

Leaf Lettuce - Almost Instant Gratification

Billie Nicholson

Spring has really arrived, when the lettuce comes up, at least in my mind. Nothing tastes better after a long winter of eating “store bought” greens than home grown lettuce. You may not believe it, but lettuce is really easy to grow from seeds or small starter plants. They require a limited space, not a lot of direct sunlight, and are ready to eat very quickly. Leaf lettuce is a plant you can harvest today and get more in a day or two - if you know how. Here’s the HOW: don’t cut the whole plant at once, just cut a few leaves off each plant leaving at least three small leaves behind. This will allow the plant to recover for the next harvest.

To prepare you planting space, you will need a well drained area or a pot with great drainage. Mix 2-3” of compost into your soil. There are lots of varieties of seeds for growing baby greens. Some of our favorites include “Black Seeded Simpson,” “Bronze Mignonette,” “Buttercup,” and for a little spiciness “Arugula Roquette.” Scatter the seeds or plant them in rows and stagger plantings every other week once freezing weather has ended. Pre-moisten the soil and cover lightly with additional soil. Since you don’t plan on keeping these plants to individual maturity, they can be planted closer. We keep a planting journal so we know when we planted what. Once plants are up, should you get another snow or freezing night, cover the seedlings over night with burlap or other ground cover material. Keep the soil moist. Discard when they start to bolt (grow tall and form blooms), they’ll get bitter.

To harvest, use a pair of kitchen shears or pinch with your fingernails when leaves are about 4” long. Gather leaves in the morning when they are plump with water. Rinse them 2-3 times in cool water and store in a plastic bag or in one of those clam-shell containers you saved from the winter greens. Your baby salad greens will be so fresh the plants won’t even know they’re missing. What vegetable means Spring to you?

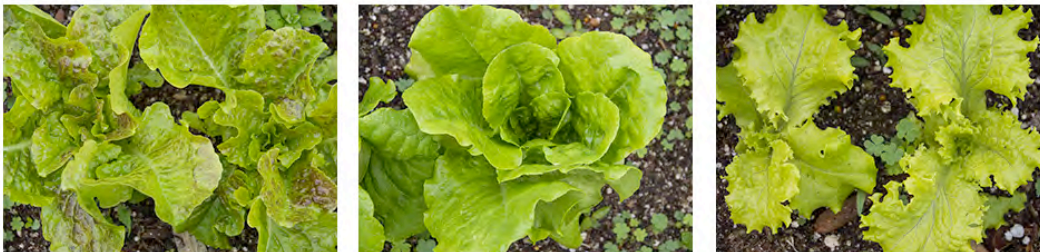


Photo Credit: Billie Nicholson

Ask Billie



Q. How can I tell when eggs cooked in my **Sun Oven**® are done?

A. Use a cardboard egg carton to bake the eggs for 1 hour. To test for doneness, take one egg and spin it on a table. If it spins evenly, the egg is done.



Baking Eggs in Sun Oven © 2013 Billie Nicholson

What is your Most Burning Question about Food Storage or Emergency Preparedness? Send your questions to editor@sunoven.com



Billie Nicholson



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Building A Greenhouse - More Than Just Opening a Kit

Billie and Robert Nicholson

We finally decided the greenhouse kit we purchased several years ago had stayed in the garage long enough. We opened the box and were delighted that the kit came with an instruction book. Yes, a multi-page one. As we poured over it, we soon realized that one, we were thankful for the book and two, it was way more complicated than we had assumed. To be honest, we decided we needed some professional help from someone who had actually built something. Thanks to our handyman Mr. C.

First step was site preparation. We measured the space for the foot print, squaring it off with string. Instructions said dig out a 5" deep trench 4" wide and level the inside. Next, we covered the area generously with ground cover material to discourage weed growth around the foundation.

Next came digging trenches for utilities. We wanted water for a sprinkler system (extra) and electricity to run this, some lights (extra) and a vent fan (also extra). Fortunately we have an available irrigation zone with piping already accessible and an electric line in an adjoining workshop, otherwise, these would be big extras. Once the utility lines were in place, we could get back to the foundation.



The foundation sections were assembled and placed in the trench, making sure they were level and fit together squared up. Then it was time to get pea gravel to add into the trenches. For the 12' x 10' structure, we needed 22 - 0.5 cu. ft. (11 cu. ft) bags. Once the base was stabilized, the metal framing was assembled and bolted into place, four corner posts with braces first, then tying these together with the roof pieces.

Vent windows in the roof were installed, followed by bird deterrent (extra) to keep the birds from sitting on top and doing their business all down the windows. We may get some of that, but it will be fly-by. Next came hanging the doors and getting them level enough to close.

A wooden frame to hold the sprinklers, light and shelving/work benches was built. After these are completed it will be time to add the electric outlets and piping for the sprinklers. **More Later**



Ginger's Many Evidence-Based Health Benefits Revealed

Written By: Heidi Stevenson

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Not only is ginger a culinary marvel, its health benefits are stunning. It has been shown to be more effective against staph infections than antibiotics—and without the adverse effects.

Ginger's culinary qualities are a delight, but its health benefits are simply stunning. It has been shown to be more effective against bacterial staph infections than antibiotics. It can kill cancer cells. Its anti-inflammatory effects are already famous. It can resolve brain inflammations, and ease or cure a variety of gut problems, such as ulcerative colitis and acid reflux. And ginger can even alleviate the effects of gamma radiation. What's not to love about this incredible herb? Standard in many kitchens and cuisines, ginger is the seasoning that gives life to a host of dishes. It's been used medicinally for more than 2,000 years. Though best known for its gastrointestinal soothing effects, that's just the beginning of its uses. The plant parts used for both culinary and medicinal purposes are the rhizomes, the root-like stems that grow underground. The primary plant used medicinally is [**Zingiber officinale**](#).

Several compounds in ginger may be related to its health benefits, including shogaol, zingerone, and gingerols, which are similar to chili pepper's capsaicin, noted for its pain relieving ability. However, as we've seen with separating [**aspirin from willow bark**](#), trying to find the active ingredient in a herb and using it alone tends to both diminish its effects and remove the balancing components that can both increase positive effects and decrease or eliminate adverse effects.

Some information in this article is derived from studies that have isolated single ingredients, generally with the goal of developing drugs. Though this may be accomplished, a history of pharmaceuticals demonstrates that it is both hubristic to believe that nature will be improved and naive to think that isolating a single chemical can possibly be done without removing the balancing elements that mitigate against harmful effects. Nonetheless, such studies do help demonstrate that there is strong medicine in ginger.

Ginger's Health Benefits

Let's take a look at some of the areas that ginger has been shown to benefit health:

- **Cancer:** Several studies have demonstrated ginger's ability to defeat several types of cancer cells, including some of the most aggressive and difficult to treat: lung, ovarian, breast, skin carcinoma, prostate, and pancreatic.^(1,2,3,4,5,6,7,8)
- **Diabetes Prevention:** Studies have shown that diabetes may be both prevented and treated, along with the related abilities to lower blood sugar, cholesterol, and blood fats.^(9,10)

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6 Ways Mushrooms Can Save The World

Paul Stamets Edited from a TED Talk

I love a challenge, and saving the Earth is probably a good one. We all know the Earth is in trouble. We have now entered in the 6X, the sixth major extinction on this planet.

I want to present to you a suite of six mycological solutions, using fungi, and these solutions are based on mycelium. The mycelium infuses all landscapes, it holds soils together, it's extremely tenacious. This holds up to 30,000 times its mass. They're the grand molecular disassemblers of nature -- the soil magicians. They generate the humus soils across the landmasses of Earth. We have now discovered that there is a multi-directional transfer of nutrients between plants, mitigated by the mycelium -- so the mycelium is the mother that is giving nutrients from alder and birch trees to hemlocks, cedars and Douglas firs.

Mushrooms are very fast in their growth. Mushrooms produce strong antibiotics. In fact, we're more closely related to fungi than we are to any other kingdom. A group of 20 eukaryotic microbiologists published a paper two years ago erecting *opisthokonta* -- a super-kingdom that joins *animalia* and *fungi* together. We share in common the same pathogens. Fungi don't like to rot from bacteria, and so our best antibiotics come from fungi.

We were involved with several experiments. I'm going to show you six, if I can, solutions for helping to save the world. Battelle Laboratories and I joined up in Bellingham, Washington. There were four piles saturated with diesel and other petroleum waste: one was a control pile; one pile was treated with enzymes; one pile was treated with bacteria; and our pile we inoculated with mushroom mycelium. The mycelium absorbs the oil. The mycelium is producing enzymes -- peroxidases -- that break carbon-hydrogen bonds. These are the same bonds that hold hydrocarbons together. So, the mycelium becomes saturated with the oil, and then, when we returned six weeks later, all the tarps were removed, all the other piles were dead, dark and stinky. We came back to our pile, it was covered with hundreds of pounds of oyster mushrooms, and the color changed to a light form. The enzymes remanufactured the hydrocarbons into carbohydrates -- fungal sugars. These mushrooms sporulated, the spores attracted insects, the insects laid eggs, eggs became larvae. Birds then came, bringing in seeds, and our pile became an oasis of life. Whereas the other three piles were dead, dark and stinky, and the PAH's -- the poly-aromatic hydrocarbons -- went from 10,000 parts per million to less than 200 in eight weeks. The last image we don't have. The entire pile was a green berm of life. These are gateway species, vanguard species that open the door for other biological communities. So I invented burlap sacks, bunker spawn -- and putting the mycelium -- using storm blown debris, you can take these burlap sacks and put them downstream from a farm that's producing *E. coli*, or other wastes, or a factory with chemical toxins, and it leads to habitat restoration. So, we set up a site in Mason County, Washington, and we've seen a dramatic decrease in the amount of coliforms. In 48 hours to 72 hours, these three mushroom species reduced the amount of coliform bacteria 10,000 times. Think of the implications.

We studied a rare mushroom called *Fomitopsis officinalis* -- *Agarikon*, exclusive to the old-growth forest that Dioscorides first described in 65 A.D. as a treatment against consumption. We tested hot water extract from some of these and showed they were highly active against pox viruses and flu viruses.

We also worked with fungi that kill insects. Our house was being destroyed by carpenter ants. So, I went to the EPA homepage, and they were recommending studies with *metarhizium* species of a group of fungi that kill carpenter ants, as well as termites. The industry has spent over 100 million dollars specifically on bait stations to prevent termites from eating your house. But the insects aren't stupid, and they would avoid the spores when they came close, and so I morphed the cultures into a non-sporulating form. I put it right where a bunch of carpenter ants were making debris fields, every day, in my house, and the ants were attracted to the mycelium, because there's no spores. They gave it to the queen. One week later, I had no sawdust piles whatsoever. The mycelium is consumed by the ants, they become mummified, and, boing, a mushroom pops out of their head. Now after sporulation, the spores repel. So, the house is no longer suitable for invasion. This is the most disruptive technology -- I've been told by executives of the pesticide industry -- that they have ever witnessed. This could totally revamp the pesticide industries throughout the world!

[Read More](#)

8 Reasons for Planting Potatoes



[Potato Flowers - Wiki](#)

Heirloom Solutions

If you could choose just one crop to grow to feed your family in tough times, the potato would be ideal. Potatoes may have a humble reputation, but when it comes to surviving in tough times, they're superstars. Here are eight reasons why.

Reason #1: They're easy to grow and require no machinery or processing

Potatoes are easy for one person to grow and harvest. Growing a family plot of potatoes requires minimal labor and attention. No heavy machinery needed! Unlike grain crops, potatoes don't need to be milled, threshed, combined, or undergo any other processing. You just pull them out of the earth, brush off the dirt, and cook.

Reason #2: Potatoes are packed with nutrition

Potatoes get a bad rap, but they're actually an excellent source of important nutrients. A typical potato contains over half the day's requirement of vitamins C and B6, and

almost half of the potassium. They're also a good source of fiber, folate, niacin, thiamin, magnesium, manganese, and more.

Reason #3: Potatoes are a healthful alternative to grains and beans

Many pre-packaged survival foods rely on grains and beans... but for some folks, that can be a problem. Potatoes are more easily digestible than beans, which often require soaking. For people with gluten sensitivities or who don't do well with grains, potatoes are the perfect alternative.

Reason #4: In a TEOTWAWKI scenario, they provide sorely needed calories

In a total meltdown, you will be doing far more manual labor than you do now. You'll be walking or biking everywhere when gasoline prices skyrocket. You'll be growing your own food. If power is down for extended periods, you won't have machines to do laundry, dishes, or cleaning. You'll be chopping wood for heat. And all that extra effort requires more calories. Home grown potatoes, which require minimal labor, can provide all the extra calories your family needs in a complete off-the-grid lifestyle.

Reason #5: They can be grown even when growing space is limited

It doesn't require much land at all to grow potatoes, but if you live somewhere where there's virtually no ground to till, you can still grow them. People grow potatoes in window boxes, food-grade buckets, cardboard boxes, tall homemade containers, and more.

Reason #6: Potatoes keep for months

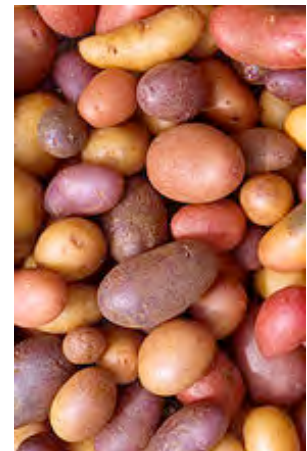
Kept at the proper temperature in an old-fashioned root cellar, potatoes will last for months. (Keep them away from onions and garlic, however, or they'll spoil faster.) And if you're worried about using them up before they start to go bad, you have another option... see Reason #7.

Reason #7: They're easy to dehydrate

Scrub 'em, slice 'em, and dehydrate them ... either in a dehydrator or in your oven. Dehydrated, potatoes take up less space and can be stored in airtight containers for very long periods of time. In fact, they'll last for *ten years* in a sealed #10 can.

Reason #8: Potatoes can be prepared in endless ways

Boil 'em, mash 'em, cook 'em in a stew ... fry them, scallop them, even make potato flour from them for baked goods. Make potato pancakes, potato dumplings, home fries ... even potato vodka!



[Many Potato Varieties -Wiki](#)

Be self-reliant - plant potatoes in your garden this year.

Ginger Spiced Solar Sweet Potato and Chard Bake from our Solar Chef



Ginger Spiced Sweet Potato and Chard Bake

© 2016 Billie Nadeau

Swiss chard works best in this dish but if you can't find it use spinach instead. If using spinach you get to skip the steps that involve removing and sautéing the ribs. If you use baby spinach you can even skip cutting it into ribbons. But, if Swiss chard is available it's worth the extra work.

PREPARATIONS

Set **Sun Oven®** out to preheat. Spray a baking pan with cooking spray; set aside.

Use a sharp knife to remove the ribs from the chard. Slice the ribs into 1/2-inch pieces and set aside. Cut the leaves into thin ribbons and set aside.

In a large skillet, heat the oil over medium heat. Add the onions and cook, stirring often, until softened, about 5 minutes. Stir in the garlic, ginger, and red pepper flakes. Add the sliced chard stems and continue cooking until just softened, about 5 more minutes. Stir in the leaves and cook until just wilted, about 2 more minutes. Remove from heat and season with salt and pepper. Arrange half of the sweet potato rounds in the bottom of the prepared baking dish and season with salt and pepper; they will overlap. Cover with half of the chard mixture and half of the coconut milk. Cover with the remaining sweet potato sprinkled with salt and pepper. Cover with the remaining chard mixture and coconut milk. Press down to submerge the greens in the milk. Cover with a second baking pan and bake in the Sun Oven until the liquid has been absorbed, about 1 1/2 hours. Let stand 10 minutes before serving.

Makes 8 servings.

INGREDIENTS

- 1 pound Swiss chard
- 2 pounds sweet potatoes, peeled and sliced into 1/8-inch thick rounds
- salt and pepper to taste
- 2 tablespoons olive oil
- 1 onion, finely chopped
- 4 cloves garlic, minced
- 1 3-inch piece fresh ginger, peeled and grated
- 1/8 teaspoon red pepper flakes
- 1 14-ounce can unsweetened coconut milk, well stirred

Adapted for the Sun Oven from *Not Your Mother's Casseroles* by Faith Durand

Bartering for Survival in a Post-Collapse Society

Condensed from article by FrankBates in [American Prepper Network](#)

It's easy for people to think they don't need to worry about preparing for a disaster because they have the financial resources to carry them through tough times. They've become accustomed to relying on money to take care of their problems, assuming their finances will help them weather any storm. What about bartering?

The truth is, no amount of money will protect you if the U.S. suffers a total financial collapse, something many experts believe could happen in the near future. Peak oil, currency collapse, an EMP attack—any number of events could easily bring the country to its knees, decimating our savings or keeping them locked up in banks for months or even years. There's also the very real possibility of inflation making our currency virtually worthless.

No matter how fat (or slim) your bank account may be, it's critical to recognize there may come a day when currency is unavailable and/or completely useless. If our economic system collapses, it's likely that the goods we've stockpiled and the skills we possess will be the only things that hold any real value. In this situation, many of us will have to barter these goods and skills to survive.

When you've covered your own family's needs, you can start stockpiling items and acquiring skills likely to help in a post-collapse society where bartering is the only form of commerce.

Which items should you hoard for bartering? The list is limitless, but you'll do better to focus on those items that will give you the biggest return on your investment. That is, choose items with a long shelf life that are likely to be very valuable later compared to their current cost.

The most valuable items in a post-collapse society will likely be food and water. However, trading any extra essentials from your stockpile is risky, given that we won't know how long it will be before we can buy those items in stores again (if ever). Instead, you'll be better off stockpiling things that others haven't but will be in high demand, like coffee, cigarettes, alcohol and candy.

Some other items that could be valuable include:

- Gasoline and oil
- Soap
- Candles
- Tools, nails and other hardware
- Reading glasses
- Personal hygiene products
- Toilet paper and paper products
- Medicines
- Lighters, matches and other fire starters
- Flashlights and batteries
- [Paracord](#)
- Clothing
- A wide variety of [non-GMO seeds](#).

In addition to supplies, you'll want to consider which skills you currently have or would like to develop that would be useful in a post-collapse society. These may include:

- Medical services
- Hunting
- Farming
- Construction and carpentry
- Welding
- Blacksmithing
- Sewing
- Gun repair
- Small engine repair
- Appliance repair

The Butcher, The Baker, The Homestead Lawmaker **Farm to Consumer Legal Defense Fund**

John Moody

as presented during the Home Grown Food Summit

Growing your own food should be simple, right? Well, in the modern world, few things are simple. Whether in your own backyard or a few back acres, numerous regulations, laws, boards, ordinances, and more may affect what you can and cannot do. Here are five areas for the small grower to consider.

1. Being a good neighbor (and staying out of trouble) complaints often include
 - Smells (poorly managed animals) - you need to clean up after them
 - Sounds (noisy animals)
 - Space (respecting property lines for both people and animals) - may mean tending fences

Most often the complaints are made by an upset or angry neighbor or by a competitor. What you are allowed to do might not be the best for neighbor relations. Loose animals causing accidents make you liable; there may be fines or penalties; proper fencing is a good thing. Also, take reasonable steps to protect your livestock from attacks by other animals
2. Animal abuse allegations
 - There have been a significant rise in such cases across the country
 - Some states are adopting laws to protect big agriculture while endangering small producers
 - Some animal rights organizations are partnering with federal/state officials to enforce laws against people keeping farm animals
 - Farmers and homesteaders need to go on an educational offensive regarding animal husbandry and care
 - During adverse conditions, you need to be prepared to ensure your animals are well cared for
 - Educate your customers and neighbors both on the farm and in social media
 - Engage local officials with an invitation to your facility
 - Provide them with good information that explain what traditional sustainable animal care looks like
3. Cottage food
 - Expands your ability to produce food for others from your home
 - Laws are constantly changing in states yearly; keep up with the changes
 - Some states allow basic goods to be produced and sold
 - Some may permit fermented or pressure canned items
 - All states allow sale of non-potentially hazardous foods
4. On Farm Slaughter and meat sale issues
 - Preparing food for personal consumption regulations generally fall to city or local jurisdiction
 - Sales other than poultry of on farm slaughtered meats are not allowed unless you have an approved, inspected facility on your site
 - Rabbit, deer, bison, quail have no federal inspection requirement, state requirements vary by state
 - Some states have a two tier inspection system while others only have USDA inspected facilities
 - If you own an animal, you may sell whole/live animals which allows the animal to go through a custom or inspected slaughter house
5. Right to farm and zoning
 - Rights to produce food on your own property can be a battle
 - You need to understand what is required to allow you to "farm"
 - Farm to Consumer Legal Defense Fund offers free consultation and advisement for laws in your state