



## Project Noah - Month 7

Billie Nicholson



**Project Noah** is a yearlong food storage and emergency preparedness program designed to help you set and obtain goals in the area of family preparedness. The program is divided into twelve monthly assignments touching on lots of short and long term preparedness subjects including a preparing, a reporting and a sharing segment each month. These lessons are designed to be used in church or community groups focused on self reliance and preparedness. Start your own group and use these newsletters as a reference resource. Many articles will link to previous articles on SunOven.com or other sources. Click for additional information.

Our SEVENTH month's lesson includes first aid tips on insects/snake bites. We are continuing to add items to our 72 hour kits - blanket/sleeping bag, memo pad/pencil, money, stress relievers, nylon cord, safety pins, respirator mask, garbage bags, extra batteries (for flashlights and radios).

Our non-food items this month hand sanitizer and tissues. In addition to searching for the best buys on what you like to use, we have included an alternative recipe to store-bought products.

Our long term storage topic this month is Fermentation. Fermented vegetables last longer than freshly picked ones and contain healthy pro-biotic microbes.

Do you know how to "Make Your Own Groceries?" Expanding your basic food storage to include some suggested items will expand your cooking capabilities. We've included some recipes, but we'd love to share some of your favorite recipes. Send them to [editor@SunOven.com](mailto:editor@SunOven.com)

## Happy Thanksgiving



Assignments on Page 10



Order Your Sun Oven® Today

### Ask Billie

Q. Can you cook a turkey in the Sun Oven®?

A. Yes, our [Solar Chef](#) says, "Remove the leveling tray from the Sun Oven's cooking chamber and place a rack on the bottom of it. Put the seasoned turkey in an oven roasting bag, place a probe thermometer in the thickest part of the thigh, seal the oven bag, and place the turkey in the Sun Oven. Roast until thermometer reaches 180°F. Carefully transfer cooked turkey to a large roasting pan. Cut bag open, allowing cooking juices to drain into the pan. Transfer turkey to a cutting board and let rest for ten minutes before carving. Due to low winter sun angle it's best to cook a whole one April thru September. Enjoy!"

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

Send your questions to [editor@sunoven.com](mailto:editor@sunoven.com)



Billie Nicholson

## **Bees, and Spiders and Snakes, Oh My**

### ***First Aid for Bites and Stings***

Sooner or later most folks have an encounter with biting or stinging insects. Most bites stimulate a reaction to the venom or other protein that the insect or animal injects into you. The reaction can result in redness, swelling, pain and itching at the site of the bite or sting.

Some people have a severe allergic reaction which may result in abdominal cramps, nausea and vomiting, swelling of face, lips or throat, hives, breathing problems or shock. If you or someone in your family experiences these symptoms, call 911 and get to an emergency room as soon as possible. A severe reaction is known as anaphylaxis and can be life-threatening. It should be treated immediately.

If you have ever experienced this, you should get a perscription for epinephrine from a doctor. This is available as an injection and has an “auto injector” that you can use to shoot into a muscle. Epinephrine acts quickly to raise the blood pressure, stimulate heart rate and reduce swelling and ease breathing. Epi-pens should be carried with you at all times, especially when you are outdoors and may be a considerable distance from emergency help.<sup>1</sup>

Usually when honey bees sting, they usually leave their stinger behind. Since it is connected to their intestines, they stay, too, and the bee dies. Wasps can sting more than once and live to tell about it. Generally they are not aggressive and only sting in self defense. Some bees like africanized honey bees, yellow jackets or hornets are more likely to swarm and sting as a group. Multiple stings can be a medical emergency, especially for young children and the elderly. In most cases, bee stings do not require a visit to your doctor, unless you have multiple stings or a severe allergic reaction.<sup>2</sup>

Beekeeper, [Claire Goodall](#), has some tips on what to do when you get stung:

- If you're near a hive, calmly move away. do not swat, or run or wave your arms
- Quickly remove the stinger, as it releases pheromones that signal to other bees you are a threat
- If the stinger is still in the skin, remove it by gently scraping across the skin with a flat-edged object like a credit card, don't grab it and pull it out. The venom sac is attached and you will squeeze more poison into the sting site
- Wash the area with soap and water
- Place a cold compress or an ice pack (wrapped in a cloth to protect the skin) on the sting or bite for about 10 minutes to reduce pain and swelling; follow with calamine lotion or antihistamine cream

She also recommends these 5 home remedies

1. 1 drop of Lavender essential oil and a small amount of liquid neutral oil if diluting
2. Mud - add enough water to dry dirt to make a thick but easily applicable mud paste. Cover completely and when you get home, rinse clean and pat dry.
3. [Bee balm](#) - beeswax and essential oil
4. Baking soda paste with water, rinse clean before reapplying to soothe itching and swelling
5. Rhubarb juice

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## Bees, and Spiders and Snakes, Oh My (continued from page 2)

### **First Aid for Spider Bites**

Most spider bites are harmless. Symptoms appear several hours to a day after the bite. You may notice redness, swelling, pain, or itching. There are two kinds of spiders that may cause a more serious reaction: Black widow and the brown recluse.



[Black Widow Spider](#)

The **black widow** spider is about a half-inch long. It has a red hourglass marking on the underside of its black abdomen. Some black widows have red spots on the upper surface of the abdomen with crosswise red bars on the underside. The venom causes problems with the nervous system. Within a few hours of a bite, you may notice intense pain at the site of the bite, along with chills, fever, abdominal pain, nausea and vomiting.



[Brown Recluse](#)

The **brown recluse** spider is larger than the black widow - about one inch in length. It varies in color from a yellowish tan to a dark brown. It has a violin shape on the surface of the upper body, with the base of the violin toward the head and the neck pointing toward the rear. This spider bite causes damage to the skin at the bite area. About eight hours following the bite, redness and intense pain occurs, followed by the development of a blister. When the blister breaks down a deep ulcer is left in the skin. Expect fever, rash, nausea and a skin infection at the ulcer.

**If you recognize a bite as that of a black widow or brown recluse spider, seek immediate medical attention.**

### **First Aid Care**

- First aid care for most spider bites is similar to insect bites and stings
- Wash the area with soap and water; apply cold compress for 10 minutes; follow with calamine lotion, antihistamine cream or baking soda paste several times a day until itching and pain stop

### **First Aid Care for brown recluse or black widow spider bite**

- Clean wound with soap and water
- Help person remain calm to reduce spread of venom; do not apply a tourniquet
- Apply cold compress
- Get victim to medical care as as soon as possible. Take a picture to help medical personnel identify it
- Avoid giving food or drink<sup>3</sup>

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## **Bees, and Spiders and Snakes, Oh My** (continued from page 2)

### **Snakes**

Snakes are more afraid of people than you are of them. Most do not act aggressively toward humans without provocation. Snakes are meat eaters and catch prey which includes insects, birds, small mammals, and other reptiles, sometimes including other snakes. Of the 3,000 snake species world wide only about 25 species of venomous snakes are found in the United States. They are cold blooded, are unable to increase their body temperature and are unable to stay active when it is cold outside. Maine, Alaska and Hawaii do not have any poisonous snakes in the wild.

Poisonous snakes inject venom using modified salivary glands. During a bite, the venom passes from the gland through a duct into the snake's fangs and finally into its prey. The venom proteins are divided into four categories:

1. Cytotoxins cause local tissue damage
2. Hemotoxins cause internal bleeding
3. Neurotoxins affect the nervous system
4. Cardiotoxins act directly on the heart<sup>4</sup>

### **First Aid for Snake Bites**

While many snakes are harmless, there are a few common species in the United States, copperhead, coral, cottonmouth and rattlesnakes, that can be poisonous and even deadly.

Symptoms can vary depending on the snake, but can include:

- weakness
- dizziness
- fainting
- convulsions
- nausea
- vomiting
- diarrhea
- loss of muscle coordination
- rapid pulse
- swelling in the area of the bite

**A poisonous snake bite is a medical emergency. Quick treatment can minimize symptoms and aid recovery!**

### **First Aid Care**

- Summon medical help immediately. Call National Poison Control Center hotline (800-222-1222) for instructions.
- Help the person to remain calm and lie quietly. Movement can spread the venom more rapidly. Do not raise the bite area above the heart level.
- Remove constricting jewelry or clothing around the bite area, as swelling may occur.
- If there are symptoms of shock, such as dizziness, weakness, pale and clammy skin, shortness of breath, and increased heart rate, have the person lie quietly with his/her feet elevated 12 inches (unless the bite is in this area). Cover with a blanket to maintain body warmth.

### **Steps NOT to take**

- **Do not** endanger yourself by trying to capture the snake; take a picture if you have time before he gets away.
- **Do not** cut or suck the area of the snake bite.
- **Do not** wash the snake bite (residual venom at the bite area can help medical personnel to identify the type of snake for proper treatment).
- **Do not** apply cold to the bite.
- **Do not** give the victim anything to eat or drink or any pain medication.<sup>5</sup>

### **References**

## Hand Sanitizers - Under Review

Hand washing is an easy way to prevent infection. It only requires soap and water or an alcohol based hand sanitizer - a cleanser that doesn't require water. As you touch people, surfaces and objects throughout a day, you accumulate germs on your hands. As you touch your eyes, nose or mouth, you can infect yourself with these germs. Frequent hand washing will minimize the amount of bacteria, viruses and other microbes you transfer into your body.

We know the routine for hand washing before eating or preparing food, treating wounds, giving medicine to a sick or injured person, and inserting or removing contact lenses. And we know to wash our hands after preparing food, especially raw meat, using the toilet or changing a diaper, touching a pet, pet leashes or waste, blowing your nose, coughing or sneezing into your hand. The list goes on.

To wash our hands, we know to wet our hands with running water, apply soap, lather well, rub our hands for at least 20 seconds, scrubbing all surfaces, under nails, between fingers and the backs of hands. Then we rinse and dry with a towel or an air dryer. We even know to use our elbow to turn off the faucet.<sup>1</sup>

There are times when using water is not an option. This is when we pull out the hand sanitizer bottle. Alcohol-based sanitizers should have at least 60% alcohol. Pour enough sanitizer into the palm of your hand to coat all surfaces of your hands. Rub until the sanitizer has evaporated.<sup>2</sup>

Over the past few years, antiseptic washes have come under the scrutiny of the Federal Food and Drug Administration. Instead of alcohol, some hand sanitizers contain quaternary ammonium compounds (like triclosan and triclocarban) to reduce microbes. There are also "natural ingredient" hand sanitizers, but the Center for Disease Control (CDC) only recommends alcohol-based sanitizers.

After several years of research and review, five dangers have been revealed:

1. Toxic chemicals
  - a. ingredients in secret scents
  - b. phthalates - endocrine disrupters - mimic hormones and alter genital development
  - c. parabens - preservative - extends shelf life but has been found in breast tumors
2. Weaker immune system - triclosan harms immune system
  - a. more susceptible to allergies
  - b. more vulnerable to toxic chemical Bisphenol A (found in plastics)
3. Hormone disruption - triclosan causes bacteria to adapt to its antimicrobial properties - makes more antibiotic resistant strains
4. Alcohol poisoning
  - a. active ingredient is a type of alcohol - anti-microbial
  - b. recommended: ethyl alcohol, isopropyl alcohol or a mix 60%-95%
  - c. a few squirts = couple shots of hard liquor
5. Antibiotic resistance
  - a. kills good bacteria which protect against bad ones
  - b. healthcare workers using these were 6x's more at risk for outbreaks of norovirus (causes acute gastroenteritis)
  - c. bacterial resistance<sup>3</sup>

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## **Hand Sanitizers - Under Review** (continued from page 5)

In September 2016, the Federal Food and Drug Administration issued a final rule establishing a list of 19 chemicals found in over-the-counter consumer antiseptic products intended for use in water are not generally recognized as safe and effective and are misbranded.<sup>4</sup>

Betsy Jabs, [DIYNatural.com](http://DIYNatural.com), has suggested the following recipe for hand sanitizer using essential oils.

### ***Alternative Sanitizer Recipe -***

#### Ingredients

- 5-10 drops lavender essential oil
- 30 drops tea tree essential oil (this is a 0.5% concentration)
- 1 TBS witch hazel extract or high-proof vodka
- 8 oz. 100% pure aloe vera gel
- 1/4 tsp Vitamin E oil (a natural preservative to increase shelf life)



[Wiki-How](#)

#### Method

Add essential oils and Vitamin E oil to a small glass bowl or container and swirl to mix. Add witch hazel or alcohol to the oils and swirl again. Combine this mixture with the aloe vera gel and mix well. Shake well before each use.

Transfer to small, clean squirt bottles. (Use colored bottles to keep down light exposure.)

#### Note:

- Lavender oil is used in this recipe to even out the strong scent from tea tree oil. Not a lavender fan? Use rosemary, sage, sandalwood or peppermint oil. New to essential oils? Be sure to patch test for allergic reaction before using this all over your hands. (1 drop of essential oil plus 1 TBS olive oil). Rub on inside of elbow and cover with bandage. Check in 24 hours.
- Research has shown that [tea tree oil](#) is very effective in fighting MRSA infections.
- None of the [19 chemicals banned](#) by the FDA are included in this recipe.<sup>5</sup>
- Cinnamon, orange, and clove oils also have anti-bacterial and anti-viral actions.<sup>6</sup>
- Hand sanitizers are recommended to have on hand in case of an emergency resulting in water outages. If you purchase sanitizers, be sure to check the ingredients and make sure they are made with alcohol.

#### **References**

## Fall Veggies in a Curry Stew\* from our Solar Chef

### INGREDIENTS

1 onion, coarsely chopped  
4 cloves garlic, peeled  
1 piece (1 1/2-inch long) fresh ginger, peeled and thinly sliced  
1 1/2 tablespoons yellow curry powder  
1/4 teaspoon cayenne powder (or more to taste)  
2 tablespoons coconut oil  
2 tablespoons tomato paste  
2 cups vegetable broth  
1 cup light coconut milk  
1 cinnamon stick  
freshly ground black pepper to taste  
1/2 head cauliflower broken into 1 1/2-inch florets (about 3 cups)  
1 pound sweet potatoes, peeled and cut into 1-inch cubes  
2 large carrots, peeled and cut into 1-inch rounds  
2 tomatoes, seeded and chopped  
grated zest of 1 lime  
2 tablespoons freshly squeezed lime juice  
1 can (15-ounce) chickpeas, drained and rinsed  
5 cups baby spinach leaves  
salt to taste  
1/4 cup chopped fresh cilantro leaves

### PREPARATIONS

Set *Sun Oven*® out to preheat.

Place the onion, garlic, ginger, curry powder, and cayenne in a food processor; pulse to combine. Add the coconut oil and process until a smooth puree has formed. Transfer the curry puree to a Dutch oven over medium heat and cook, stirring often for about 5 minutes. Add the tomato paste and continue cooking and stirring until the mixture darkens; about 5 more minutes. Add the broth, coconut milk, cinnamon, pepper, cauliflower, sweet potatoes, carrots, and tomatoes. Cover and transfer to the Sun Oven. Cook until the vegetables are tender, 1 to 1 1/2 hours. Remove and discard the cinnamon stick (can be prepared up to this point then finished stovetop just before serving).

Transfer the Dutch oven to the stove over medium heat. Stir in the zest, lime juice, chickpeas, and spinach. Cook until the spinach has wilted; about 5 minutes. Season to taste with salt.

Ladle into bowls or serve over rice. Garnish each serving with cilantro.

\*adapted for the Sun Oven from Ellie Krieger's "Comfort Food Fix"



## Fermentation 101

Vicky Garrett

What is it that's so special about fermented vegetables and foods? Fermentation simply refers to an ancient technique and preservation method that naturally alters the chemistry of foods.

People have been using fermentation to preserve valuable vegetables and other perishable foods for long periods without the use of modern-day refrigerators, freezers or canning machines.

I think that most of us, when first starting to experiment with home ferments, wondered if we were going to do something terribly wrong and kill off our family with the results of our experiments. We just are no longer used to the idea of fermenting things in our home.

**The Why.** Before we had the technology of keeping food fresh with a refrigerator, we had to preserve our food by pickling. In fact, fermenting food is the original food preservation method. However, you may be wondering why someone might go through the work of pickling veggies.

**It's Easy!** With the right equipment on hand, it's not a time-consuming task at all. Just mix the right amount of salt in some water, submerge the food you wish to ferment, and wait. That's it!

**It's Healthy.** Fermenting vegetables is the healthiest method of food preservation. Beneficial bacteria and yeast consumes the sugars in the vegetables, leaving behind a potent pro-biotic that, in many ways, is more nutritious than the original vegetable.

**It's Cost-Effective.** Have you ever come across an amazing deal on vegetables, or found that you save a significant amount of money buying in bulk? The only problem with this is the food usually spoils before you get the chance to eat it. Gardeners also know all too well the pain of throwing away a bountiful harvest because they couldn't eat it. Now you can acquire as many veggies as you want through the summer, and have plenty stored up to last you all winter long!

**It's Safe.** Like many things, man is determined to fix that which isn't broken. Store bought fermented

vegetables may look pickled; but if you're not careful, you could end up purchasing food that is soaked in vinegar and deprived of all nutritional value. By preserving food on your own, you know the exact ingredients that have gone into the food you're going to eat and the method that was used.

### **Basic Fermenting**

*By Angela Lynn Wolfe*

1. Get a jar, ANY glass jar that is clean. It does NOT have to be any special kind of jar or crock just so long as it is clean and does not leak it will work. You do not even need it to have a lid!
2. Put your food in the jar.
3. Cover the food with salted water. Salt to your taste. The salt will inhibit bad bacteria. Salt to taste because once it is in there, well it cannot be removed.
4. Keep your food submerged, under the liquid, anaerobic, no air or you will have mold grow on exposed food surfaces.
5. Put a lid on if you want or not. A lid will keep out things you probably do not want falling or crawling in there.

And that is it. Everybody has an opinion and there is no ONE way but to salt to taste and keep your stuff under the liquid, I promise. First learn the method then branch out to trying different jars and so forth. Main thing, have fun, make some good stuff, get healthy!

What we are doing is letting bacteria eat the carbohydrates in the food and we put in salt to keep the bad bacteria at bay and we keep it in liquid so it stays anaerobic.

You do NOT need whey or culture starters!

### [How to make Apple Kraut](#)

[Read More Here](#)



## Expanding Your Food Storage

By storing more than just basic cooking items, you will be able to extend the variety of foods available for your family. Consider the basic items we have discussed as long term food storage items. Look at what additional recipes become available as we add these supplemental items.

### **Item**

Wheat  
Oats  
Rice  
Powdered Milk  
Sugar/Honey  
Salt  
Water  
Oil/Shortening  
Seeds (Sprouting)  
Beans

### **What can I make with these items?**

cooked wheat, cracked wheat, oatmeal, rice, unleavened breads, tortillas, cooked beans, sprouted beans and wheat

### ***If I add these to my storage***

#### **Item**

Baking powder  
Baking soda  
Yeast  
Dried whole eggs  
Vanilla

### **Now what can I make?**

Biscuits, muffins, quick bread, pastries, pancakes, cookies, cupcakes, cornbread, cakes, yeast breads, doughnuts, sweet rolls, rice pudding, cobblers

### ***If I add these to my storage***

Bouillon  
Canned fruits and vegetables  
Dried fruits and vegetables  
Canned meats  
TVP (textured vegetable protein)  
Vinegar

### **Now what can I make?**

Soups, casseroles, baked goods with more variety, salads

### ***If I add these to my storage***

Chocolate chips  
Nuts  
Cocoa  
Cornstarch  
Peanut Butter

### **Now what can I make?**

Brownies, chocolate cookies and cakes, chocolate pudding, peanut butter cookies, nut breads ... many more comfort food recipes.



## Make Your Own Groceries Recipes

## Project Noah - Seventh Month Assignments



[Project Noah](#)

1. Pre-Disaster Preparation:
  - a. Study first aid tips on dealing with insect/snake bites
  - b. Remember the proper first aid for bites may require different steps and may require medical assistance
  - c. Learn to recognize the symptoms of severe allergic reaction
  - d. If you have ever had a severe reaction to an insect sting, request a Rx for epinephrine from your doctor (epi-pen)
2. Pre-Disaster Preparation:
  - a. Add to your 72 Hr. Kit - blanket/sleeping pad, memo pad/pencil, money, stress relievers, nylon cord, safety pins, respirator mask, garbage bags, extra batteries (to fit your flashlights)
3. Non-Food Items: Hand Sanitizer/Tissues - Goals:
  - a. Determine how much your family will need for 90 days and for a year - is this doable?
  - b. Shop for the best prices and buy what you can afford
  - c. Explore alternatives, make your own
4. Short Term: Favorite Family Recipes
  - a. Add some supplemental items to your food storage to expand your meal options
  - b. Collect some of your favorite recipes using food storage ingredients
  - c. Send your favorite recipe to share to [Editor@SunOven.com](mailto:Editor@SunOven.com)
5. Long Term Storage Item: Basic Fermenting
  - a. Select vegetables in their prime of ripeness
  - b. Make a batch of [apple kraut](#)
6. Making your own groceries
  - a. Learn the basic components of items you cook with regularly
  - b. Practice making a batch of [SOS Mix](#) (perfect for any emergency)
  - c. Make a batch of whole wheat (using wheat berries) waffles

Next Month's topics will be: Vital Records and Tornado preparedness

Non-food item: Garbage bags

Long Term Storage: Sprouting seeds and grains

Gardening: Winter garden clean up