



Lesson Ten

Put It Up!

Food Preservation

Lesson Overview

This lesson teaches children & youth the various methods of preserving the food in order to have a more secure food source year-round.

Lesson Objectives

Participants will learn the process of dehydrating, blanching & freezing, and water-bath canning. They will learn about proper food labeling and food safety. They will learn which items from their garden can be stored during the winters.

Introduction to Lesson Nine

Using produce from the garden is as important as knowing how to grow it. In the previous chapter we focused on simple, easy recipes children and youth could make with their harvest from the garden. Now we are focusing on preserved food or value-added items that can be made from produce. There are a few main types of food preservation that have been used for generations —

Water-bath Canning

Pressure Canning

Drying or Dehydrating

Pickling or Fermenting

Freezing

Try to highlight at least two types of food preservation (if you are able and time allows). For example — quick canning pickles and drying bunches of rosemary or mint.

Food preservation is for all ages! Young ones (3-6) are capable of making quick refrigerator pickles and even sweet jams.

TIME — Keep in mind that food preservation (especially water-bath canning) takes time. I always tell people from start to finish canning takes 2-hours and you can't really rush it or you will mess up. Make time to prep things before class so that you can get something done there or at least show them the process and have an item already prepared!

Activity One - Exploring Types of Food Preservation (All Ages)

Materials

Laminated pictures of different types of food preservation, preserved foods as examples for participants to try, a few store bought preserved items (like beans or pickles) to compare the difference between homemade/farm-made and mass produced items.

Activity Outline

Ask participants if they know what food preservation is. Explain that there are many different ways to take the produce (vegetables, herbs, and fruit) from our garden and preserve or store them. Explain that this is how we make sure our harvest or bounty can feed us throughout the entire season (in Nebraska & Iowa we have four seasons and we need to make sure we store enough food over the winter until we have gardens growing again in Spring).

Go through pictures of the various preservation methods and give an over-view of each type. Ask if anyone has ever canned tomatoes or made salsa before with a family member.

Allow participants to taste some of the preserved foods you brought to sample. This is a great time to do a food taste test and compare some of the industrial or mass-produced + preserved foods with fresh items from a local farm!

Activity Two - What Can You Make with This Vegetable? (All Ages)

Materials

Harvested vegetables from the garden, paper, markers and pens

Activity Outline

Bring This is a great activity to explore all the possibilities of processed items that can be made from vegetables in the garden. Split the group into teams (if there are enough participants). For little ones match teams with teachers and staff to help them. Set out different items (such as slicer tomatoes, bell peppers, eggplants, carrots, onions, etc.) then invite each team to think of as many things that are made from each specific vegetable.

For example —

Tomatoes

Tomato Sauce

Pizza Sauce

Ketchup

Sun-dried tomatoes

Salsa (and so on)

The team with the most options for each item wins! Then — ask participants which of these items they would like to learn how to make!

Activity Three - Drying Bunches of Herbs

Materials

Screens (can recycle old window screens) or use dehydrator screens or seed saving screens, twist ties, twine, herbs from the garden

Activity Outline

Drying bunches of herbs is fairly simple. Cut the herbs with shears or scissors and make sure they are about the same length. Herbs can be bunches with twist ties or twine to hold them together (not too tight). Make sure to harvest when the plants are completely dry, if you harvest herbs wet they will just stick together and mold.

Bunched herbs can be hung to dry. If this method is used you want a cool shady place with a lot of breeze. Bunched herbs can also be laid out flat to dry on screens. Check them periodically and once they are **completely** dry you can put the dried herbs into glass mason jars for storage. Proper storage is also in a cool dry place in the kitchen (never in direct sunlight).

Activity Four - Dehydrating Herbs & Greens

Materials

Dehydrator, dehydrator cook book (with accurate temperatures for each item), herbs and greens from the garden, shears or scissors for harvesting

Activity Outline

Dehydrating greens or herbs is even easier than drying them outdoors (hanging or flat on screens) because you are sure to have the results you are looking for. Follow the instructions that came with the particular dehydrator you are using. For herbs the dehydrator is usually set on a low setting and run overnight. Lay the harvested herbs (you can pick the leaves off the stems or leave them on the stems if you like) on the dehydrator racks. Set to the correct temperature settings and let the dehydrator do the trick! These can also be stored in glass jars when they are completely dried or in paper bags.

Activity Five - Making Pickles

Bread & Butter Pickles

2 pounds cut veggies, sprinkled with salt, let sit, & drain excess water

Boil together 2-3 tablespoons of herbs & spices of choice, 1-3 cups white sugar, & 1.5 cups apple cider vinegar

Sterilize mason jars in hot soapy water

Pack veggies as tight as possible into jars

Fill jars to $\frac{1}{2}$ - $\frac{1}{4}$ inch from top with boiled brine

Let sit in dark room for 5-15 days

ENJOY!

Dill Refrigerator Pickles

4 cups cut veggies, sprinkled with salt, let sit, & drain excess water

Boil together 3.5 cups water, 1.25 cups white vinegar, 1 tablespoon salt, 1 tablespoon white sugar, & 1-2 tablespoons herbs & spices of choice

Sterilize mason jars in hot soapy water

Pack veggies as tight as possible into jars

Fill jars to $\frac{1}{2}$ - $\frac{1}{4}$ inch from top with boiled brine

Let sit in dark room for 5-15 days

Activity Six - Making Jam

Raspberry-Peach Preserves.

Raspberries naturally contain a lot of pectin, which is the ingredient in jams and jellies that really make them 'gel'. Lemon rinds and under-ripe fruit also contain pectin. The combination of fragrant peaches and sweet, juicy raspberries deserves a blue ribbon, if you ask us.

Equipment.

Measuring cups & spoons

Large mixing bowl

2-quart pot

Large stock pot

Tongs

Slotted spoon & ladle

Six 8-ounce jelly jars

Ingredients.

4 cups sliced peaches, slightly under-ripe

2 cups raspberries

1 tablespoon fresh gingerroot, grated

1 lemon, sliced in half

4 cups cane sugar

To prepare. Put the peaches, raspberries and gingerroot in the 2-quart pot. Squeeze the lemon's juice on top and once the fruit is cooked down, add the sugar and lemon rinds. Cook this mixture on medium-low heat for ten minutes. Next, bring the mixture to a boil and cook for fifteen minutes, stirring constantly.

Remove the pot from the stove. Remove lemon rinds. Skim any foam from the top. While the jam is cooking, bring water to a boil in the stock pot and sterilize the jelly jars and lids. Place the hot jars on a towel. Carefully ladle the jam into the jars, leaving a quarter-inch of head room in each jar. Remove air bubbles, wipe jars and adjust lids. Process the jars for fifteen minutes in a hot water bath.

Variations.

Blueberry-Peach Preserves. Substitute blueberries for raspberries. This jam is perfect on pancakes.

Pepper-Peach Preserves. Finely chop two medium hot peppers and add to the recipe. Varieties like 'Caribe' or 'Ancho' will give the jam a reasonable amount of heat, but you can always go hotter.

Rosemary-Mixed Berry Preserves. Omit peaches and substitute 2 cups blackberries and 2 cups blueberries. Toss a couple sprigs of fresh mint into the fruit during cooking time. Remove with lemon rinds.

Activity Seven - Making Sun Jam (recipe from NPR)

Strawberry Sun Jam

Makes 6 half-pints

16 cups (4 quarts) ripe strawberries, trimmed of green tops and rinsed

6 cups granulated sugar

3 tablespoons freshly squeezed lemon juice

Cheesecloth or a large piece of clean screen

If they look sandy, give them a quick rinse and then dry on toweling. Trim the green tops, cut in half if large and pour the strawberries into a wide-bottomed, nonreactive saucepan.

Add the sugar and lemon juice. Crush the berries lightly with a potato masher, leaving medium-size chunks of fruit. Bring the mixture to a full boil over high heat, stirring often, and then immediately cut the heat.

Prepare a stable, level outside table for the sun jam. Divide the strawberry mixture between two rimmed (14.75 inches x 9.75 inches) baking sheets. Carefully walk the filled baking sheets outside. Cover with a layer of cheesecloth or screen, tucking it beneath the pan to hold it taut above the surface of the strawberries.

Leave the jam to evaporate in the hot sun until it thickens. When done, the jam will hold the trace of a spatula for two to three seconds before oozing back in to fill the space, and a droplet will feel a bit sticky when pinched between your thumb and forefinger.

Depending on the intensity of the sun, this will take between eight and 24 hours. Set the jam out in the morning to take advantage of as many sunlight hours as possible, and if you need to carry it over to the next day, bring it inside at night.

Pour the finished jam into clean, sterilized glass jars filled to 1/2 inch from the brim, top with clean lids and rims and store in the refrigerator for up to six months, or in the freezer up to 1 year.

Activity Eight - Freezing Veggies (adapted from Rodale's Organic Life)

Materials

Knives, cutting boards, 8-quart pot, water, paper towels, ziplock freezer bags, bowls, ice

Activity Outline

1. Pick young, tender vegetables for freezer storage—it is better to choose slightly immature produce over any that is fully ripe. Also, avoid bruised, damaged or overripe vegetables. Harvest in early morning.
2. Line up everything needed for blanching and freezing first. Nothing counts more than speed in holding on to freshness, taste and nutrition.
3. Thoroughly clean vegetables and cut the edible parts into desired pieces.
4. Blanch right away. For water blanching, use at least a gallon of water to each pound of vegetable, preheated to boiling point in a covered pot. If you're steaming, use a wire-mesh holder over 1 inch of boiling water in an 8-quart pot.
5. When the recommended blanching time is up, plunge the vegetables in ice water to stop the cooking.
6. Gently pat the vegetables dry. Pack them in freezer containers or bags, compressing them to leave as little space for air as possible.
7. Seal the containers or bags and label them.

Easy to freeze vegetables

Asparagus	Beans	Beets	Broccoli		
Brussels sprouts	Carrots	Cauliflower	Kohlrabi	Peas	
Peppers	Rhubarb	Spinach	Squash	Sweet Corn	

Activity Eight - Freezing Veggies (Continued)

Blanching Times

Artichoke	8-10 minutes
Asparagus	3-4 minutes
Bush Beans	3-4 minutes
Pole Beans	3-4 minutes
Beets	Must be cooked prior to freezing
Broccoli	3-5 minutes
Brussels	4-6 minutes
Cabbage	3-4 minutes
Carrots	3-5 minutes
Cauliflower	3-5 minutes
Corn	4-6 minutes
Cucumber	Not recommend
Eggplant	4-6 minutes
Kale	2-3 minutes
Kohlrabi	3-4 minutes
Leeks	Do not need to blanch
Onions	Do not need to blanch
Peas	2-3 minutes
Peppers hot	2 minutes
Peppers sweet	2 minutes
Potatoes	Not recommend for freezing
Pumpkin	Must be cooked before freezing
Radishes	Not recommended
Rutabagas	3-4 minutes
Spinach	2-3 minutes
Squash	Must be cooked
Sweet potato	Not recommended
Swiss chard	2-3 minutes
Tomato	30 seconds
Turnip	2-3 minutes

Other Awesome Food Preservation Ideas

Popsicles

Make fruit or veggie popsicles with popsicle containers. Mix up a favorite smoothie recipe and just pour into the popsicle containers. Voila!

Fruit Leathers & Fruit Chips (in the dehydrator)