# NEEDFUL THING

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The Resource for Emergency Preparedness and Food Storage Specialists, and their family, friends and neighbors

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#### **Mother Earth News Fair**

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SUN OVENS AT MOTHER EARTH NEWS FAIR

FLETCHER, NC

The aroma of sweet rolls, loaves of bread and red beans and rice baking in **Sun Ovens**® attracted many fair attendees to the **SUN OVENS**® booth at the Mother Earth News Fair. Traveling to Fletcher, NC. in April, Paul and Chris Munsen, of Sun Ovens® International, talked all day for two days. The truck load of ovens we took all found new homes and we took additional orders to ship. Some families bought more than one. Mark your calendars, we'll be at the MEN fair in Topeka, Kansas Oct.25 & 26, 2014.

There were over 150 workshops, ranging from livestock butchering to sugar detoxification. With so much to learn, it was necessary to review the schedule and plan our time carefully. In between classes, we visited the myriad of booths, all with things we wanted to take home. My favorite purchase: Mud Gauntlets! In this month's issue, we'll report on some of the classes we attended.

#### Ask Billie

Our Question and Answer column, covering topics of interest to our readers.

**David from NC Asks:** Can you dry meat with the Sun Oven?

**Answer:** Yes. Meat or fish can be dried using the Sun Oven®. Sun drying will keep the odor out of your house. Place the Sun Oven® in a sunny place, facing south. Leave the door unlatched with one latch turned in to keep it open enough to allow for moisture to evaporate. Cover the multi level drying racks with parchment paper. It may take up to two days to complete the drying process. Leave the meat in the oven and seal the latches over night. This will suspend the drying process and keep bugs or nocturnal animals from getting into the oven. Finish the drying process the next day by propping the door open on the latch.

What is your Most Burning Question about Food Storage or Emergency Preparedness? Send

your questions to editor@sunoven.com















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### **Be Water Smart**

Billie Nicholson

According to the recently released data from NOAA, nationwide, January was below average in precipitation. The state of California continues to suffer from water shortages, especially in the San Joaquin Valley, the salad bowl of the world. In addition to losses of jobs, the effects of this drought will show up in every grocery store across the country in the form of reduced selection and higher prices. Besides growing some of our own vegetables, we should all consider the following tips to help conserve water.

- 1. Make sure your home is LEAK FREE. To check this, read your water meter at a time when no water is being used. Two hours is a good test time. Check the meter again after two hours. There should be no change. If there is, you have a leak.
- 2. The first place to check for leaks are dripping faucets. Stop these by replacing washers in the hot and cold handles. A one second dripping rate will waste 2,700 gallons of water per year. This will increase your water and sewer costs or strain your septic system.
- 3. The second place to check is the toilet. Add a few drops of food coloring to the water holding tank. If there is a leak, the died water will show up in the toilet bowl in about 30 minutes. Replacements parts can be purchased at your local hardware store and are easy enough to change. (I know, I've done it.) If the toilet handle sticks leaving the flapper open, lots of water will be wasted. Replacement or repairs of the flapper/chain mechanism is also easy. Be aware of the sound of running water. Check the toilet first when you hear it. Installing a low water volume tank or adding a brick inside an older tank will raise the water level in the tank but reduce the amount used per flush. Throw tissues and dead bugs in the trash to avoid unnecessary flushes.
- 4. Install a circulating water pump on your hot water heater. These come with timers and can be adjusted to allow warm water to be circulating in your water lines. You'll get warm water quicker.
- 5. Running water while you brush your teeth can waste five gallons of water. Wet your brush. Then apply toothpaste and brush without water. Rinse your mouth with water from a cup. Wash out brush and sink with water from the tap.
- 6. In the kitchen, if you're washing dishes by hand, fill a small tub or large bowl with soapy water and wash in this. Stack the washed dishes and then rinse them. Garbage disposals require lots of water to operate properly. Start a compost pot as an alternative method of disposing of uncooked food waste. The worms in your garden will thank you.
- 7. Store drinking water in the refrigerator. You will not need to run the tap to get cool water.
- 8. If you have a well, check the pump periodically. Listen for the pump to click on and off while water is not being used. If it does, you have a leak.
- 9. Mulch around plants to hold moisture in the soil.
- 10. Water lawns and garden in the early morning hours. Don't allow sprinklers to leak, or water your street and driveway. Change their position so water falls on lawn and bushes. Check sprinkler heads periodically for line breaks and head damage. You'll recognize the water oozing in the grass near the head. Adjust the timers to control watering duration based on the time of year.
- 11. Raise your mower blade to three and one-half or four inches. A higher cut encourages grass roots to grow deeper, shades the roots and holds soil moisture better than a shorter cut.
- 12. Be aware of and follow all water conservation and water shortage rules in effect in your community. **Every drop counts**.

  Water Saving Tips

# **Cheese Production - Made Simple**

Billie and Robert Nicholson

One of the classes we attended at the Mother Earth News Fair was taught by Gianaclis Caldwell on making quick and simple cheese. We took careful notes and went home to make cottage cheese. We learned the importance of making sure everything is very clean. The longer you plan to cure cheese the more sterile your working conditions need to be. Listeria contamination can a big problem. We assembled a clean steel pan, thermometer, colander and cheese cloth. Ingredients were milk and lemon juice, although you may use







any edible acid. We gently heated 1/2 gallon of milk while stirring until it reached a temperature between 175 -185° F. We removed the heat and added 8 ounces of fresh lemon juice, stirring as the protein clumped together into "curds." The milk was covered and allowed to cool; then it was strained through several layers of cheese cloth to separate the protein "curds" from the remaining liquid whey. Curds were rinsed in non-chlorinated water, squeezed dry and refrigerated until chilled. Season with salt or add herbs to taste.







We were amazed at the amount of cheese we recovered. As we examined it, we said, "This looks like more ricotta or farmer's cheese than cottage cheese." We immediately knew what to do with it - make lasagna! Alternate layers of homemade sauce, noodles and cheese, ending with cheese. Bake at 350° F in any available oven until hot thorough and cheese melts (about 1 hour). Try not to eat it all in one meal.

Photos by: RustyBuggyEnterprises, Inc.

References: Gianaclis Caldwell and Jack Schmidling







#### Creating a Sustainable Garden

Billie Nicholson as presented by Cindy Conner

Wearing her hand-made vest of many colors, Cindy Conner of Ashland, VA, talked about the things gardeners need to consider to make a garden that will sustain itself. Soil is much more than dirt. It consists of inorganic materials from rocks; organic material from dead and decayed plant life; biological systems - consisting of bacteria, fungi, algae, protozoa and other microscopic animals like round worms and earthworms; and air and water occupying the spaces between the soil components. Soil is a world of its own, whose components work together to support plants not just for

anchorage, but also to provide nutrients enabling plants to grow, conduct photosynthesis and create food for us to eat and oxygen for us to breathe. In order for plants to continue to grow successfully, the soil they grow in needs to be continually nourished as well.

"Part of the cycle of life many try to ignore is microorganisms. Without them, we would cease to exist. Microbes are necessary for our food to be transformed into nutrients that our body can use. If things are not working well in your gut, your body becomes unbalanced, causing havoc throughout. ... In my studies of nutrition and of the soil, I've come to realize that the same thing going on in our gut with the microbes, is going on in the soil. When the right balance of microorganisms is present, plants thrive. Healthy soil produces healthy plants, which feed healthy people. We are what we eat. We are a people of the earth. When we get our nutrients from REAL food, they come with the enzymes and co-nutrients, in proper proportion, necessary for assimilation in our bodies." HomePlaceEarth

To keep our gardens healthy and productive, we need to feed the soil. This does not mean, just add chemical fertilizers. We need to replenish the compost - organic materials in the soil. Making your own compost pile consisting of raw food scraps, non-edible plant parts, like older outside leaves on cabbage, tea and coffee grounds, egg shells and animal manure will replenish nourishing material. Another way to help this is to grow cover crops in part of your garden beds as a crop rotation. Cover crops are grown specifically to feed the soil. Some of these may also provide food for people as well, if you allow the plants to grow to maturity making fruit or seeds. Not all areas in the world produce gardens year-round. In these areas cover crops are grown during the winter. According to <a href="GROW BIOINTENSIVER">GROW BIOINTENSIVER</a> researchers, 60% of your garden space should be in cover crops/compost all the time.

How does this work? The cover plants will be grown, cutdown and left or turned under the soil to decompose in place as the roots and green matter breakdown returning the nutrients to be used again by other plants. You can even use the old plants you have grown in other parts of your garden. When plants like lettuce go to flower, they are no longer edible. Just pull those plants and toss them into the composting bed. Why have a separate place requiring extra time and energy to move? Just make it in an existing garden bed. This was an "AHA" moment for me.

What can you plant and when? Cindy has a <u>handout</u> with suggested plants for fall, spring and summer cover plantings. These cover crops do not require the bed to be fallow for an entire year. Some crops like buckwheat work when you need something to fill a bed for about a month between main crops. Some plants, like cereal rye can be cut and then transplanted into about two weeks later. The plant material can be moved or left as mulch to keep down weeds and hold moisture.

An important note: If you use herbicides on your lawn, do not add these clippings to your composting beds. The herbicides of today do not decompose during the composting process. These herbicides, designed to kill broad leaf plants producing weed free lawns, can damage your garden plants. Even manure from an animal fed on herbicide treated hay will still contain active herbicides.

#### **Blackberries, Bain or Blessing?**



Billie Nicholson

For several years we have been fighting with wild blackberry runners growing in our "landscaped bed" of Louisiana Iris and Philodendron. They'd raise their briar covered runners and I'd cut them off. My work did little except keep them pruned. This past winter was an especially cold one. So cold it killed the Philodendron and the Louisiana Iris. With no competition for nutrients, water and sunlight, the blackberries flourished! A few days ago I noticed they were covered in red berries. That got my attention. Figuring

I'd have to fight the birds for them, I checked their ripening every few days. Yesterday, I saw they had turned blue-black. They were ready for picking and I was counting my blessings.

My favorite purchase at the Fletcher, NC, Mother Earth News Fair was a pair of Mud Gauntlets. I had originally bought them as defense against the vicious stinging ants we have in Pensacola. Now I had another use for them - retrieving blackberries from the briary blackberry vines. They worked great, no scratches or snags on my hands and arms. If you are planning to go



into wild spaces foraging for berries, be sure to wear leather boots and long trousers. When going into wild spaces foraging for berries, be sure to wear leather boots and long trousers.

Soon I had enough berries to do more than get seeds in the grooves of my teeth. I could make a berry crisp using a recipe, <u>Individual Solar Oatmeal Berry Crisps</u>, posted by our Solar Chef.

One of the things I really love about solar cooking is you can be creative without fear of making a total flop. I modified Gabrielle's recipe by using oat flour instead of wheat and substituting chopped pecans for the walnuts. I used a graniteware pan without the lid and baked it in the Sun Oven® at 250°F for 1.5 hr under partly cloudy skies. We saved a few berries to use as garnish. Try it, you'll like it. Oh, berry stains on the gloves? No problem, they're washable.



Photos by: RustyBuggyEnterprises, Inc.

### **Protein Sources - Raising Rabbits**

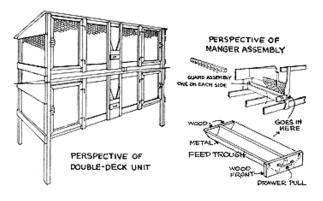
Last month we discussed sources of protein for emergency situations. An alternative to foraging for meat is to raise it yourself. The advantages of having your own source of meat include: they are easier to grow than fruits and vegetables, you will have fresh meat whenever you need it, and they



provide other products such as skins. Also, their waste is a great source for fertility to enhance your garden soil. Rabbits are one of the easiest kinds of animals to raise and provide a large amount of meat for the effort. Two does (females) and one buck (male) should produce about 180 pounds of meat per year. Raising rabbits will require a protective hutch for them to live in. At least two sides should be made of wood and the wire used should be good quality small mesh to keep rabbits in and snakes and other predators out. An Photo:Larry B Moore; Wikipedia internet search will show all kinds of options for houses. Keep in

mind the need to protect them from bad weather, ease of feeding, watering and cleaning the cage.

Select a medium weight breed, like the New Zealand White. Their fur has value, too. Feed them good quality alfalfa or clover hay. Cut it into small lengths. They can also be fed vegetables scraps, like peelings or carrot greens. Be careful feeding them too much green food. They can suffer from bloating and diarrhea. Pellets are also available at local feed supply stores. An automatic water system saves time and



Plans by Ed Robinson

keeps your rabbits supplied with cool, fresh water. In summer, fill empty plastic soda bottles 3/4 full of water and freeze them. Put one in each cage. The rabbit will stretch out beside it to stay cool. Feed, water and check up on your rabbits at least twice each day. Set up a routine and stick to it. Remove any uneaten plant material, like root vegetables and greens the next day. Soon you will learn what your rabbits likes and how much to feed them. (Storey Publishing's "Country Wisdom and Know-How" is a good reference).

Rabbits can be bred every 90 days. Gestation takes about 30 days. The young are born in litters and nurse for about six weeks. They will learn to eat hay and other food as they grow. Separate the young from their mother after six weeks. They can be eaten as "fryers" up until they are seven or eight months old. Be sure to separate the sexes at about three months of age. Alternating the breeding time between the does will give you a steady supply of rabbit to eat. Mothers recognize their young and will not tolerate mixing babies. Get a new buck every three or four years. Make rabbit stew out of older rabbits. The Guide to Raising and Breeding Rabbits for Meat

Healthy rabbits have bright eyes, with no discharge, spots or cloudiness. Their ears look clean inside (brown crusty appearance indicates ear mites) and the nose is dry with no discharge. Check the teeth to make sure they are even. Expect to spend between \$10-\$25 for two does and a buck.

## Add a Survival Net to Your Bug-Out Bag

Billie Nicholson

Joe Nobody discussed the uses of the survival net during the Survival Summit. You can use it to build 10 life-saving items in a pinch. The survival net is lightweight, has a 1" grid weave, and is available at military surplus stores. The standard issue net is 6-8 feet wide by 12 feet long. It comes complete with "S" hooks, MOLLE pouch and paracord. It should cost less than \$30. The "S" hooks should be rated at 200 pounds. Uses Include:

- **Hammock** sling it between two trees; take some small twigs and cut some grooves in them and weave them into each end of the hammock to create a sleeping platform and keep it from bunching up on the ends. Practice doing this. Don't under-estimate the time it will take to get this set up. String up a poncho or plastic bag above to keep moisture off. A hammock will provide better thermal comfort than sleeping on the cold or wet ground. It is much quicker to break camp with a hammock than a tent. It is lighter and takes up less space in your pack.
- **Ghillie** suit or camouflage cloak weave plant branches and leaves into the opens. It breathes better than commercial ones. Make it mid-calf length to allow for more mobility and minimize snagging. Camouflage is not always wooded; use this in different environments. Take whatever is common and secure it to the net. It is always best to avoid confrontation. Use this to get through an area without being detected.
- **Litter** it can be used as a stretcher to carry someone. Use thumb sized limbs for support. Weave the limbs along both edges and at the end. It is easier to drag an injured companion. The greener the wood the more flexible it is.

#### Fishing net -

- Create a two man drag; one on either side of the creek. Add some rocks on one edge to serve as resistance so it sinks to the bottom.
- Add rocks on the corners and secure with hooks. Fling it like a Frisbee on top of the fish. rocks will sink and trap the fish in the middle of the net. Weave paracord around the edge to be able to retrieve it with ease. You do need to throw where the fish are. Find them next to structures they might use for hiding places.
- Make a fish pen by using stakes to create a fence with the net. Attach paracord or other rope to close it.
- **Hiding place** local foliage can be woven into or stacked against the net. Hang one side and let one side fall to the ground and fill in with greens and twigs.
- **Blanket, jacket or raincoat** strips of bark or shaved wood can be woven in for insulation. Plastic bags can be secured to the mesh to form a raincoat or poncho. Old newspapers can be woven in for insulation as well as pine needles, leaves, foliage and even vines. Rags and scraps of clothing can be woven into the net to create a barrier. Heat small rocks or stones in a campfire and secure them in the net for a large scale warmer.
- **Climbing tool** roll up net to use for short ascents. Twist it into a rope. The girth of the twisted net provides sufficient hand hold. Gear ties can be woven into the net for hand/footholds. This works for descending also. Heavy gear can be raised or lowered in a bundle.
- Cargo Bag the net can handle more weight than you can carry.
- **Snare** use it to catch small game with some bait and wire.
- **Door Security** securing the net with small hooks around a door frame can make any threshold extremely difficult to breech. This also works for windows. It is hard to cut through. Add something that jingles as a warning.

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## Savory Solar Vegan Veggie Fritters from Our Solar Chef



Ingredients

1/2 cup chickpea flour

1/3 cup all-purpose flour

1/2 teaspoon baking soda

1 teaspoon curry powder

1/2 teaspoon salt

2/3 cup plain, unsweetened almond or soy milk

2 teaspoons olive oil

2 carrots, shredded

1 small zucchini, shredded

These savory vegan treats can be whipped up in no time. Try different vegetables and spices to make them your own.

#### Preparation

Set Sun Oven® out to preheat.

Line two baking racks or sheets with parchment paper or silicone baking mats\*; set aside.

In a large bowl, whisk together the chickpea flour, all-purpose flour, baking soda, curry powder, and salt. Add the almond milk and olive oil, whisking until smooth. In a medium bowl, toss together the carrots and zucchini. Fold the vegetables into the flour mixture. Using a soup spoon, drop 5 heaping spoonfuls of batter onto each prepared rack or sheet.

Bake in the Sun Oven until golden brown and set, 30 to 45 minutes. If using stackable baking racks the top layer will cook a little faster. If using baking sheets, bake in two batches. Let rest 5 minutes then use a metal spatula or pancake turner to transfer the fritters to a serving dish.

Makes 10 fritters. Serves 4 as an appetizer or 2 as an entree.

\*Don't skip this step, these puppies tend to be a little sticky.