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# Preserving *for* Beginners Workshop Series

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A Toolkit for Community Facilitators and Participants



# PREFACE

The goal of this PEI Food Exchange Program Inc. (“FX”) project is to stimulate healthy local food production and consumption across Prince Edward Island by celebrating its rich agricultural heritage and revitalizing local food self-sufficiency.

The inspiration behind the Food Skills Workshop Series is the recognition that the ability to rebuild food literacy resides with the members of the community.

The toolkits in the series are intended to assist individuals and communities across PEI in strengthening knowledge, capacity, and engagement with healthy food skills.

The toolkits include a range of tools, support information, and outlines key steps which are intended to empower community groups and individuals to successfully host their own food skills workshop. Each toolkit is designed to stand alone or be used in conjunction with the other toolkits in the series.

These toolkits are intended to be a living resource. Through ongoing input, the FX hopes to periodically update and improve the materials to ensure their continued relevancy.

*“In a food environment where highly processed products have become the easy choice and sometimes the only choice, the promotion of food skills as a component of food literacy is an essential part of strategies aimed at supporting lifelong healthy eating habits.” (Canada’s Food Guide 2019).*

# ACKNOWLEDGEMENT

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We would also like to thank our friends at Food First NL who generously shared their resources and allowed us to model our toolkits based on those developed for their [Food Skills Workshops](#).

JoDee Samuelson kindly gave the FX permission to include “Into Autumn”, a story from her book *“The Cove Journal”* published by Island Studies Press in 2018. This story was first published in *“The Buzz”* in October 2012 and in it, JoDee talks about preserving activities typical on PEI.

The beautiful original illustrations in this toolkit are the artistry of Gloria Wooldridge and Jessica MacFadzen-Reid did the graphic design.

From master preservers to comma queens, many have contributed their talent, skills and expertise to bring this toolkit to fruition, including Val, Sharon, Sarah, Pauline, Margaret and Anne. Gratitude to you all.

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# INTRODUCTION

The PEI Food Exchange Program Inc. ("FX") is a not-for-profit volunteer organization empowering individuals to improve food security for themselves and their communities through gleaning, growing food, and gaining knowledge.

The FX was formed in 2013, following the release of a report on household food insecurity in Canada which cited PEI as having some of the highest household food insecurity rates in the nation. In light of these findings, a small group of concerned citizens came together to determine what practical actions could be taken to address food insecurity on PEI.

The FX is a member of a national group, the [Good Food Organizations](#), a project of [Community Food Centres Canada](#), and adheres to their principles along with our own supporting values:

FX initiatives empower individuals to access healthy food.

FX activities are financially accessible.

FX values creative cooperation and collaboration.

Sharing economy concepts inform our operations rather than food charity.

FX supports and promotes the local food system; and

FX activities are carried out in a manner that respects the environment.



In alliance with Community Food Centres Canada

## FX Initiatives

**Organized Gleaning:** The FX organizes volunteers ("gleaners") to harvest non-commercial crops on Island farms. The fresh produce is shared between the gleaners, farmers and social service agencies.

**Market Pick-up:** The FX collects unsold produce donated by farmers from the Charlottetown Farmers' Market. This produce is delivered to households recommended by service agencies (for example, PEI Family Violence Prevention Services, Anderson House and the Salvation Army).

### Community Capacity Building Through Garden and

**Food Skills Workshops:** To ensure community members are able to prepare and preserve local food the FX offers food skills workshops. We also encourage Islanders to grow some of their own food by hosting garden skills workshops, providing an online gardening discussion forum, and connecting people in need of garden space to those who have land to spare or with local community gardens.

### Sharing Information Regarding Local Food

**Resources:** The FX promotes the local food system and provides users with information on how to access local food. This information is shared through our website and social media where we actively engage with islanders from tip to tip.



# HOW TO USE THIS TOOLKIT



This toolkit provides the fundamentals for delivering an introductory preserving workshop. The preserving methods included are canning, quick pickles, freezing, and fermentation. The focus is on preserving fruits and vegetables that grow on PEI. Appendix F includes information about sourcing local produce.

Each section includes equipment needed, the steps in the process, tips for success, suggested activities based on our experience of delivering workshops and additional trustworthy resources.

For the workshop organizer, this toolkit provides information and checklists (see the appendices) that can be referred to when organizing a preserving workshop.

For the workshop facilitator, who has expert knowledge of a preserving method and, who may be volunteering their time, the suggested activities and list of additional reference material can reduce preparation time.

For participants of the preserving workshops, this toolkit provides the basic steps and tips for each preserving method that they can refer to during and after the workshop.

## PLANNING A PRESERVING WORKSHOP

Most food skills workshops seem to work well in a two-hour time frame. Perhaps plan for an additional half hour if you plan to have the participants introduce themselves, share what they want to learn and have a Q&A at the end of the session.

It is recommended that the number of participants at a food skills workshop be between 12 and 15 people and the facilitator should ideally have an assistant for every 5 people. These are general guidelines depending on the planned activities.

If possible, the facilitator of the workshop should visit the venue before booking it to determine its suitability. Planned activities should be discussed with the venue manager to ensure any potential issues are resolved in advance.

To help ensure the correct ingredients are available for the workshop, the FX prefers to have the person giving the workshop supply the ingredients and we reimburse the costs. Alternatively, the organizer of the workshop should obtain a detailed list of ingredients - including type of salt or brand of vinegar where such details may be important.



If recipes are not printed off and distributed in class, some method of sharing the recipes with participants should be determined (e.g. email, website, facebook).

When possible, plan to give the participants a jar of what was made to take home or samples of the food prepared in the workshop.

Pictures and video can be a good way to document the workshops for future promotion. Participants who don't want to be included in any photos should be identified beforehand.

The appendices in this toolkit include a planning checklist and equipment checklist we hope you will find helpful when preparing for your preserving workshops.

Additional resources for preparing for food skills workshop can be found on the [FX website](#).

## WHY PRESERVE?

Preserving incorporates the various methods for storing and preserving food to keep it for future consumption. Some of the reasons for preserving food are:



**Take advantage of affordable local food in season:** PEI has a short growing season but during that time our local farmers grow as many as forty different types of produce! Buying food in bulk during the harvest when it is affordable can save you money in the long run.

**Create thoughtful gifts for friends and family:** Maybe there is a treasured recipe for mustard pickles or strawberry jam in your family. Preserves as gifts are appreciated, unique and affordable.

**Turn one day of food preparation into many meals:** Canning and preparing freezer meals can take a while but can create many ready-to-eat, quick and healthy meals for later.

**Grow and harvest more:** Knowing how to preserve food will encourage you to grow more of your own food. This can reduce reliance on imported foods.

**Know what's in your food:** Preserving food at home is a strategy for ensuring that you eat healthy foods with ingredients that you can feel confident about.

**Be More Self-Sufficient:** Food preservation can increase personal food security. This can take away some of the uncertainty of depending on a vulnerable food supply.

**Avoid Food Waste:** Preserving food, rather than letting it go to waste, is a simple way to reduce our environmental impact.

**Store Food Without Refrigeration:** Not everyone has access to or space for a freezer, so knowing a variety of preserving methods like canning and fermentation increases the options available.

**Foster Community:** Preserving isn't always a solo activity; it can also bring people together. Community kitchens, preserve exchanges, workshops and potlucks are all fun ways to foster community.

**Connect with our Local Heritage:** People associate local recipes with their cultural identities. Home preserving connects us to our local food system and heritage of resiliency and culinary skill.

1. Fill large pot 2/3 full with peeled, diced



Cover with water and 4 thsp salt

let sit overnight



## Mustard Pickles



# CANNING

This toolkit is designed as an introduction to home canning for individuals preserving food for personal use. There are two canning methods used in home canning – hot water bath and pressure canning. Pressure canning involves high risk foods and requires special equipment and is **not** covered in this toolkit.

Processing food in a hot water bath is a method for preserving high acid foods in bottles. Bottles of food are heated in boiling water long enough to ensure that their contents get hot enough to destroy microbes that can cause spoilage or illness. The canning process requires the heating and cooling of food to form a vacuum seal. When food is packed into canning bottles the headspace is filled with air. During processing air is pushed out of the bottles and the headspace fills with steam. When processing is completed and the bottles cool, the contents shrink. A vacuum forms within the bottle and pressure holds down the lid. The sealing compound on the lid prevents air from re-entering the bottle as well as microorganisms that could contaminate the food.



## Low-Acid & High-Acid Foods

High acid foods and recipes have a pH of 4.6 or lower. The lower the pH, the more acidic a food is. Most fruits, pickles, jams and jellies are high in acid. Tomatoes are borderline between high and low acid and need to have an acid, such as lemon juice, added before processing in a hot water bath. Bottled lemon juice is recommended because the acidity is more consistent than that of fresh lemons. High acid foods can be preserved using the hot water bath method.

Low acid foods include vegetables, meat, poultry and seafood as they have a pH greater than 4.6. They need to be processed in a pressure canner to ensure they reach a safe internal temperature.

## Canning methods



## Equipment

Proper bottles (also called jars) designed for canning, reusable screw bands and new snap lids are the only essential equipment needed for the hot water bath method of canning.

People who do a lot of canning are likely to have some of the equipment listed below, but for beginners it is useful to know that equipment common in most kitchens can achieve the same result.

**Canning pot:** Pots designed particularly for hot water bath are available to purchase and usually come with a canning rack. But any tall stockpot with a tight-fitting lid and heavy flat base will do. Ideally, the pot will be at least 3 inches (7.5 cm) deeper than the height of the jars. If a canning rack is not available, a tea towel creates a safe barrier between the jars and the bottom of the pot.

**Funnel:** A wide-mouthed funnel is very useful for filling the jars and to avoid spills on jar rims and sides.

**Ladle and spoons:** Long handled tools will help avoid burns and discomfort while reaching into a hot pot.

**Jar lifter:** A jar lifter (tong) makes it easy to grab and carry the jar in and out of water. They generally have a rubbery material on them to allow for better grip on wet jars.



## Steps

1. Assemble new snap lids, screw bands, canning pot, funnel, ladle, spatula, jar lifter (tongs), clean dishcloth, canning rack, oven mitts and jars. Discard any chipped or cracked jars.
2. Wash the jars, screw bands and lids in hot soapy water, rinse. When the process time in the recipe is less than ten minutes, you need to sterilize the jars by covering them with boiling water for ten minutes. When the process time is ten minutes or more the jars will be sterilized during processing so you don't have to sterilize the jars as a separate step.
3. Prepare the canning jar lids according to the manufacturer's recommendations.
4. Prepare recipe. Ladle hot food into hot jar, leaving recommended headspace (empty space to allow for expansion). Leave 0.5 cm ( $\frac{1}{4}$  inch) for jams and jellies, and 1 cm ( $\frac{1}{2}$  inch) for fruit, pickles, tomatoes, chutney and relish. Jars that do not require sterilization can be heated in the oven 220 F/104 C (made easier by placing them on a cookie sheet) to avoid temperature shock.
5. Use a non-metallic utensil such as a silicone spatula and slide it into the filled jar to remove air bubbles. Carefully wipe the rim with a clean, damp cloth to remove any residual food so the lid can seal properly.
6. Centre the snap lid onto jar. Apply screw band securely and firmly until resistance is met – fingertip tight. If it is too tight, air will not escape as the liquid heats in the canner, and instead of a sealed bottle, you will have a buckled lid or a broken bottle. If the lid is not tight enough, the necessary vacuum seal will not happen as the jars cool after processing.
7. Place jars in canner. When all jars are filled, adjust hot water in canner so that jars are covered by at least 2.5 cm (1 inch) of water. If the recipe does not yield enough jars of food to fill the canning rack you can fill enough jars with water to make a full load so the jars stay upright during processing..
8. Cover canner. Bring water to a full rolling boil and maintain a boil for the time in the recipe. If water stops boiling at any time during the process, bring back to a vigorous boil and begin timing over again from the beginning. Add more boiling water, if needed, to keep the water level above the jars.
9. When processing time has elapsed, turn heat off and remove canner lid. When boil subsides (approximately 5 minutes), remove jars, using tongs, without tilting. Cool jars upright, undisturbed, for 12 - 24 hours. Do not tighten screw bands. Check seals by pushing down the center of lid. It should concave slightly and make no noise. You will soon love to hear the "pop" the lids make which indicates a proper seal.
10. Label the jars with the content and preparation date. Store jars in a cool, dark place, and for best quality, use within a year.

## Tips

- When canning, use only reliable tested recipe. These recipes have been prepared and tested for PH before publication, and you can feel confident they are high in acid when you follow the recipes. Don't substitute the jar size, ingredients or processing times.
- Choose a canning pot that is large enough for the water to cover the jars you are using by 1 to 2 inches (2.5 to 5 cm) and provides enough extra pot height for a rapid, rolling boil to be maintained throughout the processing time.
- Use the appropriate heat-processing method according to the acidity of the food. Add an acid such as lemon juice or vinegar to some foods to help lower the pH and increase the acidity of the food.
- Use only jars designed for home canning.
- Avoid temperature shock that can cause the jar to break - never add hot preserves to a cold jar or cold jar to hot water or place a hot jar on a cold surface.

- For sparkling jars, add a little vinegar to the water in the canner during processing.
- The screw band can be taken off during storage. If the seal is compromised during storage, you are more likely to notice it if the screw band is off.

*"Over the years, our understanding of food safety has grown. At the same time, new technologies and agriculture crop varieties have been developed. While older recipes might be family favorites, they may not have been properly tested to achieve adequate heat processing times and temperatures for food safety and quality. Failure to use the proper processing method and processing times can affect the quality and safety of your final product." (Bernardin, 2011)*

## Suggested Activities

- ❑ Workshops can be planned around when produce is abundant to save costs and encourage participants to apply what they learned immediately.
- ❑ Select produce that most people like (e.g. apples, tomatoes).
- ❑ Tomatoes can be used to demonstrate various canning recipes (e.g. salsa, canned tomatoes, tomato sauce, and pasta sauce), giving the participants a wide range of possible uses of one food item.
- ❑ Apples are the only ingredient required to make applesauce, so a good option is you are trying to keep workshop costs at a minimum. Applesauce can be a healthy baby food so the workshop may interest parents. Applesauce can be made with the skin on or skin off and both methods can be demonstrated and participants can decide which they like best.
- ❑ To encourage healthy eating, recipes demonstrated in FX workshops generally don't require a lot of added salt or sugar.

It is important to consider the time allotted for the hot water bath method. Selecting a kitchen with a dishwasher, heating the water before the start of the workshop, and selecting a recipe with a processing time greater than ten minutes are all time saving strategies. If the recipes involve a lot of chopping, don't hesitate to get the participants involved.

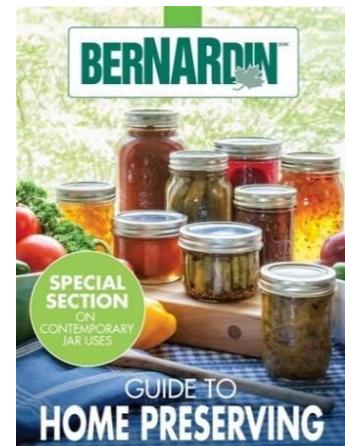
It is desirable to have the participants tighten the screw bands on the jars before processing and for the facilitator to check it. This is a common mistake beginning canners make, so it is good for participants to get a feel for the correct tightness.

For comfort and safety, we recommend the number of participants to be no more than twelve people in a canning workshop, and having two assistants is desirable. Jars are sold in packs of twelve so this allows for participants to each have a jar of the final product to take home.



## Additional Resources

- [Bernardin](#) is the authoritative name in home canning in Canada. The company publishes home canning recipe books, and recipes meet USDA standards. Find many recipes and how to videos on their website.
- [The National Centre for Home Food Preservation](#)
- USDA [Complete Guide to Home Canning](#)
- [So Easy To Preserve](#) Cooperative Extension, The University of Georgia
- [Health Canada's Food Safety Tips](#) for Home Canning
- To [find out more](#) about canning with reduced sugar
- If you are interested in teaching youth how to preserve: [Put It Up! Food Preservation for Youth](#) curriculum.



# QUICK PICKLES

One of the easiest food preservation methods is quick pickles (also called fridge pickles). You can make these pickles simply by washing, trimming, and soaking the fresh vegetables in an acid brine. The most common acids used to make quick pickles are vinegar and lemon juice.

These pickles are not for long-term storage. Most recipes call for quick pickles to be eaten between three days and a month. Boiling the pickling solution before you pour it over the prepared vegetables may increase the storage life to one month.



## Steps

1. Clean jars, and clean and slice the vegetables.
2. Tightly pack the vegetables into the jars (any type of vegetable can be used including hardy greens like kale, mustard and collards and many of the Asian greens our local farmers are now growing).
3. Make a flavourful brine.
4. Pour the warm brine over the vegetables.
5. Seal the pickles, let cool, and store in the refrigerator.

## Suggested Activities

- Demonstrate the quick pickle method using wild food (e.g. fiddleheads, spruce tips).
- Considering introducing pickles from other cultures (e.g. Lebanese or Japanese).
- Various abundant hardy greens (e.g. kale or turnip tops) can be combined with other vegetables to make a quick pickle that can be added to rice or noodles for a delicious meal.

## Additional Resources

- [How to Quick Pickle Any Vegetable](#)

# FREEZING

Freezing fruits and vegetables preserves much of their nutritional quality without the addition of any salt or sugar. No specialized equipment (besides the freezer itself) is needed. Frozen vegetables, fruits, and herbs boast fresh-picked flavors that can contribute to a healthy, diverse diet through the long winter. To freeze enough food for the winter you may need a chest freezer but you can keep food up to three months in your fridge freezer.

Most fruits and vegetables, and nearly all herbs, can be frozen. Dairy products can be frozen, but the texture will change to a greater or lesser extent depending on the product.

## How Freezing Affects Food

Freezing does not sterilize foods. The extreme cold simply retards the growth of microorganisms.

Freezer burn is a condition that occurs when frozen food has been damaged by dehydration and oxidation due to air reaching the food. It is generally caused by food not being securely wrapped in air-tight packaging. As soon as you notice ice crystals on items in your freezer, it is an indication that the quality of the food has started to deteriorate.



*Blackberries, raspberries and blueberries with black currant sauce- from the freezer to your plate in the middle of winter.*

## Equipment

There is no special equipment required to demonstrate how to freeze food.

## Blanching Vegetables

Most vegetables and some herbs should be blanched before freezing. Blanching means to heat in boiling water (or steam) for a brief time, then plunge into ice water to halt the cooking process. Vegetables that are frozen without having been blanched are safe to eat but have "off" colors, textures and flavors.

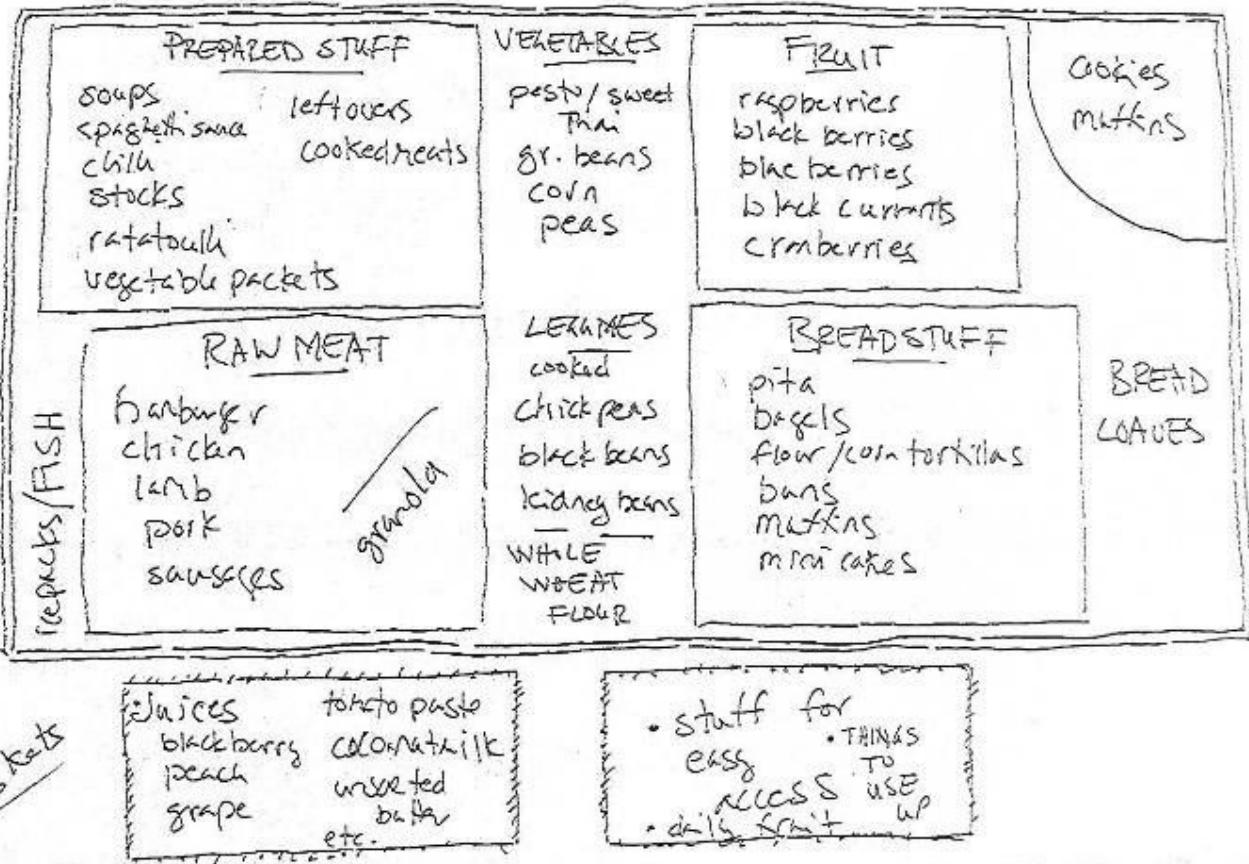
Blanching neutralizes the enzymes that cause decay, slows vitamin loss, brightens color, and maintains flavour and texture. Vegetables should be prepared so that they are all roughly the same size, and blanching times for each vegetable should be followed. The blanching time starts when the water is boiling over the vegetables. Although it is often recommended to change the blanching water for each vegetable batch, this may not be necessary if you are careful to blanch your vegetables starting with the mildest tasting and leaving the strongest tasting until the last.

## Steps

1. Bring the water to a full rolling boil while you clean and chop the vegetables.
2. Place the prepared/cut vegetables into a pot of hot water and cover with a lid (or into a steamer basket over boiling water, lid on). Blanch for the number of minutes appropriate for the vegetable, usually about 3-4 minutes from the time the water comes back to a boil.
3. After the vegetables have been blanched for the recommended time, drain the vegetables and immediately plunge the blanched veggies into ice water or run cold water over them. You want to cool the food down as quickly as possible so that it doesn't continue cooking from the residual heat.
4. After the vegetables have been quickly cooled, dry them well using a salad spinner or tea towel. Excess liquid results in poor quality frozen food.
5. Note the contents and date on the freezer bag or container and place in the freezer. Plan to use within 8 to 12 months if you are using a freezer and within three months if you are using a fridge freezer. Eat your oldest stock first. (FIFO - first in, first out).

## Tips

- Placing the vegetables in a sieve in the pot of boiling water makes it quicker and easier to remove vegetables and place them in cold water.
- Pack food into containers removing as much air as possible. Sometimes sticking a straw in the bag and sucking out the air through a straw can extract air from a bag. Leave some extra space in the container as food expands when it is frozen.
- Freeze food in appropriate portion sizes. Herbs or flavorful purees work well when frozen in small doses. Vegetables tend to be most useful when divided into single, meal-sized portions.
- Consider pre-cooking items you are planning to freeze in ways that will speed up meal prep down the road.
- A way to freeze produce that might stick together (e.g.berries or tomatoes) is to place them on a cookie sheet so they are not touching each other and put the cookie sheet in the freezer on a flat surface. When the produce is frozen, put them in a bag. This results in loose pieces (like commercial ones in bags) that can be used in the quantities you want.
- Consider making a map of your freezer so you know what is in it, can easily find it, and use the oldest foods first.



Anne's freezer map - a useful tool so you know what is in your freezer and where to find it.

## Suggested Activities

- Perhaps the most important skill to demonstrate is blanching, discussing the benefits of blanching, which vegetables need to be blanched and which vegetables can be frozen without being blanched (e.g. tomatoes).
- Show how greens and herbs can be frozen in ice cube or muffin trays.
- Provide information on how long each type of food should be kept.
- Share ideas of how freezing food can reduce meal preparation time and save money.
- To encourage zero waste, prepare a soup stock from the discards of the organic vegetables you use in the blanching demonstration.
- Vacuum sealing and frozen sous vide meals are two topics that can be introduced, so that even participants who might know a lot about freezing food can learn new things.
- Prepare something from frozen food to demonstrate how to use frozen food. (e.g. make a smoothie with frozen fruits and greens.)

## Additional Resources

- [National Centre for Home Food Preservation](#) - instructions for freezing specific foods.

# FERMENTATION

Products like kimchi and kombucha have become trendy on PEI in recent years but people have been harnessing the natural process of fermentation all over the world for thousands of years. Chances are you've been eating fermented foods maybe without even realizing it. Wine, cheese, bread, sauerkraut, yogurt, sourdough, and chocolate are all made using different fermentation processes.

In this toolkit, the lactic acid method of fermenting vegetables will be introduced. This is a simple method that doesn't require special equipment and is an easy way to preserve food that is locally grown.



*Sourdough bread, kimchee and fermented vegetables.*

## Lacto-Fermentation

The trick to fermenting food is to provide conditions where good bacteria can thrive. The proper brine, temperature, and fermentation time are the key elements for successfully fermenting vegetables.

All vegetables are covered in the good bacteria lactobacillus, and when you slice, grate and squeeze them with salt, they release their juice which mingles with the salt to create a brine. Once contained within this briny environment, lactobacillus multiplies and begins to break down the ingredient, digesting the natural sugars and transforming them into lactic acid-producing bacteria that will preserve the vegetables.

Salt affects the type and extent of microbial activity and the final taste. As long as there is not too much salt or too little salt used to create the fermentation, the amount of salt to use is a matter of taste. A general guideline is 3 tablespoons (44ml) per 5 pounds (2.27 kg) of vegetables.

Determining when the fermented vegetable is ready is largely dependent on personal taste. When you are happy with the taste of your ferment, it should be stored in the fridge or cold storage. This will not stop the fermentation but will slow it down.



*Learning to ferment with local farmers Heart Beet Organics.*

## Equipment

All you need for lacto-fermentation is salt, a vessel, and some time.

Using a canning jar or other glass jar with a tight-fitting lid is fine. When using a tight lid, you'll need to "burp" the jar daily to release the gases that build up as the vegetables ferment. Slowly unscrew the lid until you can hear gases escaping and then quickly tighten.

You can also use a system that allows the gas to escape from the fermentation vessel without letting new air into the environment. Quality clamp lids like a fido jar can be one such system. There are also various airlock devices that are now available on the market that can be attached to canning jars.

### Steps

1. Prepare your vegetable(s). You can chop or grate them as you like, remembering that the more surface area the better the salt will work to extract the liquids from the vegetables.
2. Sprinkle the salt on the vegetables according to the recipe. To release the natural juices in the vegetables, you can massage them, pound them with a wooden mallet (this is called tamping), or leave them to sit with the salt on them for 24 hours. Standard canning and pickling salt can be used as long as there is no caking agent. Salt with iodine added shouldn't be used, since iodine can inhibit fermentation. Salt can be measured by weight or volume or a combination.
3. Place the vegetables in a jar, and ensure they are covered with brine. Leave a 1-2 inch headspace.
4. If necessary, weigh the vegetables down under the brine to keep them submerged.
5. Cover the jar with a tight lid, clamp lid or airlock lid.
6. Leave at room temperature (60-70°F/ 15-21°C) until desired flavor and texture are achieved. If using a tight lid, burp daily to release excess pressure.
7. Once the vegetables are finished, put a tight lid on the jar and move to cold storage or the fridge. The flavor will continue to develop as the vegetables age.

### Tips

- A starter, such as lactobacillus or whey, is **not** required for plant-based lactic acid fermentation.
- Where the vegetables are left whole (e.g. dill pickles, dilly beans) it is necessary to make a salt brine to cover the vegetables. Non-chlorinated water should be used to make the brine. If your

water is chlorinated just set it on the counter for 24 hours or boil for 15 minutes, and the chlorine will dissipate.

- Keeping the vegetables submerged under the brine during fermentation is important. Any object that keeps the vegetables covered in the brine will do.
- It is fairly common to have a harmless kalm yeast develop on the top of fermentations – just skim if off. Mold, if it develops, will be fuzzy.
- There are studies that detail the sequence of different bacteria that appear in the ferment from start to finish. If the process is cut off short, the maximum health value of the ferment won't be realized. It's recommended that sauerkraut is fermented for at least four weeks.

## Suggested Activities

- A fermentation workshop does not require a kitchen. It can involve a lot of chopping of vegetables, and participants are happy to fill their jars with the ingredients they choose and to take a jar home to observe the fermentation process. If possible, provide samples at the workshop of how the ferment tastes when "done".
- While the health benefits of fermented food are widely promoted, unless you are an expert on such matters, it is advised to promote fermentation on the basis of its taste, added diversity to diet, and a way to preserve locally produced food that is in abundance.
- Sauerkraut is a basic ferment, has only a few ingredients and is a good introduction to fermentation. Kombucha (fermented tea) has recently been in the news on PEI, so many people may be curious about it. Kombucha is easy and inexpensive to make. Other FX fermented food workshops that have proven popular are kimchee (Korea) and curtido (Central America).
- Invite participants to take any "troublesome" ferments they have at home. Often newbies are concerned about yeast, and the facilitator can provide helpful tips.
- Let participants know how fermented food can be used to save time in meal preparation. (e.g. how to use kimchi, sauerkraut and curtido).
- If using canning jars in the workshop, perhaps have a clamp lid jar and airlock jar available to show participants the options available.

## Additional Resources

- Sandor Katz, author of "Wild Fermentation" and "The Art of Fermentation". You can visit his website at [www.wildfermentation.com](http://www.wildfermentation.com)
- [The National Centre for Home Food Preservation](#)
- Video: Fermenting Vegetables with Sandor Katz  
<https://www.youtube.com/watch?v=i77hU3zR-fQ>
- Recommended as one of the best sites for novice fermenters:  
<https://www.makesauerkraut.com/sure-fire-sauerkraut-in-a-jar>
- Frequently asked questions and recipes:  
<https://zerowastechef.com/2017/06/24/fermentation-faqs>
- PEI Fermentation Society and PEI Sourdough- these local facebook groups provide resources for people interested in fermentation. Cultures and scoby (symbiotic culture of bacteria and yeast) are exchanged freely and upcoming workshops are announced.

# APPENDICES

## Appendix A: Checklist - are you ready?

Use this checklist to make sure that you are ready to host a preserving workshop. As you complete each task, check it off.

- Identify who will facilitate the workshop, and agree on a couple of options for day and time.
- If a facilitation fee is to be paid, agree on the fee.
- Prepare a budget, and inform the facilitator how much the food and supplies budget is, so they can plan workshop activities with the budget in mind.
- Determine if the facilitator has a preferred venue and any equipment or space requirements. (e.g. audio visual, dishwasher, big enough space for all the participants to observe or for hands-on activities).
- If possible, have the facilitator visit the venue before booking it to determine if it is suitable for the planned activities. Check to make sure all equipment needed is available and in working order.
- Book the venue. Confirm with the venue manager that there is no issue with the planned activities.
- Promote the workshop to the community, and keep track of registered participants.
- If the facilitator is not providing the ingredients, get a detailed list of ingredients needed (e.g. type of salt, brand of vinegar).
- Prepare and print handouts, recipes and other resources, or determine another method (e.g. email, website) to share this information with participants.
- Print materials as needed (e.g. sign-up sheets to collect participants' contacts, evaluation forms).
- Remind participants of the workshop a few days before the workshop.
- Check in with the facilitator a few days before the workshop.
- Confirm with the venue manager a few days before the workshop and arrange access to the venue.
- Purchase refreshments and snacks if included.
- Take photos and videos to share (with permission from the participants).
- Leave the venue as you found it (ask the participants to help).
- Have fun at your workshop!

## Appendix B: Equipment list

This is a list of some of the equipment that may be necessary to deliver a preserving workshop. Not all the equipment is required for each method.

General equipment & supplies	Equipment and supplies for preserving
<ul style="list-style-type: none"><li>• name tags, pens &amp; paper</li><li>• stove with multiple burners</li><li>• measuring cups</li><li>• measuring spoons</li><li>• knives</li><li>• cutting board(s)</li><li>• vegetable peeler</li><li>• grater and planer</li><li>• mixing bowls</li><li>• colander or sieve</li><li>• cheesecloth</li><li>• timer</li><li>• oven mitts</li><li>• gloves (latex, rubber or polyethylene)</li><li>• steamer basket</li><li>• slotted spoon</li><li>• long-handled stirring spoon</li><li>• various sized pots</li><li>• ice cube trays or ice maker</li><li>• clean cloths</li><li>• jelly bag</li><li>• food processor</li><li>• kitchen scale</li><li>• citrus zester</li><li>• potato masher</li></ul>	<p><b>Canning and Pickling</b></p> <ul style="list-style-type: none"><li>• canning jars</li><li>• caps (new lids, metal screw bands)</li><li>• hot water bath canning pot with lid</li><li>• metal rack for canner</li><li>• timer</li><li>• oven mitts</li><li>• ladle</li><li>• wide mouth funnel</li><li>• jar lifter</li><li>• magnetic cap lifter</li><li>• non-metallic spatula</li><li>• clean cloths</li><li>• cooling rack</li><li>• ruler (to measure headspace)</li><li>• food mill (e.g. for apples)</li></ul> <p><b>Freezing</b></p> <ul style="list-style-type: none"><li>• freezer bags</li><li>• butcher paper</li><li>• ice cube trays</li><li>• vacuum sealer (opt)</li><li>• colander/sieve or slotted spoon</li><li>• ice cubes</li><li>• marker (to label freezer bags)</li><li>• steamer basket/sieve</li></ul> <p><b>Fermentation</b></p> <ul style="list-style-type: none"><li>• wide mouth straight sided canning jars</li><li>• vegetable peeler, grater, planer (or other preferred tools for chopping, slicing &amp; grating)</li><li>• airlock jar and clamp jar (optional)</li><li>• weight scale (optional)</li></ul>

## Appendix C: Signs of spoilage in canned food

Before using jars of food, examine each jar to ensure no unexpected changes have occurred. If you have any question, the age-old adage – “If in doubt, throw it out” – is often the most prudent course of action. Once home canned jars are opened, they should be refrigerated.

The following signs may indicate spoilage of canned food:

- jar SeALS HaVe BulGing Lids
  - the Seal is Broken
  - jar is dirty on the Outside (a sign of Food seePage)
- LiquID is clouDY or buBBling /fermEnting or foAming
- LiquID is seepinG out FrOM unDer the sealed lid
- contents SPURT out when the JAR is opened
- Mold has Grown on FOOD unDer the lid
- food is Slimy or MUSHY, or smells unusual OR OFF
- Food is DisColoured (usuAllY darkER)

There are instances where food shows no signs of spoilage but can still make you very sick; botulism is not detectable by sight, smell or taste. That is why it is extremely important to follow safe canning practices and to only eat canned foods that you are certain are safe.

IF in DOUBT THROW IT OUT  
(these COULD be signs of spoilage)

## Appendix D: Types of canned food

Below are brief descriptions of common preparations that are canned:

**Jam:** A cooked combination of fruit and sugar. They are either made with fruits with a naturally high pectin content or store-bought liquid or powdered pectin is added.

**Marmalade:** A jam made from citrus fruit. Marmalades generally do not have pectin added since citrus fruit rinds and seeds contain enough pectin to form a soft gel.

**Meat, Poultry, Wild Game & Seafood:** These low-acid foods require a pressure canner. Canning bar clams, lobster, and fish is still prevalent on PEI.

**Pickles:** Vegetables or fruit preserved in a high-acid liquid: either vinegar (most common) or salt brine (fermentation). Pickles can be sweet, sour, hot, or mild.

**Salsa:** A combination of fresh or cooked vegetables and/or fruit seasoned with herbs and/or spices.

**Sauce:** Sauces made with dairy, eggs, flour, starch, grains, or other thickeners should not be canned. Be sure to use a sauce recipe specifically created for canning to ensure food safety.

**Soup & Stock:** Soups and stocks can be canned as long as they do not contain grains, pasta, dairy, eggs, flour, starch, or other thickeners. Always use a recipe specifically created for canning to ensure food safety.

**Whole Fruits:** Whole fruits are often canned in sugar syrup, but you can safely can all fruits in water or in fruit juice.

**Whole Vegetables:** Unless they are pickled, whole vegetables are considered low-acid and must be pressure canned.

## Appendix E: Food safety

Food safety is legislated on PEI under the Public Health Act. The Environmental Health division of the Department of Health and Wellness is responsible for ensuring compliance. The website is [www.gov.pe.ca/health/environmentalhealth](http://www.gov.pe.ca/health/environmentalhealth)

Food premises owned by nonprofit organizations where *low-risk food is prepared* or served by volunteers for functions or gatherings are exempted from the food premise regulations.

A Class 4 license (no fee) is required if your organization is preparing high risk food such as sandwiches, meat dishes, casseroles, or hosting large fundraising dinners.

If you are unsure if the food you are preparing is high or low risk, have any questions about the facilities you plan to use to give workshops, or if you want to sell food or preserves (e.g. for a fundraiser), it is advised to contact the Environmental Health division.

If your community organization is involved in ongoing workshops or events where food is prepared, consider taking the free food safety course for volunteers from Environmental Health. You can check their website for upcoming courses.

A range of helpful brochures can be found on the Newfoundland and Labrador Department of Community Services [website](#), including a leaflet on Home Bottled Foods.

## Appendix F: Selecting and sourcing local produce

Peak vegetable ripeness lingers roughly 6 to 12 hours after harvest, so preserving workshops should be planned around when produce is harvested. It is cost effective to source produce when it is in abundance and to offer workshops when participants can apply their new-found knowledge as soon after the workshop as possible.

When preparing fruits and vegetables for canning, remove and discard any pieces that are wilted or damaged.

Cucumber pickles are popular on PEI, and for crisp pickles it is recommended to use only pickling cucumbers and preserve them the same day they are harvested. The blossom end of the cucumber contains enzymes that can result in soft pickles, so cut off the blossom end, and if you don't know where the blossom end is, remove a slice from both ends.

When fermenting, it is important to start out with fresh organic vegetables. Vegetables need to be juicy to provide the sugars bacteria feed on.

To find out what's in season refer to the [PEI Flavours](#) website for a list and maps of local food producers, and a "What's in Season?" guide.

Farmers' Markets are a great place to get to know your local farmers and the number of Farmers' Markets on PEI gets larger each year.



You can find a list of certified organic farms on [The PEI Certified Organic Producers Cooperative](#) website.

The [Food Exchange](#) website has a number of resources for sourcing local food including a list of farmers providing food directly to eaters through [Community Supported Agriculture](#), a list of [community gardens on PEI](#), and [The Island Food Map](#).

The Facebook group "[Food Exchange PEI](#)" often has information on what produce local farmers have available. Anyone can join this group and post questions about where to source local food.

## Appendix H: Budget template

Workshop Title:		Date:
Organizers:		

ESTIMATED EXPENSES		
Description	Amount	Notes
Venue		
Activity Materials (see modules)		
Refreshments & Food		
Printing & Photocopies		
Other*		
<b>Total Estimated Expenses</b>		

\* Other may include transportation, honorariums for facilitators, child care, thank you gifts, etc.

Estimated expenses ÷ estimated # of participants = cost per participant

ESTIMATED FUNDS AVAILABLE		
Description	Amount	Notes
Fees from participants		
Donations		
Grants		
Group's workshop funds		
Other		
<b>Total Estimated Funds</b>		

Estimated funds - Estimated expenses = Estimated surplus or deficit

## Appendix I: Participant consent form

**I agree** that my contact information provided below may be used to contact me for purposes directly related to this workshop (example - to complete an evaluation or send further resources to you).

**I understand** that I may be contacted about upcoming events.

**I understand** that the organizer is not responsible in the case of sickness or injury during my participation in this workshop, and I have informed the organizer of any allergies I have before attending the workshop.

**I understand** that any photos taken during the workshop may be used by the organizer to promote and inform the public about the workshop. These photos may be shared via websites, social media, newsletters, presentations, conferences, etc. (If you prefer not to have your photo taken during the workshop, let your facilitator know at the beginning of the workshop).

Name: \_\_\_\_\_

E-Mail address: \_\_\_\_\_

Phone Number: (daytime) \_\_\_\_\_ (other) \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix J: Sample poster



# FREE PRESERVING WORKSHOPS

With Sarah Forrestor Wendt at the PEI Farm Center (420 University Ave)

To register email [foodexchangepei@gmail.com](mailto:foodexchangepei@gmail.com)

Learn to safely preserve the taste of summer for year round enjoyment and gain greater control over your food budget and the food you eat.

Many preserving methods do not require any specialized equipment.

Sarah is the owner of My Plum My Duck where she serves up a wide array of preserves.

*This initiative is hosted by the PEI Food Exchange and made possible through the Community Food Security grant awarded by the PEI Department of Agriculture and Fisheries.*



Website: [foodexchangepei.com](http://foodexchangepei.com), call 902 314 2220

**Tuesdays**

**6-8 pm**

**Oct 16<sup>th</sup>**

**Tomato Salsa**

**Water bath  
method**

**Oct 30<sup>th</sup>**

**Fridge/quick  
pickles**

**Nov 6<sup>th</sup>**

**Apple sauce**

**Water bath  
method**

**Nov 20th**

**Fermenting**

**Dec 4<sup>th</sup>**

**Freezing**

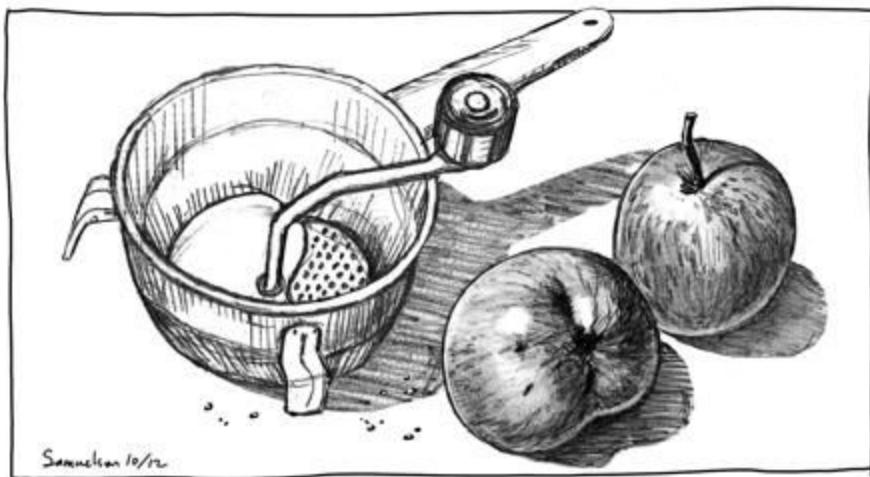
## **Appendix K: Building community through the power of food**

Below is a list of food actions you and your community may want to consider:

- Get together to make preserves – this is a great way to learn new tricks and recipes.
- Develop a community kitchen equipment library.
- Map unused root cellars and cold storage available for community members to store produce when they do not have their own facilities.
- Work in partnership with other community organizations to build a community root cellar.
- Hold a canned foods and recipe exchange.
- Prepare a list of local farmers who sell in bulk in your area, and organize a bulk-buying club.
- Organize a root cellar tour where community members allow people to visit their root cellars and observe first-hand how to use cold storage to preserve produce.
- Organize a harvest of non-commercial produce from farmers' fields, community gardens, untended apple trees and wild food.

## Appendix L: PEI Food Heritage - Into Autumn

JoDee Samuelson, the author, kindly gave the FX permission to include this story from her book, "The Cove Journal", published by Island Studies Press in 2018. This story was first published in "The Buzz", in October 2012.



### Into Autumn

Did you ever see such a summer for apples? They're everywhere, on the ground, floating down streams, and more importantly, in our pies and applesauce. How did the trees find enough water this summer to make apples, let alone make them delicious?

On a similar topic, how did the cucumbers get so juicy when their roots are such little bits of things? There was no cucumber shortage this summer. Women in the Cove are counting their jars of chow, mustard pickles, tomato sauce and dilly beans. My own mother was a great woman for canning. One year she put up seven hundred jars of preserves! I expect many of our mothers did the same, and this on top of all the other demands of life.

Life still has its demands. Autumn brings people back together after the great summer scattering. Children sit at the kitchen table staring at homework, community meetings recommence, and card parties start up again. A certain quiet beauty descends on the land. Some summer sounds we don't miss: lawn mowers and dirt bikes. Sounds we welcome: school buses, geese flying overhead, and the comforting rumble of tractors and potato harvesters working into the night.

Night closes in around us all too soon and we seize the warm bright daylight hours for chores that suddenly appear urgent, chores like checking the roof for loose shingles, cleaning leaves from the rain gutters, putting away gardening tools, and getting out warm socks and wool sweaters in the big summer-to-winter-clothes-switcheroo.

In crimson tinted woods the squirrels are busily stashing away chestnuts, butternuts, even apple seeds, while blue jays appear at backyard feeders demanding to be fed. Honeybees are in their winter beeyards snacking on sugar syrup; bumblebees have gone underground; mice are hopefully scratching at the walls; cats are fat and sleek. October is a busy happy month.

It's also the month of our Cove bean supper. We had a meeting last week to plan the supper. We chose the date, had a cup of tea, talked some more, and decided to ask Kay if she'd do the beans again. Can't hurt to ask. She's in Halifax visiting her sister, should we call her? We call her. Yes, she'll make them. Great! Next morning, we get a call from Kay to let us know that onions are on sale at the Co-op, two bags for the price of one. (She's over in Halifax: how does she know?) Will we pick some up onions for the baked beans? Of course. We'll phone people about biscuits and pies closer to the date. And so it goes. That's the way things get done in the Cove and everywhere else in Island communities.

Thanksgiving is coming up. Well, we have a lot to be thankful for. We had a grand summer, we didn't get flooded like Truro, we didn't have a blizzard like Iceland, we don't have a federal election next month, and we have buckets of applesauce in the freezer. It doesn't get much better than this.