# Foreword

*by Joel Salatin*

One of my favorite moments on farm tours is taking visitors to our cattle working chute in the barn and showing off the boards my dad and I scavenged from a tumble-down barn 50 years ago. Today we have a modern band saw mill and make lumber from logs we cut in the forest.

But back in the early days most of our lumber for building projects came from old barns dad and I tore down in exchange for the usable boards. We burned the junk stuff, but it had to be pretty junky to go in the burn pile. Today, we'd probably bring that home too and put in a hugelkultur bed. My mentor and *Stockman Grass Farmer* magazine founder, Allan Nation, always said that profitable farms have a threadbare look.

Here at our farm, Polyface, some 15,000 visitors a year drive down our lane and one of the most common remarks is "it's all so practical and plain." Our buildings are not flashy. Our infrastructure is functional. If we can slap some boards together and make something work, that's what matters; not whether we can adorn the front page of an agrarian lifestyle magazine.

When my wife Teresa was a junior in college majoring in home economics, she had to do a 10-year-out plan for budget, housing, and family. We were high school sweethearts (now we're old geezer sweethearts) and shared frugality from both of our families. For her project, she assumed we'd be living in an underground house, growing all our own food, making all our own clothes, cutting our own firewood—you know the drill. The monthly food budget for a family of four? A mere $200 (and most of that was toilet paper and facial tissue).

Teresa always made better grades than I did, so when this big project came back marked with a C– it was highly abnormal. The professor simply did not believe it was realistic. About 10 years later, my mom and dad moved out of the big farm house into a smaller house outside the yard. Teresa and I had our two children by that time and the attic apartment we'd lived in for 7 years was getting a bit cramped. As we cleaned out closets and began the move to downstairs, we found that old college project notebook and went through it.

Not only was it accurate, we were actually spending *less* than her supposedly unrealistic budget. We laughed and laughed. When we got married we had one car, a 1965 Dodge Coronet with 3-speed on the column I bought from a neighbor for $50. Drove it two years and sold it for parts for $75. How about that depreciation? In fact, when we'd been married 20 years we had not yet spent a total of $10,000 on automobiles. We never had a TV, never went out to eat, wore the same clothes until they fell off. We lived on literally a tenth of the income of all our college buddies.

But we were happy. We didn't buy toys for our kids. They were perfectly content to play with Tupperware on the kitchen floor. They made their fun and did not know their family lived at a third of the official U.S. poverty level. And we were content. In fact, most of our lives we've lived well below the poverty level. But who needs money when you have your own wood for heat, no air conditioning, don't have to drive to work, grow all your own food, and wear rags for clothes? And you're not in debt?

Since we didn't earn much we didn't pay income taxes. Take that, federal bureaucracy. We both came to this lifestyle because we both grew up in frugal families. Teresa remembers going out to eat once. I remember going out to eat three times. In the early 1960s my dad wanted a multi-use vehicle to avoid the typical farm truck and the car. He purchased a 1957 Plymouth sedan from a neighbor for $50 (apparently neighbors' $50 cars know they have a home here), stripped out the seat and doors, and used it as an all-purpose vehicle.

This was in the days before car inspection and mandatory seat belt laws. He inverted an old metal wash bucket for the seat (the original bucket seat) to sit on behind the steering wheel. Do you know how much room a 1957 Plymouth sedan has in it if you take everything out all the way back to the trunk? We hauled kids, chickens, pigs, calves, firewood, bags of feed—everything you can imagine in that old car. When car inspections came in he kept a set of tires for inspection and one to drive on. He'd put the nice tires on to get the car inspected, then come home and put the bald ones back on until they all went flat. That, my friends, is frugal.

To say I love John Moody's book would be the understatement of the year. I smiled all the way through it, marveling at the ingenious money-saving projects and reminiscing about my own growing up on a frugal farmstead. This book is chock-full of ingenious ways to do it cheaper, more efficiently, and perhaps most important of all, more child friendly.

I've always told farmers with big government cost-shared manure lagoons and other liquid waste management systems that I've never heard of a farm kid drowning or dying in a compost pile. And when the farmstead doesn't have a skull and crossbones door, you don't have to worry about the children getting into something toxic. I always say we don't put anything on the soil that you can't eat…at least in small quantities. I love the child-friendly thread woven through the fabric of this book.

Who needs video games and away-from-home entertainment when you have a cornucopia of plants, animals, meaningful projects and scientific marvels under your feet where you live? Creating a place of enchantment for youngsters might be the most ecologically sustainable thing we adults can do. That won't be a factory farm; it won't be a monospeciated orthodox chemical farm. It'll be a homestead menagerie of do-it-yourself trellises, tree houses, and teachable moments. Those don't take money; they take ingenuity and heart. Can you imagine anything more attractive to our children?

Some reading this book may think it's short on details. But I like that Moody stays with the big picture stuff. In fact, he uses the word stuff a lot, and that's exactly the way we talk to each other. We have far too many academic pontificates about things; what we need is a clear list of dos, don'ts, and how-tos from a dirt-under-the-fingernails long-time practitioner. If anyone has put in his 10,000 hours and 10 years of experience, it's John Moody and family. That you and I get to glean from his experience and wisdom is a rare treat, a true honor.

If you follow the advice in *The Frugal Homesteader*, you'll have a much greater chance of success. And you'll have children who take over chores instead of complaining about chores. Based on my experience, his advice is right on. Spend money on high quality tools. Buy bulk, always. Don't buy a tractor. Develop friendships. Grow it. Fix it. Build it. I guarantee you that our family's farming success today as a commercial outfit employing some 20 people full time is a direct result of generational frugality. We are now leveraging the benefits of being frugal.

I don't know if Teresa and I will ever really make much money, but we've often talked about what would happen if we did. Like if our ship actually came in. And we've decided we wouldn't live any differently. I'd still buy 50 cent shirts with somebody else's name on them; we still wouldn't go to Las Vegas; we'd still drive a cheap used car; we'd still have a basement full of canned goods from our garden. This is just a good way to live.

Thank you, John and Jessica Moody, for sharing your heart and how-tos with all of us who aspire to drop out of the high cash, fast cash, hedonistic rat race of hubris. I hope thousands of people resonate with this message and find in these pages the courage to embrace the ecstasy of frugal homesteading.

—Joel Salatin, Polyface Farms
PolyfaceFarms.com

# Preface

Had you met me in my teens, you would have said, "He is never, ever going to be a homesteader or farmer." I had four food groups—sugary breakfast cereals, cookies, eggs (with sugar), and candy. I was a pasty-skinned, video-game-playing, cartoon-watching child of the '80s. I spent some time outdoors, generally only when my parents made me.

Had you met me in college, you would have said, "He is never, ever going to be a homesteader or farmer." I had eight food groups. I still played a lot of video games and watched a fair amount of TV, though I had become very active in sports as well.

Had you met me in my early twenties, you would still have said, "He is never, ever going to be a homesteader or farmer." That is, until I developed duodenal ulcers. Pain 24/7, like a small band of traveling dwarves, was mining my insides while holding a Metallica meth-fueled rave. Doctors could only offer me a lifetime of drugs. Instead, my then fiancée and now wife and I went with a radical change to our approach to food. We went from Kroger and Sam's Club to Wild Oats and Whole Paycheck. We graduated to the farmer's market, a CSA, and raw milk, and then to starting a food-buying club, the Whole Life Buying Club in Louisville, Kentucky.

At some point, in the midst of handling half a million dollars of local food each year and having kid after kid after kid, we thought, "Hey, wouldn't it be great to have a homestead in this mix?" I mean, with 2.5 kids, we weren't sleeping much anyway!

So, we started looking…and we looked, and we looked, and we looked, and eventually we ended up with 35 acres in the rolling hills an hour southwest of Louisville, Kentucky. We had no idea what we were looking for homestead-wise other than, "This is what we can afford,

and this is how far from town we can be." We couldn't afford much. So we ended up with a run-down, rock-solid-clay, no-top-soil, 35 acres of semi-isolated beauty. In the first two years, we removed dumpster load after dumpster load of rubbish left by the previous owners and inhabitants.

We went to put in a garden. The ground broke the tiller before the tiller broke the ground. We adjusted to living 30 minutes or more from everything instead of three. Our closest town is just a few miles and has just a few thousand inhabitants. You don't reach a Walmart for 30 minutes in any direction. Even a trip to a local building supply store is generally an hour or more investment, requiring 20 minutes of driving each direction. The people in our area are good folks: mechanics, plumbers, and other tradespeople. But few farm, and even fewer homestead. Yet our neighbors appreciate what we are doing.

The homestead today.

Our place has changed some over the years since we settled. We rebuilt the barn and expanded it to provide a covered loafing area for larger animals and more storage. Some poorly built and dilapidated outbuildings went down, and a high tunnel went up. Pastures are slowly being renovated. Fencing will hopefully soon be replaced or upgraded. We continue to spread lovely soil across the rock-hard, exhausted clay landscape each season. Perennials, both domesticated and indigenous, now bear abundantly, providing food for man and beast.

I ended up a bit of both homesteader and farmer, depending on the year. As homesteaders, we try to raise as much as we can of what we need as a family—fuel in the form of wood, food through plants and animals, fertility through compost, water and whatever else we can self-produce—right here on the homestead. At the same time, we farm—that is, we seek to create an excess to sell to others. Some years it has been eggs and beef; others, pork and produce. As the farm and family change, we adjust and adapt as needed.

There is still so much to do around this place. Eventually, you begin to realize that homesteading is a journey you start but never finish. You build, you plant, you improve, knowing and hoping that one day, someone else will come along and see the value of what you have done, what you have contributed, and pick up the shovel or the hammer where you left them, and continue making the land a more beautiful and enjoyable, sustainable place.

# Introduction

We should try to get results
with as little expenditure of time
and acreage as possible.

— Laura Ingalls Wilder,
"Economy in Egg Production," April 5th, 1915.

Ideas for the things at hand
to make our work easier will come to us
if we notice a little.

— Laura Ingalls Wilder,
"Shorter Hours for Farm Women," June 28th, 1913.

There is a movement in the United States today,
widespread and far-reaching in its consequences.
People are seeking after a freer, healthier, and happier life.
They are tired of the noise and dirt, bad air and crowds
of the cities and are turning longing eyes toward
the green slopes, wooded hills, pure running water
and health giving breezes of the country.

— Laura Ingalls Wilder,
"Favors the Small Farm," February 18, 1911.

## Money in the Yard

A few years back, a friend gave me a copy of the Williams Sonoma catalogue. This particular issue was devoted to "Living the Good Life," with homesteading stuff scattered across the many pages. Boots. Shirts. Some tools. Chicken coops. Yes, a five-bird chicken coop for only $3,000 (delivery and assembly included). Now, if you have five chickens that lay 200 eggs each a year, and each egg is worth 50 cents, that is $500 a year in eggs. Of course, you also have costs like chicken feed, laying boxes and bedding, and all the other expenses that go into keeping chickens. But let's ignore that and all the labor, too. In six years you will finally break even on that coop.

Perhaps if you are a doctor or lawyer or some other high-dollar earner you can afford Williams Sonoma chicken coops. Or raised beds that run multiple hundreds of dollars a piece. Most of us dream of homesteading but wonder if we have the means to make it happen. How can we build a place that is beautiful without breaking the bank? How can we get by on less so we have time for more of the things we love and want to do with our lives? More time for nature, for nurture, for family, faith, and friends. Less financial stress. Less schedule duress. More fulfillment and freedom.

I hope this book will help you achieve your homestead dreams, and do so frugally and affordably. Not only will we share all sorts of ideas that have allowed our family—my wife Jessica, and our kids, especially Abigail, Caleb, and Noah—to homestead successfully even when we were without other sources of income, or during times of very low income, there will be lots of what we call "homestead hollers," ideas and innovations from friends and acquaintances across the land to give you inspiration and ideas to try out and adapt on your own place. Sometimes, no name is given to protect the people involved. You don't need to know someone's name to learn from their mistakes!

Please note that while this book is by no means exhaustive, all of the ideas are field tested. These are real solutions that we and others have used year after year, warts and all. I do hope you will find a lot of ideas that you can use, or that you can adapt to your situation, resources, and

skills. Some of the projects will be more detailed than others—material lists and step-by-step guides so you can recreate a project at your place. Many more will be descriptive, giving you the basic idea and outline so that you can take what is and turn it into what could be, a thing of usefulness and beauty.

Most of all, I hope that reading this book will be inspirational—helping you see the endless possibilities for building an affordable homestead by making use of all sorts of low-cost or free resources that may otherwise go to waste or be overlooked by the modern world.

For much of our homesteading adventure, I have held other jobs at the same time as building our homestead, on top of going from two to five kids and enduring all sorts of other life changes and challenges along the way. Running a food-buying club in town, having multiple surgeries to repair an injury from childhood, taking a full-time job for over a year and so much more has interrupted or informed our family's efforts at homesteading. My hunch is many of you are just like our family—trying to balance a host of competing demands, things like work, family, hobbies, community, faith, and kids. The way we homestead seeks to keep all these areas in balance as much as possible.

So what is our approach to homesteading?

First off, "Never do anything that nature, an animal, a vegetable, or a microbe will do for you for free (and probably do better)." Homesteading is hard work at times. Why make it harder? Why make more work by not enlisting the natural allies just waiting in the wings?

Compost piles? Located close to growing areas and, if at all possible, uphill so that moving finished material is easier. Feed storage? Not far from the animals. Compost turning? Best left to the pigs, who will do it for a bag or

We employ chickens and pigs to turn our compost and control bugs as much as possible.

two of corn layered into the compost mix over time. Endless weeds and weeding? I would rather mulch once and then have just a few vigorous weeds to easily dispatch when they finally push through.

Either you and your family can work…and work…and work, or you can work with nature—animal, plant, and microbial—and enjoy all that free labor. Here is one simple way we do it.

A second principle that guides our approach to homesteading is "Work once; profit many times." Weeding is a never-ending battle, unless you decisively win the war with weeds. I would rather densely plant comfrey once along a fence edge to keep weeds out and also attract pollinators, improve my soil, and give me roots to sell, than mow those stretches every seven to ten days during growing season. Plan your ac-

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## Abby's Lawn-to-Rabbit-Meat Tractors

I enjoy mowing our lawn. I enjoy it even more when our animals are the ones doing it. While chickens are problematic lawn mowers (their poop is very smelly if you step in it and they don't do a nice, even job of trimming the verge), rabbits make excellent lawn mowing crews. "Will work for clover," is my kind of motto! We have a pair of rabbit tractors that can be moved twice daily and that will keep a fairly large patch of front yard tidily trimmed. Instead of spending time and money keeping it mowed, each pass of the rabbits improves the quality of the soil with minimal time expense.

We hope to eventually move to four tractors and reduce my mowing to every few weeks and a few areas that are not appropriate for our four-legged herbivores.

Rabbits make good lawn mowers.

tions well and you will profit from them for months or years to come.

A third principle is that kids work too, so the place has to work for our kids. Infrastructure, tools, priorities, projects, and profits are all driven by our children—their interests, desires, skills, strength, and maturity.

Things are sized, weighted, and heighted for kid friendliness—buckets, hand tools, feed barrels. Even the dishes in our kitchen are located down low so that the littlest child can help set the table safely.

Throughout the book, you will see how this principle impacts a lot of projects and tools we have at our place. Speaking of tools, this is a good time to talk about what you will need to do the kind of stuff you will see in the coming chapters.

Small buckets and shorter, lighter hand tools make a big difference in the ability of small kids to help.

### A Few Tools to Rule Them All: A Basic Tool Box

It doesn't matter how low cost a project is if you have to purchase expensive tools to make it happen. Almost everything outlined in the book can be done with the tools outlined below. Now, if you have certain tools or equipment not on the list, that can make projects easier or faster, but if you have the tools listed below (which, if you are homesteading or farming, you are going to need anyway), you should be good to go. If you are not homesteading yet, start collecting these tools now. If you hope to one day homestead, avoid the desire to acquire strange specialty tools—seeders, planters,

transplanters, tractor attachments, and what not—that you've never had practical experience with or may end up not ever needing or using.

Instead build a good basic tool set of high-quality implements that should last you many, many years. Properly cared for, some will last a lifetime and become gifts that you bequeath to your children. For my birthday my last year of high school, I remember my dad taking me to the store to get a high-quality set of starter tools. The mechanics tool set and the few additional items he picked out for me—some basic electrician's tools, a screwdriver set, vise grips, pliers, and a few other hand tools—have served me well for over 20 years. Many of the other quality tools that I have acquired have done over a decade's worth of work or more. Good tools are an investment well worth making and, if you are up to taking care of them, will be something you one day give to your children or their children.

### *Tool Rules*

Buy the best quality you can afford for heavy-use tools—drills and saws, shovels and pitchforks, hatchets and mauls, and anything that will be used long and often around your homestead. Few things are as annoying as living in the middle of nowhere and having a tool break, delaying a project for hours or days.

Good hand tools are worth the cost and time to keep them up.

For single-use or rarely used tools, try to borrow or barter first. Then consider renting. Plan ahead on projects if you are going to need tools you don't have on hand. "Borrow, barter, rent" is my motto.

Try to avoid owning stuff that requires expensive specialty tools to maintain or upkeep. Some things are cheap up front because they cost a fortune to keep going.

For hoses, always get best quality. Low-quality hoses never last. If you

find yourself needing water run to certain places all the time, it is time to put in more permanent storage or water lines or a higher-quality above-ground line if it is seasonal in nature.

### *Recommendations*

I went back and forth for weeks trying to decide whether I should include recommendations for specific items. At the end of the day, my own experience, coupled with a friend's, convinced me to skip putting them in print. He recently purchased a handsaw from a company that previously had produced quality items across a wide range of products and had a sterling reputation. But unbeknownst to him, the company had recently changed hands, and the quality of their tools had dropped substantially and quite suddenly.

The tool he purchased lasted less than 20 minutes of moderate use. Even worse, the company had no intention of making it right with him. This happens more often than we like to admit, so instead of making recommendations in print that might no longer be reliable in six or twelve months, you can visit my website for more up-to-date information and recommendations. This way, I sleep better at night knowing no one is cursing my name as they deal with a dinky tool, and you can have greater confidence in recommendations I give.

### *Basic Tool List*

*Hand Tools*

- Tape measure
- Basic mechanic tool set
- Vise grips
- Quick square
- Metal snips
- Metal file set
- Rope, especially smaller-diameter poly rope

*Power Tools*

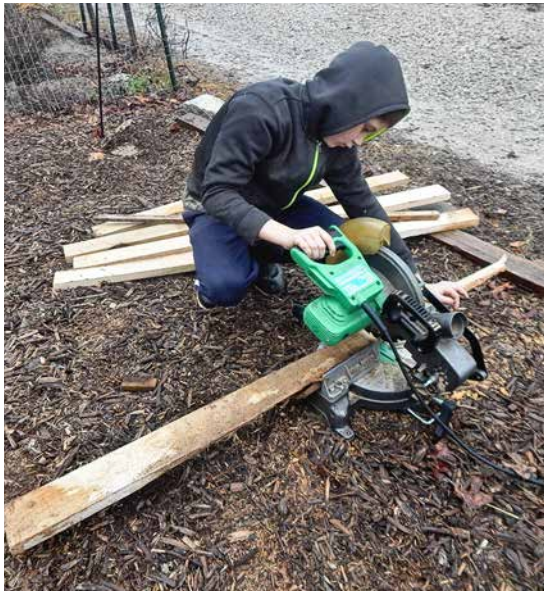
- Mitre saw
- Angle grinder
- Cordless power tool set (drill, circular saw, and sawzall)
- Full set of bits for drill (wood, metal, adapters, and the like)
- Optional: skill saw, circular saw, table saw, chain saw

### *Mitre vs. Circular Saw*

A friend suggested that homesteaders stick with a standard 7¼" cordless circular saw over the mitre saw. This isn't a bad suggestion, and if that is your go-to tool, I wouldn't quibble with you. But there are two reasons I stick with my mitre saw. First, my kids.

My kids use our mitre saw often and can do so very safely. Whether used for helping me with projects on the farm, cutting up certain types of firewood, or making forts and other creations, the mitre saw takes the brunt of our cutting calls. A circular saw takes a great deal more skill to use as safely as a mitre saw, though both require care and caution to use.

A mitre saw is great for cutting up certain types of firewood, such as slab wood and cutoffs, which we will talk about later in the book. Even better, it is a great way to teach basic tool safety to an age-appropriate child and get them involved in the work of putting up wood. I can't offer a set age, since children mature at such different rates physically, mentally, and emotionally. What some of our kids were ready to do at eight others needed until they reached ten or eleven. But with all our kids, the goal has been the same—to equip and enable them to contribute to our family and develop skills that will serve them well for the rest of their lives. Teaching kids to use power tools and then giving them projects and responsibilities to go with them not only makes our homestead life a lot easier, it makes it more fun for them and helps prepare them for the future.



With proper parental instruction, a child can safely use certain power tools.

Second, other tools I have on hand can take the place of a circular saw. In a pinch you can use a skill saw as a substitute for a circular saw, but not vice versa. *While it is best to have both*, I rarely use my circular saw, though often use my skill and mitre saw. A circular

saw is also generally easy to borrow. For longer cuts, a number of my neighbors also have table saws, which in some ways are circular saws on steroids. If you have money for only one, I would stick with a mitre saw and then a skill saw. Since most power tool kits come with a circular saw, most likely it will be a moot point, and you will have at least two of the three.

*Garden Tools*

- Garden cart
- Shovels
- Pitchforks
- Rake, heavy duty bow/garden
- Plant shears (save your kitchen or other scissors!)
- Optional: broadfork, leaf rake, hand spades

Give kids meaningful work and responsibilities around the homestead and the opportunity to develop skills while having fun at the same time.

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## Amish Construction Crew

A local Amish construction crew reminded me of just how few tools you need if you know how to use them. A few years ago, I hired them to replace half the roof on my barn and also build a loafing area for larger animals on the back-side. This involved installing six 6 x 6 uprights to support the new addition's roof. Instead of using a large circular saw or having to haul around a mitre saw for such cuts and run extension cords or generators, they brought and used a chainsaw for almost all lumber cutting. Occasionally, they broke out a handsaw for the two cuts that the chainsaw couldn't handle.

It showed me you don't need every tool under the sun, even to build a large building, if you know how to use the tools you have and use them well. Homesteader Matthew Eby says it well: "Many tools can be used outside their intended purpose. As a rule of thumb, I don't buy a tool unless I absolutely can't do the job without it, I know I'll be using it a number of times in the future, or it greatly reduces the frustration levels of getting a job or project done."

### Wheelbarrow or Garden Cart?

Homesteading involves moving lots of heavy stuff. Compost. Mulch. Gravel. Wood chips. Firewood. Soil. Animal bedding mixed with manure. The list of what you will move is almost endless. A few years back, we calculated the amount of weight we moved by hand in a single year. It totaled over 300 tons. That is 600,000 pounds of stuff, or about 2,000 pounds per day! See why homesteaders don't need home gyms or gym memberships?

There are a number of ways to make all this work easier. But they are not all equal. First, don't bother getting a single-wheel wheelbarrow. They are not worth a nickel, save in limited work applications, almost none of which happen on a homestead. Don't waste your dollars on one. Whoever is using it also has to balance the weight it is carrying. Thus, they are not friendly to kids or adults, especially for heavier loads.

That leaves two options: double-wheel wheelbarrows and garden carts. For our first few years homesteading, we cycled through a wheelbarrow about every 18 months until it gave out. Then, a year or so back,

Even little ladies can move big loads with the right equipment.

we discovered the garden cart and haven't touched the wheelbarrow since. For our homestead, we purchased a standard garden cart, available at places like Tractor Supply or from Amazon. Some people choose the DIY route and build their own. Plans and designs are available online for free if that is your preference. With the garden cart we can move two to four times more weight than the wheelbarrow with half the work. It is more durable than the wheelbarrow as well and about the same price or less if snagged on sale. Even our smallest kids can help move the garden cart, while under moderate loads even our big kids struggled with the moving the wheelbarrow.

It is so easy to move that even when it is moderately loaded down, our fortyish-pound four-year-old can handle a hundred or more pounds of firewood without help and feel proud and like a helpful part of the family.


## Saving on Tools

Don't skimp on good tools, but do take advantage of sales. There are a few ways to save when tool shopping. First, ask about the floor models. Most stores have display models for many power tools. I happened to have a friend who was head of the tool department, who mentioned the store's clearance of these for a fraction of the normal price a few times a year. So I was able to purchase my first cordless tool set for over 70 percent off the normal price but still with its full warranty. Take a minute to ask the department manager at a few stores and see what deals you might find.

Second, tool sets often go on sale and clearance. I recently picked up a basic mechanics tool set for my son at a big box store for over 50 percent off. It was almost identical to the ones on the shelf 15 feet away, just clearanced so they could put a slightly different set in a slightly different box on the shelf. Looking back, I wish I had grabbed two or three of them, as my son's is now our house kit and saves me from having to run outside to pull tools from own main set.

Had I had a coupon, it would have been an even bigger savings. Combining a sale with a coupon at a place like Tractor Supply or Home Depot can save you 30 to 40 percent off a tool's best price. Make a list of what you need, get a good idea of what the going price is, and then keep an eye out for when conditions are right to add it to your collection.

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## Saving on Shop Supplies

Sanding pads. Cut-off wheels. Sawzall blades. Nails and screws. A lot of the expense of DIY projects isn't the tools themselves but the bits and blades and such other stuff that tools need to get their jobs done. If you go to the average big box store, some of these items are fairly expensive. A cut-off wheel can set you back four bucks, and a steel barrel may take two wheels to cut in half for a simple project. That adds almost ten dollars to a project before it is really underway! What if you could get 30 cut-off wheels for the price of three? This is where online retailers excel. There are a host of bulk items that every farmer and homesteader needs that online retailers supply at a fraction of the cost of big box stores. Even as semi-remote as we are, these items are delivered right to our door. Also, these items, as long as stored properly, never expire or otherwise go bad. So there is no risk in stocking up to save.

Also, avoid the temptation to multiply screw sizes. Instead choose two good sizes that let you do the bulk of the work around your place, and buy these two sizes of screws in *bulk*. Generally, the larger-size containers of nails and screws cut the cost per screw in half over the small boxes that people grab off the store shelves. I stick with the Torx-style heads and suggest you do the same—they are slightly more expensive and worth every penny in terms of stopping stripped-screw aggravation and lost time from dealing with stripped and broken screws.

A bucket of 2½-inch and a bucket of 3½-inch screws has been almost all I ever needed over 95 percent of the time when doing projects. On occasion, when I absolutely have to have a different or special size, I will get a small container unless I know I will need more. Otherwise, we make the above sizes work.

Given that we live in the middle of nowhere—even a trip to our local building supply company eats about an hour of time—the time and money savings are substantial when you stock up. Also, I have found no difference in quality over many years of ordering items in bulk online versus what big box stores had to offer. In terms of making farming and homesteading affordable and bringing down project costs, the 50–80 percent we save in these areas lets us invest in other things that enrich not just our farms and homesteads but our communities.

Given how many of these we go through in a year, bulk buying results in big savings both in cost and time.

### Holidays, Birthdays, and Achieving a Homestead

If you have kids, or friends with kids, let me make a suggestion. Most kids have far too many toys and almost no tools. By the time a child reaches their teens, or better, even earlier, stop buying them toys and start giving them tools that will keep their value and be of use the rest of their lives. A great gift to a teen is a basic mechanics tool set. Each year after that you can add on additional tools. A seven-year-old may be ready for a good pocket knife. An eight-year-old should have a good, basic bow. A nine-year-old may benefit from a multi-tool. By twelve, basic tools should be on the birthday table. By the time they reach their late teens, our kids should have all sorts of basic items needed to manage and maintain a house and homestead, both in terms of skills and stuff. Long after Legos and other toys have been discarded, sold used at a discount, or dustbinned, these gifts will continue to bless and build up your kids and your family.

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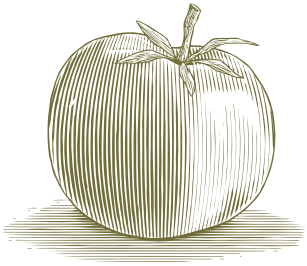
# In the Garden



If you have a garden and a library,
you have everything you need.

— Marcus Tullius Cicero

Odd as I am sure it will appear to some,
I can think of no better form of personal
involvement in the cure of the environment
than that of gardening. A person who is growing
a garden, if he is growing it organically,
is improving a piece of the world.
He is producing something to eat,
which makes him somewhat independent
of the grocery business, but he is also
enlarging, for himself, the meaning of food
and the pleasure of eating.

— Wendell Berry

A society grows great
when old men plant trees whose shade
they know they shall never sit in.

— Greek proverb

One of the big reasons people want to homestead is so that they can grow their own food. They want space for a garden, a real garden, not just some corner of a shady back yard or a small plot at the community center. They (wisely!) want to cut down their food bill, which for a homesteader is one key to long-term success. Unfortunately, gardening can easily become an expensive adventure, especially for first timers.

This section is all about ideas to help your garden gloriously grow gobs of food without requiring great amounts of green—$$$—inputs.

### Small Starts Lead to Success: Garlic in Boxes

How do you grow when you have nothing to grow in? When we moved out to our farm we had a problem. We had no dirt. None at all. We were greeted by rock-hard clay, so tough that even the tiller I borrowed from a neighbor couldn't take it. I was determined to grow something no


## Easy Does It

For some reason, when people are in trouble, they tend to call you on a Friday night. Late on a Friday night. At least they seem to do this to me. One balmy late July evening, a bit after nine o'clock or so, my phone rang. I answered and was surprised to hear the voice of Sam, a friend whom I hadn't seen much of lately. (We live about 80 miles from each other.) "John, I need to talk to you about a problem…a gardening problem." Before you laugh, his voice was quite serious. His situation helped make sense of why.

He and three families from his church had decided to create a community garden. Chickens. Bees. Beautiful vegetables. Fresh food all summer and fall long with extras for canning and preserving and putting up for winter—at least, that is what they thought. One family had land, and together the group set about putting in their first garden. A 10,000-square-foot garden. Now, if you have a fair bit of experience and the right equipment, going straight to 10,000 square feet (about a quarter of an acre) isn't a terrible idea. But if you are new, and if you don't have a good game plan, especially for dealing with weeds and nature's other misdeeds, well… you end up like my friend, making phone calls late at night to other growers hoping for some miraculous deliverance.

Their 10,000-square-foot garden had started off pretty typically. Amend, till, plant. Bee hives were bought and built. A chicken coop was framed and filled with various cluckers of all

sorts of shapes, sizes, and colors. They invested a great deal of time and, from the sound of it, a decent sum of money as well. In a few weeks, things looked lovely—until the weeds came. Soon after, so did the deer. Not to mention the raccoons, possums, and everything else that enjoys a chicken dinner with a few servings of fruits and vegetables on the side. Animals care about a balanced diet, too.

What happened to the plants that survived? Answering that involved looking, and looking, and looking, because you couldn't find it. Two-foot, three-foot, four-foot weeds filled the entire garden. As things started to get away from them, they tried to till again. They weeded. The weeds bounced right back. An emergency meeting was called. All four families would spend an entire weekend saving the garden! Sam didn't think this was a good plan. Five hundred hours of labor to save maybe a thousand or so dollars of vegetables, at best. The math just didn't make sense.

If you learn anything from my friend's story, it's to not overdo it out of the gate. Start small. Take on a few projects at a time. Create a few-hundred-square-foot garden. Master a couple of crops each season. In a few years you will be so much further along than if you had burned yourself out going too big too soon and too fast. Homesteading is like a marathon, no one wakes up one morning and runs 26 miles. The first guy who tried it, back in ancient Greece, finished the run but died a few minutes later. Take it as a cautionary tale. Build up your stamina, skills, and homesteading sense. One day you will get to where you want to be and you will enjoy the journey so much more along the way.

Small beginnings done well set the stage for big success later.

matter what that first fall, and the only quick solution I came up with was growing garlic in cardboard boxes. If I couldn't grow in the soil, I would do it on top of the soil until I had soil of my own to work with!

The experiment was a moderate success and also resulted in a nice small area for our first full year of gardening the next spring. I didn't realize it at the time, but it was a type of container growing meets lasagne gardening, just using boxes instead of longer-lasting plastic-type totes. Most of all, it allowed us to have some success right from the start. Don't underestimate how important doing a few small things well is the first few years on your homestead. Too many early setbacks may send you straight back to the city.

A few notes about growing in boxes. First, if you grow in boxes, make sure you lay a few broken-down boxes under and around the growing box so that, come spring, grass and weeds aren't growing right

## John's Uncommon Two Cents—Safely Using Cardboard

Remember, with cardboard boxes, to remove any tape, staples, or other metal clasps, and any shiny stickers or similar stuff on the boxes. I don't bother with boxes that have the nylon-style tape (strings inside the tape). That stuff is too much of a pain to remove to be worth the time. Stick with low- to no-ink boxes as much as you can. While the inks are supposed to be mineral- or plant-based and safe, I still feel better exposing my soil to as little of them as possible, including the newer soy-based ones.

Look for cardboard that has little to no ink, along with easy to remove tape and staples if any.

up against your raised boxes. Second, if you are in a really cold climate, mulching around the boxes with wood chips or similar material is recommended. Raised boxes standing alone outdoors can get so cold that the garlic suffers damage. Mulch—both around and on top of the boxes—helps protect it from cold, similar to when the garlic is planted directly in the ground. By the time the garlic is ready to harvest, the boxes will be completely broken down and the soil under and around significantly improved. Third, plant cold-hardy varieties, especially the farther north you find yourself.

### Perennial Cardboard Plant Protectors

Perennials often get planted in places surrounded by grass that gets mowed. Unfortunately, this means some of our perennials have gotten mowed down over the years by neighbors lending a hand and mowing our lawn, or even by me not noticing them amidst tall grass I got behind on keeping in check.

So, I came up with a simple solution to protect new transplants—I plant per normal instructions but place a cardboard box around them.

This makes it very clear to anyone, including children playing around the property, where the plants are while still small, providing a fair bit of protection until they become larger and well established. The boxes also hold freshly applied amendments, soil, and mulch in place while things get settled and established. They are easy to weed and also easy to inoculate or populate with a desired companion plant such as clover.


Expensive perennials made a bit more safe from mowers and small children.

### Easy Raised Beds with Slab, Scrap Wood, Straw Bales, or Concrete Blocks

Raised beds are a popular way to start growing in small spaces. They can also be very expensive. Materials for an average-sized raised bed can run a few hundred dollars. Like the Williams Sonoma chicken coop,

On a gentle slope, slab wood on the lower side makes for easy raised beds and a beautiful setting to grow food.

that makes for a much longer return on investment. But you can make beautiful and affordable raised beds out of a lot of materials, both low-cost new or recycled.

Slab-wood or "second"-wood raised beds are especially useful if your land has a gentle slope. You can make a path, swale, and raised bed system that is fruitful, water retentive, erosion resistant, and easy to maintain.

Using brand-new lumber is expensive. Instead, we visit our local sawmill and ask if they have any forgotten or rejected lumber for sale. This lumber is often 50–80 percent less, yet for our purposes suitable for many years of service. We look for boards that are at least six and ideally eight to ten inches in width, a minimum one and a half inches in thickness, and eight feet or longer in length. If there are nice and well-priced wider boards, we wouldn't walk away from those either.

To hold the raised bed boards in place, you have a few options. Some people use rebar. If you have access to free or low-cost rebar,

this isn't a bad idea. Since I have access to lots of low-cost wood, I make wood pins to hold the boards in place. All it takes is the mitre saw set to a 30 or so degree angle and the wood. Decide on the length of pin you need, and cut away. Leftover pieces make good plant row markers or kindling for fires.

Either way, your pins should be double the height of the board. So if the board is 8 inches, your pins should be 16 if the depth of your soil allows. The looser your soil, the longer you should make your pins. Pins generally last me about two to three growing seasons and then get replaced.


All it takes is some scrap 1×1 wood and a mitre saw to make simple wood pins to hold short raised bed walls in place.

Rebar pins are easier and more durable than wood ones, but make sure you drive them a inch or so below the top edge of the board. A rebar pin sticking up out of the ground is a real danger if someone falls on it while working in the garden. The wood pins are only slightly less so, so drive them at or below the board's height as well. You can also use tree branches, especially locust or cedar because they should last longer than many other species, though any hardwood would do.

***Straw Bales and Concrete Blocks***

Wood isn't the only way to make a raised bed. You can also make a raised bed by using straw bales or concrete blocks. Bales provide great insulation and moisture retention, while also giving plant roots another place to spread into (some people grow directly in straw bales, but that requires a lot of bought fertilizer, so it is not something I recommend). The added benefit of using straw bales to make raised beds is that you have mulch right next to where you need it. As the season moves along and the bales begin to break down, you can bust them open and spread them to suppress weeds since the soil should now be warm and stable from settling and all the plant roots taking up residence in the growing space. Just see our note below about safely sourcing straw.

Straw bales also make quick, easy, and inexpensive raised beds.

If you are reusing concrete blocks, clean and rinse them thoroughly, and make sure there are no chemical, paint, or other unknown and possibly dangerous residues on them. Remove any mortar or other leftover debris that is on the blocks as well.

Some people get creative and even fill the upright channels of the blocks with soil and do flowers or similar plants for a lovely border on their concrete raised beds. Another option is to fill them with rock or whatever other substance you won't mind having in that spot if you ever take the raised bed apart. Also, consider whether if you will ever expand the bed as well when you fill the channels, as moving the blocks is going to make some amount of mess as the content of the channels and the bed itself spill out.

### The Mess of Hay, Straw, Manure and Compost

One of the best ways to get soil for your first garden or to recharge your current one is through manures or compost. Unfortunately, these low-cost and high-value fertilizers are now also one of the greatest dangers to your garden. As herbicide resistance has swept across the United States and other places, new herbicide formulations have flooded the market. While the old versions were a temporary, highly damaging danger to your growing spaces, these new ones are a multi-year disaster if your growing spaces get exposed to them.

One of my friends found this out the hard way. He had a decades-old organic garden in Florida. To amend it, he purchased a few pickup truck loads of manure. Not much at all given the size of his garden. Early spring, the loads arrived. He spread and worked them in as usual. Then he planted and transplanted his crops. A few weeks later it was clear

something was very, very wrong. It took some time, but eventually he found out that he had purchased contaminated compost.

Herbicide contamination is something you need to take very seriously. Unfortunately, pyralids (a chemical component of some modern herbicides) and many other herbicides may be found in manure, compost, straw, and hay. If you are bringing any of these onto your farm, you need to source them carefully to protect your crops.

With the pyralids, if you get them in your garden, it is usually three to five years before you can grow much of anything other than corn. If you are Certified Naturally Grown or Organic or some other certification, it will be lost as well for quite some time. Again, if you are bringing fertility or hay and straw onto your place, make sure you source them carefully. A small mistake can set you back many, many years, and many thousands of dollars. Just ask my friend or the tens of thousands of other growers who have been hit by herbicide contamination.

### Fencing and Mulching with Sheet Metal

Most people don't think of sheet metal as a garden input, but it has a lot of interesting uses. First, it makes a great mulch. Yes, mulch! While grass and weeds will still push through wood chips and straw, nothing can pass metal mulch. So if you have spots that have really bad weeds you need to suppress and you don't want to mess with constant hand or other controls, metal mulch is a great option. Also, unlike other mulches, it will last as long or longer than you. Plastic rips, tears, degrades, and needs to be removed. Cardboard and newspaper decompose. Wood chips and straw need replacing. But once you lay sheet metal down, it will stay for ten to twenty years or more.

Also, its weight to coverage ratio is great. Most sheets of roofing and siding metal are three feet across and ten or so feet long, so an average sheet will mulch 30 square feet. With help from one of my kids, we can cover 300 square feet in 15 minutes or less. With wood chips or some other mulch, we would need thirty or more minutes to cover the same area, and would still have some weeding and other work to do later on. I personally like to use metal mulch for edges and other areas that are

hard to keep weed free, along with paths if I run out of sufficient organic mulches or if a particular path or area has some sort of persistent, troublesome pest to deal with weed wise. As you will see below, some growers go full-metal garden, making every path metal.

Not only is sheet metal a great mulch, it also makes excellent fencing. Unlike wire, which rabbits and other flexible critters can easily

HOMESTEAD HOLLER

## The Sheet Metal Garden

Herrick Kimball's website was what first inspired me to make use of metal mulch many years ago. His neighbor, Steve, was featured in a few of Herrick's posts on how he created a low-maintenance, high-yielding garden. Metal mulch played a crucial role both in weed suppression and pest exclusion. I reached out to him to see if he would take some updated pictures to share here. I also asked him about pests. One problem in my area is that the metal attracts some predators, like snakes, but also lots of pests, especially mice (though so does straw mulch). Herrick blogs at thedeliberateagrarian.blogspot.com.

Some people are now using sheet metal as yet another way to build raised beds. At around three feet high, these are especially convenient for older people or those with back problems. The only drawback is that three feet deep is a lot of space to fill with soil. I have seen people use straw, hay, or hugelkultur—the practice of burying wood to build soil—in the bottom to cut down on the cost and time it takes to fill the raised beds and to help build high-quality soil over time.

Credit: Herrick Kimball

Sheet metal is a permanent approach to mulching, stopping weeds and grasses for as long as you leave it in place.

Scrap sheet metal makes a decent fence to exclude a number of common garden pests, such as raccoons, possums, and rabbits.

pass through, sheet metal keeps almost everyone out of your garden. Also, for larger pests, wire is pretty easy to climb (my melons have been multi-year victims even inside our fully fenced garden). Sheet metal is slippery and offers no easy places for climbing critters to claw on to, so it is also effective against raccoons, possums, and other agile garden attackers. To help prevent burrowing, you can make a thin trench and place the wire two to three inches into the ground and then replace the soil, or lay chicken or similar wire underneath, extending twelve or so inches out on all sides.

### *Making Sheet Metal Safer*

Sheet metal can be very dangerous, especially along its edges and corners. A simple way to make sheets safer on chicken and rabbit tractors and other creations is by bending the corners over with a mallet or hammer.

This protects people big and small from slicing themselves badly along the corners. Sheet metal used as mulch should be secured in place by at least two concrete blocks or large rocks. Unsecured sheet metal is the equivalent of a flying guillotine. It can damage