like to start growing some varieties of beans that had been passed down through history.

The ones I ended up trying seemed like they'd grow well in my area (research your climate and the preferred growing conditions for each bean you try). These were Jacob's Cattle, Jacob's Cattle Gold shelling bean, Succotash, Hidatsa Red shelling, Cherokee Trail of Tears, and Yellow Indian Woman. Some of these are specifically listed as shelling beans and one is listed as both a snap and shelling. "Shelling" means you allow the beans to dry on the vine and harvest as dry beans. "Snap" means you can harvest when the whole pod is young and tender and eat as a "green bean."

To begin, I planted raised beds with different varieties. Some grew exceptionally well (Yellow Indian Woman and Hidatsa) while the Jacob's Cattle struggled. Though several of these are considered a bush bean, I noticed that they all had vining to some extent, but none developed long vines like the other pole beans I'd grown. I was able to let them support each other, though a short support might have made them easier to harvest.

Pests didn't seem to bother them (with the exception of voles, which chomped some off at the base) and they took drought and

heat remarkably well. If you have problems with animals (voles, rabbits, mice, and deer) you'll need to fence in your garden. Rabbits didn't bother our raised beds, but they do huge amounts of damage to our in-ground garden if it's not surrounded with an electric fence. Animals that burrow underground will require you to line the bottom of your beds with small wire.

With other beans, don't fertilize with a high-nitrogen fertilizer, as this will cause them to produce copious amounts of leaves at the expense of putting on fruit. Instead, give them one with the "N" number lower than the P and K. You can also apply well-rotted manure or compost. Since beans fix the nitrogen, I like to plant them after heavy nitrogen feeders such as garlic. If possible, water your beans regularly, as this will increase your yields. Plant them right after the first frost or in later summer. Check your first and last frost dates to make sure you have enough time to grow the varieties you want. Beans won't pollinate well in excessive heat. Ours thrived where there was full sun for a good portion of the day but shade in the evenings. In my experience, they can do well in a variety of soils, however, they do best when the ground isn't compacted (like most plants). To help prevent diseases and mold, give them plenty of room for good airflow.

The History Behind the Beans

Please note, almost all heirloom seeds have multiple stories of their origins and travels, and it can be difficult to tell exactly what the true history is. This is a combination of seed catalog descriptions and historical accounts.

JACOB'S CATTLE: These are a lovely white and dark-reddish-colored-mottled bean. Supposedly, they get their name because

they look like spotted cattle. The variety is said to have originated on Prince Edward Island, and it's told through myths and legends that the Passamaquoddy tribe grew it in the 1600s. It's a good bean that holds up well to cooking and is very flavorful. These are considered a bush bean.

JACOB'S CATTLE GOLD: This is a cross between the Jacob's Cattle and Paint beans and are gold speckled. I couldn't find the exact origin of this one. The neat part is its coloration is based on environmental conditions.

YELLOW INDIAN WOMAN: According to historical accounts, this bean came from central Mexico, traveled to Sweden, then was brought back to the Americas, where it was traded into Native villages in Montana, and spread to other Native cultures. It's a yellow bean, creamy and mild. It's also known as Buckskin bean or Buckskin Girl. These are a very productive bush bean.

SUCCOTASH BEAN: This is reported to have come from the Narragansett tribe in Rhode Island. It's supposed to be the original bean used to make Succotash and eaten at the first Thanksgiving. This bean is large and purple, and shaped somewhat like a corn kernel. It's a pole bean and yields well.

HIDASTA RED SHELLING: These beans are supposed to have come from the Hidatsa tribes who lived on the upper Missouri River Valley. They're a bush bean but do have runners, so they may benefit from some support. They're a red bean that has characteristics like a Great Northern.

THE CHEROKEE TRAIL OF TEARS BEAN: This bean holds a special place in my heart. Not only was my great-great-grandmother Cherokee, but the Trail of Tears passed through where we live. These were brought from Tennessee by the Cherokee people as they were forced to march away from their homes to the reservations in Oklahoma. I grow this bean not only as a way to honor my Native ancestors, but also as a way to remember the atrocities that were committed against so many. It's a very fruitful, vining bean that's shiny and black (and delicious). You can eat it as a snap or dry bean.

There are many other beans you can grow that can bring some of the past to your pantry and table. This year, my plans are to grow enough to preserve. Perhaps one day, I'll be passing these special seeds down to my children along with their story. Remember, you're not just growing beans, you're growing history!

JENNY UNDERWOOD is a homeschooling mama to four lively blessings. She makes her home in the rural foothills of the Ozark Mountains with her husband of 20 years. You can find her reading a good book, drinking coffee, and gardening on their little fifth-generation homestead.

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Advantages of a Micro Farm

BY MICHAEL BROWN

I GREW UP WITH a conventional concept of a farm — acres of land, remote location, perhaps a few chickens scurrying around, and, of course, a silo.

As I became more interested in food production later in life, I began to understand that the reality of farms is very flexible. They can range in size from small to large, they may or may not have greenhouses or other outbuildings, and, most importantly, they can be anywhere.

In fact, the USDA defines a farm simply as any establishment from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, in a given year. For the purpose of this article, I'm considering a micro farm as encompassing an area of up to about ¼ acre.

Easy Entry

For much of my adult life, I've grown food for my family, so the leap to a micro farm wasn't difficult. I didn't need to purchase "a farm" in order to be a farmer. I already had a backyard of about one quarter of an acre. All I had to do was slowly transform my suburban grass lawn into a vibrant, productive (and income producing) wonderland. In my case, I did this transformation over a period of about three years. I started with a small portion of the yard to test the waters and, as I became more experienced and learned my markets and crops, I expanded the area under cultivation. Because I already lived there, the risk was low.

By starting slow and learning the best mix of crops, you can also fine-tune the work, so you don't need outside help.

Proximity

Because the land under cultivation is small, a micro farm can be located close to major urban centers and their affluent outlying suburbs. These areas are where your high-end restaurants and food businesses are located.

Proximity also offers you the ability to easily stay in touch with these restaurant and food business customers because you don't need to travel long distances to see them. Focus on crops with a short shelf life that command a

high price. Your ability to deliver such produce quickly and on short notice will be a real advantage. Locally sourced is very popular now and should be emphasized in all your encounters.

Flexibility

With a small growing area, it's relatively easy to change course if something isn't working. As you learn the growing requirements of your crops, your customers preferences, and the amount of time you need to devote to your farm, you'll find the crops that work best for you.

Intensive cultivation

A micro farm allows you to focus on intensive cultivation on a small area. Using row covers, with or without raised beds, allows

you to maximize and extend your growing season.

Grow crops that don't all ripen at the same time to create a rolling harvest, to minimize the need for outside labor. When I grew berries for many years, I was able to stagger the harvest by planting different types of berries that ripened at different times in the season.

Customers

A micro farm allows you to stand out from among other suppliers by your ability to supply super-fresh, high-quality produce. Search out customers who'll appreciate and pay for this. Pique their interest by showing samples of your produce. For restaurants, approach only chef-run restaurants where the head chef is responsible for all decisions regarding food purchases.

Another option is to search out upscale produce stores that tend to stock specialty items.

Talk to produce managers to see what they can't source from their regular suppliers, and offer them a quality product that's also locally sourced.

Suggestions for Crops

Pea shoots — Microgreens can include a number of herbs and vegetables. I've found that pea shoots are a good entry into this group of crops. They require limited space and your ability to deliver soon after harvest should help guarantee a quality product.

Edible flowers — Remember the pea shoots you were growing. If left to mature, you'll get lovely and tasty pea blossoms. Add additional flowers as you explore the market preferences and gain expertise in growing.

Elderflowers (*Sambucus nigra* only) command a high price and are very hard to find, primarily

because of their short shelf life. Customers can include high-end bars and restaurants and even bakeries.

Berries — Strawberries, raspberries, and blueberries can be profitable crops, but your competition is large farms with well-established distribution. Why not consider some of the less common berries? If you have access to high-end restaurants, consider Alpine strawberries. The berries are very small and have an incredible flavor and texture. However, they're quite delicate and won't last long in storage. They're hard to find fresh, so you can pretty much count on no competition. Because of their small size, they need to command a high price and may be best as a loss leader to encourage relationships and the ability to add other, more profitable crops.

A somewhat more conventional, less-berry is red currant. These bushes, up to about 5 feet, are easy to grow, and the long strigs of berries are easy to pick. They can be used as a beautiful garnish, in various food and sauce preparations, and eaten fresh (for retail sale).

Contributing to the food supply (and making a modest side income) can be a rewarding experience for you and your family, and of course comes with a whole set of added benefits such as healthy physical activity, eating healthy, and a sense of accomplishment from creating something from scratch.

MICHAEL BROWN is a retired school librarian and enjoys hanging out with his five grandchildren. He enjoys growing and learning about native species and teaching his next generation about the joys of growing food.

The Crisis of FAKE HONEY

BY PATRICE LEWIS

I REMEMBER THE FIRST TIME I became aware of fake honey. The year was about 2002, and I needed a small jar of honey for a recipe. Being on a perpetual budget, I selected the most inexpensive product at the grocery store and put it in my cart.

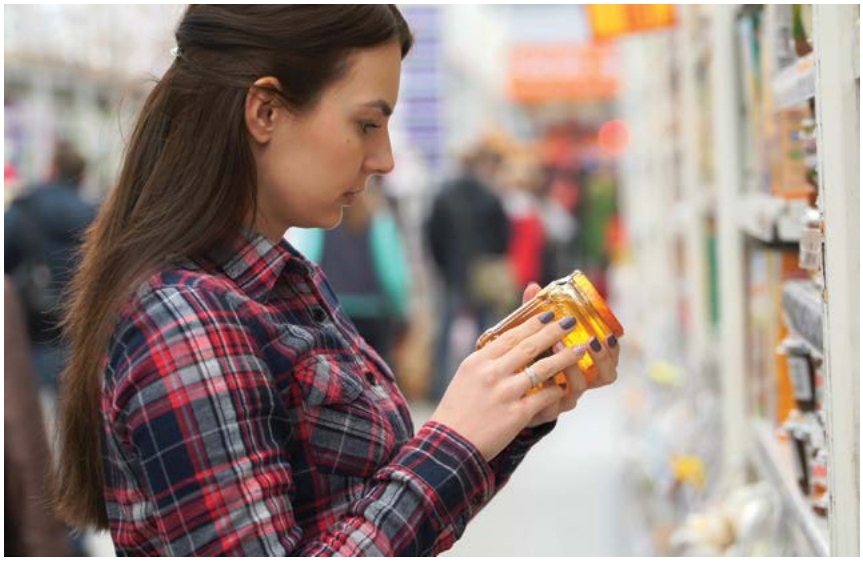
However, for whatever reason — maybe because it was so much less expensive than the other options — I paused and checked the ingredients: Corn syrup. Not only that, but the "honey" originated overseas. Appalled, I put the container back on the shelf and chose real honey. It was more expensive, but at least it was authentic … I think.

I'm not alone when it comes to being fooled by fake honey. In fact, the amount of fake honey on the market is approaching crisis proportions. By some estimates, anywhere from 50% to 70% of honey sold in U.S. grocery stores is adulterated or fake. Honey is considered the third most-faked food in the world. As consumers catch on to this issue, counterfeit honey suppliers are adopting more sophisticated techniques to forge their product and evade detection.

The most common technique is adulteration, which is diluting honey with cheap sweeteners such as rice syrup, molasses, high-fructose corn syrup, or inverted sugar (a liquid sweetener, sweeter than regular sugar, made by breaking down sucrose into glucose and fructose through hydrolysis).

Other falsifying techniques include harvesting immature honey (before the bees have properly reduced its moisture content), excessive filtering (which removes pollen and other components that identify the honey's origin), adding artificial colors or flavors to create a "premium" appearance, and masking low-quality honey by blending in small amounts of premium honey. Additional problems include deceptive labeling and origin obfuscation.

There are some popular home tests that supposedly distinguish real from fake honey (the water dissolution test; the crystallization test; the thumb test; the ant test; the heat test; the flame test, the paper test; the bread test), but these are considered scientifically undependable. Additionally, unethical manufacturers use methods or add adulterants specifically designed to pass these tests. (As one skeptic put it, "Think of it this way: If there were an easy and effective way to test if honey were pure, the importation and sales of counterfeit or adulterated honeys wouldn't be a problem that costs producers billions a year.")



While not foolproof, the "vinegar test" has some scientific merit. To conduct this test, mix a small amount of honey with vinegar and water. If the mixture bubbles or foams, this may indicate added sugars that are reacting with the vinegar's acid. Pure honey doesn't significantly foam.

Unfortunately, even state-of-the-art laboratory tests are not always reliable indicators of a honey's purity. Certainly, these tests are beyond the capabilities of the average consumer (such as nuclear magnetic resonance spectroscopy), and counterfeiters have become clever at implementing such techniques as filtering out the pollen from the country of origin and adding the pollen profile from the country they claim the honey originated from. These underhanded tactics make it difficult for even the most sophisticated labs to distinguish fake from real honey.

According to *mercola.com*, "Honey can be filtered through aliphatic resin, a rinsing technology that removes contaminants. This method obscures the origin of the honey and removes antibiotics, pesticides, and undesirable flavors present in the raw product. This method is typically used on low-grade unpalatable honey like Indian Gum honey, which can't be sold due to its disgusting taste and smell. Once dissolved in water and run through this process, you end up with an unscented light-colored amber honey that can be sold. However, the technology also eliminates the enzymes and chemicals responsible for honey's health benefits."

In short, scientific testers and counterfeit producers are in a constant "one step ahead" competition with each other.

Part of the problem with discerning real from fake is that there are exceptions to every rule. For example, real honey generally has a thick, smooth consistency that flows slowly — but this can vary by variety. Pure honey is rarely perfectly clear — again, except for certain varieties.

Nor can labels always be trusted to tell the truth. The label of pure honey should state just that: pure honey, with no other ingredients. Anything

that says "honey blend" or "honey flavoring" is a red flag. Additionally, check the label for the country of origin (if the label is truthful), since some places are more notorious for adulterated honey than others. "Local" honey may, in fact, originate from overseas.

Certification from a trusted honey organization is helpful (unless unethical counterfeiters duplicate the badge). In the case of New Zealand's exceptional Mānuka honey, for example, the product undergoes complex third-party testing, and the product labels are uniquely coded and scannable (via smartphones) so consumers can verify the authenticity. Label-wise, so far this has (mostly) deterred all but the most sophisticated counterfeiters. Domestically, there are some independent International Organization for Standardization (ISO)-accredited labs that can run tests to verify the purity of a honey product. To complicate matters, however, some honey certification groups are "fronts" for their members' shady practices — essentially engaging in "honey laundering."

With all this sophisticated fakery, is it possible to distinguish the real, genuine article? The answer is a cautious "yes." No single, simple home test will determine real from fake, but a combination of sensory evaluation, visual inspection, and careful sourcing increases the chances you've got the real deal. Here are a few things to look for to distinguish genuine honey:

- Raw honey can crystallize over time (though filtered honey is less likely to do this).
- Real honey will sink in water, rather than dissolving quickly. Additionally, honey forms a continuous string when drizzled rather than breaking into droplets.
- The taste of real honey doesn't linger for long periods, nor does it have an artificial or overly sweet aftertaste.
- Raw, unfiltered honey is less likely to be adulterated.
- Real honey should have natural scent reflecting its floral origins.
- Buy honey still on the comb. Honeycomb is hard to fake.
- Research the brand. Some companies will go out of their way to verify the legitimacy of their product through testing (such as with genuine Mānuka honey).
- Watch the price. Cheap honey is usually fake.

Perhaps the easiest and most obvious method to make sure you're purchasing real, genuine honey can be summed up in four words: Support Your Local Beekeeper. These are the people passionate about their product who'll be happy to tell you in great detail about their methods and techniques … none of which involve adding corn syrup to the final result.

PATRICE LEWIS is a wife, mother, homesteader, homeschooler, author, blogger, columnist, and speaker. An advocate of simple living and self-sufficiency, she's practiced and written about self-reliance and preparedness for almost 30 years. She's experienced in homestead animal husbandry and small-scale dairy production, food preservation and canning, country relocation, home-based businesses, homeschooling, personal money management, and food self-sufficiency. Follow her website *www.patricelewis.com* or blog *www.rural-revolution.com*.

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Raising American Bison 101

ARTICLE AND PHOTOS BY JODI CRONAUER

THE BISON INDUSTRY IS one of the fastest growing industries for several reasons:

1. Bison are hardy animals and can thrive in many climates on a variety of terrains.
2. Bison rarely get sick or hurt.
3. Bison haven't been "changed," like cattle have been, so bison calves aren't too large at birth, and rarely are there birthing complications.
4. Bison are extremely efficient grazers.
5. The meat produced is healthy, nutrient-dense, and recommended by many family doctors, cardiologists, and heart specialists.

That doesn't mean a new farmer should jump on the bison trend without doing some research and preparation first.

Bison: What They Are and Aren't

American bison are *not* cattle! Let me repeat this: Bison are not cattle! Before you invest in bison, it's essential you understand *exactly* what that means. Let's look at some of the important aspects that make bison so different from cattle and why they're so desired by many.

While it's true that bison don't often need assistance, that's a good thing. Unlike cattle, bison aren't domesticated and aren't easy to work with. Bison are extremely herd-oriented and protect not only their young, but the young of other bison as well as mature herdmates! This is truly a "one for all and all for one mentality."

Besides being protective, they're also unpredictable. Because they aren't domesticated, extreme care should be taken at all times around bison, especially when working, moving, or in the pasture with them. *Never* walk through a herd or near a bison. Always use a handling facility when working directly with them.

Bison-handling facilities are built to be much more structurally sound and stronger than those for cattle because of the strength, agility, and overall nature of a bison. The natural instinct for a bison is the exact opposite of most animals: When threatened, bison will go directly to the danger instead of away from it.

Some claim that bison are 10 times as strong as a cow, so a bison charging directly at you is a legitimate danger to your safety. A quality handling facility will ensure your safety as well as that of the bison.

Strength

Bison aren't just strong; they're also agile and fast. They can turn on a dime, jump about 6 feet vertically from a standing position, and can run at speeds of up to 35 to 40 mph. They also have some of the best endurance of any animal, capable of running (though not at full speed) for hours at a time. For all these reasons, having good fencing is an important part of successfully pasturing bison. A six-foot-high fence, made with sturdy material, is recommended.

Diet

Bison thrive on grass and require additional minerals in their diet only to supplement any deficiencies in the soil and grass. They typically graze for about 10 hours a day and move constantly as they graze, which means that they're beneficial to the pastures and ground they're grazing, compared to cattle, which tend to overgraze certain areas.

A surprising fact about bison is that their metabolism slows down in the cold temperatures of winter. This means that they don't eat as much hay throughout winter as cattle do. Bison do drink as much as a dairy cow though, so it's essential to have ample water for them.

Soil and the grasses grown in that soil vary in the nutrient level across the United States. Providing free-choice minerals is the best way to ensure the continued health of your herd.

Room to Roam

We've raised our bison for the past 20 years in high-tensile electric fence, and they've never gotten out or even tested the fences. They're extremely respectful of electricity, and we've never set them up to fail! What does that mean? We always have ample water, food, room to

graze, and a herd to keep them calm and relaxed.

Bison are essentially wild animals that are most content when they have plenty of room to move and graze throughout the day. We set up our rotational grazing system specifically for our bison with this in mind.

We have a permanent pasture in front that has water and minerals for them. All the rotational grazing pastures open from an alleyway. This keeps the whole herd happy, as they spend all day walking back and forth from the pasture area to graze and the front area to get a drink.

They're more efficient grazers than cows, which means that it's possible to have a slightly higher stocking rate than is possible for cattle. The exact carrying capacity can be determined by checking with your local conservation office.

Herdmates for Life

Two distinct subspecies of bison exist in North America today. The most common is the plains bison, and although they're found across the U.S., they're most prevalent in the West. The other is wood bison, and they're primarily located in Canada and Alaska, with only a couple herds found in the lower 48 states of the U.S.

Bison are extremely herd-oriented, which means they do better if they're in a herd rather than being by themselves. Bison without a herd have been known to:

1. Pace the fenceline looking for a herd and possibly stress themselves to death.
2. Get out of the fence to find a herd.

We've found that the smallest number of bison that you can have by themselves is three, but they'll still be stressed and not as content as they'd be if there were five or more together. Content bison are unlikely to challenge your fences.

Bison have a longer lifespan than cattle and they typically reach 20 years old before they stop reproducing. They can live up to nearly 28 years. Being hardy and able to thrive in different climates means they can survive the deep cold of winter and the severe heat of summer.

In spring, their winter coat is shed, and they have a very thin coat of hair that grows in across their entire body for summer. In fall, bison shed this thin coat and grow a thicker and denser coat to keep warm in the cold temperatures. They have 17,000 to 20,000 hairs per square inch, and have the second warmest natural fiber following the musk ox. Bison are built for cold temperatures!

Quality and Quantity

Bison can range in price from $2,000 to $15,000 each, depending on age, sex, and species being purchased. These prices are considerably more than those for cattle, so it's important to figure out financing prior to making the decision to purchase them.

We've talked quite a bit about raising the bison, but now it's time to talk about the meat itself. Quantity and quality are terms to understand and know. A cow will have an approximate hanging weight of 600 to 800 pounds at about 2 years old, whereas a bison will have a hanging weight of about 400 to 600 pounds at 2 years old. You'll get more meat from cattle at butcher time, but the quality of bison meat is beyond measure. Being raised primarily on grasses and legumes, they have meat that's both leaner and more nutrient-dense than beef.

The grasses give the meat a sweeter and richer flavor. Bison meat is a great source of protein, zinc, selenium, iron, and B vitamins, while also having fewer calories and a lower fat content than beef. Because it has a higher ratio of Omega-3 fatty acids to Omega-6 fatty acids, the meat is beneficial to heart health and, for this reason, many cardiologists recommend it to their patients.

Raising bison can be both rewarding and profitable if done correctly. It doesn't have to be difficult; in fact, the easiest animals we raise on our farm are our American bison. They're resilient animals, exhibiting low incidences of illness or injury, and typically requiring no assistance during calving. The infrastructure is more challenging to set up correctly, but in the end, you'll have a hardy animal that requires almost no maintenance and produces heart-healthy meat loaded with protein and nutrients!

JODI CRONAUER lives in Wisconsin with her husband and her three sons. They raise Idaho Pasture pigs, Kunekune pigs, and American bison, as well as Gypsy Vanner horses. The meat from their pigs and bison is rich in essential nutrients because they eat grass as their primary diet. Jodi is the author of *Raising Pigs on Green Pastures* (Dorrance Publishing, 2021). *https://shop.iamcountryside.com/products/raising-pigs-on-green-pastures.*

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BIRD BRAINS

How Smart is Your Chicken?

BY SUE NORRIS

WHEN WE THINK someone isn't very smart, we often call them bird-brained as an insult — but is it?

Humans have a tendency to judge other species by their own intelligence levels, but this is unfair and unrealistic in so many ways. As prey creatures, chickens have adaptive behaviors to help them survive — they were built to survive in the wild, finding food, raising young, and surviving predation; they're as smart as they need to be.

Professor Emeritus Lesley Joy Rogers states in her book that to "accurately assess intelligence in creatures, we must recognize there are many different measures we can use."

Research done in the last few decades has revealed that chickens are extremely smart, so, pull up a chair and prepare to be fascinated and impressed by the cerebral acumen of your chickens.

Cognition

Cognition is defined as the perception, processing, and storing of information. Language, learning ability, and flexibility are considered to be cognitive skills.

Fowl Language

The language of chickens was first noticed and written about back in the 1920s by researcher Thorleif Schjeldrup-Ebbe. He noticed how the flock managed to impose order and discipline

by pecking each other if one overstepped the mark. This came to be known as the "pecking order," a social stratification that defined a place in the flock for each bird, from the highest to the lowest. This implied non-verbal communication and understanding between the birds.

The next breakthrough came with the work of Nicholas and Elsie Collias, who recorded a total of 24 separate vocalizations, all of which had a specific meaning.

The meshing of vocal and non-vocal communication didn't come about until the technology explosion of the 1990s. Finally, researchers were able to explore both aspects of communication in real time and in real situations. MacQuarie University in Sydney, Australia, was at the forefront of this research.

Dr. Chris Evans and her team used audiovisual technology to observe, monitor, and test the hens under different sets of circumstances. The results were surprising, even for the researchers. They were able to show that the chickens used verbal and non-verbal communications to form a complex language.

Using this unique language, mother hens teach their offspring all they need to know to survive, and they can modify the learning plan to an individual chick's ability.

E=mc2

Perhaps you may not think of chickens as feathered Einsteins — but they can understand and use the concept of simple geometry. Numerically, they can count from left to right, add, and subtract. They can also multitask!

They understand the idea of object permanence — the ability to know something exists even when it has been removed from sight. Perhaps the most startling thing is that chicks can understand object permanence after five days post-hatch.

Regarding logical thinking, newborn chicks can follow (and win) simple shell games, and they can compare differing data sets and use the information patterns to guide future decisions based on previous experience — this is also known as risk/reward assessment.

Chickens can even understand basic structural engineering. One hen named .007 was a subject in an experiment in which she had to wait for a gate to open for her. She got tired of waiting, checked out the gate mechanism, and opened it herself, successfully getting her reward and outsmarting the researchers!

This ability to be flexible in a situation clearly shows the ability to assess risk/reward of any given situation.

Move over Machiavelli

Chickens can be just as deceptive and devious as their

human counterparts under certain circumstances.

As an example, in a mating display, a subordinate rooster that calls and displays for the hens will be chased, pecked, and generally harassed by the head rooster. Such roosters still risk the displeasure of the alpha rooster, but they'll do it quietly. They don't vocalize but will display for the ladies when the alpha is otherwise engaged.

Another way in which they can be devious is when danger appears. If the head rooster and his ladies are safely hidden away, but another rooster is out in the open, the alpha will continue to sound the alarm, perhaps attracting the predator to his opponent.

Roosters that were deceptive in tidbitting (promising food but not delivering) and other behaviors were avoided by the hens — obviously, they didn't trust them!

The Mating Games

There's a lot of effort and thought that goes into chicken mating — selection of the right mate to ensure the breed survival isn't quite as haphazard as it may appear.

From the hen's perspective, she's looking for a healthy rooster that can supply food and protection, and will contribute toward healthy offspring.

She'll watch and assess a rooster for these attributes. The rooster that can supply these will be the clear favorite for mating. His health is indicated by the size and redness of his wattles. When he displays tidbitting for the hens, he'll repeatedly call "tuk tuk," and pick up and drop the morsel he's offering. At the same time, he'll bob his head, vigorously flapping those wattles from side to side in the visual part of the display, a "come hither," if you will.

He must be attentive to her needs and safety: If he tidbits but supplies no food, she'll remember this, and he'll be bumped down (or off) the list of potential suitors. While the hen may be forced to mate with him, she does have the last word. She can reject his sperm if she so desires, and keep sperm from a better suitor to fertilize her eggs!

Sentience

The question isn't, "can they reason?" nor "can they talk?" but "can they suffer?" — Jeremy Bentham 1789.

Sentience is best described as having awareness of sensations such as pleasure and pain. Chickens are very aware of their social standing within the flock. They not only know their place, but the place of every flock member. They also compare themselves to other flock members and can recognize up to about 100 individual faces.

We know from the empirical evidence of our own eyes that they seek out pleasurable activities, such as dustbathing or sunbathing with companions, and can (and do) form strong bonds with other species.

This area of research has been fruitful, but it's also quite disturbing.

Pain

Until recently, many hens had their beak tip cut off in commercial farms around the world. Many European and Scandinavian countries have banned the practice, but it's still legal in the U.S. This was done to prevent hens from pecking each other in confined, stressful quarters.

The tip of the beak is an extremely sensitive area. Researchers have discovered several different receptors in the beak that measure vibration, temperature, and texture. Therefore, it seems certain that the chicken will experience severe pain from the procedure.

Chickens kept in confined cages can experience broken bones and leg problems (known as cage fatigue), that can cause them continuous pain for their lifetime,

and yet pain is rarely, if ever, considered to be a feeling that the bird experiences.

Empathy

Research done by Joanne Edgar of Bristol University, in Bristol, England, demonstrated quite clearly that chickens have at least one trait that's required for empathy. The definition of empathy is "the ability to understand and share the feelings of another person or animal." Empathy can be measured by vocalization, touching, grooming, delivery of food and water, and a calming presence.

Using a non-harmful stimulus on chicks while their mothers looked on produced a stress reaction in the mother hen. The results showed a clear physiological and behavioral response in the mother hen when her chicks were distressed. Interestingly, the response wasn't as strong when the experiment was repeated using other related or unrelated hens.

The Biotechnology and Biological Sciences Research Council's animal welfare initiative (U.K.) recognizes that a hen has the fundamental capacity to empathize.

A Compre-hen-sive Closing

Chickens are looked upon as dumb birds. This suits many in the poultry industry nicely, as they can get away with treating them less than kindly while the creature is still living.

The industry has been forced to change some of its inhumane practices toward these birds by consumer pressure. Most major companies have or are phasing out cages and substituting large warehouses instead. They're also providing some enrichment for these hens, but more can be done.

Many who keep chickens already know how smart some of their birds are, but the latest research is an important milestone in our understanding of the species. Perhaps we'll learn to treat them as living creatures rather than objects with no feelings or intelligence.

With the development of "in ovo"sexing, the mass culling of day-old male chicks should no longer be necessary within a few years.

So, the next time you look your chicken in the eye, remember that she may be assessing your motives — or doing calculus!

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SUE NORRIS was born and raised in the U.K. She traveled around the world as a registered nurse and settled in New York state with her partner about 25 years ago. She currently lives on 15 rural acres with 40-ish chickens, four rabbits, two dogs, three cats, and assorted wildlife. Sue is happily retired and enjoying the serenity.


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How Can I Maximize Milk Production?

BY JACLYN DE CANDIO

WHETHER WORKING for the home dairy or raising a couple of kids, milking ability is no small part of a doe's value. While genetics is the crux of how well she can convert energy into nutrient-dense milk, there are quite a few factors that can be controlled to boost yield and even quality.

No matter what purpose you raise goats for, if you have does that will come into milk at any point in their lives, it's helpful to understand the nuts and bolts of what helps support production and how you can positively influence it.

A Bit About Breeds and Genes

Beyond the obvious purposes of dairy-type breeds and meat-type breeds, the genetic makeup of the individual animal has a direct impact on milk components and volume. Think of this as the full potential that can be met with optimal diet, health, and environment. (These traits can also be inherited and passed down within your herd as you make strategic decisions about sires and retaining females.)

Milk production is a complex, polygenic trait, which means several genes contribute to what makes up the milk and how much the doe produces. Genomic studies in dairy goats have identified specific genetic markers and loci linked with milk production traits, and these are actively used in breeding programs to improve yield and mammary function over generations.

For example, 2025 research on Saanen goats in China identified hundreds of single nucleotide polymorphisms (SNPs) and candidate genes that correlate with milk production potential by influencing mammary epithelial cell growth and secretion pathways.

It should be noted that different breeds are generally known for certain components. For example, Nubians and LaManchas are known for having higher butterfat percentages and Swiss breeds are known for having more volume. But there are extreme variances within family lines of each breed, so this shouldn't be taken for granted without doing milk tests.

If milk production or components are important to you, the American Dairy Goat Association has a wealth of information on milk testing, achievement awards, and more related to records and proven does.

All of this is noteworthy even with meat-type breeds — does

with heavier production can wean heavier kids. Paying attention to which goat is excelling as a mom and how heavy her kids are at weaning can be crucial factors in deciding which doelings you keep or sell.

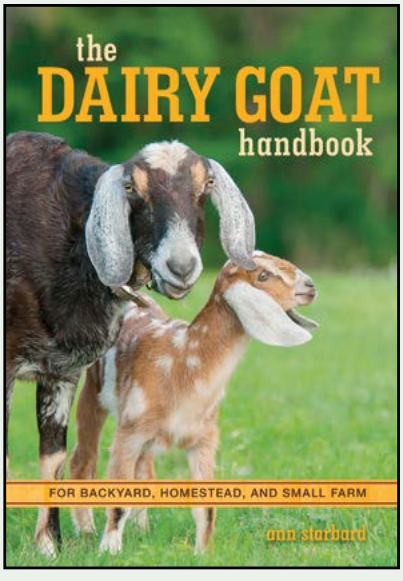
Nutrition and Feeding

Nutrition is one of the strongest levers you have to support a doe through lactation. The nutrients she gets before kidding, at kidding, and during peak milk production affect not only how much milk she can make, but also her body condition, health, and how well her kids grow until weaning.

Lactating does have much higher nutritional needs than dry does or other goats. Inadequate nutrition can lead to poor milk

MUST READ!

The Dairy Goat Handbook



There are other books on keeping dairy goats, but none are quite like this. Written by a dairy goat farmer, this guide combines a deep knowledge of the animals and 15 years of experience running a successful business. Fully illustrated with photographs of life on a working dairy farm, the goats, the farm, the dairy equipment, and the cheese and milk, this book explains and celebrates the life of a dairy goat farmer. The author, Ann Starbard, owns Crystal Brook Farm in Sterling, Massachusetts, where she and her husband raise dairy goats and make fresh goat cheese that they sell onsite, at farmers' markets, and restaurants. Ann explains the details of raising goats and running a dairy in simple, clear, easy-to-understand language; this is a book for everyone interested in the business of raising dairy goats. **Item #11937, $24.99**

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yield, weight loss, and health issues that carry into the next breeding cycle.

Forage, good quality hay, and pasture should be the foundation of the diet. Good forage ought to have sufficient digestible fiber for healthy rumen function, which supports milk fat production and overall gut health. Generally, alfalfa and mixed-grass legume hays are great to have when balanced with the rest of the diet. But if your pasture is great, you may not even need this most of the year.

If you're optimizing milk, forages alone often aren't enough to support high milk production, so grains, as part of a comprehensive nutritional ration, can be added during late gestation and through lactation.

Protein is critical for milk synthesis. Many dairy rations are formulated in the 14 to 18% crude protein range, but high-producing does may need even more.

Energy from grains and forages helps support daily milk output, especially in early lactation when energy demands peak. Fiber should make up at least 40 to 60% of the diet to keep the rumen functioning. Too much grain, without adequate forage, can upset rumen pH, leading to acidosis, decreased milk fat, and lower feed intake.

While working with a ruminant nutritionist to most ideally balance the total diet is optimal, you can also use a rule of thumb when feeding lactating does.

Most producers offer about a pound of dairy grain for every 3 to 5 pounds of milk produced, adjusting based on body condition and forage quality.

While most mixed feeds and custom mixes include vitamins and trace minerals, free choice loose mineral mixes help self-regulate intake, which is better than hard blocks that goats can't consume effectively.

Water is the single most important nutrient. A lactating doe can drink much more water than a dry doe, and milk volume drops quickly if water isn't plentiful and fresh.

Management Practices

Daily management plays a direct role in milk output. Creatures of habit, as most domestic ruminants are, goats respond best to predictable routines. For dairy goats, milking at the same times each day helps maintain steady production by supporting normal hormonal release. Irregular schedules can reduce yield and increase stress.

Sanitation is equally important. Clean hands, clean equipment, and proper udder prep reduce the risk of mastitis and other infections that can permanently damage productive and secretional tissue. Even in small herds, simple practices such as washing teats before milking and post-milking teat dips can significantly reduce disease spread.

For any type of doe nursing kids, management still matters. Adequate nutrition, low stress, and appropriate, clean shelter can all promote production. Milk production doesn't hinge on one factor alone. It's a dance of several details that can improve or stifle a doe's full potential and help her raise healthy kids for production, profit, or pleasure.

JACLYN DE CANDIO is a professional agriculture writer, communications specialist, and farmer. A member of the Ohio Farm Bureau and the Agriculture Communicators Network, she lives in southwest Ohio with her husband and children, where they operate Latria Livestock Co., feeding out market kids and lambs.

TIPS FOR A SUCCESSFUL FARROWING ON PASTURE

BY JODI CRONAUER

ALL OF US WANT TO SEE a beautiful litter of piglets running in the pasture, and there are some things you can do to help make sure that farrowing is successful. Some of these things are done in the months leading up to farrowing and some are done on the day of farrowing. Let's look at the most important aspects to prepare you and your pigs.

Weight

One of the most important things to consider is a healthy weight. An overweight gilt or sow will have problems not only in breeding but also farrowing. If she's overwight, during the farrowing, there'll be more fat deposits in her birth canal. This causes too small of an area for piglets to pass through.This could lead to complications during the delivery process.

Farrowing Time

About a week out from farrowing there are a few things you should do to get ready for the big day. One of these things is to move the gilt or sow to her own pasture area.

Having her in a place that's her own will allow her the freedom to farrow at her will without having a dominant pig try to move her as she's farrowing. This also helps prevent other pigs from lying on or stepping on the piglets during or right after farrowing. If you want to put the sow and piglets back into a community pasture a

few days after they're born, that's definitely an option and works well for many people, but I still recommend having a separate pasture or paddock to farrow in.

#1 Tip

Leading up to the farrowing date, it's a great idea to put some straw or bedding into the A-frame or shelter you have for her. Putting the straw in at least 3 to 4 days ahead of farrowing will allow the mom time to re-arrange and pack down the bedding some. Having too much bedding that's too fluffy allows the piglets an area to crawl under and disappear from sight. While you may think this will keep them warm, it'll also hinder the sow when she comes into the shelter. If she doesn't see them because they're hidden from sight, the chances of her lying on or stepping on them increases.

Is it necessary to have shelter for the sow to farrow in? In my opinion, yes. Having a shelter with an area where the sow can lie down and farrow, protected from both the weather and predators, will increase the success rate. Setting your sows up to succeed is extremely important. There are some pigs that'll choose not to use the shelter, but having it available and separate from the other pigs should be a must.

Stay Calm

This is an exciting time for both you and the mom, so what are some things you can do to aid in a successful farrowing on the big day?

When you get nervous or excited, when you hover over the new mom, when you change your pattern to sit with her for prolonged periods of time, when you do things that go against your normal routine, you make the pig nervous! A nervous or stressed pig will have a more difficult time farrowing simply because she can't settle down, relax, and let nature take its course.

I'm not saying that you can't walk by the pasture and peek in at her as you walk by, and I'm not saying you have to completely ignore her, I'm saying don't hover, don't feel the need to intervene too soon, don't do things so out of the ordinary that you make her nervous, and don't panic and project that onto your new mom.

All of this applies to sows and gilts, but new moms (gilts) are already going to be a bit nervous — remember they haven't

done this either and no one can explain it to them. If you're making them nervous by acting abnormal, you're only going to convince them that something's wrong, when, in fact, nothing's wrong. They just need to relax and farrow.

Too many times, I've seen things go wrong in farrowing simply because people felt they had to intervene. Not every farrowing is the same. We have some pigs that farrow quickly and can have a litter of eight in a matter of 30 minutes. We have some that take their time and even get up for a drink or a snack between babies — it may take them four hours to completely farrow. This isn't a problem! What you can be sure of is that it's highly likely that each pig will follow the same pattern each time, so know your sows.

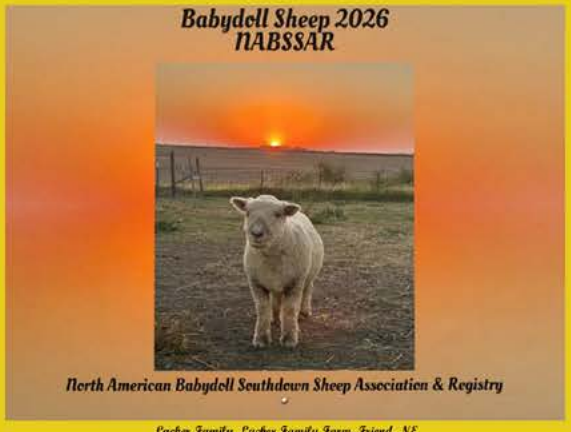
Yes, it's important to be able to help if needed, but it's my experience after farrowing thousands of litters that almost none of the sows need help if they're a good weight (not too fat), if they're healthy, and if they aren't farrowing too young (at or around a year old is a good age to farrow their first litter). Yes, sometimes issues occur, but my professional opinion is: 98% of the time, no assistance is needed, and when new owners jump in and try to assist, it only complicates things and can cause additional issues that could've been prevented.

To Recap

Make sure your sow or gilt is a good weight to successfully farrow, provide her with a space that's all her own, make sure she has proper shelter and the bedding is appropriate, and *walk away!* (Walk past and check periodically, but don't make her nervous.)

North American Babydoll Southdown Sheep Association and Registry

Ingrid Meshier, Southdown Meadows, Easterland, NY



Lacher Family, Lacher Family Farm, Friend, NE

Diane Kuczkowski, The Birds and the Bees Farm, Akron, OH

Hoving Family, Drummond Hill Farm, Bristol, ME

The NABSSAR offers a yearly calendar highlighting photos submitted for a photo contest. This is just one of the advantages of being a NABSSAR member. These photos are in our 2026 calendar available on Zazzle.

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Here's to the Irish
ST. PATRICK'S DAY CELEBRATION

BY RITA HEIKENFELD

HOW ARE YOU GOING to celebrate St. Patrick's Day? Regardless of your background, St. Patrick's Day is a day of Irish joy and camaraderie. Even I'm a bit Irish on this day!

Parades, green beer, and Irish food will certainly play a part.

As for my family, we love simple Irish comfort food, such as Dublin coddle, soda bread, and Irish oat cookies.

The Dublin coddle is a peasant stew that gets its name from the cooking process: it starts on the stovetop and then slow-cooks or "coddles" in the oven to finish.

For the soda bread, I've got two recipes for you. The first is a fruited soda bread. It contains both butter and sour cream, which gives it a moist texture not usually found in a typical soda bread.

The second recipe for soda bread is a one-bowl, lickety-split, quick recipe. Because it contains self-rising flour along with beer or buttermilk, the bread rises quickly in the oven. Golden and a bit crumbly, this bread is perfect with a thick slab of butter.

If you like oatmeal cookies "with a pedigree," these Irish oat cookies check all the boxes. I first tasted these crisp cookies at an afternoon tea. The recipe is from Pat Jarvis, a Richmond, Indiana, resident and creative cook and baker. Sprinkled with sparkling coarse sugar, Irish oat cookies are my choice, alongside a cup of Irish tea.

One more thing: My wish for you and yours is perfectly stated in this old Irish poem. It's a good philosophy all year long!

May there always be work for your hands to do.
May your purse always hold a coin or two.
May the sun always shine warm on your windowpane.
May a rainbow be certain to follow each rain.
May the hand of a friend always be near you, and may God fill your heart with gladness to cheer you.

DUBLIN CODDLE

The original recipe for this comforting stew calls for Irish back bacon and Irish fresh pork sausages.

I use thick-sliced bacon and a combination of large, fresh brats and sweet Italian sausages.

A bit more or less of any ingredient is okay.

INGREDIENTS

Olive oil or butter

2 large onions, thinly sliced (4 cups or so)

8 ounces thick or regular bacon, cut into ½-inch pieces

1 to 1½ pounds sausage, large links preferred, cut in halves

2 large carrots, peeled and sliced or equivalent small baby carrots

2 garlic cloves, minced

1 generous pound potatoes, peeled and sliced about ¼-inch thick, or small red potatoes, cut in half

Salt and pepper

Beef broth or chicken broth to cover — a good 2 cups

INSTRUCTIONS

Preheat oven to 425 degrees F.

Over medium heat, melt a few tablespoons of butter or warm some oil in a large skillet or pan.

Add onions and garlic and cook until onions start to wilt, about 5 minutes.

Add bacon and stir.

Add sausages.

Raise heat a bit and cook until sausages start to brown. Be careful not to burn onions.

ASSEMBLY

You'll make two layers in oven-proof pan. I use my Dutch oven.

Layer half the onions, bacon, and sausage in bottom.

Top with half the carrots and potatoes. Season with salt and pepper.

Repeat, then pour broth over everything.

Cover and cook 40 minutes. If it needs a bit more liquid, add a little water.

Reduce heat to 350 degrees F and cook 20 minutes or so, uncovered, until vegetables are tender and stew is bubbling.

Serves 4 to 5.

FRUITED SODA BREAD

I make mine in the food processor.

INGREDIENTS

2 cups flour

¾ teaspoon baking soda

½ teaspoon salt

3 tablespoons sugar

1 stick butter, softened and chunked up a bit

1 cup dried cherries, apricots, golden raisins, or cranberries

1 cup regular sour cream

Melted butter or milk for brushing on top

Extra sugar for sprinkling on top

INSTRUCTIONS

Preheat oven to 375 degrees F.

Mix flour, soda, salt, sugar, and butter until mixture is crumbly.

Add fruit and combine.

Stir in sour cream and mix until blended. It'll be a bit sticky.

Place a piece of parchment or foil on cookie sheet. Spray with cooking spray.

Form bread into mound-shaped circle on parchment paper.

Brush with butter or milk.

Sprinkle with sugar.

Bake 40 to 45 minutes or until toothpick inserted in center comes out clean.

ONE BOWL BEER BREAD

Substitute buttermilk for beer if you like. Adding butter on top helps brown the bread.

INGREDIENTS

4 ounces butter — half softened and half melted

3 cups self-rising flour

3 tablespoons sugar

1 bottle beer, your choice, or 2 cups buttermilk (If using beer, a dark beer is mildly more traditional.)

INSTRUCTIONS

Preheat oven to 375 degrees F.

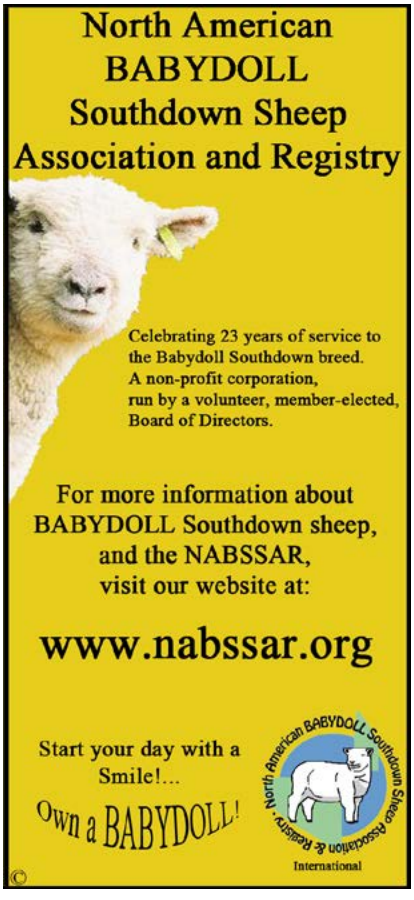
Coat a loaf pan with softened butter.

Whisk flour and sugar, make a well, then pour beer into center. Stir to mix. Don't overmix or bread will bake up tough.

Pour into pan. Brush melted butter on top.

Bake 45 to 55 minutes or until crust is golden brown and toothpick inserted in center is clean.

Beer bread.



Irish oat tea cookies.

IRISH OAT TEA COOKIES

INGREDIENTS

4 ounces unsalted butter, softened

7 tablespoons sugar

½ cup flour

⅜ teaspoon baking soda (¼ plus ⅛ teaspoon)

½ teaspoon salt

1¾ cups old-fashioned oats

Beaten egg, egg white, or cream for brushing cookies before baking

Sparkling coarse sugar for garnishing top

INSTRUCTIONS

Cream butter and sugar.

Whisk flour, baking soda, and salt together.

Add flour mixture to butter mixture and blend.

Stir in oats.

Let dough rest about 15 minutes.

Dump dough onto lightly floured surface.

Shape into thick patty. With lightly floured rolling pin, roll to ¼-inch thickness.

Cut into 2-inch circles or into squares.

Put cookies on parchment-lined or lightly sprayed baking sheet.

Brush with beaten egg, egg white, or cream, and sprinkle with sugar.

Bake 10 to 15 minutes or just until golden.

Store in airtight container. Makes about 24.

Tips

- If you don't have sparkling, coarse sugar, use regular granulated sugar.
- Add caraway! If you like the anise/citrus flavor of caraway, add a scant teaspoon to dough.

RITA HEIKENFELD comes from a family of wise wOmen in tune with nature. She's a certified modern herbalist, culinary educator, author, and national media personality. Most importantly, she's a wife, mom, and grandma. Rita lives on a little patch of heaven overlooking the East Fork River in Clermont County, Ohio. She's a former adjunct professor at the University of Cincinnati, where she developed a comprehensive herbal course.

AboutEating.com column:
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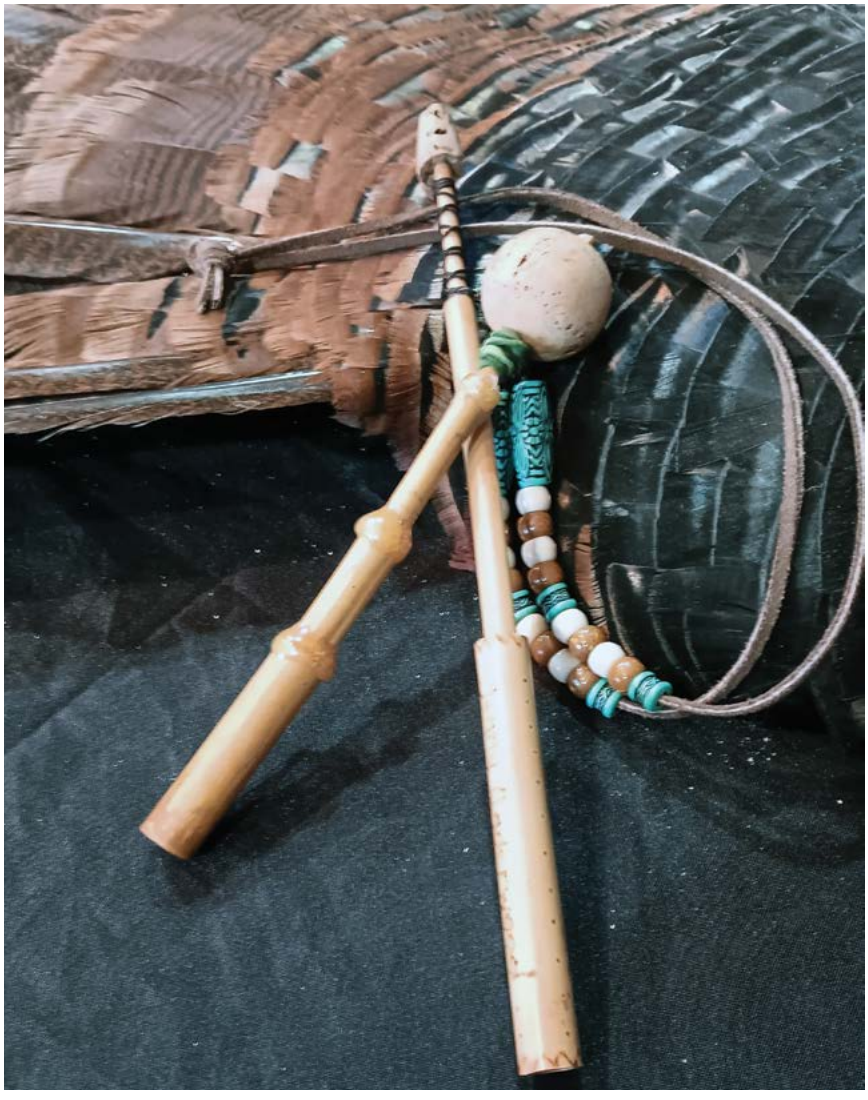
River Cane Turkey Calls

ARTICLE AND PHOTOS BY JENNY UNDERWOOD



WE'VE READ HISTORICAL accounts that highlight the importance of river cane to the Native Americans who lived in our area. In fact, one said that Native peoples would set up permanent camps near areas of river cane because they depended on it so much. They used it to make fishing creels, blowguns, baskets, and mats. Another thing that they most likely did was make turkey calls from it. We still do this, and it's one of the neatest ways to connect your hunting with past cultures and civilizations.

River cane is a type of grass that grows in stands. It's also a member of the bamboo family. The cane has joints or nodules at various intervals along the stems. It's the biggest at the bottom and gets narrower toward the top. The very ends are usually too thin to use for turkey calls, but most of the other sections can be used.

First off, you'll obviously need river cane for this project. We live near several creeks and rivers where it still grows wild. If you do harvest the cane, be sure to do so sustainably and only from healthy, thriving populations. Only harvest what you need and will use. There's no use in wasting this resource that's dwindling due to land abuse. Cut down 1 to 2 canes if you just want to make a couple of calls. Place your cane somewhere out of the way and dry it for at least two months. The longer the better on this part.

After the cane is thoroughly dried, cut it into pieces at each nodule. Sand off the rough places, and hollow out the centers. You can drill this or burn it out with a hot, stiff wire. Pick three pieces of graduating sizes to fit together. Sometimes, these will slide together easily, and other times you'll need to file off the joints to make them fit correctly. Roughly fit them and see if you like the sound. The length of the cane pieces can vary. The shorter the pieces, the higher the call (think hen), the longer the pieces, the lower the call (think gobbler). You can try out different lengths to get your desired sound.

Now, separate the sections and glue them at the joints. Allow them to dry. We put a cork mouthpiece on the end. To do

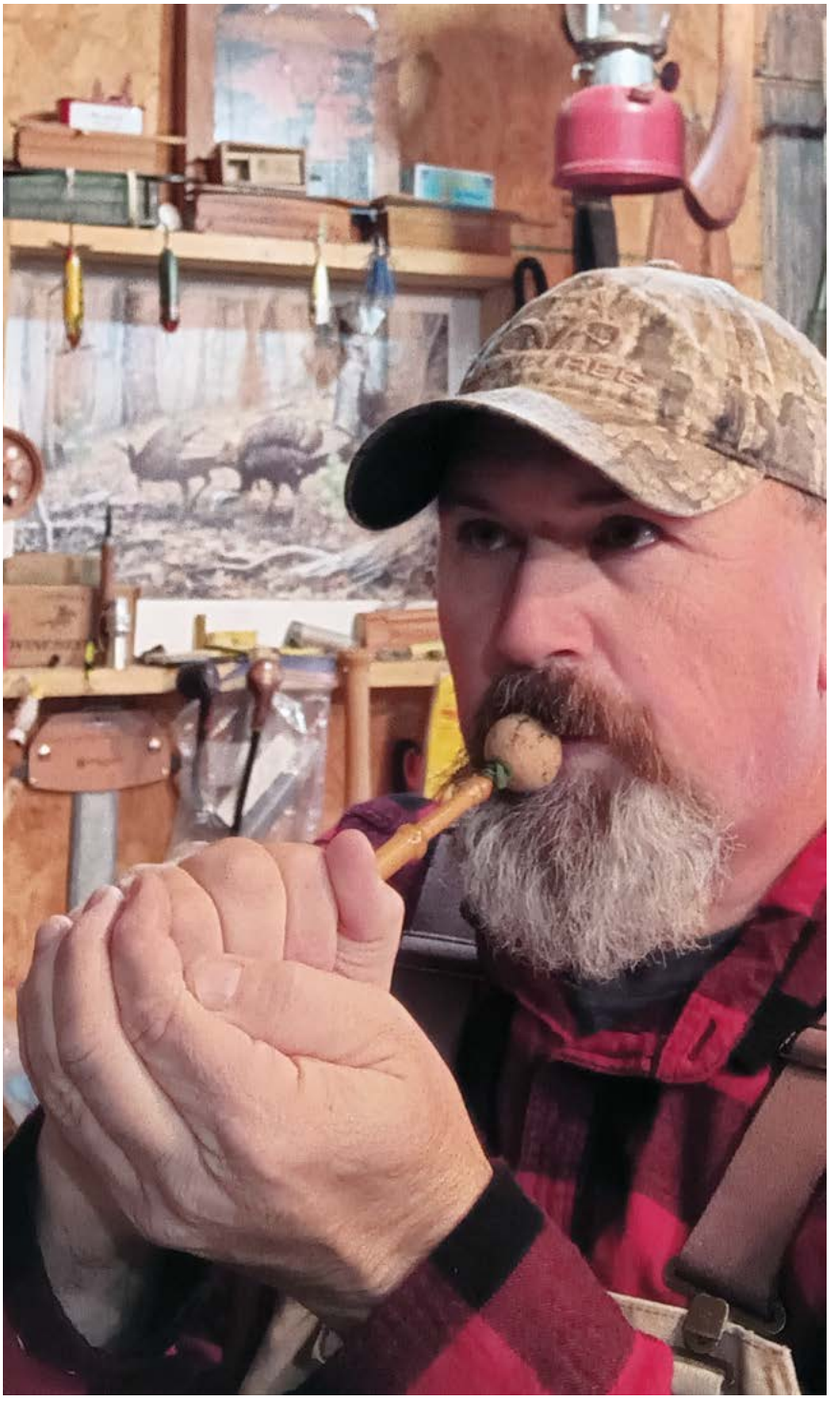
this, get a natural cork just a little bigger around than your smallest end. The cork can be round (a cork fishing bobber, for example) or a bottle cork. You can also try different materials, such as antler, wood, bone, or acrylic. Carefully drill it out so the cane fits snugly into it.

Now, you may put it on a lanyard to wear around your neck while you're hunting. To secure the lanyard, wrap leather or thin, flexible copper wire around the end of the first joint, then secure it to a leather, sinew, or paracord necklace. Make it large enough that it slips easily over your head and rests at a level on your chest that you can use it without removing it first.

You may use your call as is or decorate it a bit. We've used a woodburning tip to create geometric designs on these with very good success. You could also use natural paints or dyes to create different color patterns. Some we make with simple leather lanyards, and others with wooden beads of different colors. These

can make great gifts for the turkey hunters in your life or can be sold as an extra source of income.

Keep your calls in a dry location. If they do get damp, allow them to dry thoroughly before storing them in an enclosed space. Remember, these are natural materials, so keeping them wet will allow mold or rot to take hold. Allowing the call to get wet will also affect the sound.



These calls are simple to use and are sucked into, not blown into. Put your lips tightly around the mouthpiece, sealing off any air leaks. Suck air into your mouth with an inverted kissing motion. It will take a little practice, but before long, you'll be making clucks and purrs that'll make a real turkey jealous. In fact, we've found that when all other calls fail in the spring, this little call is often the one that'll bring in a stubborn gobbler!

Growing River Cane

Here's how to encourage cane growth on your farm with a water source. Cane doesn't need to have its feet wet, but it does thrive (in our area) in sandy river or creek bottoms. It often grows right along the bank and will spread out if allowed. Don't spray herbicides near it. Keep ground tillage or disturbance away from it. Obviously, don't mow it down! There's been some success in planting cane rhizomes to recolonize an area. They seem to like edges best and prefer some shade where we are. (This may vary from area to area.) Don't harvest from your cane until it has established itself well, but after that, cutting sustainably won't harm it. Cane sometimes blooms, but it may take decades to do so. I've never personally witnessed our cane patches blooming, because the conditions must be just right before they do. It doesn't have to bloom to spread, however, so don't be alarmed if your patch isn't blooming.

River cane is both a beautiful and useful plant to have on your farm. I encourage you to go find some and make this fun project with it. Who knows, maybe next year, you'll call up a longbeard with it and provide a delicious, healthy dinner for your family.

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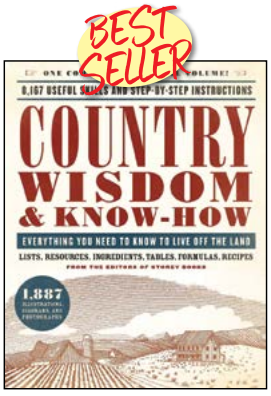

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Reminiscent in both spirit and design of the beloved Whole Earth Catalog, *Country Wisdom & Know-How* is an unprecedented collection of information on nearly 200 individual topics of country and self-sustainable living. Compiled from the information in Storey Publishing's landmark series of "Country Wisdom Bulletins," this book is the most thorough and reliable volume of its kind. Organized by general topic (including animals, cooking, crafts, gardening, home, and health and well-being), it is further broken down to cover dozens of specifics (from "Building Chicken Coops" to "Making Cheese, Butter, and Yogurt" to "Improving Your Soil" to "Restoring Hardwood Floors").

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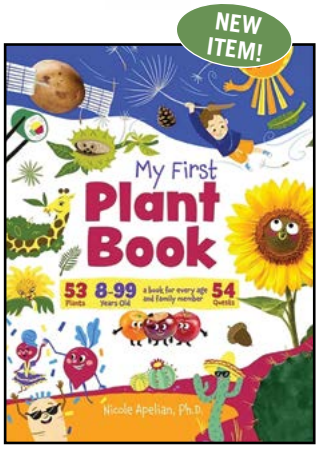
MY FIRST PLANT BOOK



While there are millions of children's books that teach kids about tigers, hippos, and other animals they'll only encounter at the zoo or on TV, none teach them about the plants growing all around them that they can actually touch, explore, and even grow themselves. *My First Plant Book* is much more than just a kids' encyclopedia. It's a nature book that turns learning about nature and the plants in our world into an exciting game that every kid will absolutely love playing. The very first thing children will see when they open the book is a beautiful, interactive adventure map that launches them into their botany adventure. Each plant comes with its own unique quest that they must complete to unlock the next adventure.

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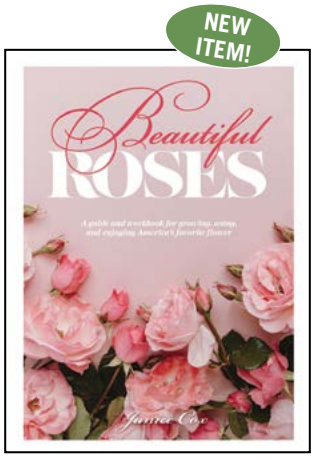

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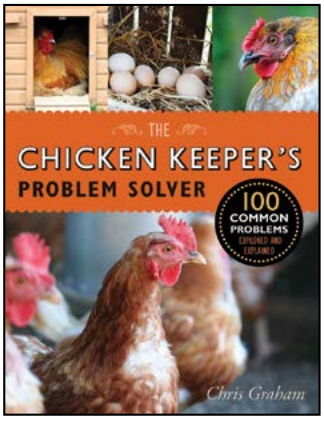

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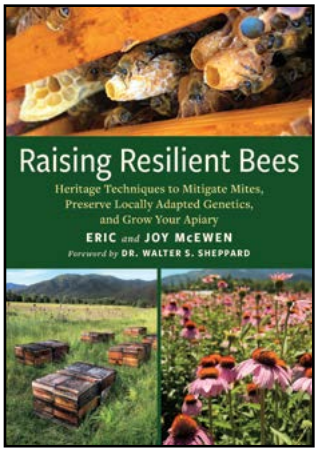

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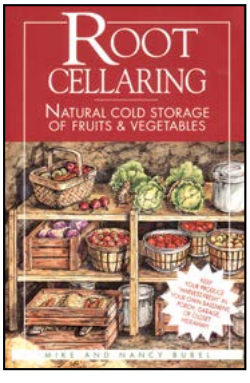

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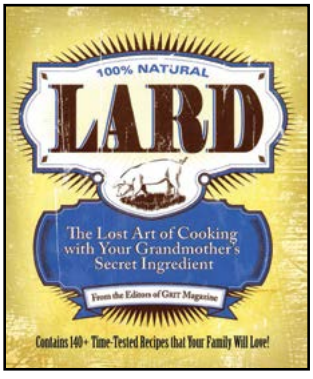

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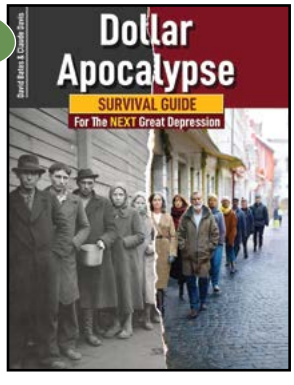

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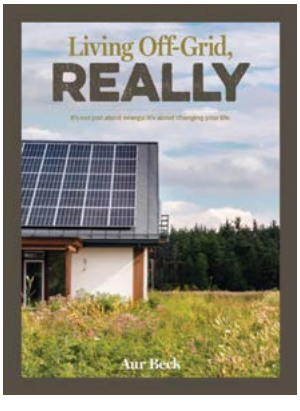


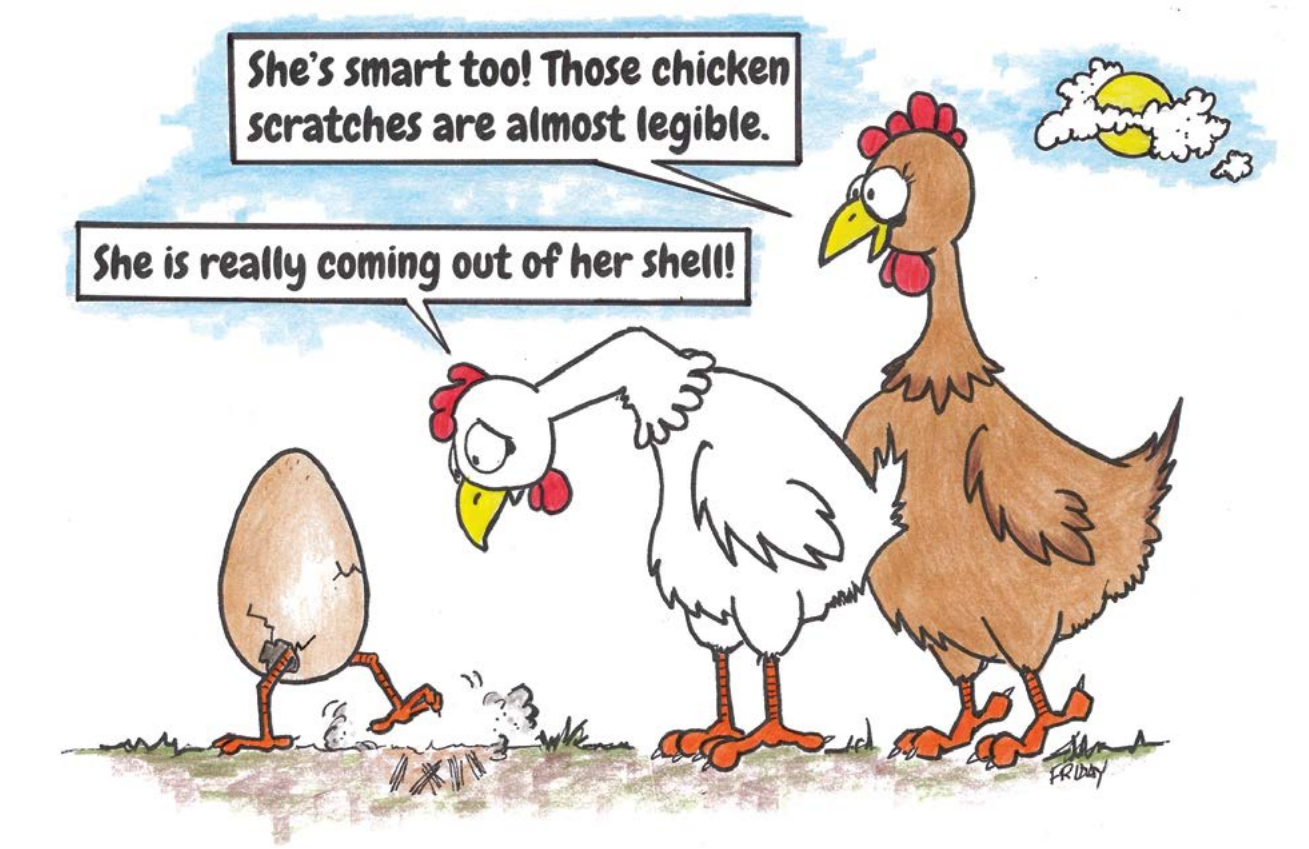
LIVING OFF-GRID, REALLY

With a wide range of topics, *Living Off-Grid, Really* is part how-to and part memoir as author Aur Beck recounts his journey living off-grid. Within these pages, you'll discover the story of Aur's childhood and learn how to live, learn, and be entertained off-grid, all with little to no money, and find housing, food, and medicine off the beaten path. These topics are, to Aur, the crux of living off-grid, rather than focusing solely on energy. He does, however, include a chapter all about energy.

#12606 $17.99 Sale: $15.29

Mention Promo Code: MCSPARZ3 • Sale ends 3/31/26 • FREE SHIPPING on book orders over $50!


Keep it real, Beatrice! Bees can't produce imitation honey by pollinating fake flowers.
FRIDAY


She's smart too! Those chicken scratches are almost legible.
She is really coming out of her shell!
FRIDAY

MARCH/APRIL 2026 READER CONTEST

All words can be found within this issue of COUNTRYSIDE.

HAVE FUN AND GOOD LUCK!

H O M E S T E A D I N G S K I L L S Z D L O I Z
P Z Y O Y L C M G J D E A V A Z T A V M X R U J
S I A Z W M P H K I U D L Z Z P P Q I S P R K K
R W L S O B I R O X L X H D G B P C T M K V K P
I V D N C L A O U L X T G J D Q R U A Z B S T B
V L U N I E S N A E B Y R D S O R I O O E V Y Z
E S A D A E R B A D O S X S F K C Q C V P F E C
R C A C T B J M Q W J B H A E C R N O U I C V Y
C L I V X I Z J E E B D R Y C L J L I K E L S V
A N E B W R A Q O N E M C V S K G F N L F A E A
N C Z M I D M H D H F A N A G N O B N A B S J B
E C O B O B Z I H G L A V X E T F O R T E U P Y
B Q M G L R C E L L S O K D O J V R B E D R D F
E U Z K N A C I S K K E R E Z R O R Y E J W O T
R D Q G R I C P U T P A E V H W D O O P D E Q W
I B A G I N T J J S G R H D I O F D P Y F I J I
F G D Q H S D I Q C X L O N S R N N A J D M U A
P M N O S I B E O H N S G D Y A P E N R H S K G
M N O Z U N H G B N P R A T U C V B Y M D D R X
A L M N B S P M U P D N A H C C B I M L I Y Q P
C O T M O M J D G L P D M E M D T B N U K A W X
M C I T R P L G P K D Z Z B Q V Z I L G S R J H
Y A D S K C I R T A P T S N E T V S O R V K F L
P V D T W X I M O L Z T Z C T N D J S N T W U E

TARP
CAMPFIRE
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SEED SAVING
SODA BREAD
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ST. PATRICKS DAY
HAND PUMPS
HOMESTEADING
SKILLS
MICROFARM
DRY BEANS
FARROWING
BIRD BRAINS
MILK
PRODUCTION
BISON
FAKE HONEY
TURKEY CALLS
RIVER CANE

Name: _____ Address: _____

Email: _____ Phone: _____

The winner will be chosen randomly from all the submissions returned by April 1, 2026. The winner of the November/December Reader Contest was Steven Slosser. Congratulations to you, Steven! Enjoy your new camp mug.

Win a *Countryside* Mug! To submit, either:

Print, fill out, and mail to:
Countryside Reader Contest
1503 SW 42nd Street, Topeka, KS 66609

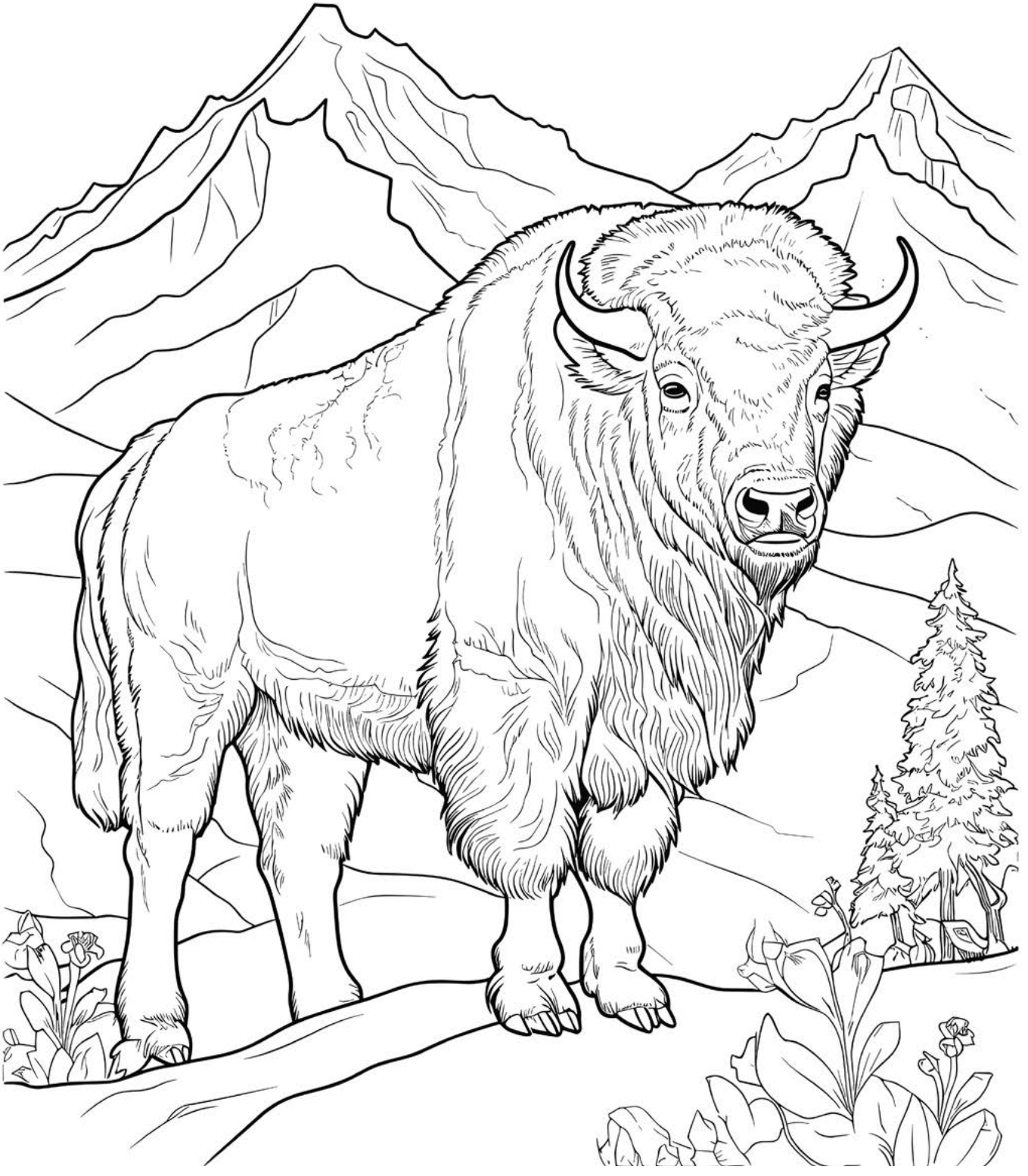
Print, fill out, then take a picture and email to:
editor@countrysidemag.com

Be sure to include your contact information so we can inform you if you won the *Countryside* mug. Available for purchase at iamcountryside.com/shop

Show us your art skills by coloring this picture!

Once you're done, snap a picture and send it to us via email at editor@countrysidemag.com or snail mail at *Countryside*, Attn: Coloring Pages, 1503 SW 42nd St, Topeka, KS 66609.

Watch for your creation to be featured in an upcoming issue!



A colorful selection of art submitted by our readers!

Color the picture on the previous page and your picture could be published in the next issue!

1. Andrew Soria, age 10; **2.** Courtney Soria, age 42; **3.** Henry Soria, age 13; **4.** Baylen Brusca, age 11; **5.** Diana Johnson; **6.** Evan Jensen, age 11; **7.** Elena Kuhns, age 13; **8.** Micah Kuhns, age 11; **9.** Abby Larsen, age 9

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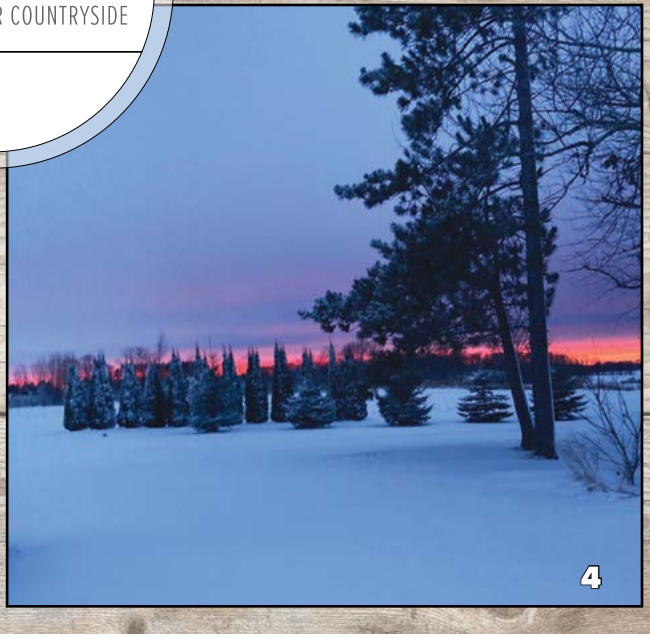
YOUR COUNTRYSIDE



1. Back home for summer. *Ken Newman, Pennslyvania*

2. Enjoying the beautiful sights on a frosty morning walk. *Lila Birkenholz, Wisconsin*

3. Best friends, Happy and Bear. *Ana Skemp, Wisconsin*

4. A fiery March sunset. *Ann Tom, Countryside Editor*

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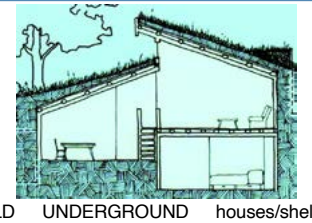

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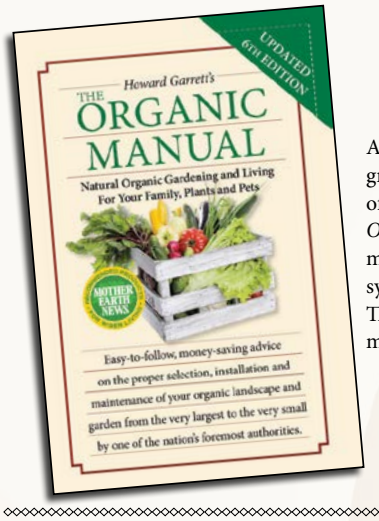

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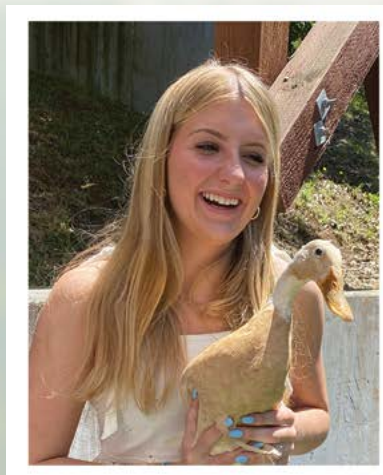
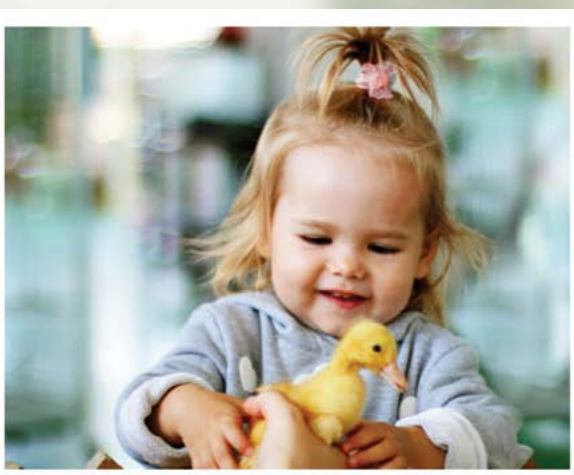


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