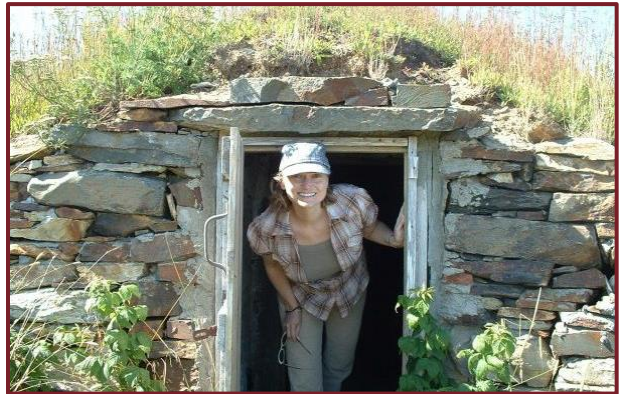


Root Cellars Rock

Food Skills Workshops

A Resource for Community Organizations in
Newfoundland & Labrador

Preserving: Canning/Bottling





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Preface

The 4Ps of local food are planting, picking, preparing, and preserving. Together they encompass how to grow food, harvest it, make healthy meals from it, and preserve it for future use. Based upon the 4Ps, these workshops were created by the Food Security Network of Newfoundland and Labrador (FSN) as part of the Root Cellars Rock project. They are intended to assist community groups across the province in fostering knowledge, capacity, and engagement with healthy, traditional food skills in their communities. The workshop kit outlines what community groups will need to know in order to successfully host their own workshops on the 4Ps.

These workshops have been created in consultation with the Root Cellars Rock Advisory Committee and other local food champions from across the province. The inspiration behind the workshops was the ongoing success and growth of community-based food security initiatives province-wide and a need identified by those groups for Newfoundland and Labrador focused resources. FSN surveyed community-based food security groups to find out what topics were of most interest to them and how they thought the workshops should be designed. The Root Cellars Rock Food Skills Workshops are the result of their input and ideas. Groups surveyed across the province include community gardens, farmers' markets, community kitchens, family resource centres, regional wellness coalitions, environmental organizations, and food security working groups, to name a few.

These workshops are meant to be a living resource. Through ongoing input and evaluation, FSN hopes to update and improve the materials to ensure their continued appropriateness for local groups. For further information on how to provide input and evaluation on the workshops, see page 13.

FSN would like to thank the many individuals, agencies, and community groups that supported the creation of this resource.

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Acknowledgements of photos used in the workshops can be found at the end of each workshop section.

Table of Contents

Preface	3
Acknowledgements	4
Table of Contents	6
Introduction	8
Food Security Network NL (FSN)	8
Root Cellars Rock	8
The 4Ps of Local Food	9
The Food Skills Workshops	10
Evaluation and Follow-up	13
Things to Keep in Mind	14
Get to Know Participants	14
Build a Welcoming Space for Adult Learners.....	15
Location	16
Agenda & Timing	17
Materials & Budget	18
Funds to Host a Workshop	19
Safety.....	21
Promotion	22
Preparedness	23
FSN Resources	24
Appendices	26
Appendix A: Are You Ready? Checklist.....	26
Appendix B: Budget Template	27
Appendix C: Supplies & Costing Template.....	29
Appendix D: Sample Poster	30
Appendix E: Sample Registration Form	31
Appendix F: Registration Tracking Template	32
Appendix G: Garden Safety	33
Appendix H: Food Safety	35
Appendix I: Nutrition.....	37
Appendix J: Grant Opportunities	38
Appendix K: Garden Crops in NL	40

Preserving	43
7. Canning/Bottling	43
7.1. Preparation	43
7.2. Workshop.....	47
Introduction	47
Roots of our Local Food	48
Digging In.....	50
What is Canning/Bottling?	50
Why Preserve Foods Through Canning?.....	51
Useful Terms.....	54
Food Safety When Canning	57
Low-Acid & High-Acid Foods.....	62
Altitude	64
Types of Canned Foods.....	66
Canning Local Foods.....	69
Choosing Fresh Produce	70
Produce Purchase Guide.....	71
Equipment.....	74
Preparation Before Canning.....	79
Hot Water Bath Canning.....	80
Pressure Canning.....	83
Canning Tips.....	86
Storage of Canned Foods.....	88
Canning and Community Building	89
Home Canning Gifts	90
Activities	91
Conclusion	97
Bibliography.....	98
Photo Credits.....	99
7.3. Supplementary Materials	101
Sample Agenda.....	101
Evaluation Form.....	102
Resources.....	104
FSN Fact Sheet – 10 Ways to Eat Local Food.....	106
FSN E-News Sign-up Sheet.....	108

Introduction

Food Security Network NL (FSN)

The Food Security Network of Newfoundland and Labrador (FSN) is a provincial, membership-based, non-profit organization initially started in 1998 in response to growing levels of hunger and poverty in the province. Since then, FSN has been at the forefront of food security work in the province - fostering awareness, dialogue and action around food security issues.

FSN's mission is to actively promote comprehensive, community-based solutions to ensure physical and economic access to adequate and healthy food for all.

Root Cellars Rock is one of several projects that FSN administers in order to advance that mission. For more information, visit www.foodsecuritynews.com

Root Cellars Rock

The Root Cellars Rock project aims to stimulate healthy local food production and consumption across the province by celebrating Newfoundland and Labrador's agricultural heritage and fostering growth in agriculture and local food self-sufficiency.

Why Root Cellars? Root cellars were once an integral part of our provincial food system. Cold storage in root cellars allowed people to preserve harvests and to eat locally grown foods for more of the year. Subsistence living in Newfoundland and Labrador was not easy and many communities added to their imported food supplies by growing gardens, fishing, hunting, and foraging wild foods, all of which would have been preserved to last the winter without refrigeration.

Root cellars are used as a symbol of Newfoundland & Labrador's unique food heritage and potential for increased self-sufficiency. For more information on root cellars, refer to the **Root Cellars** workshop.

These workshops are one aspect of Root Cellars Rock. Other activities include:

- Resource sharing through the Root Cellars Rock blog and social media;
- Building partnerships with and assisting community groups that are fostering Newfoundland and Labrador's local food system; and
- Participating in the development of resources that promote access to healthy local foods in the province.

To learn more about Root Cellars Rock activities, visit www.rootcellarsrock.ca.

The 4Ps of Local Food

The concept of the 4Ps of Local Food was coined by Neil Tilley, who was a Newfoundland and Labrador community organizer, organic farmer, and advocate for environmental stewardship. FSN respectfully uses the 4Ps of local food in his memory. The 4Ps of local food are: Planting, Picking, Preparing, and Preserving.

Planting: How to Grow Food

Planting includes all aspects of growing healthy food up until the time when plants are ready to be harvested. Planting can refer to household or community gardening, sprouting, and agricultural cultivation of products like vegetables, fruits, and herbs. The two workshops under Planting are:

1. Container Gardening
2. Composting



**A raised bed
container garden**

Picking: How to Harvest Cultivated & Wild Foods

Picking includes all aspects of harvesting food, both foods that have grown in the wild and those that are cultivated in a garden or on a farm. Picking includes harvesting foods derived from animals as well as plants. Raising backyard chickens and other livestock, beekeeping, hunting, fishing, as well as harvesting vegetables, or gathering wild plants all fall under Picking. The two workshops under Picking are:

3. Seed Saving
4. Edible Wild Plants

Preparing: How to Prepare Healthy Meals

Preparing describes the process of making healthy meals that will be eaten soon after they are prepared. Cooking skills, meal traditions, and information about ingredients are all included under Preparing. The two Preparing workshops are:

5. Preparing Local Vegetables
6. Using Culinary Herbs

Preserving: How to Store and Preserve Food

Preserving incorporates the various methods for storing and preserving food to keep it for future consumption. Root cellars and cold storage, canning (bottling), pickling, drying, salting, freezing, fermenting, and smoking are all techniques under Preserving. The two workshops for Preserving are:

7. Canning/Bottling
8. Root Cellars



Harvested tomatoes

The Food Skills Workshops

Why Host a Food Skills Workshop?

Hosting a Food Skills Workshop can have several cultural, health, environmental, educational, and financial benefits. Participants will:

- Help to preserve traditional food skills and knowledge;
- Learn practical, hands-on food skills that promote healthy eating and are part of an active lifestyle;
- Meet and connect with other like-minded individuals that care about creating supportive local food communities;
- Gain awareness of ways to live sustainably with minimal impact on the environment;
- Build confidence through recognizing the value of the skills and knowledge that they and other local people already have;
- Connect with organizations and groups in the area that offer valuable services and opportunities;
- Discover affordable ways to enjoy locally produced, healthy foods year-round; and
- Become better connected with their food system and gain a greater understanding of community food security.

Who Should Host a Food Skills Workshop?

Any individual or community group that is interested in promoting food skills can host a workshop. Throughout the workshops, the term *facilitator* is used to refer to the people organizing and presenting these workshops in communities.

Facilitators do not need to be experts in these topics. The workshops are meant to be introductory learning experiences, both for participants attending the workshops and facilitators preparing them.

Included in each workshop is background information on the topic, supplementary resources, and detailed activity plans. After carefully reading through these materials, facilitators will hopefully feel confident hosting their own workshop. For additional information contact info@rootcellarsrock.ca

How to Use the Workshops

The eight workshops can be hosted individually or also work well when offered as part of a series. For example, a farmers' market might host a few workshops from each of the 4Ps over the course of the market season, to showcase the products that farmers are selling.

A community garden may choose to host two workshops from Planting and Picking, to inspire gardeners at the start of the growing season and to bring their group together during harvest.

A community kitchen may find the Preparing and Preserving workshops useful for introducing participants to new ingredients and techniques and building confidence with those.

There is no set rule on how to use these workshops; they are intended to be flexible and applicable for a variety of different purposes. Connect with local people to find out what workshops will be most valuable to community members and host a workshop in a location appropriate for the local community.

All eight workshops follow the same user-friendly format and include the following sections:

- Preparation
- Introduction
- Roots of our Local Food
- Digging In
- Activities
- Conclusion
- Supplementary Materials



The workshops begin with a section titled '**Preparation**' which introduces facilitators to important details to consider before hosting the workshop, such as gathering materials, finding a location, recruiting participants, setting a timeline, and workshop safety.

The **'Introduction'** section provides instructions for facilitators to introduce themselves, any hosting organizations, and share important information that will make the workshop experience comfortable for all participants.

The next section, **'Roots of our Local Food'**, provides an icebreaker activity. An aspect of Newfoundland and Labrador's food heritage is highlighted to give participants an idea of how food skills and knowledge have been established in the province. There are suggested questions for facilitators to ask participants in order to start a discussion, put participants at ease, and connect the workshop topic back to people's personal lives and the province's food roots.

The section titled **'Digging In'** provides the information that facilitators will use to introduce participants to the topics. This information was collected by FSN through literature reviews and interviews with local food champions. It is up to facilitators to decide how much and what parts of the information are relevant to their group. Facilitators may find some aspects especially useful and decide to leave others out, or may decide to use the extra resources provided to delve a bit deeper into particular concepts of interest to their group. It is recommended that facilitators try to find interesting ways to present the Digging In information besides giving a presentation. Displays, games, discussions, small group interactions, brainstorming lists, slideshows, and videos are all good ideas for relaying information.

The fun really begins with the **'Activities'** section of each workshop. A variety of options are presented for facilitators to choose from for hands on, interactive, and enjoyable activities that they can lead their group through. Depending on the amount of time that is available for the workshop, participants may enjoy doing more than one of the suggested activities. Facilitators decide where to fit the activities in the agenda they create.

Each workshop is then wrapped up in a **'Conclusion'** section where facilitators check back with participants to ensure that their questions have been answered and provide participants with further resources to take home for continued learning.

Included with each workshop are also **'Supplementary Materials'** which facilitators will share with participants. At each workshop all participants should fill in an evaluation form and be encouraged to add their name to the FSN E-News sign-up sheet. As well, a resources page is included with each workshop that provides sources for further learning. The resources page also lists possible videos that could be used by facilitators during the workshop.

Quick Tip

When possible, it is a good idea to present the activity options to participants before the workshop, and have them choose which they would find most interesting.

Evaluation and Follow-up

FSN plans to adapt, improve, and expand these workshops over time to ensure that they are kept as up-to-date and user-friendly as possible. Community groups, facilitators, and participants are asked to please provide input about their experience using these resources by filling in and returning to FSN the evaluation form which is included in the supplementary materials of each workshop. Groups that plan to host more than one of the workshops may find it useful to keep photocopies of the evaluation forms so that feedback can also be used to improve future workshops.

Evaluation forms should be sent back to FSN by email, fax or mail:

Email: info@rootcellarsrock.ca

Fax: (709) 237-4231

Mail:

Food Security Network of Newfoundland and Labrador
44 Torbay Rd., Suite 110
St. John's, NL
A1A 2G4

Consider documenting your workshop experiences with photos or videos. Those photos and videos can be very useful to community groups for supporting future funding requests, promoting upcoming events, and showcasing the successes of a workshop or project. FSN greatly appreciates receiving copies of photos and videos to use for promotion of the workshop kit and to publicly highlight the food security initiatives happening across the province. **Appendix E: Sample Registration Form** (page 31) includes a question requesting consent from participants to photograph or film workshops.



Container gardening workshop

Things to Keep in Mind

Get to Know Participants

Getting to know workshop participants and understanding their expectations before the start of a workshop can go a long way towards ensuring that everyone has a positive experience. The questions in the '**Roots of Our Local Food**' section are meant to help facilitators gauge where participants' interests lie and how familiar participants are with the topic. Organizers may also choose to ask a few questions during registration to get more familiar with participants. Refer to **Appendix E: Sample Registration Form** (page 31).

Depending on your location and resources, consider whether you may need to put a limit on the number of participants that can attend a workshop. These workshops are recommended for a maximum of fifteen participants. However, with adjustments to the agenda and content, they could accommodate larger numbers. Using your budget, planned activities, and venue as guides, decide what participant numbers will work best at your workshop.



Introducing a workshop

These workshops are designed for adult participants. While many of the activities could be enjoyed by younger participants, the content of the workshops, safety recommendations, and other planning measures have not been written for children or youth. For alternate resources to connect children and youth with healthy local food skills, refer to the Children & Youth section on the Root Cellars Rock blog (www.rootcellarsrock.ca/children-youth).

Build a Welcoming Space for Adult Learners

The following are principles for adult learning to keep in mind when facilitating workshops in order to create a comfortable environment for adults to learn in (adapted from the Community Kitchen Best Practice Toolkit - www.foodsecuritynews.com/resources):

Draw upon learners' experiences as a resource. Adults have a wide experience base. Facilitators can help participants share their own experiences and create an environment where participants are encouraged to learn from one another. By focusing on the strengths learners bring to the workshop, learners are able to connect new learning with prior knowledge.

Foster a spirit of collaboration. Collaborative learning focuses on the interdependence of each member. Learners collaborate with facilitators and with each other by working together to answer questions and perform activities.

Involve learners in the planning and implementation of learning activities. Adults are interested in things that are relevant to their lives. Adults' past experiences, their current learning goals, and their sense of self will influence what they want to learn and how they learn it. The facilitator can create a situation in which participants can share in the planning, implementation, and evaluation of workshops.

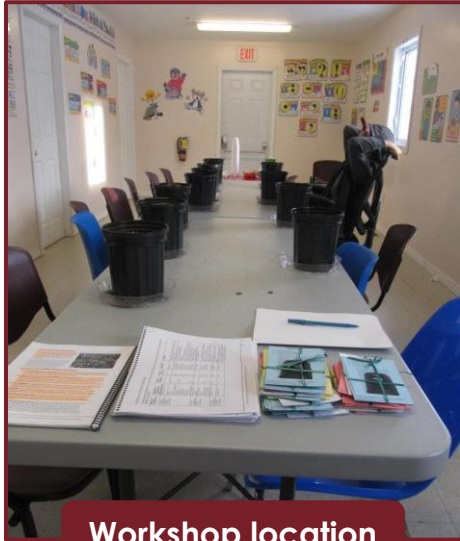
Create a climate that encourages and supports learning. Adults have a sense of personal dignity. They must be treated with respect at all times and never feel humiliated or laughed at before others. A safe atmosphere where learners can admit confusion and express different opinions is one that enhances learner self-esteem and reduces fear.

Cultivate self-direction in learners. In a supportive and safe learning environment, the facilitator can become a mentor to adult learners. They can help learners to develop skills that lead to self-direction, independent learning, and empowerment. Facilitators can encourage learners to continue to seek out knowledge and experiences related to the topic beyond the workshop.



Outdoor workshop

Location



Workshop location

There are several things to keep in mind when choosing a workshop location:

Availability: Be sure to book the space well in advance to ensure that it will be available at the time of the workshop. Check back with the venue in the days leading up to the workshop to confirm the booking.

Traveling distance: Choose a location that is within easy travel distance for participants. Keep in mind whether they are likely to be walking, driving (and require parking), or taking public transit. If many participants will be walking or taking public transit, consider concluding workshops before dark or offering carpools.

Affordability: Choose a venue that is within budget for the workshop, keeping in mind other expenses like materials. Consider approaching venue operators to see if they are willing to donate the space for free or search out spaces that are always free such as community rooms at local recreation centres or libraries.

Accessibility: Consider the mobility of participants. Where possible choose venues that have few stairs or provide wheelchair access. Arrange work spaces and choose equipment that will be comfortable for all participants.

Equipment & resources: Be sure that any necessary equipment or resources are available on-site such as a kitchen, audio or video equipment, internet access, appliances, kitchen tools, and running water. Some of the workshop activities are messy so cleaning equipment should also be available.

Seating: Think about how the participants will be organized in the space. Will everyone be around a table or in a circle? Or will the facilitator be in the front facing seated participants? However you envision the lay-out, ensure that there are adequate chairs, tables, and workspaces.

Agenda & Timing

Each workshop in its entirety is set up to last about two hours depending on the activities that are chosen. It is recommended that the workshops be done in their entirety with all the associated sections. However, if you do not have that much time with participants, consider adapting the workshops to fit your timeline. For example, you could use the **'Roots of Our Local Food'** and **'Digging In'** sections together and provide a shorter presentation and discussion. Or use the **'Activities'** section alone for a quick hands-on session and then send resource materials home with participants for further learning.



Community garden

Each workshop comes with a recommended agenda. Facilitators can adapt the agenda to make it appropriate for their workshop and should display it at the workshop or hand out copies for participants to follow along with. The agendas do not include break periods; however facilitators can ask participants if they would appreciate a break. If the workshops are scheduled to go beyond two hours then it is recommended that breaks be added to the agenda.

Activities will often take longer than expected, especially when participants are enjoying themselves. Keep this in mind when planning your schedule. One of the best outcomes of hosting community workshops is the networking and socializing that result, so allow time for this to happen.

Schedule workshops for times when participants are most likely to attend. Find out if the intended participants prefer days, evenings, or weekends. Many people are unavailable in the summer, so higher turnout might be likely during other times of the year. If you plan to host an internal workshop for your community group perhaps host it after or in lieu of a regular meeting at a time that participants are already comfortable with.

For workshops directed at parents or caregivers, keep in mind possible child care commitments or restricted evening schedules. Consider offering child care at workshops in exchange for a donation or running supervised children's events at the same time as the adult workshop.

Schedule workshops with adequate time to complete planned agenda items. The '**Activities**' generally take place at the end of the workshop and they are extremely important for providing hands-on and interactive learning experiences. Be sure that your timeline leaves enough room that activities are not cut short.

If a workshop is going to take place during a meal time, consider providing food or hosting a potluck. Providing food is an effective way to increase attendance for a workshop or event. If you will be providing food, include that in your budget and adjust your agenda to allow time for participants to eat.

Appendix E: Sample Registration Form (page 31) and the evaluation forms included in the supplementary materials of each workshop can be used as resources to find out the best times for hosting workshops.

Materials & Budget

These Food Skills Workshops have been designed to keep expenses low by recommending affordable and reused materials for workshop activities where possible. That being said, it is easy to spend more than anticipated to host a successful workshop. Consider making a budget at the start of the planning process to help monitor expenses. Refer to **Appendix B: Budget Template** (page 27) as a resource.

Once you have an idea of expenses, cost out the price per participant for the workshop and decide whether that amount is manageable within the resources of the group. If not, refer to **Funds to Host a Workshop** (page 19) for ideas to cover the costs of hosting a workshop.



Workshop materials

Funds to Host a Workshop

These workshops are meant to be inexpensive for facilitators to host but will still require some funds for materials, venue, and printing. Consider the following options for ways to finance workshops in your community:

Fees

Charging participants a small and accessible fee can help to cover the cost of hosting a workshop. There are different fee types to choose from, including flat rate, sliding scale, suggested donation, and pay-what-you-can.

Flat rate: A set fee is required from all participants. It could reflect the cost per participant to cover the workshop expenses or could be set a bit higher to fundraise for the group hosting the workshop.

Sliding scale: Participants are categorized in some way and are required to pay a fee that reflects their income level, involvement in the hosting group, or role at the workshop. This type of fee structure can create incentive for participants to join a group's membership or volunteer so that they are able to pay a discounted fee. Some examples of sliding scale categories are:

- employed individuals, unwaged individuals
- adults, students, seniors
- non-members, members
- regular participants, participants who volunteer

Suggested donation: A donation amount is suggested and participants decide what they can reasonably afford to donate based on that amount. For example, suggested donation may be \$5 but some individuals will choose to donate \$10 and others may donate \$2.

Pay-what-you-can: Participants are asked to pay some money towards the workshop but there is no limit or suggestion on what that amount should be so participants decide what is reasonable for them.

Fundraising

A fundraiser could be held to raise money for hosting workshops. The fundraising process is also a good opportunity for promoting the upcoming workshop in the community. Keep in mind that sometimes fundraisers can take up more volunteer time than is reasonable considering the amount of money they raise. Try to come up with fundraising ideas that are easy to organize and will not require too many resources to succeed. Consider the following fundraising options and be creative when brainstorming other ideas:

- host a bake sale or sell beverages at a community event like a farmers' market or fall fair
- sell raffle tickets for donated prizes
- host a garage sale or plant sale



Donations

The costs associated with hosting a workshop can be greatly lessened if your group seeks out donations of materials or in-kind donations like free access to a venue or equipment. Consider approaching the following local businesses and groups for assistance:

- gardening and landscaping businesses
- grocery stores
- town councils
- service and church groups
- community centres
- farmers
- hardware and home stores
- restaurants
- local businesses
- libraries

Grants

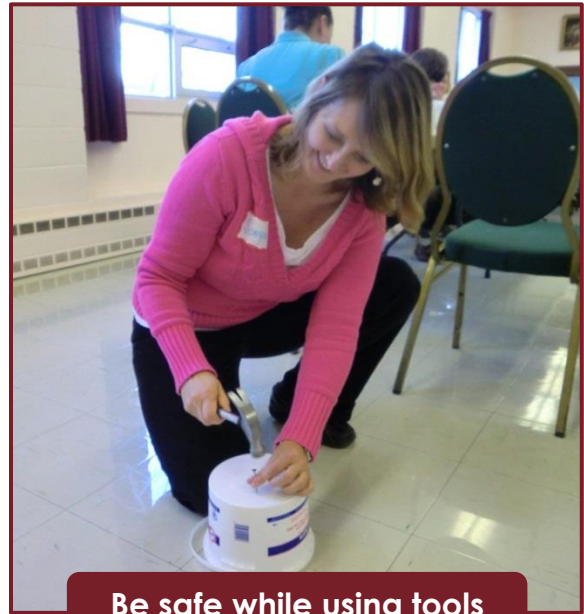
Grants are funds distributed by an organization (like a government department, business, or foundation) to assist in the creation of community projects that fit within the funding organization's mandate. Grants usually involve an application process and follow-up reporting and may take several months to process. Most grants require that applicant groups be either registered not-for-profits or charities in order to apply. Usually individuals cannot apply to grants.

For information on becoming incorporated as a not-for-profit or gaining charitable status visit the Community Sector Council Newfoundland and Labrador website: <http://communitysector.nl.ca/voluntary-sector-resources/starting-nonprofit-or-charity>. Refer to **Appendix J: Grant Opportunities** (page 38) for a list of grants and grant databases.

Safety

Safety is very important when hosting a workshop. Keep in mind the wellbeing of everyone in attendance when planning out venues, materials, food, activities and other considerations. Hosting activities outdoors and at gardens creates safety considerations that are unique from indoor workshops. Refer to **Appendix G: Garden Safety** (page 33) for things to keep in mind for garden workshops.

Serving and/or preparing food at a workshop can really improve the experience for participants, but it means that food safety precautions need to be taken. Refer to **Appendix H: Food Safety** (page 35) for provincial food safety guidelines to follow when hosting a workshop.



Be safe while using tools

Promotion

Try to promote workshops as much as possible in your community well in advance. Use **Appendix E: Sample Registration Form** (page 31) and **Appendix F: Registration Tracking Template** (page 32) as resources to keep track of how many people will be attending and to decide how much more promotion should be done to fill up available spaces as the workshop date gets closer.

The following are a few tips for successfully promoting an upcoming workshop:

- **Use the FSN E-News:** Send your event listing to FSN for inclusion in the monthly E-News. The E-News is an email newsletter packed full of events, opportunities and resources and it goes out to individuals and groups across the province. Email your event to e-news@foodsecuritynews.com before the first Monday of the month to be included in that month's e-news. Sign-up to receive the E-news at www.foodsecuritynews.com
- **Promote the event through Root Cellars Rock:** Email info@rootcellarsrock.ca to find out about putting notices up on the Root Cellars Rock blog, Facebook, and twitter.
- **Spread the word:** Everywhere you go, tell people about the great workshop you are hosting and ask them to pass the word on. It's helpful to have a handout with the workshop information or a website address that you can direct people to so they will not forget the details later.
- **Share with your network:** Send emails out over listservs, put a blurb in newsletters, post notices on community boards, make a Facebook event, promote the workshop on twitter, and post the details on group websites.
- **Use free local media:** Make a radio public service announcement (PSA) or create a press release and distribute that to local media to generate interest for articles and news stories.
- **Connect with local groups:** Brainstorm about other local groups that have members that may be interested in attending and then ask if you can promote the workshop through them. For example, if you are doing a workshop on container gardening then perhaps local community gardens, horticulture clubs, community centres, seniors groups, or schools would be interested in promoting the event.



Leading a workshop

- **Use local events calendars:** Often your municipality, local newspaper, or tourism centre will have online or on-location community calendars that you can post events on for free.
- **Promote the activities:** Activities are the hands-on part of the workshops and they are a great draw for attracting interest. For example, advertise that you are hosting a composting workshop, but be sure to mention that you will be making a vermicompost bin as a group.
- **Promote the event through the venue:** If you are hosting at a community centre, library, farmers' market, or other public space then put up posters, use on-site calendars and newsletters, and ask venue operators to spread the word.
- **Make a poster:** Making posters and handouts can be time consuming, but are great when used effectively. Rather than putting up posters everywhere, think about who you are trying to reach and poster where those people go. Use **Appendix D: Sample Poster** (page 30) as a template.
- **Promote the workshop at other events:** Ask to attend the events and meetings of related groups to tell people about the workshop.
- **Start early and finish late:** Give people lots of notice when workshops are being hosted and then send out reminders right before the workshop. Often those last minute reminders convince people to attend.



Having fun at a workshop

Preparedness

Before planning a workshop, carefully review the materials in this kit. Thoughtful review of the materials and adequate preparation will ensure that you organize the right venue, materials, content, promotions, and activities and host a highly successful workshop. Use **Appendix A: Are You Ready? Checklist** (page 26) as a planning resource.

FSN Resources

When organizing workshops, feel free to contact FSN with any questions or feedback. FSN can also put you in contact with other groups across the province that have done the same workshops already and can share resources and lessons, which may be helpful in organizing your workshop.

FSN has many resources in addition to these workshops. Explore the links below and print or forward any resources that could benefit workshop participants. For more information visit www.foodsecuritynews.com or contact FSN at info@foodsecuritynews.com and (709) 237-4026.

Root Cellars Rock online:

- The Root Cellars Rock blog (rootcellarsrock.ca) is an interactive online space for learning about the 4 P's of local food. It includes posts from across the province, recipes, links, resources, event listings and a forum to share tips and ask questions.
- The Root Cellars Rock YouTube channel features a collection of linked videos to help build food skills. (www.youtube.com/user/RootCellarsRock)
- For daily local food tips, resources, and opportunities visit the Root Cellars Rock Facebook page (www.facebook.com/rootcellarsrock) and Twitter (twitter.com/#!/rootcellarsrock)

E-News: FSN distributes a monthly e-newsletter featuring funding and volunteer opportunities, news, events, and resources. Sign up at www.foodsecuritynews.com or use the sign-up sheet found in the supplementary materials of each workshop. To advertise your project or events, email e-news@foodsecuritynews.com before the first Monday of the month.

Food Security Pamphlets and Fact Sheets:

FSN created a series of fact sheets filled with easy to understand information about food security. You can find these online at www.foodsecuritynews.com/resources

10 Ways to Eat Local Food

- 1. Learn What's in Season**
Knowing which local foods are in season will help you know what to look for at the farmers' market or grocery store. Experiment with local foods that you don't normally eat. Visit Root Cellars Rock for lots of local food resources. www.rootcellarsrock.ca
- 2. Find a Farmer**
Find local farms by using Root Cellars Rock's Local Food Links www.rootcellarsrock.ca Food Security Initiative Inventory www.foodsecuritynews.com Buy Local! Buy Fresh! Avalon Region Map www.northeastavalonredb.ca Keep it in Kitchikwa www.kitchikwa.ca Atlantic Canadian Organic Regional Network acornet.wordpress.com
- 3. Visit a Farmers' Market**
Farmers' markets are growing across the province. More than just a place to find local meat and vegetables, they are community centres where people gather to socialize, eat, hold workshops, and celebrate local food. See the Food Security Initiative Inventory to find a farmers' market near you. www.foodsecuritynews.com/resources
- 4. Join a Community Supported Agriculture Program**
Customers commit up front for an entire season and in return the farmer provides a weekly box of fresh produce and preserves. The produce varies according to what's available. It's a great way to give farmers more financial security.
- 5. Start Gardening**
If you don't have space for a garden in your own yard, try growing some fresh herbs in a window, or join a community garden. Use the Food Security Initiative Inventory www.foodsecuritynews.com/resources to find a community garden near you. Visit Root Cellars Rock (www.rootcellarsrock.ca) for gardening tips.
- 6. Go Berry Picking**
There are many edible wild berries in the province. A U-Pick, where you pick your produce yourself, is a great way to get some berries that aren't as common in the wild. Use 2. Find a Farmer to find a berry U-Pick near you.
- 7. Wild Harvesting**
Hunting, fishing, and trapping are traditional ways we have acquired local food. Visit the Department of Environment and Conservation, Wildlife Division for information about licences. www.env.gov.nl.ca/env/wildlife
- 8. Preserve the Harvest**
There are many ways to preserve fresh local food. Canning, cold storage, bottling, freezing, pickling, sautéing, drying, and fermenting are all ways you can preserve local vegetables and fruit for months. For resources see the U.S. National Center for Home Food Preservation (www.ncfp.edu/nchfp/) and Benecarr's home canning recipes (www.homecanning.ca/).
- 9. Support Restaurants & Retailers that Source Local Food**
A growing number of restaurants are choosing to support local farmers and fish harvesters, or even grow their own vegetables and herbs in a restaurant garden. Ask your favourite restaurant to source locally and use the Food Security Initiative Inventory to find restaurants and retailers that sell local food. www.foodsecuritynews.com/resources
- 10. Sprout!**
Seeds such as lentils, peas, alfalfa, sunflower, and broccoli can all be sprouted to make delicious fresh greens all year long. All you need is seeds, water, and a few days to grow these nutritious foods any time, right in your own kitchen. Visit Root Cellars Rock (www.rootcellarsrock.ca) for more information on how you can take action.

Food Security means that all people at all times have physical & economic access to adequate amounts of nutritious, safe, and culturally appropriate foods.

Contact FSN for more information on how you can take action.
www.foodsecuritynews.com

Food Security Network
Innovated & Inspired
Food for all!

FSN Fact Sheet

Best Practices Toolkits: FSN developed four Best Practices Toolkits for community organizations which feature step-by-step guides and resources for starting and maintaining community gardens, farmers' markets, community kitchens, and bulk buying clubs. Contact FSN to get copies or find them online at www.foodsecuritynews.com/resources.



Food Security Initiative Inventory: FSN maintains an online directory of Food Security Initiatives in Newfoundland and Labrador, including: food banks, shelters, meal programs, community gardens, community kitchens, bulk buying clubs, farmers' markets, local farms, local food retailers, and more. It is available on FSN's website at www.foodsecuritynews.com/resources.

Teleconference Series: FSN holds regular teleconferences on topics related to food security, such as community gardening, nutrition, farm direct marketing, farmers' markets, land use, and food policy. Previous teleconferences are archived as power point presentations, audio recordings, and written summaries on FSN's website at www.foodsecuritynews.com/teleconferences.html. Sign up to the E-News to hear about future teleconferences.

Appendices

Appendix A: Are You Ready? Checklist

Use this checklist to make sure that you are ready to host a Root Cellars Rock Food Skills Workshop. As you complete each task, check it off.

- Carefully read through the introductory materials to get familiar with how to host any of the Root Cellars Rock Food Skills Workshops.
- Decide which workshop you would like to host.
- Keep accessibility in mind throughout all planning.
- Read through the workshop of your choice carefully.
- Identify who will facilitate the workshop.
- Decide what information you want to present from Digging In.
- Decide what Activities you want to do.
- Develop your agenda for the workshop.
- Create a budget for your workshop.
- Organize funds to cover workshop costs.
- Choose a date and time.
- Book an appropriate venue.
- Promote the workshop to the community.
- Create a materials list.
- Gather donated, reused, and purchased materials.
- Register participants.
- Print the following:
 - 1 copy of the FSN E-News Sign-Up Sheet
 - Evaluation Forms for each participant, volunteer and facilitator
 - Resource sheets for each participant
- Check to make sure all the equipment you will use works.
- Remind participants of the workshop by email or phone.
- Have fun at your food skills workshop!** Take photos and videos to share.
- Return the completed FSN E-News Sign-Up Sheet and Evaluation Forms to FSN immediately following the workshop.

Quick Tip

Involve potential participants in planning and decision-making so that you host a workshop that is well-attended, fun for everyone, and best reflects the interests in your community.

Appendix B: Budget Template

Workshop Title:

Date of Workshop:

Organizers:

Estimated Expenses

Description	Amount	Notes
Venue		
Activity materials (Refer to Appendix C, page 29, for more details)		
Refreshments & food		
Photocopying		
Other*:		
Total Estimated Expenses	\$	

*'Other' might include things like transportation, child care, honourariums, 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:		
Total Estimated Funds	\$	

Estimated funds - Estimated expenses = Estimated surplus or deficit

_____ - _____ = _____

Appendix C: Supplies & Costing Template

Workshop Title:

Date of Workshop:

Organizers:

Fill in the details for each of the materials that will be needed to run the workshop.

Item Description	Quantity	Cost	Pick-up Location	Person Responsible	<input checked="" type="checkbox"/> when item is acquired	<input checked="" type="checkbox"/> when setting up workshop

Appendix D: Sample Poster



**JOIN US FOR A
FOOD SKILLS
WORKSHOP
ABOUT:**

DATE:

TIME:

LOCATION:

CONTACT:

DETAILS:



WWW.ROOTCELLARSROCK.CA

Share ideas,
experiences, interests,
and learn new skills!

Appendix E: Sample Registration Form



Return completed forms to:

Food Skills Workshop Registration Form

Please fill in this registration form to the best of your ability. It will be kept private and used only to ensure your spot in the upcoming workshop.

Name:

Phone

Number:

Email:

1. Do you have any food restrictions that organizers should be aware of, including allergies?

2. Photos and videos may be taken at the workshop. Do you consent to being photographed and/or filmed?

Yes No

3. Please rank and circle your prior understanding of the workshop topic, where 1= little understanding and 5= very knowledgeable:

1 2 3 4 5

3. What do you hope to learn or gain by attending this workshop?

4. Please share any additional comments or suggestions that would assist in making this a positive workshop experience for you:

Appendix F: Registration Tracking Template

Workshop Title:

Date of Workshop:

Participant Name	Phone #	Email	<input checked="" type="checkbox"/> Fee Paid	Notes (Including Food Restrictions)

Appendix G: Garden Safety

The following is a list of safety tips to keep in mind when gardening or using garden tools at a workshop. Share this information with participants as needed.

1. Protect yourself from sun overexposure, exhaustion and injury:

- wear a hat and adequate clothing for the weather
- apply sunscreen
- take breaks in the shade
- drink enough water to stay hydrated
- eat enough healthy food to maintain energy
- pace yourself and be aware of your physical limits
- stretch after vigorous activity or keeping to one position for a long time
- avoid straining your back, neck, and knees
- have a first aid kit on site and when possible, someone trained in first aid

2. Stay safe when using garden machinery and tools:

- wear sturdy gardening gloves, footwear and clothing that covers skin
- choose equipment that is the right size and weight for you to handle
- When you are unsure of how to use something, ask for guidance
- keep equipment clean and rust-free
- store equipment in safe, dry places
- maintain a tidy work space
- be aware of possible tripping hazards
- place sharp equipment like rakes sharp-side-down
- do not leave equipment unattended
- keep equipment in good working order with tune-ups and repairs
- read and follow manufacturer's instructions for all equipment
- do not work with electrical equipment in wet or damp conditions
- use extension cords that are rated for outdoor use

3. Be cautious when using fertilizers (even organic), pesticides, and chemicals:

- keep skin covered by wearing long clothing and sturdy gloves
- remove garden shoes and brush off clothing before going indoors and consider keeping separate clothing to be worn only during application
- read and follow manufacturer's instructions closely
- store fertilizers, pesticides and chemicals in safe places away from food, children, and pets



4. Ensure food safety in the garden:

(Adapted from the University of Maine Cooperative Extension
<http://youtu.be/o3z1q9BdoGY>)

- choose a garden site that is away from septic systems, manure piles, and areas where animals frequent
- if using surface water (streams, ponds, etc.) or rain barrels to water your garden, apply water to the base of plants at the soil level
- if using well water, ensure that the water is regularly tested for safety
- use potable water to clean soil and residue from foods
- harvest foods with clean hands/gloves and tools
- harvest foods into clean, food-grade containers
- if putting foods into storage, be sure to handle them gently to avoid creating damage that could eventually rot
- ensure that harvested foods are adequately dry before storing
- be aware of potential soil contamination and consider having your soil tested, refer to St. John's Safer Soil (<http://safersoil.ning.com/>) as a resource
- if growing food in containers, do not use pressure treated wood, painted materials or heat/water sensitive containers that could degrade and leach contaminants into the soil

Appendix H: Food Safety

For more information on food safety visit:

www.health.gov.nl.ca/health/publichealth/envhealth/foodsafetyinfo.html

**FOOD SAFETY
SERVED HERE**

FOOD SAFETY DON'T BE THE CAUSE OF FOODBORNE ILLNESS!

The following information provides an overview of food safety practices which can reduce the risk of food poisoning in your home or business.

Handle perishable foods safely

Perishable foods must be stored at controlled temperatures. In addition, foods must be protected from contamination. Please follow these recommendations:

Avoid the temperature danger zone!

- Cold foods need to be stored below **4°C (40°F)**.
- Hot foods need to be stored above **60°C (140°F)**.
- The only way to know is to use a thermometer!
- Do not store any perishable foods in the **danger zone** between **4°C and 60°C**, where bacteria can grow. (ex. On the kitchen counter)

Cross contamination control:

1. Keep raw meats and poultry away from other foods during storage and preparation.
2. Keep separate cutting boards for raw meats and vegetables to avoid cross-contamination.
3. Keep foods covered.
4. Make sure the refrigerator is set at **4°C (40°F)**, and keep the freezer at **-18°C (0°F)**.
5. Serve foods **right away** so they do not **linger** at room temperatures where bacteria can grow.
6. Remove food from the stove, serve it and put the rest in the fridge immediately.
7. Keep cooked and ready-to-eat foods separate from raw foods, and surfaces that raw meats have contacted. This will prevent the bacteria that live on raw meats from contaminating food which will not be cooked again.

Thaw frozen food safely

- In a refrigerator.
- In a microwave oven.
- Under cold running water.
- In cold water that is changed often enough to keep it cold.
- Never thaw at room temperature.

Cooking food thoroughly

It is necessary to kill harmful bacteria that may be present in or on the food. This is very important for poultry and ground beef.

More food safety tips

- Wash **all produce** thoroughly before cooking or eating.
- Cook **poultry dressing separately**. Never inside the bird.
- Cook **poultry or roasts all at once**. Never cook partially on one day to finish cooking on the next day.
- Use a **thermometer** to find out the internal temperature of cooked items. (See Table for internal temperatures.)
- Place **all hot food items** in **several shallow or smaller pans** in a **refrigerator** for "quick chilling".
- Avoid the **use of home canned or preserved food** items when serving large numbers of people.

Food Safety Awareness

Most foodborne illness can be avoided by following these simple food safety tips:

CLEAN:

Wash your hands frequently with soap and water.

- Before handling food or eating.
- After handling raw meats, using the toilet, touching pets/animals and changing diapers.

Wash counters, utensils, cutting boards, and other surfaces after they come into contact with raw meat.

COOK

- Cook all meats, poultry, and eggs to a proper internal temperature, as listed in the table.
- Keep all hot foods at 60°C (140°F) or more, to prevent the growth of bacteria.
- Use a kitchen thermometer to check cooking and storage temperatures.

CHILL

- Chill all leftovers promptly to keep them out of room temperature.
- Refrigerate all perishable foods at 4°C (40°F) or less, to prevent the growth of bacteria.
- Thaw frozen foods in a refrigerator, cold water, or a microwave oven, not at room temperature.

SEPARATE

- Use separate cutting boards for raw meats, and raw fruits and vegetables.
- Store raw meats below ready-to-eat foods, on lower refrigerator shelves, to prevent contamination caused by dripping.

Action	Temperature required
Refrigeration	4 °C (40 °F) or less
Freezing	Minus 18 °C (0 °F) or less
Cooking	
Food Mixtures containing Poultry, Eggs, Meat, Fish or other potentially hazardous foods	Internal Temperature of 74 °C (165 °F) for at least 10 minutes
Pork, Lamb, Veal, Beef (whole cuts)	Internal temperature of 70 °C (158 °F)
Rare Roast Beef	Internal temperature of 63 °C (145 °F) for 3 minutes
Poultry	Internal temperature of 85 °C (185 °F) for 15 seconds
Stuffing in Poultry	74 °C (165 °F)
Ground Meat	71 °C (160 °F)
Eggs	63 °C (145 °F) for 15 seconds
Fish	71 °C (160 °F)
Reheating	74 °C (165 °F)
Holding Hot Foods	60 °C (140 °F)
Cooling	60 °C (140 °F) to 20 °C (68 °F) within 2 hours 20 °C (68 °F) to 4 °C (40 °F) within 4 hours



Department of Health and Community Services
 Department of Government Services
 Regional Health Authorities
 Revised January 2011

Food Safety Awareness

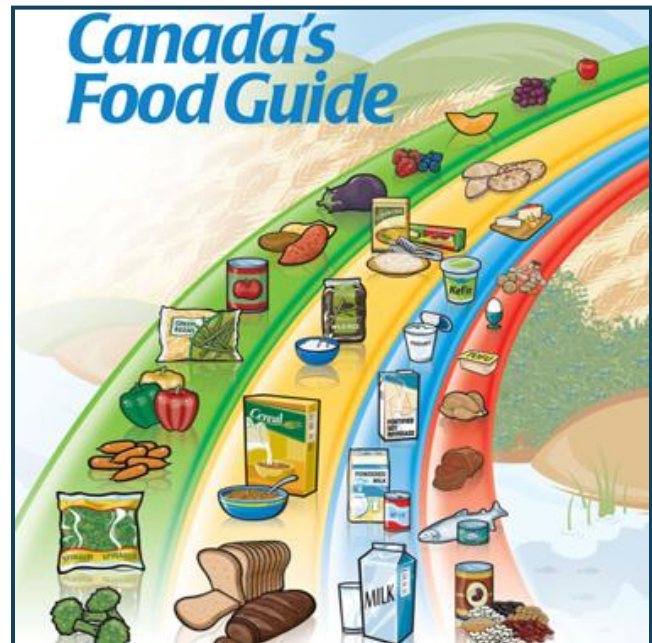
Appendix I: Nutrition

Canada's Food Guide provides recommendations on daily consumption from each of the four food groups: vegetables and fruit, grain products, milk and alternatives, and meat and alternatives. It can be used as a resource when preparing for workshops or given out to participants to take home for further reference.

Health Canada also produces a complementary food guide tailored to reflect the food traditions and choices of First Nations, Inuit and Métis. To access copies of Canada's Food Guide or Canada's Food Guide for First Nations, Inuit and Métis, visit the Health Canada website (www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php) or your local public health office.

Key messages from Canada's Food Guide:

- Eat at least one dark green and one orange vegetable each day.
- Choose vegetables and fruit prepared with little or no added fat, sugar or salt.
- Have vegetables and fruit more often than juice.
- Make at least half of your grain products whole grain each day.
- Choose grain products that are lower in fat, sugar or salt.
- Select lower fat milk alternatives.
- Have meat alternatives such as beans, lentils and tofu often.
- Eat at least two Food Guide Servings of fish each week.
- Select lean meat and alternatives prepared with little or no added fat or salt.



Appendix J: Grant Opportunities

Grant Databases

Search these databases to find many different grants and funding opportunities:

- **Canadian Heritage Funding Programs:** www.pch.gc.ca/eng/1268917737337/1268917925906
- **Charity Village:** <https://charityvillage.com/topics/fundraising/funders.aspx>
- **Farm Grants:** <http://farmgrants.wikispaces.com/>
- **Newfoundland and Labrador Environment Network funding database:** www.nlen.ca/resources/funds-grants-and-foundations/

Grants for Charitable Organizations and Not-for-Profits

These grants support projects addressing a number of different topics. Review the application requirements for each grant to see if your group qualifies.

- **Aviva Community Fund:** www.avivacommunityfund.org
- **Carrot Cache:** <http://carrotcache.com/>
- **Community Foundation of Newfoundland and Labrador:** www.cfnl.ca
- **Community Youth Network, St. John's- Special Project Grant:** www.thrivecyn.ca/main.php?sid=31
- **Nature's Path Gardens for Good:** www.facebook.com/naturespath/app_401418026549919
- **New Horizons for Seniors Program:** www.hrsdc.gc.ca/eng/community_partnerships/seniors/index.shtml
- **NLEN Member Support Program:** www.nlen.ca/resources/member-support-program/
- **Provincial Wellness Grant:** www.health.gov.nl.ca/health/wellnesshealthyliving/provincialwellness.html
- **Regional Wellness Coalitions:** For more information on funding opportunities contact the Regional Wellness Coalition in your area. www.health.gov.nl.ca/health/wellnesshealthyliving/wellnesscoalitions.html
- **Shell Fuelling Change:** www.shell.ca/home/content/can-en/environment_society/fuellingchange/
- **Small Change Fund:** <http://smallchangefund.org/>

- **TD Friends of the Environment:** www.fef.td.com
- **VOCM Cares Foundation:** www.vocmcares.com
- **Walmart-Evergreen:** www.evergreen.ca/en/funding/grants/walmart.sn

Employment Support Programs

If your group is trying to hire staff or create an internship then these employment programs may be of help:

- **Career Focus:** For more information contact the Service Canada Centre in your area and visit <http://www.servicecanada.gc.ca/> for a list of Service Canada Centres.
- **Community Enhancement Employment Program:** www.ma.gov.nl.ca/ma/emp_support/ceep.html
- **Graduate Employment Program:** www.aes.gov.nl.ca/students/graduate.html
- **Job Creation Partnership (JCP):** www.aes.gov.nl.ca/lmda/jcp.html
- **NL Works:** <http://www.aes.gov.nl.ca/findajob/nlworks.html>
- **Student Employment Program (Level I, II, III):** <http://www.aes.gov.nl.ca/students/studentemployment.html>
- **Student Work and Service Program (SWASP):** www.hrle.gov.nl.ca/hrle/students/swasp.html
- **Targeted Initiative for Older Workers:** www.hrsdc.gc.ca/eng/employment/employment_measures/older_workers/index.shtml

Appendix K: Garden Crops in NL

* This is only a general guide. Please keep in mind variations across the province and talk to local gardeners for growing and harvesting tips unique to your area. This list also includes some commonly harvested wild plants such as berries and mushrooms that could also be cultivated.

	Harvest Season
	Cold Storage (E.g. Root cellars)
	Preserved (Canned, Dried, Frozen, Fermented, etc.)
	Unavailable, try indoor gardening instead.

Type of Produce	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Anise							Harvest	Harvest	Harvest	Harvest		
Apples	Cold	Cold	Cold	Cold					Harvest	Harvest	Cold	Cold
Artichokes									Harvest	Harvest		
Asparagus						Harvest						
Bakeapple (Cloudberry)								Harvest	Harvest			
Basil							Harvest	Harvest	Harvest	Harvest		
Bay							Harvest	Harvest	Harvest	Harvest		
Beans- green							Harvest	Harvest	Harvest	Harvest		
Beans- shell							Harvest	Harvest	Harvest	Harvest		
Beets (incl. greens)	Cold	Cold	Cold	Cold		Harvest	Harvest	Harvest	Harvest	Harvest	Cold	Cold
Blackberry								Harvest	Harvest			
Blueberries								Harvest	Harvest	Harvest		
Borage							Harvest	Harvest	Harvest	Harvest		
Broccoli							Harvest	Harvest	Harvest	Harvest		
Brussel Sprouts										Harvest	Harvest	
Cabbage	Cold	Cold	Cold					Harvest	Harvest	Harvest	Harvest	Cold
Cauliflower							Harvest	Harvest	Harvest			
Carrots	Cold	Cold	Cold	Cold				Harvest	Harvest	Harvest	Cold	Cold
Celery								Harvest	Harvest	Harvest		
Chamomile							Harvest	Harvest	Harvest			

Type of Produce	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Cherries- Sour												
Chevril												
Chard												
Chives												
Collard Greens												
Coriander (Cilantro)												
Corn												
Cranberries												
Crowberry												
Cucumber												
Currants												
Dandelion Greens												
Dill												
Endive												
Garlic (incl. scapes)												
Gooseberries												
Green Onion												
Honey												
Jerusalem Artichoke												
Kale												
Kohlrabi												
Lavender												
Leeks												
Lettuce												
Mints												
Nasturtiums												
Nettles												
Onions												
Oregano												
Parsley												

Type of Produce	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Parsnips	█	█	█		█	█	█	█	█	█	█	█
Partridgeberries	█	█	█	█	█	█	█	█	█	█	█	█
Peas	█	█	█	█	█	█	█	█	█	█	█	█
Peppers	█	█	█	█	█	█	█	█	█	█	█	█
Plums	█	█	█	█	█	█	█	█	█	█	█	█
Potatoes	█	█	█	█	█	█	█	█	█	█	█	█
Radish/ Daikon	█	█	█	█	█	█	█	█	█	█	█	█
Raspberries	█	█	█	█	█	█	█	█	█	█	█	█
Rhubarb	█	█	█	█	█	█	█	█	█	█	█	█
Rose hips	█	█	█	█	█	█	█	█	█	█	█	█
Rosemary	█	█	█	█	█	█	█	█	█	█	█	█
Rutabagas	█	█	█	█	█	█	█	█	█	█	█	█
Sage	█	█	█	█	█	█	█	█	█	█	█	█
Salad Greens	█	█	█	█	█	█	█	█	█	█	█	█
Saskatoon Berries	█	█	█	█	█	█	█	█	█	█	█	█
Savoury	█	█	█	█	█	█	█	█	█	█	█	█
Sorrel	█	█	█	█	█	█	█	█	█	█	█	█
Spinach	█	█	█	█	█	█	█	█	█	█	█	█
Strawberries	█	█	█	█	█	█	█	█	█	█	█	█
Tarragon	█	█	█	█	█	█	█	█	█	█	█	█
Thyme	█	█	█	█	█	█	█	█	█	█	█	█
Tomatoes	█	█	█	█	█	█	█	█	█	█	█	█
Turnips	█	█	█	█	█	█	█	█	█	█	█	█
Wild Mushrooms	█	█	█	█	█	█	█	█	█	█	█	█
Winter Squash	█	█	█	█	█	█	█	█	█	█	█	█
Yarrow (tea)	█	█	█	█	█	█	█	█	█	█	█	█
Zucchini- Flowers	█	█	█	█	█	█	█	█	█	█	█	█
Zucchini	█	█	█	█	█	█	█	█	█	█	█	█

Preserving

7. Canning/Bottling

7.1. Preparation

Facilitation

It is recommended that there be one facilitator (or assisting volunteer) to every five participants attending this workshop. Multiple facilitators are able to divide the presentation content, which makes the workshop more manageable to host and more interesting for participants. Volunteers and facilitators can organize participants into smaller groups of five or less during the hands-on activity to make facilitation easier and give participants more attention.



Government House vegetable garden volunteers with Hon. Jane Crosbie

Materials

- 1 copy of the **FSN E-News Sign-up Sheet** (page 108)
- Evaluation forms photocopied for every participant, volunteer, and facilitator (see **Evaluation Form**, page 102)
- Agenda – either one copy to post or several to hand out to participants (see **Sample Agenda**, page 101)
- Printed copies of *Food Safety Tips for Home Canning* (Health Canada) for each participant and a posted copy for the workshop space. Find it here: www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/food-canning-conserve-aliment-eng.php

Quick Tip

This video from Cooking up a Story may provide inspiration when facilitating your canning/bottling workshop:
<http://cookingupastory.com/preserving-food-and-friendship>

- Photocopies of the other **Supplementary Materials** (page 101) for each participant
- Pens or pencils
- White board or chart paper (optional)
- Markers (optional)
- Materials for chosen activities (see **Activities**, page 91)
- Name tags for participants and facilitators

Location

If you plan to do the full workshop, host it indoors and, if possible, in a kitchen. Be prepared to clean up some mess. Ensure that there are adequate work stations for the facilitators and all participants during activities. It is possible to do this workshop as a presentation only, without the Activities component, in which case an indoor venue with audio-visual equipment is preferable so that videos can be shown in place of hosting demonstrations on-site.

When looking for a kitchen to use, consider these possible venues:

- community centres
- community halls
- recreation centres
- churches
- grocery stores with cooking facilities
- seniors' residences
- schools
- university and college residences
- neighbourhood houses
- family resource centres

Participants

This workshop is recommended for a maximum of 15 participants. Review the **Activities** section (page 91) and choose participant numbers based on availability of materials for everyone to participate in the chosen activities. Keep in mind that a large group of participants leads to a longer workshop so that everyone is allowed time for participation.

Note: Food Allergies

Keep in mind that participants may have food allergies. Participants should let facilitators know about any allergies prior to the workshop and precautions can be taken accordingly when preparing or serving foods.

Timeline

This workshop has been created to fill a 2 hour time period, without breaks. A sample agenda is provided in the **Supplementary Materials** section (page 101). Once you begin organizing the content and activities of your choice, you may find that more or less time is needed and the agenda can be altered to suit those needs.

Safety

Carefully review **Appendix H: Food Safety** (page 35) for information on safely preparing and serving food during the workshop. It is recommended that copies of that pamphlet be distributed to facilitators, volunteers and participants at the workshop and/or posted in the workshop space and referred to as needed throughout the workshop.

Note: Digging In

The information in this section can be shared through a traditional presentation, but participants may enjoy themselves more if creative techniques are used. Consider organizing games, discussions, small group interaction, demonstrations, or displays to convey the information. There are lots of lists in the workshop and rather than reading them, try to brainstorm ideas first with the group. If the required equipment is on-site, showing videos or photo slideshows can also be great. Links to several videos are in the **Resources** section (page 104).

Keep in mind that participants may have food allergies. Participants should let facilitators know about any allergies prior to the workshop and precautions can be taken accordingly when preparing or serving foods.

Content

Carefully review all materials in advance of the workshop. Decide on the appropriate number of participants and facilitators/volunteers to invite to your workshop after considering all materials.

This workshop has six main sections. Refer to **How to Use the Workshops** (page 11) for a description of each section.

From the **Digging In** section (page 50), choose what information you want to present based on participants' experience and interests, timeline, and available materials. If you are following the agenda included here, Digging In has been allotted 45 minutes to complete. Keep that in mind when choosing your content to ensure that the information you want to cover will fit into your schedule.

Digging In provides introductory-style information on canning/bottling. To go into more depth on the topic, refer to the **Bibliography** (page 98) and **Resources** (page 104) for more sources to check out.

The **Activities** section (page 91) offers options for hands-on, interactive activities that you can organize for your group. Participants really enjoy activities so try to leave lots of time for going through them. This is the part of the workshop where participants are able to learn in a hands-on way, and the activities will really help them engage with the topic. Read activities over carefully prior to the workshop, choose which you want to do, and then assemble any necessary materials. To save on costs you could also ask participants to bring in some materials themselves such as items that are readily available in people's homes.

It's up to you when in the agenda to put the activities. In our **Sample Agenda** (page 101) they are at the end but activities can be used:

- At the beginning to get people excited about the workshop and motivated to learn more
- Throughout the workshop for demonstration
- At the end of the workshop as a tool for pulling everything together
- In more than one place during the workshop; do several activities



During the **Conclusion** (page 97) participants can ask questions and the facilitator should refer back to any unaddressed information from the list created at the beginning of the workshop of what participants want to learn. During this time the evaluations should be filled in and participants will each be given a resources sheet to take home.

7.2. Workshop

Introduction

(10 minutes)

Step 1: Introduce yourself to participants. You may want to provide a bit of background on your experience with canning/bottling. Remember, you do not need to be an expert to host these workshops. If you are new to the topic, that is alright. Everyone will learn more together throughout the workshop.

Step 2: Introduce any local groups that are hosting the workshop:

- Give their names and briefly describe what they do
- Explain why they think it is important to promote food skills and why they chose the topic of canning/bottling

You can also take this opportunity to promote the group's upcoming events, contact information, volunteer opportunities, or other information that may be of interest to participants. Representatives of the group in attendance at the workshop may wish to do this introduction themselves.

Step 3: Read or put into your own words the following, to introduce participants to FSN and Root Cellars Rock:

Read to the Group

The materials for this workshop were created by The Food Security Network of Newfoundland and Labrador (FSN) through its Root Cellars Rock project. FSN is a provincial organization that promotes comprehensive, community-based solutions to increase access to healthy food for all. To learn more about FSN visit www.foodsecuritynews.com.

Today's workshop is one of eight that have been created based on the 4Ps of local food: planting, picking, preparing and preserving. These workshops aim to build food skills and create a space to share traditional food knowledge. To learn more about all eight workshops visit www.rootcellarsrock.ca.

Step 4: Pass the **FSN E-News Sign-up Sheet** (page 108) around for participants to sign-up. The FSN E-News is a monthly email packed with resources related to food security across Newfoundland and Labrador.

Step 5: Review the agenda for the workshop with participants. Either post it on the wall or hand out photocopies to the group. You can find a **Sample Agenda** (page 101) in the supplementary materials.

Step 6: Go over any logistics that will make the workshop experience comfortable for everyone, such as:

- washroom locations
- food and drink availability
- safety rules
- weather precautions, if outdoors
- breaks

Quick Tip

Let participants know if they can jump in at any time with questions and discussion items or if they should save those for a specific time during the agenda. Decide which option works for you based on your comfort with improvising while speaking publicly and redirecting focus back to the agenda items as needed.

Roots of our Local Food

(10 minutes)

Step 1: Let participants know that you are going to share a short passage with them and then read the **Roots of our Local Food Quote** in the box on the following page (page 49).

Step 2: Going around the group, ask participants to share the following:

1. Their names
2. Did anything stand out to them from the passage?
3. What do they want to learn today about canning/bottling?

Step 3: As participants say what they want to learn, write those down on a piece of chart paper or on a white board for the group to see. At the end of the workshop the list can be revisited and any remaining questions unanswered can be addressed and further resources provided so that participants can continue to search out information.

Roots Of Our Local Food Quote

This excerpt is from *Eating In: Time in a Bottle* by Simon Thibault and was published in East Coast Living. It shares one person's story of how canning has meaning both as a traditional practice and today. (<http://eastcoastliving.ca/2011/11/time-in-a-bottle/>)

For Dale Cameron, preserving just makes sense. Owner of the George House Heritage Bed and Breakfast in Dildo, Newfoundland, Cameron and his partner Todd serve homemade preserves such as partridgeberry sauce to their guests. It's an added touch that makes the meal a little more special. "I remember helping my mother in bottling preserves, sauces and pickles but I was always an assistant to her," Cameron reminisces.

For him, it wasn't just about the food itself. "I wanted to recapture some of those fond food memories, so I began doing it on my own and experimenting," he says. "Not always did everything work out and I learned that you cannot skip a step in the process."

Cameron and his friends bottle beans and soups for the winter, plus what may be a quintessentially Newfoundland preserve—bottled moose meat. "The best benefit of bottled moose is that it provides a long shelf life," Cameron says. "In days of old, bottling/canning was done as there was no other way to store the meat properly. In modern days, it provides quite a convenience."

That convenience comes in the form of re-sealable and reusable jars. "In essence, the Mason jar is one of the original recycled items in a Newfoundlander's pantry," says Cameron. "You fill it one year with bottled moose or seal, consume it, and then clean and sterilize the jar for the following season."

Those jars get plenty of use in his kitchen and among his friends. "We have friends who bottle and can," he says. "[That way we] can swap some of your bottled moose for a friend's pickles. Bottling and canning is truly a way of life in rural Newfoundland."

Digging In

(45 minutes)

Present the information you have chosen to use from this section. This is the main content on canning/bottling. Share the information in your own words and in the style that you think is best suited for your group. You do not need to cover everything here; pick and choose based on what you think is most useful for the participants of your particular workshop. Refer to the **Resources** section (page 104) for links to videos or photos that you could show along with your presentation and to gather more in-depth information on any aspect of the topic. Be creative in how you present this information! Split the content up amongst several facilitators to avoid one person needing to speak for an extended length of time. Consider hosting learning activities like small group discussions, games, displays, or demonstrations as alternative ways to share knowledge. Use the lists in the workshops as starting off points for group brainstorming or discussion.



Preparing to fill jars

What is Canning/Bottling?

Canning/bottling is a process where food is sealed in air-tight glass jars, to interrupt and delay the food's natural decay and spoilage. The jar's seal must be air-tight so that "no air can get in to re-contaminate the food" (Kingry, Devine, 2006). When canned properly, foods are safely preserved for future use and may be stored without refrigeration for several months.

"Home canning is not complicated... The air we breathe and all foods in their natural state contain microorganisms, such as molds, yeasts, bacteria and enzymes. Food spoils when these factors are not controlled. Proper, safe home canning procedures control the growth of

spoilage microorganisms allowing us to keep food beyond its normal storage period" (Bernardin, 2011).

Canning is often referred to as bottling in Newfoundland and Labrador. In the rest of this workshop the term canning is used alone for simplicity's sake and because most resources on the topic refer to canning. However, when promoting your workshop, keep in mind that many people use the term bottling.

Note: Workshop Planning

This workshop kit covers both hot water bath canning (high-acid foods) and pressure canning (low-acid foods). At a partial-day workshop it is recommended that you pick one of the methods and focus on it, rather than trying to demonstrate both. If participants are interested in learning both methods, consider hosting a full day workshop or multiple workshops. Review all of the food safety information regardless of which method you choose to focus on.

This workshop describes home canning, which is done by individuals in their own kitchens or by groups of people working together in a shared kitchen, for the purpose of preserving food for personal use. Producing canned foods for sale to the public or mass production have different requirements; consult your local Environmental Health Officer through Government Service Centres for more information: www.gs.gov.nl.ca/departement/contact.html

Why Preserve Foods Through Canning?

Home canning allows you to:

Turn one day of food preparation into many meals: Canning takes a while but can create many ready-to-eat, quick and healthy meals for later. Time spent canning one day can save you time preparing meals in the long run.

Preserve local foods when they're in season: Newfoundland and Labrador has a short growing season but during that time we produce a lot of tasty food. The rest of the year we're reliant on imported food that has traveled long distances and isn't as fresh. Canning is a great way to preserve fresh local foods when they're in season to enjoy year-round.

Take advantage of affordable food: When there are deals at the grocery store or farm stand, canning is one technique for preserving as much as possible. Buying food in bulk when it is affordable and canning it may save you money in the long run.

Grow and harvest more: Canning is a food preservation technique that allows the freedom to grow more food in a garden and forage more wild food than can be eaten fresh at once.

Know what's in your food: Consumers are often unaware of exactly what's in processed foods. Home food preparation using whole ingredients, canning included, is a strategy for ensuring that you eat healthy foods with ingredients that you can feel confident about.

Store food without refrigeration: Canned food can be stored without taking up valuable fridge/freezer space or using electricity. Traditionally people canned because they didn't have fridges and freezers, but today canning is still a low-impact way to store food.



Preserve food from the farmers' market

Be more self-sufficient: Food preservation can increase personal food security, taking away some of the uncertainty of depending on a vulnerable food supply. Providing for oneself and making food from scratch are achievements to be proud of. Food safety and food preparation skills learned through home canning will be valuable throughout life.

Avoid food waste: Canning interrupts food's natural deterioration so that it can be used for longer. In Newfoundland and Labrador 30% of waste that goes to landfills is organic. Preserving food, rather than letting it go bad and throwing it out, is a simple way to reduce our environmental impact.

Quote:

"There is nothing quite so satisfying to me... than hearing the pops of the cans as they seal and of seeing all those full jars sitting on the table before they get packed away and knowing that there's food enough there for the whole year and that we did it ourselves."

(Sheppard, 2012)

Create thoughtful gifts for friends and family:

Canning gifts can be affordable and environmentally friendly. Add special touches by decorating jars and making favourite recipes.

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

Connect with our local heritage: Canning is an established food tradition in Newfoundland and Labrador. People associate local and family canning recipes with their cultural identities. As a skill, canning has been passed down through generations. Practicing home canning connects us to our heritage of resiliency and culinary skill.

Activity: Preserving Poetry

Write this poem on chart paper or a white board for participants to look at during breaks. Give participants markers and a blank space to share their impressions: What does it feel like to be in the kitchen when canning is happening? How has canning been passed on as a skill in their families or community?

Answers

If I envy anyone it must be
My grandmother in a long ago
Green summer, who hurried
Between kitchen and orchard on small
Uneducated feet, and took easily
All shining fruits into her eager hands.

That summer I hurried too, wakened
To books and music and circling philosophies.
I sat in the kitchen sorting through volumes of answers
That could not solve the mystery of the trees.

My grandmother stood among her kettles and ladles.
Smiling, in faulty grammar,
She praised my fortune and urged my lofty career.
So, to please her I studied- But I will remember always
How she poured confusion out, how she cooled and labeled
All the wild sauces of the brimming year.

By Mary Oliver from *New and Selected Poems, Volume 1*

Useful Terms

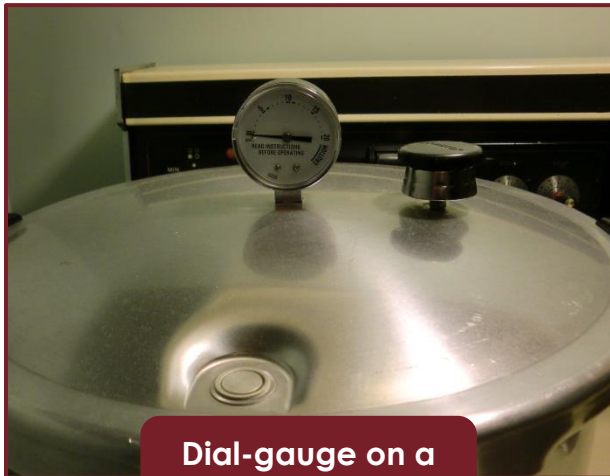
The following is a list of canning terms that show up in this workshop:

Batch: The jars of canned food that are created when preparing a recipe. Preparing a 'single batch' means making a recipe once without multiplying the ingredients. 'Small batch recipes' are ones that only produce a few jars.

Botulism: A bacteria that causes food poisoning, called *Clostridium botulinum*. It is a microorganism that cannot be seen with the plain eye and is not detectable by smell or taste in food. Food poisoning caused by these bacteria can be fatal. High acid foods (pH of less than 4.6) will not develop *Clostridium botulinum* and are safe to can using the hot water bath method. Low acid foods (pH above 4.6) may develop *Clostridium botulinum* and must be prepared using a pressure canner in order to kill the bacteria. Refer to **Low-Acid & High-Acid Foods** (page 62). Food that has not been processed using the correct method should not be eaten.



Cold packing cucumbers

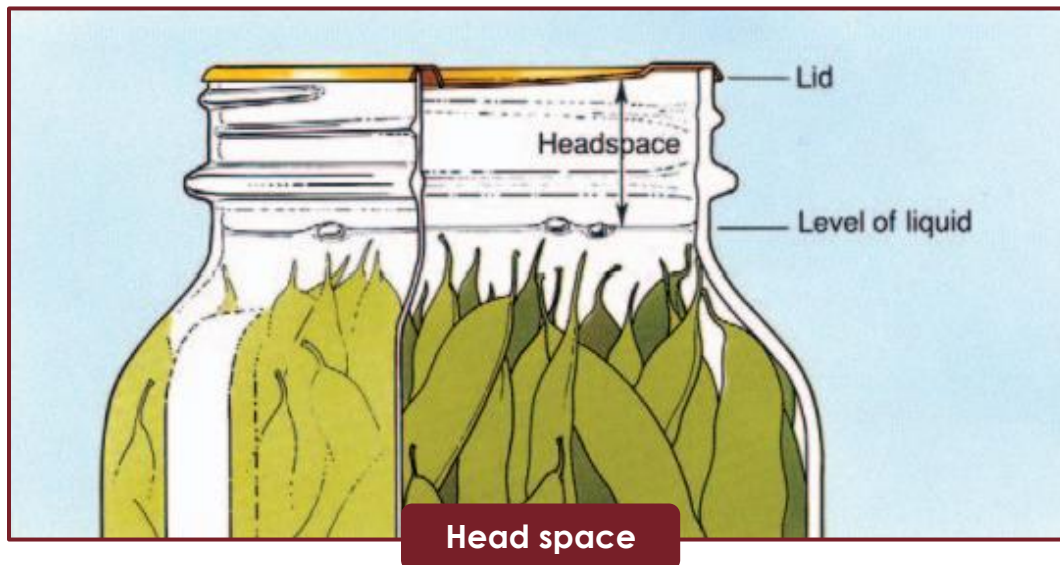


Dial-gauge on a pressure canner

Cold pack (raw pack): Filling jars with raw (cold) food that has been freshly prepared, and then covering the food with a liquid that has been heated to boiling, such as water, juice, stock or syrup.

Dial-gauge: Part of a pressure canner. A display dial that indicates how much pressure has built up inside the pressure canner.

Head space: The space in jars between the top of the food and the underside of the lid. During processing a vacuum is created in the jar and air is removed from the head space.



Activity: Head Space

With a jar and ruler show participants what the following head space measurements look like. Mark the jar with masking tape labeled with what foods require each amount of head space. Pass the jar around the room for people to see up close.

Use these guidelines for head space:

6 mm ($\frac{1}{4}$ inch): Soft spreads and fruit juices (E.g. jams, jellies, fruit butters)

1.3 cm ($\frac{1}{2}$ inch): Whole fruits, tomatoes (with added acid) and other preparations processed in a hot water bath canner (E.g. pickles, relishes, chutneys, condiments)

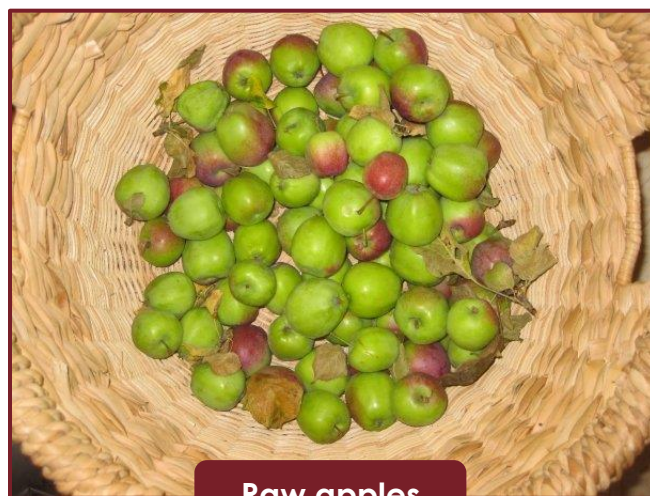
2.5 cm (1 inch): Low acid foods processed in a pressure canner (E.g. vegetables, meat, fish, soup)

Hot pack: Filling jars with hot food that has been pre-cooked and then covering that food with liquid that has been heated to boiling, such as water, juice, stock or syrup.

Microorganisms: Very small organisms that cannot be seen with the plain eye. Microorganisms are found everywhere but some of them can lead to spoilage if they are not killed while processing canned foods. Microorganisms include bacteria, fungi, algae and protozoa.

Pectin: “A naturally occurring gum-like substance found in many fruits and vegetables.” (Topp & Howard, 2001, p. 18). Pectin, in combination with sugar, causes spreads like jam and jelly to set (gel). Pectin can be included in recipes in a few ways:

1. Naturally in the fruits being prepared; some fruits have enough already
2. Store-bought liquid or powdered pectin
3. Homemade pectin made from unripe apples, white currants or other high-pectin fruits



Raw apples

pH (Potential Hydrogen): A measurement of how acidic or basic a solution is. For canning purposes, foods with a pH of 4.6 or less (E.g. fruits, tomatoes with added acid, pickled foods) are said to be high-acid and foods with a pH of more than 4.6 (E.g. vegetables, meat, fish, seafood, wild game) are said to be low-acid.

Processing: “Heating food in canning jars at high temperatures for periods long enough to kill spoilage-causing microorganisms and enzymes that would alter the food’s flavour, texture and colour” (Westmoreland, 2010)

Putting up (by, down): Preparing and storing canned food.

Sealing: Creating an airtight vacuum inside a canning jar to prevent air, moisture and microorganisms from spoiling food.

Spoilage: Deterioration of food so that it is unfit to eat; food gone bad.

Spoilers: Microorganisms that cause food to go bad.

Weighted-gauge: Part of a pressure canner. A weight is fitted onto the steam vent on the pressure canner which moderates how much pressure builds up inside the canner. There are three weight settings reflecting the weight of

pressure inside the canner per square inch (psi): 5 lbs (used for pressure cooking, not canning), 10 lbs and 15 lbs. The 10 and 15 lb weight settings are used depending on the altitude that you are canning at; see **Altitude** (page 64) for more information.

Note: Choosing Recipes

To ensure success when home canning, choose recipes that:

- Outline safe preparation techniques. Refer to **Food Safety When Canning** (page 57).
- Come from reliable sources that value food safety and test recipes.
- Call for ingredients that you think taste good.
- List ingredient quantities clearly, with instructions that are easy to follow.
- Suit the processing method, jar size and ingredients that you plan to use.

Food Safety When Canning

Canning may seem intimidating or unsafe at first because of the risk of botulism and spoiled food (see **Useful Terms**, page 54, for definitions). Those concerns are very important. However, if you use accurate information and safe techniques to prepare them, canned foods can be made and eaten with confidence. Canning can be a safe, affordable, healthy, and fun way to preserve food.

Prior to canning at home after this workshop everyone should review the Health Canada fact sheet *Food Safety Tips for Home Canning* (www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/food-canning-conserve-aliment-eng.php). Copies of the fact sheet should be printed off for participants to take home. Portions

Quick Tip

Participants may want to look at this information again prior to canning at home. Distribute the **Resources** sheet (page 104) and point out to participants that they can access the whole workshop online at: <http://rootcellarsrock.ca/workshops>

of that fact sheet have been quoted in this workshop.

The following are key points from *Food Safety Tips for Home Canning* to always keep in mind when canning.

Botulism

- The bacteria *Clostridium botulinum* (botulism; see **Useful Terms**, page 54) cannot survive in high acid-foods (pH 4.6 or less) so those foods are safe to process using a hot water bath canner. However, botulism will survive in low-acid foods (pH 4.6 or more) even if they are boiled. That is why low-acid foods must be processed in a pressure canner. “Pressure canners use steam under high pressure to ensure that the low-acid food reaches the high temperatures necessary to eliminate the bacteria that causes botulism” (Health Canada, 2011). Refer to **Low-Acid & High-Acid Foods** (page 62) for more information.
- In order to kill botulism, processing techniques outlined in recipes may need to be adjusted to suit the altitude of the location where you are canning. Refer to **Altitude** (page 64) for more information.
- Botulism is not detectable by sight, smell or taste in foods. Do not eat a low-acid food that is canned unless you are certain that it has been processed properly using a pressure canner.

Cleaning and Sanitizing

These points are taken directly from *Food Safety Tips for Home Canning*:

- Wash your hands for at least 20 seconds with soap and warm water.
- Wash raw fruits and vegetables thoroughly with clean, running water before you prepare and eat them, because they can also be contaminated with bacteria, viruses and parasites.
- Clean and sanitize all work surfaces, utensils, and equipment and keep them clean during all stages of the canning process to avoid cross-contamination.



Equipment Safety

These points are taken directly from *Food Safety Tips for Home Canning*:

- Use the proper jars for home canning or bottling.
- Only use new self-sealing lids and make sure the sealing compound is not damaged before you use them.
- Do not reuse old lids. Although the sealing compound of used lids may appear to be in good condition, the seal made with reused lids may become inadequate.

Note: What Not to Use

“Open-kettle canning and the processing of freshly filled jars in conventional ovens, microwave ovens, and dishwashers are not recommended, because these practices do not prevent all risks of spoilage” (USDA, 2009, p. 10).

Only process canned foods using the hot water bath method (high-acid foods) or a pressure canner (low-acid foods).

Current Recipes

These points are taken directly from *Food Safety Tips for Home Canning*:

- Use only current, tested home canning recipes.
- Never substitute the jar size or the amounts of ingredients that are recommended in the recipe. Substitutions can affect the time the canned or bottled food requires in the boiling water canner or pressure canner and can cause the botulism bacteria to remain in the finished canned or bottled product.
- Never change the recommended processing times or pressure levels (*except when adjusting them to suit a higher altitude*).
- Fill the jar leaving the recommended space at the top according to the recipe.
- 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.

Tip: Small Batch Recipes

If you aren't certain that you like a new food or combination of ingredients, use a small batch recipe to try them out first. There are small batch recipe sources in **Resources** (page 104).

During Processing

These points are taken directly from *Food Safety Tips for Home Canning*:

- Check from time to time that adequate cooking or heating temperatures are maintained.
- Make sure the steam pressure is being maintained as well.

Signs of Spoilage

The following signs may indicate spoilage of canned food; this list is taken from Tipnut's *Home Canning Tips: Signs of Spoilage*:

- 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 or under the lid
- Food is slimy or mushy
- Food smells off or unusual
- Food is discolored (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.

Discarding Spoiled Canned Food

If food is spoiled, do not eat it and avoid touching it. Discard it immediately in a manner that keeps it away from people, especially children, and animals that may accidentally eat it.

High-acid canned foods that have gone bad can be disposed of like any spoiled fresh food. See **Low-Acid & High-Acid Foods** (page 62) to determine what type of spoiled food you are dealing with.

Important Note

If you are ever in doubt about the safety of a food item, do not eat it. **When in doubt, throw it out!**



Check seals for signs of spoilage

Low-acid canned foods need to be treated much more carefully when disposed of because of the risk of botulism. “Be sure to wear heavy plastic gloves... as botulism toxins can be fatal when ingested or absorbed through the skin” (Westmoreland, 2010, p. 515). Follow these steps for discarding low acid foods that have spoiled and cleaning up afterward:

1. Totally detoxify the jar, lid and contents before discarding them, so that they cannot accidentally harm animals or people in future. Put a heat-proof metal rack into a saucepan. Place the jar, with lid on, into a saucepan, covered by at least 1 inch (2.5 cm) of water. Put a lid on the saucepan. “Bring the water to a boil and boil hard for 30 minutes, being careful not to splash water or food product outside the saucepan. Let cool. Discard all contents of the saucepan” (Kingry & Devine, 2006, p.419).
2. Make a chlorine bleach solution of 1 part chlorine bleach to 5 parts water. Spray or wet that on all spills, surfaces and equipment that came into contact with the spoiled food. Let stand for 30 minutes. Avoid skin contact and breathing in chlorine bleach.
3. Wipe up spills. Discard paper towels or sponges used to wipe up spills.
4. Repeat step 2.
5. Wash and rinse everything with warm water and soap.
6. Discard plastic gloves.

Soap and water, dishwashers or washing machines alone are not sufficient to kill botulism bacteria on surfaces, clothing and equipment.

Food Safety and Traditional Recipes

Traditional recipes are often passed down and well-loved, and heritage cookbooks can be excellent resources. Root Cellars Rock supports the preservation of traditional food knowledge and skills. However, food safety must come first. **Do not can traditional recipes that do not meet current guidelines for safe home canning.**

Note: Breaking Jars

Canning jars are not meant to be heated dry in an oven; rather they should always be heated in water. They heat unevenly when dry and can shatter. Canning jars should also not receive temperature shocks (such as from moving a jar from boiling water to a cold surface), which may cause the bottom to break off. Avoid using metal utensils that may scratch or chip jars.

Instead,

- Look for current recipes that taste similar but meet safety standards.
- Prepare traditional recipes to refrigerate and eat immediately rather than to can.

“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)

Low-Acid & High-Acid Foods

The following is an excerpt from Health Canada's *Food Safety Tips for Home Canning*:

Foods for canning are classified into two types, high-acid foods and low-acid foods, and before you start canning you need to determine the acid level of the food. Each type of food requires a different method of heat processing to achieve the required temperatures necessary to prevent the growth of harmful bacteria. You therefore need to use a boiling water canner for high-acid foods and a pressure canner for low-acid foods.



High-acid foods (require a boiling water canner). High-acid foods include those with a pH of less than 4.6, such as fruit, pickles, sauerkraut, jams, jellies, marmalades and fruit butters. A boiling water canner heats food to 100°C (212°F) at sea level. The acid in the food prevents bacteria from growing, while this temperature will kill most yeasts, moulds and bacteria that could be present. As the bacteria that causes botulism does not grow at a pH below 4.6, it is not a concern for high acid foods.

Low-acid foods (require a pressure canner). Low-acid foods include those with a pH of more than 4.6, such as meat, seafood, poultry, soup, milk and most fresh vegetables, except tomatoes. Tomatoes are borderline high-acid food and require an acid, such as lemon juice or vinegar, to be added for safer canning. Mixtures of low and high acid foods, such as spaghetti sauce with meat, vegetables, and tomatoes, are considered low-acid foods. For low-acid foods,

the required temperatures to destroy the bacteria which cause botulism can only be achieved in a pressure canner.

High-Acid Foods	Low-Acid Foods
<ul style="list-style-type: none">➤ Fruit➤ Jams, jellies, marmalades and fruit butters➤ Pickles and sauerkraut➤ Tomatoes with added lemon juice or vinegar	<ul style="list-style-type: none">➤ Vegetables➤ Meat, wild game, fish, shellfish, poultry and milk➤ Soup, stock➤ Spaghetti sauce with a combination of meat/vegetables and tomatoes➤ Tomatoes without added lemon juice or vinegar

Activity: Low-Acid & High-Acid Foods

Do this activity after sharing the information in this section.

Goal: Each participant needs to find out what food they are, whether they are high-acid or low-acid and what method they would require to be canned.

On pieces of paper or masking tape write the names of some of the foods listed in the High-Acid & Low-Acid foods chart. Without letting participants see what food they are getting, tape those names onto their backs. Get participants to mingle and ask each other 'yes or no' questions to figure out what kind of food they are. For example "Do I come from an animal?", "Am I made of fruit?". Once they have identified what kind of food they are, go around the group and ask everyone whether they are low-acid or high-acid and what processing method would be required to can them.

Altitude

Altitude is the height, or elevation, of a location above sea level. The safety of canning is affected by altitude when using both hot water bath and pressure canners. The boiling point of water gets lower as altitude increases, which makes it necessary to alter processing time to ensure food safety at high altitudes. If processing techniques are not adjusted to suit higher altitudes then there is increased risk of food spoilage.

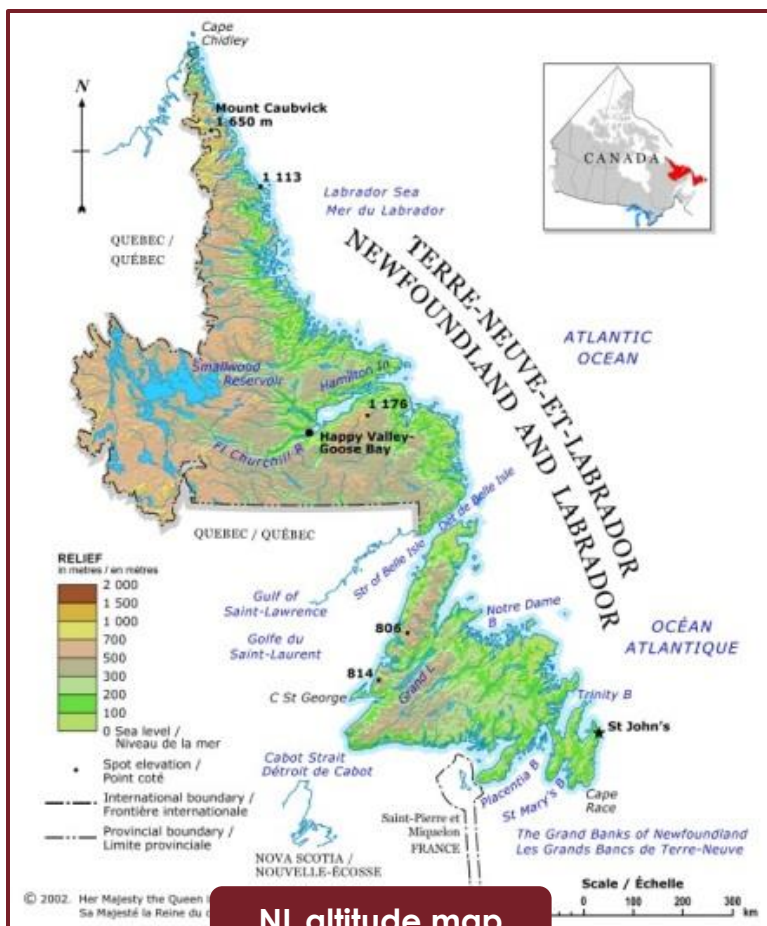
Most recipes are based on a standard altitude of 0 to 305 metres (0 to 1,000 feet). If your location has an altitude in that range then most

recipes do not need to be adjusted. The majority of the population of Newfoundland and Labrador is in the standard altitude range. However, if your location has a higher altitude then recipes will need to be adjusted. A few communities in the province are at a higher altitude, including Labrador City and Churchill Falls.

It is very important that you find the altitude of your location and adjust recipes accordingly for workshops and at home if need be; let participants know the altitude where they are. To find altitude, zoom in on your location on this interactive Natural Resources Canada map and use the legend: <http://atlas.nrcan.gc.ca/auth/english/maps/reference/national/reliefinteractive>

When using regional cookbooks from other places, be aware of what altitude the recipes are designed for and adjust to your region if need be. For example, a cookbook created in Alberta or British Columbia may be designed for higher altitudes than are present in Newfoundland and Labrador.

Use the information in the following charts to adjust processing techniques for higher altitude. This information is taken from *Complete Book of Home Preserving* on pages 382 and 420.



NL altitude map

Altitude Adjustment for Pressure Canners (Low-Acid Foods)

When pressure canning (low- acid foods) at an altitude above 1,000 feet (305 metres) use *the same processing time* listed in your recipe *but increase the pressure* according to this chart:

Altitude		Weighted-Gauge		Dial-Gauge	
Feet	Metres	lb	kPa	lb	kPa
0 to 1,000	0 to 305	10	69	11	76
1,001 to 2,000	306 to 609	15	103	11	76
2,001 to 4,000	610 to 1,219	15	103	12	83
4,001 to 6,000	1,220 to 1,828	15	103	13	90
6,001 to 8,000	1,829 to 2,438	15	103	14	97
8,001 to 10,000	2,439 to 3,048	15	103	15	103

Altitude Adjustment for Hot Water Bath Canners (High-Acid Foods)

When hot water bath canning (high-acid foods) above 1,000 feet (305 metres) *increase the processing time* according to this chart:

Feet	Metres	Increase in Processing Time
0 to 1,000	0 to 305	None; use standard time listed in recipe
1,000 to 3,000	306 to 915	5 minutes
3,001 to 6,000	916 to 1,830	10 minutes
6,001 to 8,000	1,831 to 2,440	15 minutes
8,001 to 10, 000	2, 441 to 3,050	20 minutes

Types of Canned Foods

Below are brief descriptions of common preparations that are canned:

Chutney: “A spicy condiment made from fruit, vinegar, sugar and spices... Chutneys can be smooth or chunky and range in spiciness from mild to very hot” (Topp & Howard, 2001, p. 130)

Condiments: Toppings made from vegetables and/or fruits and seasoned with herbs and/or spices; used to add extra flavour to other foods.



A variety of
canned foods

Tip: Moose & Caribou

The fact sheet *Canning Moose & Caribou* provides instructions, recipes and safety information for processing moose and caribou meat:

www.uaf.edu/files/ces/publications-db/catalog/hec/FNH-00226.pdf

Tip: Quality Pickles

Check out this list of tips to avoid common problems when pickling:

<http://tipnut.com/common-causes-of-poor-quality-pickles/>

Conserve: A jam that also has added spices, nuts, or dried fruit.

Jelly: Like a jam but the solid pieces are strained out leaving only a translucent smooth spread.

Jam: A cooked combination of fruit and sugar. They are either made with fruits with high pectin content or pectin is added. Fruits in jams are usually mashed or cut up very small.

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” (Topp & Howard, 2001, p. 17).

Meat, Poultry & Wild Game: Moose, caribou, seal and rabbit were traditionally preserved in Newfoundland and Labrador. They are low-acid foods and require pressure canning.

Pickles: Vegetables or fruit preserved in a high-acid liquid: either vinegar (most

common) or salt brine (fermentation, less common; this workshop does not cover fermentation). Pickles can be sweet, sour, hot, or mild.

Preserve: Like a jam but the pieces of fruit in a preserve are larger.

Relish: Fruit or vegetables chopped up small and pickled.

Salsa: A combination of fresh or cooked vegetables and/or fruit seasoned with herbs and/or spices. Used as a dip or condiment.



Canned salsa

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. Dessert and tomato sauces are common examples of sauces that are canned; they are generally high-acid and can be processed in a hot water bath canner. Sauces with low-acid ingredients like meat or vegetables need to be processed in a pressure canner. There are no safe guidelines for canning puréed low-acid foods so instead can sauces that are chunky and purée them just prior to serving if necessary.

Tip: Fish & Shellfish

Use these resources to learn how to properly can fish and shellfish:

- Health Canada (www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/fish-canning-conserve-poisson-eng.php)
- National Center for Home Food Preservation (http://nchfp.uga.edu/how/can5_meat.html)

Seafood: Various kinds of fish and shellfish can be canned. They are low-acid foods and require pressure canning.

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. Soups and stocks require pressure canning. There are no safe guidelines for canning puréed low-acid foods so instead can soups that are chunky and purée them just prior to serving if necessary.

Fruit 'Butter': "A sweet spread made by cooking fruit pulp with sugar until it has a thick, smooth consistency with no liquid remaining. Spices are often

added" (Topp & Howard, 2001, p. 17). No butter or margarine is actually included in fruit butters; the name refers to the texture of the spread.

Whole Fruits: Whole fruits are often canned in sugar syrup. Some fruits are canned with their skins on and others are peeled. Seeds and cores, with the exception of berries, are generally removed. Whole fruits should be processed in a hot water bath canner.

Whole Vegetables: Whole vegetables are canned along with boiling water or a pickling brine. Unless they are pickled, whole vegetables are considered low-acid and must be pressure canned.

Tip: Baby Food

For current information on safely canning baby food refer to the USDA's *Complete Guide to Home Canning*:

http://nchfp.uga.edu/publications/publications_usda.html

Note: Set Test for Spreads

Make sure spreads like jams, jellies or fruit butters have set (gelled) before canning them. When a spread has set it will be thickened and have a slightly sticky, gel-like consistency; it will also move slowly when poured. To test for set:

1. Put a plate in the freezer before making the spread.
2. When you think the spread has set take the pot off the heat.
3. Put a spoonful of spread on the plate and return it to the freezer for 2 minutes.
4. After 2 minutes check to see if the spread has the consistency described above. If so, the spread is set. If not, return the pot to the heat to cook further.

Try this set test with participants if you are making a spread during the workshop.

Canning Local Foods

A wide variety of local foods are available for canning in Newfoundland and Labrador. Beyond the traditional root crops, farmers are now producing dozens of other types of fruits and vegetables for retail, while home and community gardeners experiment with even more. People who forage for wild plants, hunt, and fish have access to even more foods to can.

For a list of vegetables, fruits and herbs that grow well in Newfoundland and Labrador, refer to **Appendix K: Garden Crops in NL** (page 40). To find retailers of local food refer to the Local Links page on the Root Cellars Rock blog (<http://rootcellarsrock.ca/local-links/>).

To learn more about foraging, refer to the **Edible Wild Plants Workshop**.

Activity: Canning Local Foods

Ask participants to brainstorm a list of foods that are locally grown in NL that can be canned. Compare the list that participants create with **Appendix K: Garden Crops in NL** (page 40). Are there any foods in Appendix K that participants didn't realize grow well in Newfoundland and Labrador? Could some of those foods be used for home canning? If possible, photocopy Appendix K for participants to take home and use when sourcing local foods to preserve.

Quote

"[Canning] takes time and care to accomplish. The craft of home canning slows down my relationship with food. Preserving is not about immediate satisfaction... It's about anticipation. And in that sense it's an act of optimism. Yes, the world will still be there in two weeks when my marinated artichokes have finished seasoning. And no, life is not slipping past unacknowledged and unrevered." (Bone, 2009, p. 11)

For information on recreational fishing and hunting in NL, refer to the Department of Environment and Conservation's Wildlife page: www.env.gov.nl.ca/env/wildlife/

Choosing locally produced foods has benefits for our environment, communities and economy. Canning local food also connects us more closely with Newfoundland and Labrador's culinary traditions. For tips to help you find and use local foods refer to the FSN Fact Sheet **10 Ways to Eat Local Food** (page 106).

Choosing Fresh Produce

“Quality put in the jar will result in quality in your end product.” (Bernardin, 2011)

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

For best results can produce within 1 – 2 days after it is harvested. Farmers' markets, farm stands and local gardens are good sources of fresh produce. Make plans for canning on the day that food is purchased or harvested if possible.

Slightly under-ripe fruit has more pectin and will work best for making jams and jellies to help them set properly. Ripe fruit and vegetables are best for all other preparations. Slightly over-ripe fruit and vegetables can still be used with success if processed immediately.

Prep all of the fresh ingredients before beginning to cook to ensure that you are able to follow the timing that is recommended recipes.

Note: Fresh Meat, Poultry, Fish & Shellfish

“Fresh home-slaughtered red meats and poultry should be chilled and canned without delay. Do not can meat from sickly or diseased animals. Ice fish and seafood after harvest, eviscerate immediately, and can them within 2 days”

- (USDA, 2009, p. 11).

Tip: Healthy Choices

Keep these Canada's Food Guide recommendations in mind when preparing and eating home canned foods:

- Eat at least one dark green and one orange vegetable each day.
- Choose vegetables and fruit prepared with little or no added fat, sugar or salt.

For information about healthy food choices refer to Canada's Food Guide: www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/index-eng.php. Consider distributing copies to workshop participants; contact your local public health office for free copies or order from the Health Canada website.

Produce Purchase Guide

The following guide is adapted from *Complete Book of Home Preserving* (Kingry & Devine, 2006, p. 426-429) to highlight foods that are locally grown in Newfoundland and Labrador. Use this guide to help you purchase fruits and vegetables for canning. The information is approximate and may vary depending on the items you select and preparation method.

Note: Metric to Imperial conversion: 500g equals approximately 1 pound

Item	Purchase Unit	Weight (g)	Volume Prepared		
			Preparation	Imperial (cups)	Metric (mL)
Apples	1 medium 3 medium	500	peeled and sliced or diced	1 3	250 750
Asparagus	16 to 20 medium	500	tough ends removed, sliced	3	750
Beans, green or yellow		500	tips removed, sliced	3	750
Beets	without tops	500	peeled, diced	2	500
Blueberries		500	whole crushed	2 ² / ₃ 1 ³ / ₄	650 425
Broccoli	1 medium bunch	500	florets	2	500
Cabbage		500	shredded (varies by shred size)	4-6	1-1.5 L
Carrots	5 to 6 medium without tops	500	sliced shredded	3 2 ¹ / ₂	750 625
Cauliflower		500	florets	1 ¹ / ₂	375

Item	Purchase Unit	Weight (g)	Volume Prepared		
			Preparation	Imperial (cups)	Metric (mL)
Celery	1 stalk		sliced	½	125
Corn on the cob	1 medium ear		kernels cut from ear	½	125
Cranberries		500	whole, fresh	4	1L
Cucumber, English or field	1 medium	250	sliced or diced	2	500
Cucumber, pickling	6 to 7 medium	500	sliced	3 ⅓	825
Currants, black or red		500	whole, fresh	4	1L
Jalapeño peppers	20 medium	500	sliced	4	1L
Onions, cooking	1 medium 3 to 4 medium	500	chopped chopped	¾ 2 ½	175 625
Onions, pearl or pickling	About 50 (2 to 2.5 cm)	500	whole, peeled	4	1L
Onions, red	2 medium	500	peeled, sliced	3 ⅓	825
Parsnips	4 medium	500	peeled, chopped	2	500
Pears	3 medium	500	peeled, cored, sliced	2 ¼	550
Peas, green, fresh in pods		500	shelled	1	250
Plums	2 medium		pitted, sliced	⅓	75

Item	Purchase Unit	Weight (g)	Volume Prepared		
			Preparation	Imperial (cups)	Metric (mL)
Raspberries	2 pint container	500	whole, fresh crushed	4 1 ¾ - 2	1L 425- 500
Rhubarb	4 to 8 stalks	500	sliced into 1 inch (2.5cm) pieces	3	750
Strawberries	medium berries	500	whole, fresh sliced crushed	2 ⅔ 2 - 2 ⅓ 1 ⅔	650 500- 575 400
Sweet bell peppers, red, green, orange and yellow	1 large	175 - 250	chopped	1 ¼	300
Potatoes	3 medium	500	diced	2 ¼	550
Pumpkin		500	peeled, cubed	4	1L
Squash, butternut		500	peeled, cubed	3 ¼	800
Tomatoes, round garden or globe	3 medium	500	chopped peeled, crushed	2 ½ - 3 1 ½	625- 750 375
Tomatoes, Italian plum (Roma)	5 medium	500	chopped crushed or puréed	2 1 ½	500 375
Turnips, Rutabaga		500	cubed	2 ½	625
Zucchini	1 medium 3 medium	500	sliced sliced	1 3	250 750

Equipment

Not all the equipment in this section is necessary for making all preparations. Use your recipe as a guide for what you will need. Don't feel that you need to own all of these things in order to try canning; items can be borrowed as needed.

This video from Growing a Greener World introduces some of the equipment used in canning: www.growingagreenerworld.com/category/recipes/canning-preserving/

The following list is partially adapted from *Well Preserved* (p. 5):

Equipment to Prepare Food for Canning	Equipment to Process Food
<ul style="list-style-type: none">• stove with multiple burners• measuring cups• measuring spoons• knives• cutting board(s)• vegetable peeler• grater• mixing bowls• colander or sieve• cheesecloth• timer• oven mitts• gloves (latex, rubber or polyethylene)• steamer basket• slotted spoon• long-handled stirring spoon• various sized pots including a large stew pot, with lids• ice cube trays or ice maker• clean cloths• jelly bag• food processor• kitchen scale• citrus zester• potato masher	<ul style="list-style-type: none">• stove with multiple burners• canning jars• caps (new lids, metal screw bands)• hot water bath canning pot with lid• pressure canner (with instructions)• metal rack or basket for canner• timer• oven mitts• ladle• wide mouth funnel• jar lifter• magnetic cap lifter• non-metallic spatula• clean cloths• metal cooling rack• ruler (to measure head space)

Activity: Equipment

Ask participants to brainstorm a list of equipment that may be needed when canning. Show participants some or all of the equipment described here. Pass it around for participants to handle but be sure to sanitize equipment before canning. Give short demonstrations of how to properly use different pieces of equipment and allow participants to try using the equipment themselves.

Below is additional information about some of the above-listed equipment:



Front to back: jar lid (top), jar lid (underside), metal screw band

Caps (new lids & metal screw bands): “The most common cap is made of two pieces: a flat lid with a rubberlike sealing compound on the underside and a metal screw band that holds the lid in place during processing. You must use new lids each time you can food. Undamaged screw bands, however, can be reused.” (Westmoreland, 2010). Once jars are processed, it is optional whether the screw band is left on them in storage. Lids that have been processed, while no longer useful for canning, can still be used on jars to hold other items that are not canned.

Clean cloths: Clean cloths or paper towels are needed to wipe the rims of jars before processing, so that no food is left between the jar rim and the cap to compromise the seal.

Funnel: A funnel is useful to avoid spills on jar rims and sides. Choose a funnel with a wide lower opening to allow larger pieces of food to fall through.

Glass jars: Not every glass jar will work for canning. Jars that are not designed for canning may shatter during processing or chip and crack more easily. The following are common characteristics of canning jars to look for:

- Made of high-quality tempered glass; designed specifically to withstand high temperatures and to be reused multiple times
- Rims and threads that fit standard canning caps
- Variety of shapes available, including standard mouth, wide mouth, straight sides, and shouldered sides
- Usually stamped with a brand name either on the sides or base. Common brand names are Ball, Atlas, Bernardin, Mason, Kerr, Golden Harvest, Mainstays, Penley, Jarden, Drey, Mom's, Knox, and Globe (not all of those brands are still being produced)



Ideally look for free or affordable second-hand canning jars. New jars are not necessary. However, new jars can be purchased in cases of 6 or more at grocery and housewares stores. They are most easily available in the fall.

Note: Jar Sizes

Canning jars come in a variety of sizes including:

- **125 mL** (4 fl. oz / ¼ pint / ½ cup)
- **250mL / 236 mL** (8 fl. oz / ½ pint / 1 cup)
- **500mL** (16 fl. oz / 1 pint)
- **1 L** (32 fl. oz / 1 quart)
- **1.5 L / 1.9 L** (48 fl. oz / 1 ½ quarts)

Show participants the different sizes of jars labeled with their volumes.

Hot water bath pot: These pots should be 1) large and deep, 2) have a tight fitting lid, and 3) have a heavy, flat base. Pots designed particularly for hot water bath canning are available to purchase but any stockpot that fits the above description will work. “Ideally, the pot will be at least 3 inches (7.5 cm) deeper than the height of the jars. This depth allows space for the jars to be covered by at least 1 inch (2.5 cm) of water, while leaving sufficient extra pot height for the water to boil rapidly” (Kingry & Devine, 2006, p. 413). The pot should have in it a heat-proof metal rack or basket (see below). Canning pots are often larger than standard sized stove-top burners, so when they are in use you may not be able to use all the burners on the stove as usual.



Hot water bath pot

Ladle and spoons: Choose tools with long handles to avoid burning yourself while reaching into a hot pot. Look for tools with hooks on the top to hang them up on a pot’s rim when not in use. Be careful not to chip jars with metal tools.



Front to back: magnetic cap lifter, non-metallic spatula, funnel, jar lifter

Jar lifter: Tongs used to safely remove hot jars from hot water. They generally have a rubbery material on them to allow for better grip on wet jars. Jar lifters are not necessary but they do work well.

Magnetic cap lifter: Simply a magnet at the end of a handle. It is used to pick up metal lids and screw bands to avoid hand-contact. They are usually included in canning tool sets or can be made at home by attaching a strong magnet to a handle.

Non-metallic spatula: Required to remove air bubbles from jars prior to processing. Spatulas that come in canning kits sometimes have notations on them to measure head space as well. A regular kitchen spatula (non-metallic) or even a plastic knife will work as well.



Pressure canner: These are not the same as pressure cookers or slow cookers. A pressure canner is a “heavy pot with a lid that can be locked and a pressure gauge that determines the amount of pressure per square inch (psi) within the pot” (Bone, 2009, p. 28). The heat created within a pressure canner is sufficient to kill botulism bacteria. Pressure canners all have the first three of these characteristics and some have the fourth:

1. **Gauge:** controls pressure; there are two common types, called dial-gauge and weighted-gauge (see **Useful Terms**, page 54)
2. **Safety lock:** keeps the canner closed while operating
3. **Steam vent:** lets steam out when open; keeps steam in to create pressure when closed
4. **Gasket:** “a rubber ring between the lid and pot that ensures an airtight seal” (Bone, 2009, p. 28)

“Always follow the instruction manual that came with the pressure canner. If you have a pressure canner without an instruction manual, contact the manufacturer to get a replacement copy” (Health Canada, 2011).

Rack or basket: Placed at the bottom of canners to keep the jars from touching the pot during processing. Pressure canners will come with a rack, as will pots sold specifically as hot water bath canners. However, any heatproof, strong metal rack will work, such as a round cooling rack or even metal screw bands fastened together to form a base (see photo on page 87).



Preparation Before Canning

Getting set up properly before beginning a recipe will make the canning process a lot easier. Follow these 10 simple tips:

1. “If you are going to spend all day in the kitchen chopping, measuring, stirring and washing numerous jars, you better be in good spirits” (Mendonça, 2012). Get in the mood for canning. Choose a day when you have lots of time, clear distractions out of the kitchen and enjoy yourself.
2. Dress for success: Wear clothes that are comfortable and can get stained; put on closed-toed shoes in case you drop anything; have oven mitts handy and plastic gloves if you will be preparing hot peppers, beets or lots of onions.
3. Display your recipe so that it's easy to read and won't get damaged.
4. Clear and clean all work surfaces before starting.
5. Wash or sterilize equipment as needed before touching ingredients.
6. Check all jars and caps to make sure they are free of chips, dents or damage.
7. Have a few extra jars and new lids ready just in case they are needed.
8. Read through the recipe closely and check to make sure that you have all the necessary ingredients and tools. Set them all out within easy reach.
9. Prep all the ingredients to be ready for the pot before adding anything in; do all the necessary chopping, puréeing, thawing, mixing etc. before starting to cook.
10. “Fill up the sink with hot, soapy water before you begin cooking, and have a wash cloth handy. Do dishes and wipe-ups as you go... it will save so much time and ‘bottle-necking’ of work!” (Macaulay, 2012)

Activity: Demonstrate Canning

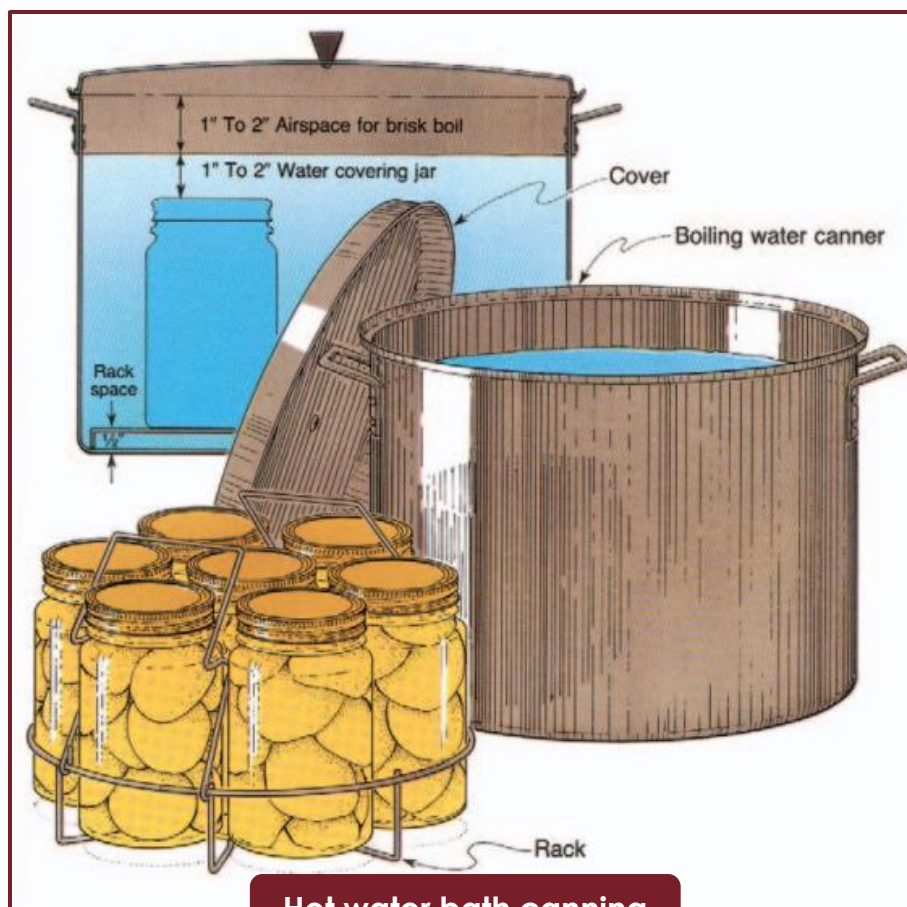
The **Hot Water Bath Canning** (page 80) and **Pressure Canning** (page 83) sections will be much easier to explain to participants if you do demonstrations of the different steps. The **Activities** (page 91) section includes recipes for doing both types of canning. To save money, borrow canners rather than buying them new if necessary.

Hot Water Bath Canning

“When foods in glass jars are processed in boiling water for a prescribed amount of time, the heat generated by boiling water pushes the air out of the fissures of the foods and jar, creating a vacuum seal. It also sterilizes the food and jar. This technique is safe for foods that have a pH (acidity) of 4.6 or less, primarily fruits, and for fruits and vegetables with the appropriate addition of acid, such as vinegar. This process kills all spoilers except the botulism bacterium, but the bacterium cannot thrive in a pH environment of 4.6 or less.” (Bone, 2009, p. 14)

“These canners are made of aluminum or porcelain-covered steel. They have removable perforated racks and fitted lids. The canner must be deep enough so that at least 1 inch (2.5 cm) of briskly boiling water will be over the tops of jars during processing. Some boiling-water canners do not have flat bottoms. A flat bottom must be used on an electric range. Either a flat or ridged bottom can be used on a gas burner. To ensure uniform processing of all jars with an electric range, the canner should be no more than 4 inches (10.2 cm) wider in diameter than the element on which it is heated” (USDA, 2009, p.18)

See **Equipment** (page 74) for additional information.



Hot water bath canning

For a demonstration of hot water bath canning refer to this video from Bernardin (strawberry jam): <http://youtu.be/rRkQIXynRv4>

Procedure

The following is slightly adapted from *Complete Book of Home Preserving* (Kingry & Devine, 2006, p. 415- 418)

Step 1 – Clean the jars and caps: Wash the jars, lids and screw bands in hot, soapy water. Jars can be washed in a dishwasher instead. Rinse them; no need to dry them. Carefully check everything for damage.

Step 2 – Heat the jars: Put a rack in the hot water bath pot. Place the empty jars in the pot on the rack. Fill the pot and jars with water; for smaller jars (250 mL or less) up to their rims and for larger jars $\frac{2}{3}$ full. Put the lid on the pot and turn the heat on to medium. Bring the water to a simmer (180°F / 82°C); no need to boil the jars. This step is meant to heat the jars, not to sterilize them; that comes later when the jars are heat processed. Turn the heat down; keep the jars hot until it is time to pack them.

Step 3 – Prepare the caps: Set the metal screw bands aside and do not heat them; they should be at room temperature for easy handling later. Put the lids in a small saucepan, cover them with water, and turn the heat on to medium. Bring the water to a simmer (180°F / 82°C); no need to boil the lids. Turn the heat down and keep the lids hot until you use them.

Step 4 – Prepare the recipe

Step 5 – Pack the jars: Carefully take one jar at a time out of the hot water. Pour the water back into the canning pot. Put the jars down on a work surface that will not shock their temperature, like a wooden cutting board or towel. Ladle the prepared food into the jars, using a funnel if preferred. Leave the amount of headspace at the top of the jar that the recipe calls for.



Step 6 – Remove air bubbles: "Slide a non-metallic utensil, such as a rubber spatula, down between the food and the inside of the jar two or three times to release the air bubbles. Failure to remove air bubbles can cause seal failure and will influence the colour and storage quality of the preserved product. Adjust headspace, if necessary, by adding hot food and/or liquid" (Kingry & Devine, 2006, p.417).

Step 7 – Clean the jar rims & threads: “With a clean damp cloth or paper towel, wipe jar rim and threads. Particles of food that remain on the rim of the jar can prevent formation of a vacuum seal” (p. 417).

Step 8 – Put caps on the jars: Using a utensil, preferably magnetic, take the hot lids out of the saucepan and place them each on a jar; be sure that they are centred properly. “Place a screw band on the jar. With your fingers, screw band down until resistance is met, then increase to fingertip-tight. Do not use a tool or excessive force to tighten the screw bands. Over-tightening screw bands can prevent jars from venting and can lead to seal failure” (p.417).

Step 9 – Return jars to the hot water bath pot: As each jar is filled and capped, return them to the hot water bath canner on the rack inside. Once all the jars are in the pot, add more water if necessary so that all the jars are covered with 1 inch (2.5 cm) of water.

Step 10 – Heat process jars: “Cover the canner with a lid and bring water to a full rolling boil over high heat. Once the water is boiling hard and continuously, begin counting the processing time specified in the recipe. The rapid boil must continue for the duration of the processing time” (p.417).

Step 11 – Cool the jars: “At the end of the processing time, turn the heat off and remove the canner lid. Let the canner cool for 5 minutes. This short standing time allows the pressure inside the jars to stabilize and reduces the likelihood of liquid loss that could otherwise occur when jars are moved. After 5 minutes, remove the jars, lifting them out of the water without tilting them. Don't worry about water on the tops of the jar lids; this will evaporate during cooling period. Don't dry lids or jars at this point. You don't want to disturb the lids while the seal is being formed. Place jars upright on a towel in a draft-free place and let cool, undisturbed, for 24 hours” (p.418).

Step 12 – Check the seal: After 24 hours, remove the screw bands. “With your fingers, press down on the centre of each lid. Sealed lids will be concave (they'll curve downward) and will show no movement when pressed. If you are still uncertain of the seal, grasp the edges of the lid and lift the jar while supporting the jar with your other hand. A cooled, sealed lid will stay firmly attached to the jar; regardless of its weight” (p.418).

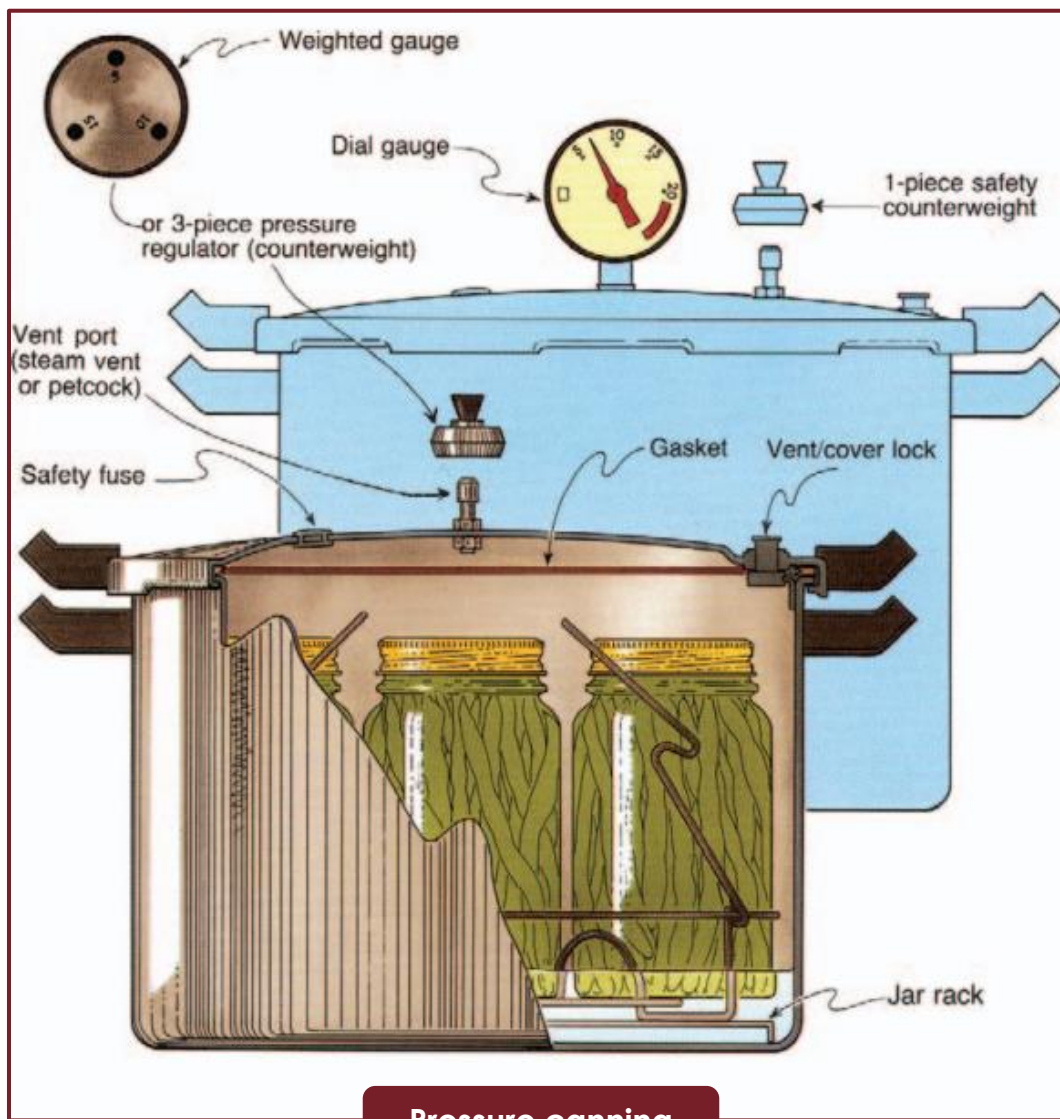
If the lids have sealed, congratulations! You are finished hot water bath canning. If a seal has not been established refrigerate or reprocess the jar right away. Jars can be stored without the screw bands on them.

Pressure Canning

“Steam builds up in the airtight cavity of the pressure canner, accomplishing the same thing as a water bath canner but at much higher temperatures (116°C/ 240°F or higher). This technique kills all spoilers (including botulism)... Pressure canning is used when processing low-acid foods (pH 4.6 and higher), primarily vegetables without added acid, meat, and fish.” (Bone, 2009, p.15)

See **Equipment** (page 74) for additional information.

For a quick demonstration of pressure canning refer to this video from Ball Canning (green beans): http://youtu.be/f_gGgLI1rc



Procedure

The following is slightly adapted from *Complete Book of Home Preserving* (Kingry & Devine, 2006, p. 382-384, 417-418)

Important Note: These directions apply to pressure canners overall and are here to provide a general idea of how to operate one. Also refer to the specific instructions that came with your model of pressure canner. If you do not have those instructions, visit the manufacturer's website or contact them to get a copy. Follow your canner's instructions closely.

Step 1 – Clean the jars and caps: Wash the jars, lids and screw bands in hot, soapy water. Jars can be washed in a dishwasher instead. Rinse them; no need to dry them. Carefully check everything for damage.

Step 2 – Heat the jars: (“Note: When preserving chilled foods, such as fish, do not heat the jars or water in a canner prior to filling the jars” (p. 382); However, follow this step for raw vegetables because hot liquid must be poured over them.) “Place rack in the pressure canner and place (empty) jars on the rack. Fill jars halfway with water and add 2 to 3 inches (5 to 7.5cm) of water to the canner. Bring water to a simmer (180°F / 82°C) over medium heat and maintain the simmer until you're ready to use the jars. Do not boil” (p. 382).

Step 3 – Prepare the caps: Set the metal screw bands aside and do not heat them; they should be at room temperature for easy handling later. Put the lids in a small saucepan, cover them with water, and turn the heat on to medium. Bring the water to a simmer (180°F / 82°C); no need to boil the lids. Turn the heat down and keep the lids hot until you use them.

Step 4 – Prepare recipe

Step 5 – Pack the jars: Carefully take one jar at a time out of the hot water. Pour the water back into the pressure canner. Put the jars down on a work surface that will not shock their temperature, like a wooden cutting board or towel.

Note: Pressure Canning Errors

Forgetting to do these two things may result in lower temperatures in the canner and failure to kill all harmful microorganisms.

1. **Altitude:** Processing needs to be adjusted to suit altitude; see **Altitude** (page 64).
2. **Air in the Canner:** Once the canner heats up enough to start venting steam, it needs to be allowed to vent solidly for 10 minutes before processing begins. This releases air from the canner.

Ladle the prepared food into the jars, using a funnel if preferred. Leave 1 inch (2.5 cm) of head space at the top of the jar.

Step 6 – Remove air bubbles: “Slide a non-metallic utensil, such as a rubber spatula, down between the food and the inside of the jar two or three times to release the air bubbles. Failure to remove air bubbles can cause seal failure and will influence the colour and storage quality of the preserved product. Adjust headspace, if necessary, by adding hot food and/or liquid” (p.417).

Step 7 – Clean the jar rims & threads: “With a clean damp cloth or paper towel, wipe jar rim and threads. For meat, fish, soups, etc. (*anything with fat or grease*) dampen the cloth with diluted vinegar to help remove any fat that may be on the rim” (p.383).

Step 8 – Put caps on the jars: Using a utensil, preferably magnetic, take the hot lids out of the pan and place them each on a jar; be sure that they are centred properly. “Place a screw band on the jar. With your fingers, screw band down until resistance is met, then increase to fingertip-tight. Do not use a tool or excessive force to tighten the screw bands. Over-tightening screw bands can prevent jars from venting and can lead to seal failure” (p.417).

Step 9 – Prepare the pressure canner: Once all of the jars are packed and in the pressure canner “adjust the water level in the canner as directed by the manufacturer. Place lid on canner and lock it into place. Leave weight (*pressure regulator*) off vent pipe. Over medium-high heat, bring water to a boil. (You’ll know the water is boiling when steam starts coming out of the vent in a steady stream.) Vent steam from the canner for 10 minutes. Place weight (*pressure regulator*) on vent” (p. 383). Refer to your recipe and **Altitude** (page 64) to determine what level of pressure to maintain.

Step 10 – Process jars: “After the gauge indicates that the recommended pressure level has been reached, begin counting the processing time. Regulate heat slowly but continuously to maintain pressure without necessitating drastic changes to the heat level” (p. 383).

Step 11 – Let pressure return to zero: “When processing time is complete, turn off the heat and let canner cool naturally. During this time, the canner will become depressurized and pressure will return to zero. (Follow the canner

Note: Pressure Drops

“If at any time (*during processing; Step 10*) pressure goes below the recommended amount, bring the canner back to pressure and begin the timing of the process over from the beginning (using the total original process time). This is important for the safety of the food” (USDA, 2009, p. 22).

manufacturer's guidelines to determine when pressure has returned to zero.) Do not remove the weight (*pressure regulator*) from the vent until the canner is completely cooled and pressure has returned to zero" (p. 383).

Step 12 – Open the canner: "When the pressure has returned to zero, wait 2 additional minutes, then remove the weight (*pressure regulator*) from the vent. Unlock and remove the lid. **Make sure the steam escapes away from you.** Let jars sit in the canner for 10 minutes to adjust to the lower temperature in the room" (p. 383).

Step 13 – Remove and cool jars: "Remove jars from canner, without tilting. Place jars upright, 1 to 2 inches (2.5 to 5 cm) apart, on a dry towel or wooden cutting board in a draft-free place and let cool, undisturbed, for 24 hours. Do not tighten screw bands if they have loosened during processing" (p. 384).

Step 14 – Check the seal: After 24 hours, remove the screw bands. "With your fingers, press down on the centre of each lid. Sealed lids will be concave (they'll curve downward) and will show no movement when pressed. If you are still uncertain of the seal, grasp the edges of the lid and lift the jar while supporting the jar with your other hand. A cooled, sealed lid will stay firmly attached to the jar, regardless of its weight" (p.418).

If the lids have sealed, congratulations! You are finished pressure canning. If a seal has not been established refrigerate or reprocess the jar right away. Jars can be stored without the screw bands on them.

Canning Tips

Root Cellars Rock surveyed local people and resources to pull together this list of canning tips. Learn from other people's successes, surprises and mistakes:

- "Involve the whole family. There is something about putting down food for the winter that draws everyone in. We have had some of our best family bonding time sitting around the table with some people peeling, some slicing, and some bottling." (Sheppard, 2012)
- Don't multiply recipes; canning recipes won't necessarily be safe or high-quality if doubled or tripled. Just make one batch at a time following the recipe as it is written.

Activity: Canning Tips

Ask participants to share any tips they have or to comment on the ones in this section. Take turns reading these tips aloud and/or turn parts of the list into hands-on activities while canning.

- When canning more than one batch of the same recipe in a day, label the jars with the date as usual and also with a batch number. That way if something goes wrong you know which jars belong to which batch.
- “It is important to start with something simple. The less you have to worry about the better. Pick a recipe that is fairly basic, like jam.” (Muzychka, 2012)
- When making big batches, choose recipes that you will definitely like. If you want to experiment, make small batches.
- Cut up old t-shirts to make clean rags to use for canning messes.
- Clean up messes as soon as they happen, before sticky food hardens.
- The recipes that come with canning products (e.g. pectin, jars, seasoning mixes) are usually tasty and simple.
- If you can't get jars to seal properly, refrigerate or freeze what you've made and use it; it's still good to eat.
- If you don't have a canning rack for hot water bath canning, make your own. Use bendable wire to attach metal screw bands together, enough to cover the inside base of the pot.
- Wear plastic gloves when preparing hot peppers, beets or lots of onions. Do not touch your eyes!
- Don't fill pots too high; it's possible the contents will boil over and make a huge mess. Borrow a bigger pot for large recipes.
- Tie your hair back and keep pets out of the kitchen so you don't find any hairy surprises later.
- “Keep pot handles turned in towards the stovetop, not out where you can tip boiling things over” (Macaulay, 2012).

Quote

“Most important tip... just do it! I always worried about trying thinking I didn't know how and I didn't have all the right equipment. I didn't think I had the time... there were so many excuses. Just find a recipe and start and you will find out how easy and fulfilling it is.” (Sheppard, 2012)



Homemade canning rack

- “Use a small ladle or spoon to put food in jars. It takes longer, but creates much less mess!” (Macaulay, 2012)
- Label jars (name and date) immediately after canning because it's easy to forget later.
- Write on a hot jar with a crayon to label it without using a sticker.
- “Flaps cut from old unsealed envelopes can be used to label jars” (Tipnut, 2008).
- Mark the tops of canning lids with a dot of permanent marker when they are used. That way later when labels are cleaned off you will know if lids are new or used and will not accidentally reuse old ones.

Storage of Canned Foods

Length of Time

For best quality, store canned foods for no more than 1 year. Once jars are opened, use or refrigerate the contents immediately.

Once opened, refrigerate and use canned low-acid vegetables, meat, wild game, fish, shellfish, soups, stocks, sauces and other low-acid foods immediately, within 3-4 days. Heat contents prior to eating as required.

Once opened, refrigerate and use canned high-acid foods like fruits, jams, pickles, spreads and condiments as soon as possible. Storage times vary based on the product. Refer to **Signs of Spoilage** (page 60) for indications of when food should be discarded.



Pickled beets

Location & Conditions

Store canned foods in a place that is cool, dry (low humidity, and dark. Here's why:

1. Warm or hot conditions can cause food to expand in the jars and spoil. Cold or freezing conditions can affect the quality of food and may damage jars. Store jars far away from stoves, heaters and furnaces and don't put them in places that reach freezing temperatures.

- Humidity may cause caps to rust and damage the seal on jars, leading to spoilage.
- Light will affect the quality (colour and flavour) of foods.

If they meet the above requirements, good places to store canning are cupboards, basements, storage rooms, pantry closets, and cooler boxes.

Save the cardboard boxes that canning jars are sold in to store filled jars. Label the boxes as well as the jars.

Canned foods stored on a shelf out in the open look nice, but exposure to light will affect their quality over time. Display non-food items in canning jars instead, for a similar look.

Tip: Root Cellars

Don't store canned foods out in the open in a root cellar. The humid conditions and potentially freezing temperatures there can damage canned foods, compromising food safety. Instead pack canned foods into a box with a lid, insulated with packing material, and then put the box in a root cellar.

Canning and Community Building



Canning beans as a group

Make canning a community activity; share food skills and have fun with local people. Try out some of these ways to make canning social:

Host a home canning party: Invite friends over to share an afternoon of canning. Learn new techniques as a group, choose recipes together, split the cost of ingredients and share the work so that more gets done in a shorter period of time.

Attend a community kitchen: Community kitchens are cooking programs where small groups of people come together to prepare meals and take food home. Some community kitchens host canning sessions. Find an existing community kitchen where you live using the Food Security Initiative Inventory

(www.foodsecuritynews.com/resources); start a community kitchen using the Best Practices Toolkit (www.foodsecuritynews.com/best-practices-toolkits.html).

Organize a canning and recipe exchange: If several of your friends or neighbours have experience canning, consider organizing a canning and recipe exchange. In advance confirm how many people will be involved and choose a location. Each individual prepares one jar and one copy of their recipe per person attending. Everyone goes home with new recipes and food

to try. Use **Food Safety When Canning** (page 57) and **Home Canning Gifts** (page 90) as resources to be sure that all the food exchanged is safe to eat.

Home Canning Gifts

Home canned foods are delicious gifts to share with friends and family. An edible present in a reusable jar is practical and eco-friendly. When receiving home canned gifts you will want to find out a few things. Never eat home canned foods that you're not confident are safe.



Labeled jars

- **Preparation method?** Find out if hot water bath or pressure canning were used depending on whether the food is low or high-acid.
- **Seal?** Check that the lid is sealed. It should be pressed down and not move when the center is pressed.
- **Expiry date?** If an “eat before” date isn't on the jar, ask when the food was made. Label the jar and eat the food in time.
- **Ingredients?** Find out if there are any ingredients that you should be aware of for allergy or other health reasons.
- **Spoilage?** Check for damage to the jar and cap or spoilage of contents.

If you're preparing canned foods as gifts, there are a few things you can do to put the person receiving them at ease:

- Include a recipe that outlines 1) ingredients, 2) preparation methods, 3) use instructions, and 4) storage instructions.
- Be open to questions.
- Label the jar with the name of the recipe and “eat before” date.
- Ensure that jars seal properly.
- Store sealed jars in a cool, dry, dark place prior to gifting them.

Tip: Canning Labels

Create free, decorative canning labels (<http://tipnut.com/canning-jar-labels/>) and recipe cards (<http://tipnut.com/free-printable-recipe-cards-a-nice-collection/>) as an added touch on gifts or to give to a fellow canner.

For more detailed information on safely giving and receiving canning gifts, refer to this fact sheet from the *National Center for Home Food Preservation*:

http://nchfp.uga.edu/tips/winter/hfp_gifts.html

Activities

(40 minutes)

The key to success with this workshop is to make it interactive. Activities are suggested in the following places:

- Preserving Poetry (page 53)
- Head Space (page 55)
- Low-Acid & High-Acid Foods (page 63)
- Set Test for Spreads (page 68)
- Canning Local Foods (page 69)
- Equipment (page 75)
- Demonstrate Canning (page 79)
- Canning Tips (page 86)



Below are four suggested recipes to try at the workshop. Two of the recipes call for a hot water bath canner and two of the recipes call for a pressure canner. Be aware that the processing time for pressure canning recipes can be quite long; in order to show participants the whole process from start to finish the **Sample Agenda** (page 101) may need to be lengthened.

Note: If the recipes suggested here are not ideal, choose different ones from a reputable source. Use the websites and cookbooks in **Resources** (page 104) for reference. Use **Food Safety When Canning** (page 57) and **Note: Choosing Recipes** (page 57) to guide your choice of recipes.

For best results when canning food at a workshop:

- Encourage participants to be involved in every step of the process.
- Divide participants into small groups with a volunteer to assist each group. Let each group prepare their own batch of the recipe. Groups will need to take turns processing jars if only one canner is available.
- Be open to questions and discussion.
- Send copies of the recipe(s) home with participants.
- Review food safety tips as you go.
- Send every participant home with a jar of food.
- Use locally produced ingredients where possible.

Important Note: Do not multiply the recipes to make one larger batch or use different jars than the recommended sizes. Doing those things will compromise food safety and quality. If these recipes are not the desired size or do not utilize available jars, choose new recipes.

Note: Canner Preparation Times

In addition to the processing times listed in recipes, allow for the following amount of time in the workshop for the canner to be ready to process food:

Hot water bath canner: 15 – 30 minutes for water to boil in filled canner (lid on).

Pressure canner: 10 – 15 minutes to begin venting + 10 minutes to vent + 5 minutes to reach ideal pressure = 25 – 30 minutes preparation time.

Recipe: Blueberry-Spice Jam

- 2-1/2 pints ripe blueberries
- 1 tablespoon lemon juice
- 1/2 teaspoon ground nutmeg or cinnamon
- 5-1/2 cups sugar
- 3/4 cup water
- 1 box (1-3/4 oz) powdered pectin

Yield: About 5 half-pints (5 x 250 mL)

This recipe is taken from the Center for Home Food Preservation (http://nchfp.uga.edu/how/can_07/blueberry_spice_jam.html). Use this recipe in combination with the information in **Hot Water Bath Canning** (page 80).

Procedure: Wash and thoroughly crush blueberries, one layer at a time, in a saucepan. Add lemon juice, spice, and water. Stir in the pectin and bring mixture to a full, rolling boil over high heat, stirring frequently. Add the sugar and return to a full rolling boil. Boil hard for 1 minute, stirring constantly. Remove from heat, quickly skim off foam, and fill sterile jars, leaving 1/4-inch headspace. For more information on how to sterilize jars see **Hot Water Bath Canning** (page 80).

Adjust lids and process as recommended in the following table.

Recommended Process Time for Blueberry-Spice Jam in a Hot Water Bath Canner				
		Process Time at Altitudes of		
Style of Pack	Jar Size	0-305 m (0-1,000 ft)	306-1,828 m (1,001-6,000 ft)	Above 1,828 m (Above 6,000 ft)
Hot	Half-pints or pints (250mL or 500mL)	5 min	10 min	15 min

Recipe: Pickled Carrots

- 2¾ pounds peeled carrots (about 3½ pounds as purchased)
- 5½ cups white distilled vinegar (5% acidity)
- 1 cup water
- 2 cups sugar
- 2 teaspoons canning salt
- 8 teaspoons mustard seed
- 4 teaspoons celery seed

Yield: About 4 pint jars (4 x 500mL)

This recipe is taken from the Center for Home Food Preservation (http://nchfp.uga.edu/how/can_06/pickled_carrots.html). Use this recipe in combination with the information in **Hot Water Bath Canning** (page 80).

Procedure:

1. Wash and rinse pint canning jars; keep hot until ready to use. Prepare lids and bands according to manufacturer's directions.
2. Wash and peel carrots well. Wash again after peeling and cut into rounds that are approximately ½-inch (1.3 cm) thick.
3. Combine vinegar, water, sugar and canning salt in an 8-quart (8 L) Dutch oven or stockpot. Bring to a boil and boil gently 3 minutes. Add carrots and bring back to a boil. Then reduce heat to a simmer and heat until the carrots are half-cooked (about 10 minutes).
4. Meanwhile, place 2 teaspoons mustard seed and 1 teaspoon celery seed in the bottom of each clean, hot pint jar.
5. Fill hot jars with the hot carrots, leaving 1-inch headspace. Cover with hot pickling liquid, leaving ½-inch (1.3 cm) headspace. Remove air bubbles and adjust headspace if needed. Wipe rims of jars with a dampened, clean paper towel; adjust two-piece metal canning lids.
6. Process in a boiling water canner, as recommended in the following table. Let cool, undisturbed, 12 to 24 hours and check for seals.

Allow carrots to sit in processed jars for 3 to 5 days before consuming for best flavor development.

Recommended Process Time for Pickled Carrots in a Hot Water Bath Canner

		Process Time at Altitudes of		
Style of Pack	Jar Size	0-305 m (0-1,000 ft)	306-1,828 m (1,001-6,000 ft)	Above 1,828 m (Above 6,000 ft)
Hot	Pints (500mL)	15 min	20 min	25 min

Recipe: Beans, Snap and Italian - Pieces, Green and Wax

This recipe is taken from the Center for Home Food Preservation (http://nchfp.uga.edu/how/can_04/beans_snap_italian.html). Use it in combination with the **Pressure Canning** section (page 83) and the instructions that come with your pressure canner.

Quantity: An average of 14 pounds (6.35 kg) is needed per canner load of 7 quarts (7 x 1L); an average of 9 pounds (4.08kg) is needed per canner load of 9 pints (9 x 500mL).

Quality: Select filled but tender, crisp pods. Remove and discard diseased and rusty pods.

Procedure: Wash beans and trim ends. Leave whole or cut or snap into 1-inch pieces.

Hot pack: Cover with boiling water in a saucepan; boil 5 minutes. Fill jars loosely, leaving 1-inch headspace.

Raw pack: Fill jars tightly with raw beans, leaving 1-inch headspace. Add 1 teaspoon of canning salt per quart to the jar, if desired. Add boiling water, leaving 1-inch headspace.

Adjust lids and process in a pressure canner following the recommendations in Table 1 or Table 2 according to the type of canner being used. (There is no safe option for processing green beans in a hot water bath canner.)

Recommended Process Time and Pressure for Snap and Italian Beans								
			Dial-gauge pressure canner				Weighted-gauge pressure canner	
			Altitude				Altitude	
			0-609 m (0-2,000 ft)	610-1,219 m (2,001-4,000 ft)	1,220-1,828 m (4,001-6,000 ft)	1,829-2,438 m (6,001-8,000 ft)	0-305 m (0-1,000 ft)	Above 305m (Above 1,000 ft)
Style of Pack	Jar Size	Process Time (minutes)	Pressure (psi)				Pressure (psi)	
Hot and Raw	Pints (500mL)	20	11 lb	12 lb	13 lb	14 lb	10 lb	15 lb
	Quarts (1L)	25	11 lb	12 lb	13 lb	14 lb	10 lb	15 lb

Recipe: Strips, Cubes or Chunks of Meat: Bear, Beef, Lamb, Pork, Sausage, Veal, Venison

This recipe is taken from the Center for Home Food Preservation (http://nchfp.uga.edu/how/can_05/strips_cubes_chunks.html). Use it in combination with the section **Pressure Canning** (page 83) and the instructions that come with your pressure canner.

Procedure: Choose quality chilled meat. Remove excess fat. Soak strong-flavored wild meats for 1 hour in brine water containing 1 tablespoon of salt per quart (1L). Rinse. Remove large bones.

Hot pack: Precook meat until rare by roasting, stewing, or browning in a small amount of fat. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with pieces and add boiling broth, meat drippings, water, or tomato juice, especially with wild game), leaving 1-inch (2.5cm) headspace.

Raw pack: Add 2 teaspoons of salt per quart (1L) to the jar, if desired. Fill jars with raw meat pieces, leaving 1-inch (2.5cm) headspace. Do not add liquid.

Adjust lids and process following the recommendations in Table 1 or Table 2 according to the canning method used.

Recommended Process Time and Pressure for Strips, Cubes, or Chunks of Meat								
			Dial-gauge pressure canner				Weighted-gauge pressure canner	
			Altitude				Altitude	
			0-609 m (0-2,000 ft)	610-1,219 m (2,001-4,000 ft)	1,220-1,828 m (4,001-6,000 ft)	1,829-2,438 m (6,001-8,000 ft)	0-305 m (0-1,000 ft)	Above 305m (Above 1,000 ft)
Style of Pack	Jar Size	Process Time (minutes)	Pressure (psi)				Pressure (psi)	
Hot and Raw	Pints (500mL)	75	11 lb	12 lb	13 lb	14 lb	10 lb	15 lb
	Quarts (1L)	90	11 lb	12 lb	13 lb	14 lb	10 lb	15 lb

Conclusion

(15 minutes)

Some of these steps can also be completed during the activities if there is a lull in discussion.

Step 1: Ask participants to share any plans they have for learning more about canning after the workshop.

Step 2: Read aloud the list of things participants wanted to learn from the beginning of the workshop. Have you covered everything? If yes, congratulations! If not, that's fine too because you will now hand out the **Resources** sheet (page 104) for participants to take home with links to websites and recommended books for further learning. You could also open any remaining questions up to the group and see if participants can answer the missed questions from their own experience.

Step 3: Hand out the Evaluation sheet and pens and ask that participants all fill them in before leaving. Completed evaluation sheets should be photocopied after the workshop so that you can keep a record to guide future workshops that you host. Send originals, along with the completed FSN E-News sign-up sheet, back to FSN as soon as you are able. For instructions on how to do that see **Evaluation and Follow-up** (page 13).

Step 4: Thank participants for attending and close off the workshop.

We hope you enjoyed the Canning Workshop!



Strawberry-rosemary jam

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- Page 77: **Sarah Ferber** (top and bottom)
- Page 78: **Rick Kelly** (top, bottom left), **Sarah Ferber** (bottom right)
- Page 80: **USDA**
- Page 81: **EAC**
- Page 83: **USDA**
- Page 87: **Sarah Ferber**
- Page 88: **EAC**
- Page 89: **EAC**
- Page 90: **Helga Gillard**
- Page 91: **Sue Mercer**
- Page 97: **Andreae Callanan**

Photos from the **Ecology Action Centre (EAC)** can be found in the Adventures in Local Food Blog: <http://adventuresinlocalfood.wordpress.com/>

Photos from **Photobucket** are available at <http://photobucket.com/>

Photos from the **U.S. Department of Agriculture (USDA)** are found in *Complete Guide to Home Canning: Guide 1- Principles of Home Canning* (<http://nchfp.uga.edu/publications/usda/GUIDE%201%20Home%20Can.pdf>)

7.3. Supplementary Materials

Sample Agenda

Workshop Agenda Canning/Bottling

A Root Cellars Rock Food Skills Workshop

Date:

Time:

Facilitator:

Location:

Hosting Group(s):

1. **Introduction** (10 minutes)
2. **Roots of Our Local Food** (10 minutes)
3. **Digging In** (45 minutes)
4. **Activity** (40 minutes)
5. **Conclusion** (15 minutes)

www.rootcellarsrock.ca



Evaluation Form



Return completed evaluation forms to:

Food Security Network
 44 Torbay Rd. Suite 110, St. John's, NL A1A 2G4
 Fax: 709.237.4026
 Email: info@rootcellarsrock.ca

Please fill in this evaluation to the best of your ability. It will be kept private and used only by the FSN and today's hosts to improve future workshops.

Your name (optional):	Date: Length of workshop: Time of day:
Location (venue and town name):	Facilitator(s):
Hosting group (s):	Topic of workshop:

1. Today, I was a (check all that apply):

- participant facilitator volunteer representative of a hosting group
 other _____

2. I would like to attend future workshops on the following topics:

- | | |
|--|---|
| <input type="checkbox"/> food security | <input type="checkbox"/> using culinary herbs |
| <input type="checkbox"/> container gardening | <input type="checkbox"/> preparing local vegetables |
| <input type="checkbox"/> composting | <input type="checkbox"/> canning/bottling |
| <input type="checkbox"/> seed saving | <input type="checkbox"/> root cellars |
| <input type="checkbox"/> edible wild plants | <input type="checkbox"/> other: _____ |

3. How did you find the length of today's workshop?

- The workshop took an appropriate amount of time.
 The workshop was too short.
 The workshop was too long.

4. Were the time and date of the workshop appropriate?

- Yes, it worked well with my schedule.
 No, I would prefer to attend workshops during these times instead:
-

5. Did you make any new contacts or learn of any new resources?

- Yes, I made new contacts but didn't learn of new resources
 Yes, I learnt of new resources, but didn't make new contacts

- Yes, I made new contacts and learnt of new resources
- No, I did not make new contacts or learn of new resources

Comments:

6. Please rate the balance of presentation, discussion, and group activity at today's workshop: (please circle all that apply)

- Good balance of presentation, discussion, and group activity
- Not enough group activity and discussion
- Too much presentation of material
- Other: _____

Comments:

7. Please rank the hands-on workshop activity in helping you improve your understanding of the topic:

Not helpful		Somewhat helpful		Very helpful
1	2	3	4	5

Comments:

8. Please rank your understanding of today's topic before attending the workshop:

Little Understanding				Very Knowledgeable
1	2	3	4	5

9. Please rank your understanding of today's topic after attending the workshop:

Little Understanding				Very Knowledgeable
1	2	3	4	5

10. What did you enjoy most about today, or what was the most interesting thing you learnt?

11. What could have been changed to improve today's workshop?

12. Please share any additional comments or suggestions.

Preserving: Canning/Bottling Resources

All content from this workshop is available at
www.rootcellarsrock.ca/workshops

Websites

Altitude Search Map (Natural Resources Canada):
<http://atlas.nrcan.gc.ca/auth/english/maps/reference/national/reliefinteractive>

Canada's Food Guide (Health Canada):
www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/index-eng.php

Canning Moose and Caribou (University of Alaska Fairbanks) www.uaf.edu/files/ces/publications-db/catalog/hec/FNH-00226.pdf

Common Causes of Poor Quality Pickles (Tipnut): <http://tipnut.com/common-causes-of-poor-quality-pickles/>

Find Environmental Health Officers through Government Service Centres:
www.gs.gov.nl.ca/department/contact.html

Fishing and Hunting in NL (Department of Environment and Conservation) www.env.gov.nl.ca/env/wildlife

Food Safety Information (NL Department of Health & Community Services) www.health.gov.nl.ca/health/publichealth/envhealth/foodsafetyinfo.html

Food Safety Tips for Home Canning (Health Canada) www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/food-canning-conserve-aliment-eng.php

Home Canning and Bottling of Seafood (Health Canada) www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/fish-canning-conserve-poisson-eng.php

Preparing and Canning Poultry, Red Meats and Seafood (National Center for Home Food Preservation) www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/fish-canning-conserve-poisson-eng.php

Principles of Home Canning (USDA) <http://nchfp.uga.edu/publications/usda/GUIDE%20%20Home%20Can.pdf>

Resources for Home Food Preservation Gifts (National Center for Home Food Preservation) http://nchfp.uga.edu/tips/winter/hfp_gifts.html



Resource Sheet 7A out of 8



Photos: Helga Gillard

Videos

Hot Water Bath Canning Demo – Strawberry Jam (Bernardin)
<http://youtu.be/rRkQIXynRv4>

Intro to canning & equipment (Growing a Greener World)
www.growingagreenerworld.com/category/recipes/canning-preserving/

Preserving Food and Friendship (Cooking up a Story)
<http://cookingupastory.com/preserving-food-and-friendship>

Pressure Canning Demo – Green Beans (Ball Canning)
http://youtu.be/f_gGlll1rc

Preserving: Canning/Bottling Resources

All content from this workshop is available at
www.rootcellarsrock.ca/workshops

Books

Ball Blue Book: Guide to Preserving by Alltrista Consumer Products

Complete Book of Home Preserving (Bernardin) Edited by J. Kingry & L. Devine

The Good Housekeeping Cookbook Edited by S. Westmoreland

Homemade Living: Canning & Preserving with Ashley English by A. English

Put 'Em Up! by S. Brooks Vinton

Books on Small Batch Preserving

The Complete Book of Year-Round Small-Batch Preserving by E. Topp & M. Howard

Well-Preserved by E. Bone

Well Preserved: Small Batch Preserving for the New Cook by M.A. Dragan

Recipes in the Workshop

Recipes are from the National Center for Home Food Preservation:

Beans, Snap and Italian - Pieces, Green and Wax http://nchfp.uga.edu/how/can_04/beans_snap_italian.html

Blueberry Spice Jam http://nchfp.uga.edu/how/can_07/blueberry_spice_jam.html

Pickled Carrots
http://nchfp.uga.edu/how/can_06/pickled_carrots.html

Strips, Cubes or Chunks of Meat: Bear, Beef, Lamb, Pork, Sausage, Veal, Venison http://nchfp.uga.edu/how/can_05/strips_cubes_chunks.html



Photo: Sue Mercer



Photo: Martha Muzychka

Recipe Websites

Ball Canning
www.freshpreserving.com

Bernardin www.bernardin.ca

National Centre for Home Food Preservation
<http://nchfp.uga.edu/>



10 Ways to Eat Local Food

1. Learn What's in Season

Knowing which local foods are in season will help you know what to look for at the farmers' market or grocery store. Experiment with local foods that you don't normally eat. Visit Root Cellars Rock! for lots of local food resources.

www.rootcellarsrock.ca

2. Find a Farmer

Root Cellars Rock! Local Food Links www.rootcellarsrock.ca
Food Security Initiative Inventory www.foodsecuritynews.com
Buy Local! Buy Fresh! Avalon Region Map avalonfresh.ca
Keep it in Kittiwake www.kittiwake.nf.ca
ACORN NL acornnl.wordpress.com

3. Visit a Farmers' Market

Farmers' markets are growing across the province. More than just a place to find local meat and vegetables, they are community centres where people gather to socialize, eat, hold workshops, and celebrate local food. See the Food Security Initiative Inventory to find a farmers' market near you. www.foodsecuritynews.com/resources

4. Join a Community Supported Agriculture Program

Customers commit up front for an entire season and in return the farmer provides a weekly box of fresh produce and preserves. The produce varies according to what's available. It's a great way to give farmers more financial security.

5. Start Gardening

If you don't have space for a garden in your own yard, try growing some fresh herbs in a window, or join a community garden. Use the Food Security Initiative Inventory (www.foodsecuritynews.com/resources) to find a

community garden in your area. Visit Root Cellars Rock! (www.rootcellarsrock.ca) for gardening tips.

6. Go Berry Picking

There are many edible wild berries in the province. A U-Pick, where you pick your produce yourself, is a great way to get some berries that aren't as common in the wild. Use **2. Find a Farmer** to find a berry U-Pick near you.

7. Wild Harvesting

Hunting, fishing, and trapping are traditional ways we have acquired local food. Visit the Department of Environment and Conservation, Wildlife Division for information about licences. www.env.gov.nl.ca/env/wildlife

8. Preserve the Harvest

There are many ways to preserve fresh, local food. Cellaring, cold storage, bottling, freezing, pickling, salting, drying, and fermenting are all ways you can preserve local vegetables and fruit for months. For resources see the Root Cellars Rock! website and Canning Workshop (rootcellarsrock.ca/workshops).

9. Support Restaurants & Retailers that Source Local Food

A growing number of restaurants are choosing to support local farmers and fish harvesters, or even grow their own vegetables and herbs in a restaurant garden. Ask your favourite restaurant to source locally and use the Food Security Initiative Inventory to find restaurants and retailers that sell local food. www.foodsecuritynews.com/resources

10. Sprout!

Seeds such as lentils, peas, alfalfa, sunflower, and broccoli can all be sprouted to make delicious fresh greens all year long in your own kitchen. Visit Root Cellars Rock! for sprouting resources. www.rootcellarsrock.ca



Food Security means that all people at all times have physical & economic access to adequate amounts of nutritious, safe, and culturally appropriate foods.

Contact FSN for more information on how you can take action.

www.foodsecuritynews.com





Our Resources

Monthly E-News

News, events, funding and volunteer opportunities.

Best Practices Toolkits

Step-by-step guides to start a community garden, farmers' market, community kitchen, or bulk buying club.

Provincial Food Security Teleconferences

Provincial discussions and presentations on food security topics. Visit our website for archived presentations.

Food Security Initiative Inventory

An online directory of meal programs, community gardens, community kitchens, bulk buying clubs, farmers' markets, local farms, and more

What Challenges Do We Face in Newfoundland & Labrador?

- Producing only **10%** of fresh vegetables
- **2 - 3** day supply of fresh vegetables
- Average age of farmers in the province is **55**
- **2%** of farm products in grocery stores are local
- Low consumption of **local seafood** products
- **Lowest** consumption of fresh vegetables in Canada
- Highest rate of **food bank usage** in Canada
- Highest rate of **obesity** in Canada
- Second highest rate of **diabetes** in Canada

Join Us to Take Action

The Food Security Network NL is a provincial non-profit organization that promotes community-based solutions to increase access to healthy food for all.

We support and work with community kitchens, farmers' markets, community gardens, bulk buying clubs, and more.

Visit our website to find out how to get involved.

Connect With Local Food Across NL!

www.rootcellarsrock.ca

- The Four P's of Local Food: Planting, Picking, Preparing, and Preserving
- Gardening, wild foods, events
- Local food recipes and resources
- Q&A forum



