Root Cellars Rock

Food Skills Workshops

A Resource for Community Organizations in Newfoundland & Labrador

Picking: Seed Saving

ROOT CELLARS ROCK!

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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.

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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.

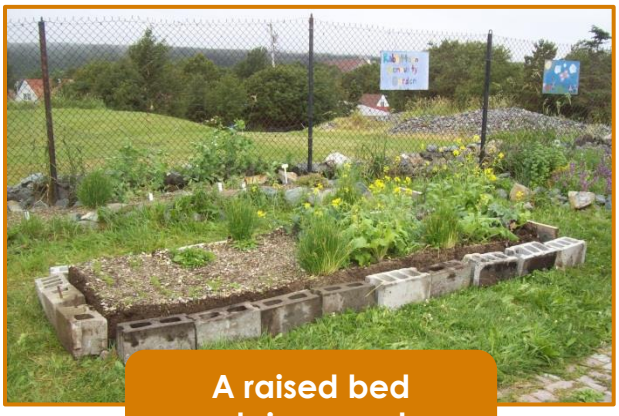
The 4Ps of Local Food

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

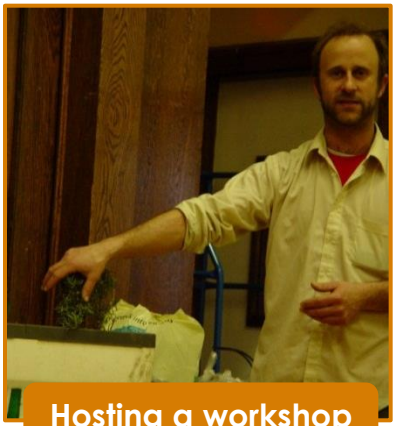
How to Use the Workshops

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.



Hosting a workshop

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.

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.

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.

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.

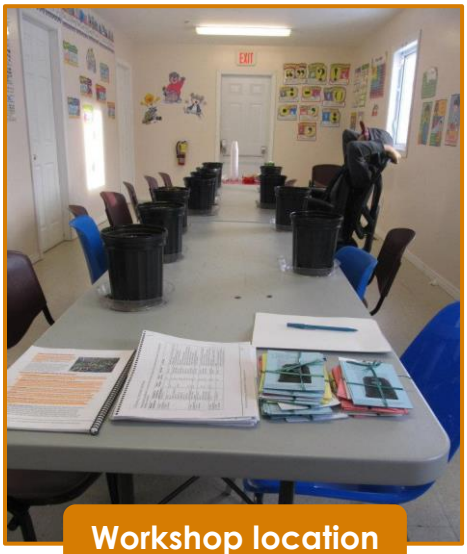
Involve learners in the planning and implementation of learning activities. Adults are interested in things that are relevant to their lives. Adults' past experiences, their current learning goals, and their sense of self will influence what they want to learn and how they learn it. The facilitator can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

Community garden

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.

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.

Workshop materials

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.

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

Bake 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

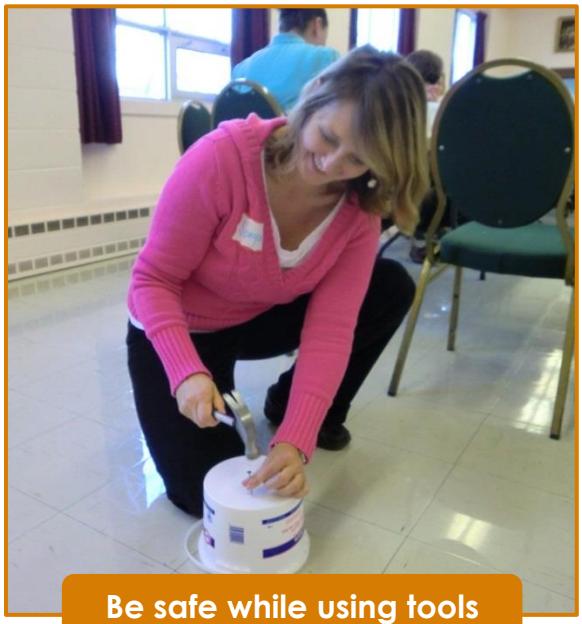
Grants are funds distributed by an organization (like a government department, business, or foundation) to assist in the creation of community projects that fit within the funding organization's mandate. Grants usually involve an application process and follow-up reporting and may take several months 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

Leading a workshop

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.

- **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.

Having fun at a workshop

- **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.

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

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	☑when item is acquired	☑when setting up workshop

Appendix D: Sample Poster

JOIN US FOR A FOOD SKILLS WORKSHOP ABOUT:

DATE:

TIME:

LOCATION:

CONTACT:

DETAILS:

ROOT CELLA ROCK!

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	☑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

Raised bed with bricks

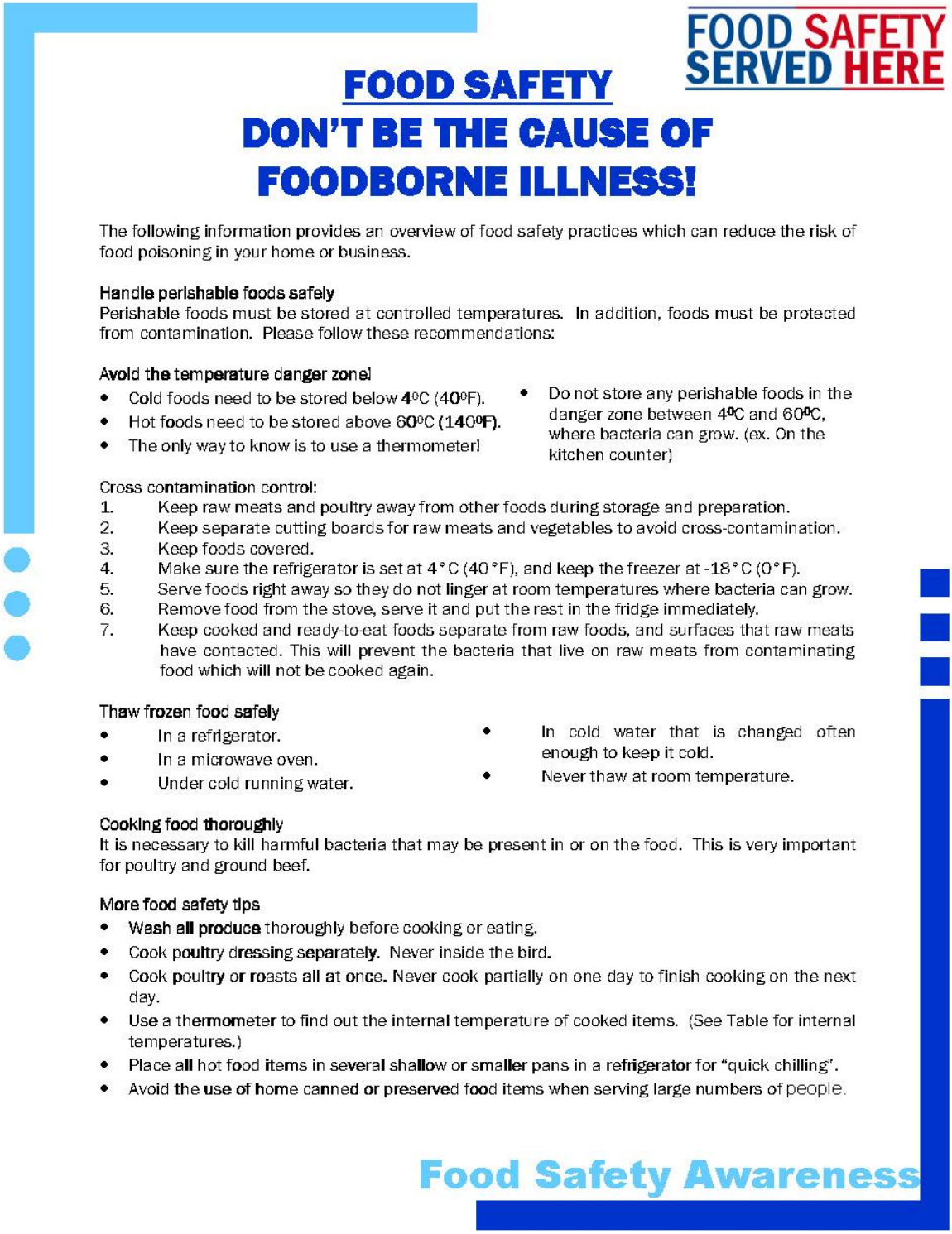
4. Ensure food safety in the garden:

(Adapted from the University of Maine Cooperative Extension http://youtu.be/o3zlq9BdoGY)

- 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.

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

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.

Newfoundland Labrador

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

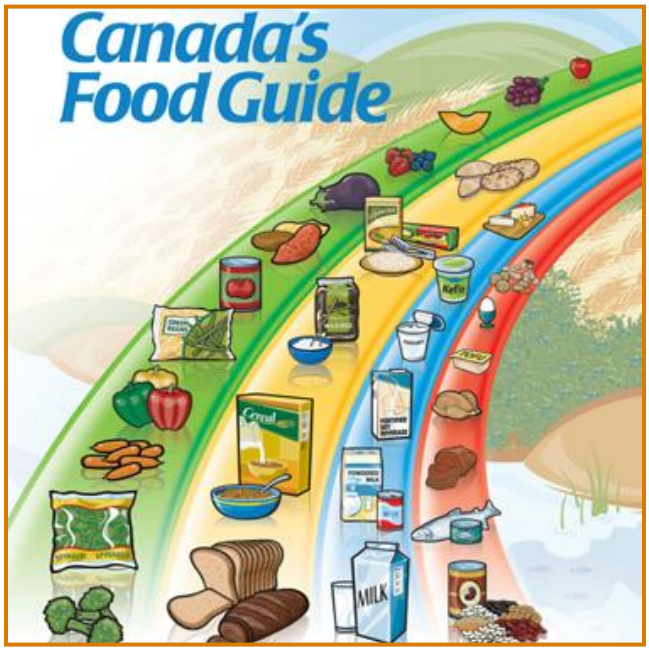
Food Safety Awareness

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.

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

	Month											
Type of Produce	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												

	Month											
Type of Produce	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												

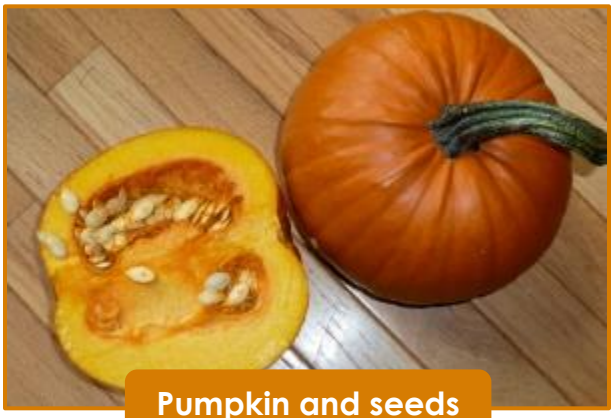
Picking

3. Seed Saving

3.1. 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.



Pumpkin and seeds

Materials

- 1 copy of the **FSN E-News Sign-up Sheet** (page 87)
- Evaluation forms photocopied for every participant, volunteer, and facilitator (see **Evaluation Form**, page 84)
- Agenda – either make one large copy on a white board or chart paper to post or have several to hand out to participants (see **Sample Agenda**, page 83)
- Photocopies of the **Resources** sheet (page 86) for each participant
- Pens or pencils
- White board or chart paper (optional)
- Markers (optional)
- Materials for chosen activities (see **Activities**, page 71)
- Name tags for participants and facilitators

Location

This workshop can be done indoors or outdoors depending on which activities are used. If outdoors, be certain to choose a covered area out of the wind (seeds blow away easily!) and with comfortable seating for all participants.

Participants

This workshop is recommended for maximum of 15 participants. Review the **Activities** section (page 71) 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.

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 83). 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

Refer to **Appendix G: Garden Safety** (page 33) for tips on running gardening activities safely.

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 48), choose what information you want to present based on participants' experience and interests, timeline, and available materials. If you are following the agenda

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 86).

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 seed saving. To go into more depth on the topic, refer to the **Bibliography** (page 80) and **Resources** (page 86) for more sources to check out.

The **Activities** section (page 71) offers four options for hands-on, interactive activities that you can organize for your group. Participants really enjoy these 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** (83) 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 79) 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.

Dried coriander seeds

3.2. Workshop

Introduction

(10 minutes)

Step 1: Introduce yourself to participants. You may want to provide a bit of background on your experience with seed saving. 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 seed saving

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 87) 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 83) 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 48).

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 container gardening?

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 an article titled *Saving Seed* by Alison Dyer. It originally appeared in The Telegram on October 19, 2011 and it gives us a glimpse into the seed saving traditions of Newfoundland & Labrador:

"A generation or two ago in Newfoundland, saving seeds from vegetables was pretty run-of-the-mill. Back then, saving seed was about saving money, and about saving time, because you couldn't always pop down to the nearest store to get some.

Many housewives who had a vegetable garden — and that would have been most of them — saved seed.

Carl Smith of Hant's Harbour, Trinity Bay, knows all about saving seed. His mother, like many others of her generation, tended a garden of 'small seeds' close to the house. She grew cabbage, turnip, carrot and marrows, among other vegetables.

'My mother grew the turnip seed, and her friend over the other side of the harbour grew cabbage seed and they exchanged them — that went on for years and years,' says Smith.

Today, Smith continues his mother's gardening legacy. This year he grew both cabbage and turnip seed."

Digging In

(45 minutes)

Present the information you have chosen to use from this section. This is the main content on how to save seeds. 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 86) 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.

Left to Right: beets, kale, lettuce, radish, lilac, mizuna

What Are Seeds?

A seed saving handbook for school gardens describes a seed as "a plant in a box with its lunch" and that's a great way of thinking about what seeds are (Occidental Arts and Ecology Centre).

Here's what they mean:

Box: Usually a seed has some sort of covering (seed coat) on the outside that protects the seed until it's ready to start growing (germinate).

Plant: Inside the seed there will be an embryo. The embryo is a living, undeveloped plant waiting to grow and it includes all the parts of what will become a full plant, like the building blocks for leaves, stem, and roots.

Lunch: Most seeds also have some form of nutrients inside them that will feed the embryo until it germinates and is able to start gathering outside food through its roots.

Seeds can be as tiny as grains of dust or as big as 60lbs and they come in so many different forms. That's why you will find that different techniques are needed to save the seeds from different types of plants.

In order for a seed to start growing (germinate), the embryo inside of it needs to be alive (viable). Factors like moisture, temperature, rate of development, damage, etc. will affect whether a seed lives or dies, which is why not all seeds will germinate. However, a seed can be dormant and sometimes wait years and years until the perfect conditions are there for it to start growing. Each type of seed has its own timeline for how long it can remain viable and its own conditions for what it needs to germinate.

Quote

"There's nothing quite as miraculous as growing an entire plant from one tiny seed."

– Carole B. Turner, *Seed Sowing and Saving*

What is Seed Saving?

Seed saving involves harvesting seeds from their mother plants when the seeds are at their peak development and carefully cleaning, drying, and storing them until you are ready to help them grow into new plants. Seed savers try to grow plants with lots of viable seeds. Then they choose which ones they save based on promoting characteristics that they think are valuable, such as taste, size, or how well the plants have done in local growing conditions.

Reasons to Save Seed

Showing children how to save seeds

- ***Preserve plant diversity:*** Seeds of Diversity estimates "that a few generations ago farmers and gardeners grew over 35,000 varieties of food plants in Canada" but in the 20th century 3/4 of that food biodiversity died out. Heirloom seeds are ones that were in circulation before 1940. When we lose heirloom varieties, we also lose their resilient characteristics and the potential they have for feeding us in a changing world. As well, we lose the stories of the hard work that helped to create those varieties over generations. Less plant diversity also means that more pesticides, herbicides, and industrial interventions are needed to maintain access to a healthy food supply. For more information on preserving seed diversity, check out these videos:

  Banking Diversity (USC Canada) http://usc-canada.org/resources/audio-visual/bankingdiversity/

  One seed at a time: protecting the future of food (Cary Fowler) http://youtu.be/Uwl012o8P7I

  Seeds of Freedom http://seedsoffreedom.info/

- ***Lower garden costs:*** Seed saving can help you to maintain a garden year after year with lower costs. Purchasing seeds or transplants for all your garden crops can be expensive, but seed savers use their own skills and time to collect seed for future use and save money.
- ***Build appreciation for nature:*** When you save seeds you allow a plant to go through its entire life cycle, rather than harvesting it early to eat. You may be familiar with how plants look until they are ready to eat, but the amazing life of plants continues after that and seed saving will allow you to watch what happens next.

Cilantro flowering

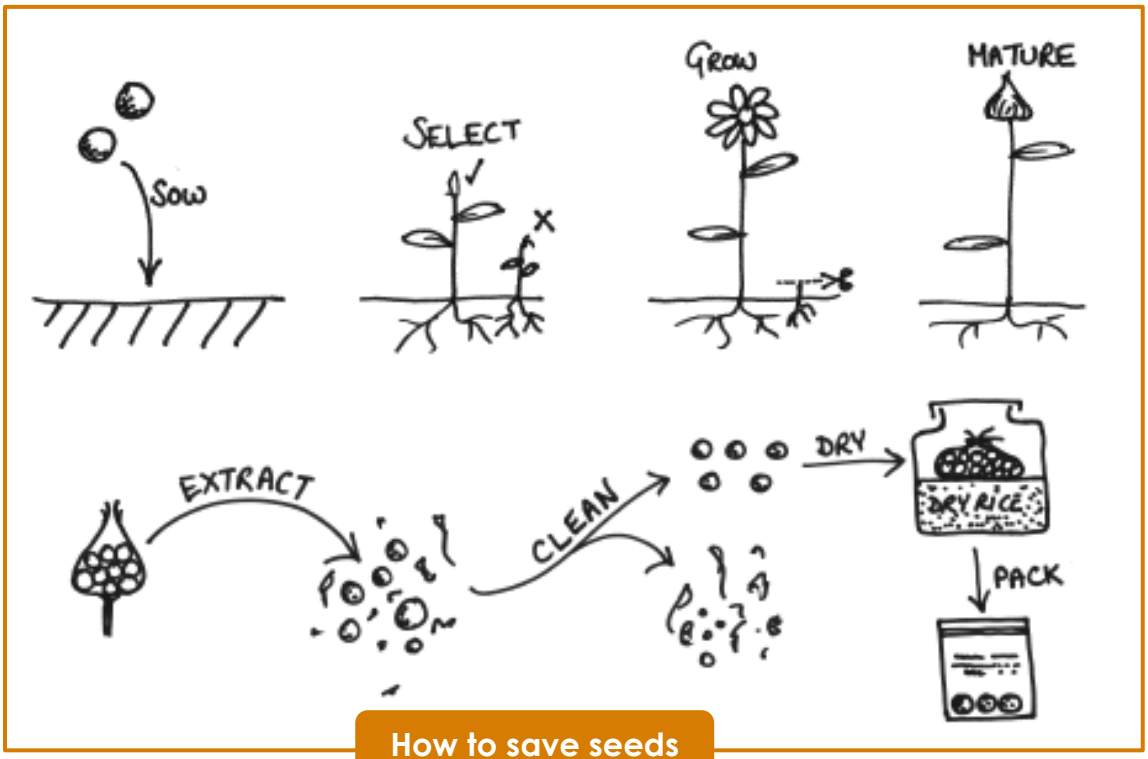
- ***Build community:*** Throughout human history the seeds cultivated by communities reflected their unique cultures, tastes and priorities. There is a lot of storytelling in seeds. Many people are proud of the seeds they save and want to pass them on. Today, communities host events where local gardeners get together to socialize and share seeds and knowledge. Visit the Seeds of Diversity website for information on hosting or attending seed events: www.seeds.ca/ev/events.php
- ***Cultivate locally acclimated plants:*** Gardeners can choose to save the seeds from plants that did especially well in their gardens, preserving successful characteristics. They try to choose seeds that are resistant to local pests, thrive in that area's climate, and do well in the area's soil, among other things. Seeds that have been adapted to the local environment over time are called folk varieties.
- ***Gain access to unusual and rare plants:*** Many gardeners who save seed are interested in growing unusual or rare varieties of plants, particularly heirlooms. Obtaining their first packet of those hard-to-find seeds can be difficult but once they get them, gardeners can save their own seeds year after year to continue to cultivate those plants and pass them on.
- ***Connect to our heritage:*** Seed saving was part of sustaining kitchen gardening in Newfoundland and Labrador. Most families kept a small garden to grow fresh food that supplemented what they caught, hunted, and imported. Some seeds would have been purchased from local retailers, but other varieties were saved each year and planted again, like potatoes and cabbages. It was common for people to share and swap seeds within their community and with visitors from farther away.

How to Save Seeds

There are five main steps to saving your own garden seeds and being able to grow them in following years. Those steps are:

1. Grow plants for seed.
2. Harvest seeds and clean them.
3. Dry saved seeds.
4. Store saved seeds.
5. Grow saved seeds.

We'll summarize those five steps in this workshop, enough to get you familiar with seed saving so you can start in your backyard or community garden. However, seed saving is a fascinating subject and there is opportunity to learn so much more. Use the **Resources** section (page 86) to help you explore seed saving beyond this workshop.



How to save seeds

Step 1: Grow Plants for Seed

Most plants that you grow for seed will not be harvested when fruit or vegetables are ripe for eating. Instead, you will allow the plant to continue growing until it produces mature seeds, which may take up to 3 months longer than a food harvest does. Plants that have grown past the point when you would normally harvest them can look very different from what you are used to. Saving seed gives you an opportunity to watch a plant develop through its whole life cycle and to better understand it. For that reason, seed saving is a great activity for any gardener with a passion to learn more about plants, and it is especially fun to practice with children. For information on seed saving with children and at school gardens, refer to the **Resources** section (page 86).

Note: Growing Plants for Seed

When you save seed you let the very best vegetables or fruit in your garden keep ripening past when you would normally harvest them for food. That can be a hard decision, particularly if you only have a small growing space or want to produce a lot to eat too. Seed saving is a long-term commitment. It will improve your garden in the future, but it's hard not to eat those ripe vegetables and fruits today!

Growing plants for seed is very similar to growing plants for their edible parts. There are only a few more things that you need to keep in mind that will help plants to produce lots of viable seed. In this section we will review some common seed saving terms that will help you along the way: size, species and variety, pollination, hybrids versus open-pollenated, isolation, annuals and biennials, and questions to keep in mind when seed growing.

Size

When you let plants fully mature and produce seeds, they often get much bigger than how they look when they are harvested to eat. For example, when you harvest head lettuce to eat it is still a fairly compact round sphere of lettuce, not taking up too much space in a garden row. However, a lettuce plant gone to seed can get quite bushy and be several feet high and several feet wide!

Keep the increased plant size in mind when planting for seed. You may choose to space your plants farther apart and provide them with trellis, cages or stakes to keep them upright. You can also still plant as you would regularly for food production, but then thin out (rogue) the section, taking some plants to eat and leaving the rest for seed production with more space. For more information refer to **Note: Rogue throughout the Season** (page 57). To find out how big your seed

Beet plants gone to seed

plants are likely to grow, look up each crop in the seed saving guides in the **Resources section** (page 86) or do a quick online image search.

Species and Variety

In botany (the science of plants), a species is a group of plants that have some similar traits and are able to breed together and create fertile seeds. Within species there are varieties, which are smaller groups of plants that are even more similar to each other. When varieties are cultivated and bred further together, they are called cultivars.

All plants have scientific names that are in Latin. We generally call plants by their common name (e.g. cucumber) but when deciding to save seeds it is important to also know their species name (e.g. *Cucumis sativus*). The species name of one crop can be compared to other crops to see if they are the same. The Latin name tells us what species a plant is part of so that we can match up the ones we want to breed together for seeds and keep apart the ones we don't want to accidentally cross-breed. Some varieties, although they seem very different, are actually from the same species and can therefore cross.

Here's an example:

Surprisingly broccoli, cauliflower, kale, chard, cabbage and Brussels sprouts are all in the same species, *Brassica oleracea*. How they grow, look, and taste can seem very different, but genetically they are from the same species. That means that if you plant them all in your garden together, it is possible that they will pollinate one another and produce hybrid seed that is a combination of two parents, like kale-chard or broccoli-cauliflower. If you are saving seed, you probably don't want that surprise next year when you grow your seeds.

Sometimes it's more straightforward. For example, all of the different peas in the species *Pisum sativum* can breed together and all of the different squash in the species *Cucurbita pepo* can breed together.

To avoid unwanted cross-breeding, look up the species name of your seed crops before deciding where and when to plant them for seed saving. Refer to **Isolation** (page 58) for tips on how to separate same-species plants so that they won't breed together. Use the seed saving guides in the **Resources** section

(page 86) to help you find the Latin names and isolation tips for different crops, or even do a quick Wikipedia search. Wikipedia is very helpful because you can search the common name of your plant and one of the first things it will tell you is the Latin name. That is usually always followed by information about what other plants are in the same species.

It can also be helpful to learn a bit about the variety and cultivar of your chosen crops. You may find that one cultivar is much more suited to your growing conditions than another, because of certain characteristics it has.

Pollination

Pollination is the sexual fertilization of plants, which allows them to produce seeds (offspring).

Self-pollination

Some plants have the male and female reproductive parts together in one flower (e.g. beans and peas). These plants are self-pollinators and usually pollinate themselves before their flowers even open, making it really unlikely that any other plants could cross with them.

Cross-pollination

Most plants have their male and female parts on two flowers or even on different plants. They are able to more easily cross-pollinate, which means that any other variety within their same species could fertilize them, resulting in seedlings that don't necessarily look like the mother plant. Seed savers are usually trying to grow plants that look just like the mother plants, and so do different things to protect plants from cross-pollination, see **Isolation** (page 58).

There is a spectrum from plants that strongly inbreed (it's very likely they will self-pollinate) to others that strongly outbreed (it's very unlikely that they will self-pollinate) with lots of plants in between. When you save seeds it is really helpful to know where your plants fall on the spectrum so that you know whether they need special treatment in order to create the seeds you want. You can find that information out from seed retailers and catalogues or from seed saving guides like the ones in the **Resources** section (page 86).

Tip: Don't Stress!

Don't stress out about seed species and varieties if it seems confusing. The worst thing that can happen if you accidentally plant two of the same species together for seed is that you may end up with some really neat and unexpected crosses. They'll still be edible and can be fun to show off to fellow gardeners. Seed saving is all about trial and error and experimenting!

Pollen Dispersal

Pollen dispersal means moving pollen from one plant to another. Pollen contains the male reproductive material that needs to reach the female parts of the plant in order to fertilize them. Pollen gets help from wind, insects or birds that transport it. Self-pollinating plants have things easier because their pollen doesn't have far to go, sometimes just between two parts of a single flower. Plants that don't self-pollinate depend on wind, insects and birds to sometimes take their pollen long distances. Many seed savers also care about protecting the diversity of insect and bird communities as well and see the connection between living things.

Hand Pollination

You can see why pollination isn't always easy. Perhaps in the past you grew plants that produced no vegetables or fruit even though they seemed healthy. It could be that there was:

- not enough plants in the area to share pollen
- too few pollinating insects or birds
- too little wind or too much wind
- poor weather conditions for pollen to survive- too hot, too cold, too rainy

Quote

"If compost is the life source of the garden, seeds are the life spark. I have always marveled that a carrot, bunch of celery, or cabbage could be hidden in such a tiny speck. Yet that small seed is a powerhouse of performance."

– Eliot Coleman, *Four Season Harvest*

In those conditions gardeners can choose to hand pollinate plants. Hand pollination happens when you take pollen from the male part of a plant and use it to manually fertilize the female part of the same plant or another plant. Sometimes this is done by removing the stamen (male reproductive part) from a flower and rubbing it against the pistil (female reproductive part) of a flower in order to transfer pollen. It can also be done by using a paint brush or cotton swab to dust off the pollen and paint it elsewhere. In Newfoundland and Labrador hand pollination is recommended for some crops (e.g. summer and winter squash) because we have less of the pollinating insects that other places do and we also often have weather conditions that can make it difficult for pollen to travel safely. Talking to fellow gardeners in your area is a good way to find out what plants they find do better with hand pollination.

Note: Rogue throughout the Season

When you rogue you are removing any plants that you think shouldn't be kept around for seeds. There are a few reasons why you might rogue plants:

- They didn't sow true and look different from the others (hybrids)
- They aren't as healthy or big
- They don't have the characteristics you're trying to promote
- There isn't enough room for them to mature
- They are infested with insects or were damaged by pests

Be sure to remove the entire plant when you rogue, roots and all, so that it is no longer taking any resources away from surrounding plants and so that any damage or infestation doesn't spread. It's important to regularly rogue your seed plants so that at the end of the season when you harvest seed, you are getting it from the best plants possible. That doesn't mean you should waste any plants though. Harvest the edible parts of the plants you rogue for food and add scraps to your compost bin.

Hybrid and Open-pollinated Plants

When you save seed it is very important to do so from open-pollinated plants rather than from hybrids.

Hybrid varieties are created by crossing two distinct parent plants from different varieties. They are created in nature through pollination and also manually by plant breeders. The offspring that result (called F1) are different from both their parents. Seed companies do this in order to enhance valuable characteristics from both parent plants, like ideal shape or colour. It's fine to use hybrid varieties if you are only growing plants for one season to eat because you may benefit from the special characteristics that hybrids have.

The problem for seed saving hybrid varieties is that the next generation of seeds (F2), the ones you are saving, are not always fertile and if they are fertile sometimes they don't look anything like their hybrid parents. They may even look like the wild ancestors of those plants! So if you save seed from hybrid plants, then next year you might get no new plants or you might get unsuccessful surprise plants that aren't what you wanted to grow. Seed companies identify their hybrids with the notations Filial 1, F1 or F. It's usually not a big secret if a seed is a hybrid. Seed companies are often proud of the successful hybrids they've created and if gardeners aren't saving seeds, hybrids aren't a problem. If you're not sure if a seed variety is hybrid then ask your seed retailer or search online to find out.

Left to Right: kale, rat-tailed radish

Open-pollinated varieties are produced when plants within the same variety mate. They produce fertile offspring that resemble their genetically similar parents. Seeds that turn into plants that look like their parents are said to have 'come true' or 'sow true' or are called 'true seed'. Open-pollinated varieties have all the traits that are associated with their unique variety. They are usually heirloom and their traits have been slowly cultivated over generations to make them resilient. To ensure success, seed savers should look for open pollinated varieties. Many seed companies specialize in producing open-pollinated, heirloom and organic seeds, so look for those terms in their catalogues. Alternatively, connect with other seed savers locally or through online seed exchanges and swap seeds with them to try.

Isolation

Self-pollinating plants (e.g. beans, peas) are the easiest for beginner seed savers to work with because they are likely to produce new plants that are just like the ones from the year before. Before you decide which plants to save seeds from, use the **Resources** section (page 86) to look up varieties and find out whether they self-pollinate or cross-pollinate. Choose self-pollinators for the best results on your first try.

You can certainly still save seed from cross-pollinating plants; it's just a bit trickier. You need to protect the plants from being pollinated by a different variety, resulting in offspring that doesn't come true. Keeping plants separate so that they don't accidentally pollinate each other is called isolation. There are a few different ways to isolate plants:

- Plant cross-breeding varieties far away from each other. When you look up plants in seed saving guides they usually list an isolation distance. That's how far apart you should keep the plants to be sure that they won't reproduce together. Sometimes it can be a huge distance, like many kilometers; which means you couldn't have them both in a backyard or community garden and still be sure they won't cross. The species name of the plant is also a good way to tell if they will cross-breed. See **Species and variety** (page 54) for more information on plant names. Use this chart as a resource to find the isolation distances for your crops or look for similar charts in other seed saving guides: http://howtosaveseeds.com/table.php#table

Onion seed head

- Rotate your seed crops. Decide to grow plants each year that won't cross with each other and then alternate from year-to-year what you grow.
- Plan plantings so that similar varieties bloom at different times and are less likely to pollinate each other. Do one seed crop early in the season and another late and consider removing the first from the garden before the second crop blooms.
- Protect the plants with some sort of physical barrier that will keep the pollen from other varieties out. Try row cover fabric, greenhouses, bags, cloches, or cold frames. The only problem with physical barriers is that they might also keep out wind, insects, and birds that help your plants pollinate themselves, so be sure your plants are still getting pollinated however they need to.
- Learn the scientific names of some of the common wild plants around your garden and see if they match with your crops. Wild plants in the same species as your garden plants could cross. For example, carrots are related the wild flower Queen Anne's lace, also called wild carrot. They're both from the species *Daucus carota*. There are many excellent guides to the wild plants of Newfoundland and Labrador available at your local library and bookstore to help you out.

Annuals and Biennials

When you save seed, you need to know how long it takes for plants to produce seed that is mature enough to harvest. The following excerpt from *A Seed Saving Guide* by the Organic Seed Alliance explains annuals and biennials:

> "An annual crop requires only one growing season to produce seed and complete its lifecycle. Examples of annual seed crops include corn, beans, squash, tomatoes, and broccoli.
>
> A biennial crop requires 2 growing seasons to produce seed and complete its lifecycle. Examples of biennial crops include carrots, beets, chard, rutabaga, and cabbage. In the first season, a biennial grows into the plant that we normally eat. If the following three criteria are met, a biennial will flower and set seed in the second season.
>
> First, over winter, the plant must go through an important period of vernalization (exposure to cold) before it will flower. The specific amount of time that biennial crops need to become vernalized varies by crop and variety. But exposure to temperatures below 50°F (10°C) for at least 8 to 12 weeks is adequate for all common biennial vegetable crops.
>
> Second, by the fall of the first season the plant must be appropriately sized. Plants that are too small may not reach full size before flowering, resulting in lower seed yields. In other cases, very small plants may not respond to vernalization; never flowering and setting seed. Plants that are too large may not be hardy enough to survive in the field over the winter…
>
> Third, the plant must survive the winter. Successful overwintering mainly depends on cool (but not too cold) temperatures. In areas where winter temperatures do not regularly drop below 14°F (-10°C), most biennial crops may remain in the field over the winter. In this case, it is especially important that the plants be small (i.e. hardy) enough to withstand cold temperatures. Where temperatures do regularly drop below 14°F (-10°C) the crop must be lifted and stored in a cool (but not freezing) location. Digging up the crop for storage offers an opportunity to discard any plants that show undesirable characteristics in root shape, flavour, size and texture, and to check for insect or disease infestations. Storing your crop over the winter may also provide better protection from pests and disease. Replant your stored roots in the spring." (p. 4)

Use *A Seed Saving Guide* by the Organic Seed Alliance, listed in the **Resources** section (page 86), to find out if your crops are annuals or biennials, get sizing information and tips on overwintering.

In Summary

Learn the following things about your seeds before you plant them to save seed:

Growing garlic to save bulbs for planting

- Their names- species, variety, cultivar
- Do they usually self- or cross-pollinate?
- What other plants might they cross with? (figure this out from their names)
- Do you need to isolate them?
- Will they do better if you hand pollinate?
- Are they annuals or biennials?
- If they are biennials, what conditions do they need to over winter?

Most of this information is available in seed catalogues or in seed saving guides like in the **Resources** section (page 86) when you look up your specific crops. If you are still in doubt, contact seed retailers directly or talk to fellow gardeners that save seed and see what their experience has been with those crops. Root Cellars Rock also hosts a forum on the blog where you can post questions to other gardeners and share answers: www.rootcellarsrock.ca/forum/

Step 2: Harvest Seeds and Clean Them

Seeds are usually categorized as being either dry or wet and there are different harvesting and cleaning techniques for each. In this section we will describe both briefly. For more detail on harvesting seeds from the particular plants you choose to grow, refer to the seed saving guides listed in the **Resources** section (page 86). For practice harvesting seeds, refer to the **Activities** (page 71).

Harvesting and Cleaning Dry Seeds

Dry seeds are ones that naturally dry out on the plant and can be harvested mostly dry from the plant. Most of the seeds in your garden are likely dry ones. Some great seeds for beginners to save first are beans, peas, lettuce and salad greens, which are all dry seeds and all self-pollinate. For more information to get started saving those dry seeds, refer to the **Activity: Saving Dry Seeds** (page 73). There are two common ways to harvest dry seeds, described below.

The following is adapted from Dan Rubin's information sheet *Basic Seed Saving*, which can also be found on Root Cellars Rock: www.rootcellarsrock.ca/2010/09/eat-atlantic-day/

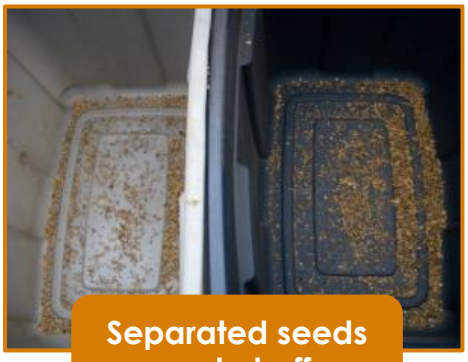
1) Corn & garlic: Allow the seeds to dry naturally on the plants. Wait until the plant is fully matured and then harvest it. Leave the husk or the bulb on the plant and hang the whole plant to dry either on their own or in a paper bag. Once fully dried, kernels or cloves can be removed and stored. Twist corn husks in your hands to make the kernels fall of.

2) Lettuce, arugula, cabbage, broccoli, kale, peas, and beans: Collect dry seeds from plants. Let the plant mature until seed pods are dry and ready to fall off. For small seeds, shake or strip the seeds from the pod into a paper bag. For bigger seeds like beans and peas, remove each pod from the plant by hand.

Once dry seeds are removed from the plant, you need to clean them by separating the seeds from the chaff. Chaff is any debris that came with the seeds when harvesting, like leaves, pods, or bits of fluff. There are a few different ways you can separate the seeds from the chaff, choose the one that makes sense for your crop:

- ***Hand picking:*** carefully separate the chaff from seeds by hand. This method is usually only used for small quantities of seeds.
- ***Winnowing:*** toss seeds into the air when there is a moderate breeze or in front of a medium-strong fan. The lightweight chaff will blow further away and the heavier seeds will drop down in front of you. This can be done over a tarp or bins.
- ***Blowing:*** with heavier seeds, place everything on a tray or in a large dish. Use a hair dryer or reverse vacuum to blow the lightweight chaff away from the seeds.

Winnowing: the heavy, mature seeds fall into the 1st bin, the lighter chaff into the 2nd



Separated seeds and chaff

- ***Threshing:*** rub or beat the seeds to separate them from the chaff. This can be done by rubbing the seeds in your hands, putting them in a cloth bag and banging that around, or laying the seeds on soft ground and using your feet or a solid object to break up pods. There are also threshing machines that are used for large quantities of seed.
- ***Sieving:*** use screens that will only let through either the seeds or chaff, separating the two.

Sieving

Harvesting and Cleaning Wet Seeds

Wet seeded crops include many summer and winter squash, tomatoes, eggplant, and some fruit. Wet seeded crops are ones where the seed is surrounded by a soft, wet, pulpy material. They don't dry out on the plant like dry seeded crops.

Let wet seeded crops continue to ripen long after you would normally harvest them to eat, for some crops up to 2-3 months extra. Ideally you want to let the crop continue to ripen still attached to its vine, but if frost is coming or if you are worried about pests then you can harvest the crop and store it somewhere safe to let it ripen.

Note: Tomato & Cucumber Seeds

Tomatoes and cucumbers are unique. Their wet seeds are surrounded by a gel that stops the seeds from germinating and protects the seeds from disease. In nature that gel would break down over time, but seed savers need to break it down faster so that they can dry and store their seeds. To do so they ferment the seeds, which means letting the seeds sit in water and develop bacteria and mold that breaks down the gel. For more information on how to harvest tomato seeds, refer to the **Activity: Saving Tomato Seeds** (page 75).

There are a few different ways to harvest wet seeded crops. The goal of each method is to separate the seeds from the pulpy residue that surrounds them. Choose the method you think is easiest for your crop or use a combination:

Soaking: Let the seeds and pulp sit in a container full of clean water for up to 8 hours. The soak will slowly separate much of the seeds and pulp. You may still need to rinse the seeds more afterward.

Rinsing: Put the seeds and pulp in a strainer (colander) or on a screen with holes small enough that seeds will stay on top. Run a strong flow of clean water over the pulp and seeds and at the same time use your hands to rub the pulp off the seeds.

Quick Tip

If you have access to dry or wet seeds that are ready to harvest, then you could use them to demonstrate the methods in the previous two sections to the group.

Decanting: Decanting is the only method that will also separate viable (living seeds) from unviable (dead) seeds; often seed savers decant after also soaking or rinsing seeds. Put the seeds and pulp in a big container and cover with about four times as much clean water. Put your hand in and rub the pulp and seeds around a bit to loosen things up. Wait a few minutes and you will see that good seeds sink to the bottom and dead, lightweight seeds float to the top. Skim off the dead seeds and any pulp from the top. Pour the water and good seeds through a screen or strainer and then start over with new water, following the process another 3-6 times until the seeds are clean.

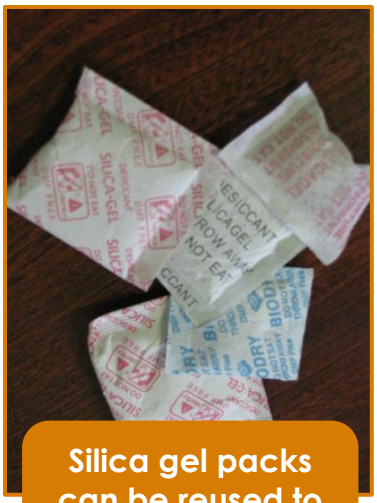
Step 3: Dry Saved Seeds

Now that you've harvested and cleaned your seeds, it is time to finish drying them completely. Drying the seeds thoroughly is extremely important and if it isn't done well then your seeds are much less likely to germinate next year.

Here are the steps for drying seeds:

1. Spread seeds out on a screen or tray in a warm (not above 35°C), dry place that has good air flow.
2. If there isn't a lot of air flow, set up a gentle fan near the seeds.
3. Stir the seeds occasionally so that they dry on all sides.

Small seeds should dry within a week or two and larger seeds may need longer. Letting seeds dry outdoors can work on warm, sunny days but don't leave them out to get damp or rained on. Your furnace room can be a good place to dry seeds if it doesn't get too hot.



Silica gel packs can be reused to keep seeds dry

There are a few simple tests that you can do to see if your seeds have dried enough:

- For flat seeds, like from squash, try bending a seed. If it snaps in half then they are dry enough, but if it is rubbery and bends, then they need to dry out more.
- For round or small seeds, place a seed on a hard surface and hit it with a hammer. If it shatters apart or powders, they are dry enough. If it gets squished or turns to mush, they need to dry out more.

Be absolutely sure that seeds are dried before storing them! Moisture can cause seeds to start germinating prematurely or to rot, which means you won't be able to grow anything from them next year. Once seeds are dried, store them right away so that there is no chance that they will get moist again.

Step 4: Store Saved Seeds

Now that your seeds are dried, it's very important to store them properly so that they will still be viable when you want to grow them.

Start by packaging seeds in small amounts in paper envelopes or paper bags. Think about how you plant seeds during the growing season and let that guide how many seeds you put in each envelope. If you plant in rows, perhaps store a row's worth of seeds in each envelope; if you do square foot gardening, package enough seeds for one or two squares; or if you broadcast seeds over a big area, like salad greens, then put enough together to do one section of your garden. If you plan on saving seeds again next year, package enough for your seed section

Note: Seed Envelopes

You can reuse old envelopes and bags to store seeds, just be sure they are clean and dry. Envelopes from bills with plastic windows in them are helpful for identifying seeds later. Small coin-size envelopes also work well. Or you can even print off fun custom seed envelopes free online, like this one: http://heavypetal.ca/freebies/

of the garden. It's important not to fill envelopes with too many seeds because that makes it more likely that seeds will be damaged or wasted when planting in the spring.


Various seed packets

As soon as you fill an envelope with seeds, label it. Put as much detail as you can on the envelope so that when you go back to the seeds next year, there is lots of information. Consider writing the following on your seed packets:

- Seed name- common and Latin
- Date when the seeds were harvested
- Best before date so you know how long to store the seeds (see **Note: Storage Times**, page 68).
- Where you originally got the seeds from
- Tips for growing the seeds- germination tips, planting dates, weeks to maturity, watering, light, soil preferences, etc.
- Additional details like flavour and colour
- Anything else you think could be useful!

If you plan to package a lot of seeds it can be tedious to write all of that out by hand on each envelope. Instead, print computer labels or record information once on a master list and write just the name on each seed envelope. It's a good idea to save that master list on your computer or in a place that you definitely won't lose it.

Once the envelopes are all prepared, store them inside a container with a tight lid. Reused glass jars, metal tins and plastic food storage containers work well. If you are storing a lot of seeds, label the containers in some way and store like-seeds together. For example, put your kale and Swiss chard seeds together and label the container 'Cooking Greens'.

Place seed containers in a place that is:

- cool
- dry
- dark (if containers let light in)
- safe from insects and rodents

Seeds

Seeds are dormant, waiting until they are exposed to the conditions they need to germinate. You want to keep them dormant, so limit exposure to moisture, light, and warmth. Hopefully your home has a place that is cool, dry, dark and protected from pests. Examples might be a cupboard or storage room. If not, you can also store seeds in a refrigerator or freezer. Refrigerators work for shorter-term storage from one growing season to the next, but for long-term storage use the freezer.

Tips for storing seeds in the refrigerator or freezer:

- When you remove seeds from the refrigerator or freezer, do not open the container right away! Let the container warm to room temperature before opening it to avoid condensation building up on the seeds.
- Place seed containers at the back of the refrigerator or freezer so that they are less affected by temperature changes when the doors open.
- Do not store seeds in the doors of refrigerators or freezers.
- Store seeds in an envelope and then inside another tightly sealed container, to avoid freezer burn and moisture build-up.
- Try not to take seeds out and thaw them until you absolutely need to. Re-freezing may kill seeds.

Dry grains (such as rice) or silica gel can be used to absorb moisture if you think seeds might not stay dry enough where they're stored. Put a layer of dry grains in the bottom of your seed container and then a layer of cotton balls, and place the seed envelopes on top. Little packets of silica gel often come with new clothing and shoes and you can save them to put into your seed containers; or ask at a local clothing or shoe retailer and see if they will set some aside for you. If you plan to save a lot of seeds then you can purchase bulk silica gel at some garden centres or order it online. Be sure to follow the manufacturer's instructions.

Video: Storing Seeds

Here is a short video on storing seeds. Note: they use plastic bags rather than envelopes which is fine as long as the seeds are dried before storing: http://youtu.be/Yzq67rknlpc

Note: Storage Times

Some seeds can only be stored for one winter before they become less viable, while others may last a few years. Be sure to label seeds with a best before date. Ideally, use seeds as soon as possible so that they are most likely to succeed. Here is a guide for storage times, from the book *Country Wisdom and Know-How*:

One year: chives, garlic, onions, sweet corn, parsley, parsnips

2-3 years: asparagus, celery, peas, beans, carrots, kohlrabi, leeks, parsnip, peppers

4-5 years: beets, broccoli, Brussels sprouts, cabbage, cauliflower, collard, cucumber, eggplant, fennel, kale, lettuce, melons, pumpkins, radishes, rutabaga, spinach, squash (summer and winter), Swiss chard, turnip, tomato, watermelon

Tips for storing seeds safely:

- Do not remove seeds from storage until you absolutely need to.
- Exposure to changes in temperature and moisture can damage seeds, so keep them somewhere that is constantly cold and dry.
- When removing seeds from refrigerators or freezers, do not open the container right away. Let the container return to room temperature first.
- To avoid mold and mildew be sure that seeds are very dry before storage. If you notice moisture on the inside of the seed container, take the seeds out and dry everything. Put a few packets of silica gel or dry grains in with the seeds when you store them again.
- If insects are a concern, you can try one of these three things:
    1. Store seed containers in a freezer to kill insects.
    2. Mix in some food safe diatomaceous earth with the seeds before storing them. Food safe diatomaceous earth can be purchased at garden centres and it is made up of tiny, sharp fossils that insects won't stand or land on. It is also great for sprinkling around your garden beds to deter pests.

3. Store dried bay leaves with your seeds. Dried bay leaves can be purchased in the spice section of grocery stores and are commonly used in cooking.

For pictures to help explain seed storage, use this website: http://mrbrownthumb.blogspot.com/2010/11/how-to-store-seeds-you-saved-from-your.html

Step 5: Grow Saved Seeds

The following year when you grow the saved seeds, do so as you would normally for that crop if you had purchased the seeds. Perhaps also make observations and take some notes along the way so that you can improve your seed saving skills each year. For detailed information on how to grow different types of crops:

- look up your crops in the guides in the **Resource** section (page 86)
- refer back to the seed instructions or catalogues that came with your first batch of seeds
- check out the Root Cellars Rock blog: http://rootcellarsrock.ca/
- borrow gardening books from your local library
- talk to local gardeners where you live

Note: Germination Tests

You may want to do a germination test before planting your saved seeds, to see how many are likely to grow and to find out how successful your seed saving was. Usually a germination test involves sprouting 10 seeds to get a percentage for how viable the seeds are. If 7 out of 10 seeds germinate, you have achieved a 70% germination rate. Record the germination rate for your saved seeds each year and try to improve. If you discover a low germination rate, try to figure out why. For full instructions on how to do a germination test, watch this video: http://youtu.be/2vNR3vuvKXw

Many people who save seeds take time to document their experiences so that each year they can get better at seed saving. For example, you may want to record information with notes, photos, drawings, dried samples, etc. Consider recording certain information depending on the reasons why you saved seeds. If you saved seeds to:

- ***Cut back on your gardening costs***, keep track of whether that worked. How much money did you spend on seeds in your first year? And how much are you saving the next years by planting your own? If you had grown food in the seed patch instead, would it have been more valuable? Knowing these things can help you decide which seeds to save, and which seeds it is cost-effective to buy each year.
- ***Cultivate locally acclimated plants***, did that experiment work? After selecting from healthy plants that survived wet weather and pests, what happened the next year? Record your observations, noting successes and failures. Keep in mind that breeding plants how you want may take several growing seasons. Start off with seeds that are already locally familiar and share your seeds with other local gardeners as you save them so that they can be planted in several places.
- ***Preserve natural diversity and protect heirloom varieties***, what were the results? Did the heirloom varieties work well in your garden? Did you notice any new insects or birds showing interest in those plants? Share what you learn and the seeds you save. Organize a seed swap, take pictures and talk to fellow gardeners. Part of preserving plant diversity is sharing the stories of seeds, and your story can help others. Seeds of Diversity is a Canadian organization committed to seed preservation, and they're a great place to start if you want to connect with others: http://www.seeds.ca/en.php

Dried peas

Activities

(40 minutes)

Name That Seed

This activity is appropriate year-round. It can be done indoors or outdoors depending on the chosen variation. Use of a computer with internet access and a projection screen is necessary if you choose Variation 1.

Materials

Variation 1: Online Game

- Computer with internet access and the Name That Seed website: http://usc-canada.org/name-that-seed/
- Projection screen (recommended)
- Pens and paper (optional)

Variation 2: Hands-on Game with Seeds

- A variety of seeds of different shapes, sizes and colours
- Small containers for each type of seed
- Short descriptions of each type of seed with trivia or useful tips, for information to put this together use the **Resources** section (page 86).
- Photos of the plants or vegetables associated with each type of seed (optional)
- Pens and paper (optional)

Variation 1: Online Game

Step 1: Let participants know that you are going to do a quick and fun Name that Seed game with them. Open up the online quiz for everyone to see.

Step 2: Go through each question as a group, taking turns to read questions and answers aloud. Give participants time to think about and discuss their ideas before moving on to the answers.

Step 3: Use the Name that Seed game as a starting point for group discussion. Ask participants to share stories or information they have about the different seeds in the quiz (or other seeds) and the experiences of planting, growing, harvesting, saving seed, and cooking. Were there many seeds in the quiz that they had never heard of before? Do participants grow any plants in their gardens that are unusual?

Variation 2: Hands-on Game with Seeds

Step 1: Prepare the seeds you are going to pass around, each in their own container. Know how many types you have and what they are, as well as a bit of practical information or fun trivia about each.

Step 2: If using pen and paper, ask participants to number their sheets according to how many seed types you have provided (Example, 1-10). Pass the containers of seeds around the group and let participants look at them and touch them. Ask participants to write down their guess for what each seed is.

Step 3: Once all the seeds have been passed around ask participants to volunteer their answers and also share the correct answers, pictures and trivia.

Dill seeds

Use the Name that Seed game as a starting point for group discussion. Ask participants to share any stories or information they have about the different seeds (or other seeds) and the experiences of planting, growing, harvesting, saving seed, and cooking. Were participants surprised to find out what some of the seeds were? Do participants grow any plants in their gardens that are unusual?

Saving Dry Seeds

Head lettuce gone to seed

Ideally this activity should be done in the fall outdoors at a backyard or community garden, scheduled to match up with when seeds are ready to be harvested. If an outdoor workshop at the right time isn't possible then whole plants can be harvested ahead of time and brought indoors for the activity. Store seed plants in paper bags in a cool, dry place until you are ready to use them.

Materials

- Outdoor plants ready to be harvested for seeds or plants already harvested whole and brought indoors (Example, beans, lettuce, peas, salad greens)
- Small paper bags
- Bowls
- Pens
- Computer with internet access and one of the following videos, depending on what seeds you choose to save:
    - Beans (also applies to peas) – Saving Seeds: The mighty green bean http://youtu.be/52-4x0WNEWs
    - Lettuce (also applies to other salad greens) - Saving Lettuce Seeds: A Simple How to Harvest (Urban Organic Grower) http://youtu.be/Ltfqd2JR1IU

Step 1: Prepare for the activity by letting a few plants in a garden go to seed. If you plan to use the seeds next year, choose plants that did well and are big and healthy. It may take up to six weeks after you would normally harvest the plants for food for the seeds to be ready. For beans and peas, let the pods dry out so that the seeds inside rattle around. For lettuce and salad greens, let flowers develop and then turn into fluff that can be easily picked off. You should watch the videos above for the plants you have chosen so that you can demonstrate to your group how to harvest the seeds. If you are doing the workshop outdoors, leave the plants as they are and take your group outdoors to demonstrate. If you are doing the workshop indoors, cut some of the plants off at their bases and bring the whole plants indoors to demonstrate.

Step 2: After watching the videos, you should understand how to remove seeds from the plant you have chosen. Demonstrate to the group how to remove

seeds from the plants. Use the paper bags to catch the seeds along with their chaff.

Step 3: Give participants time to harvest seeds into their own bags.

Step 4: Pour the harvested seeds into bowls. Have participants pick through the seeds. Discard any chaff and damaged seeds into a compost bin.

Dried beans

Step 5: Divide up the seeds among the group so that everyone can take some home to plant next year. Give participants information about the seeds to write on the paper bags.

Step 6: Remind participants that they still need to dry their seeds at home for a few weeks before putting them into storage. This is a good time to review some of the key points from the workshop on drying and storing seeds.

Step 7: Clean up with the help of participants.

Tomatoes

Saving Tomato Seeds

This workshop can be done indoors or outdoors and it is possible to do it any time of the year that you have ripe tomatoes available that are open-pollinated. See **Hybrid and Open-pollinated Plants** (page 57) and **Note: Tomato & Cucumber Seeds** (page 63) for more information. This activity is adapted from Matt Middleton's post on Root Cellars Rock: http://rootcellarsrock.ca/2011/04/saving-tomato-seeds/

Materials

- Very ripe, open-pollinated tomatoes, one per participant
- Small glass jars, one per participant
- Plastic wrap
- Elastic bands, one per participant
- Sharp knives, one per participant or less to share
- Spoons, one per participant or less to share
- A printed copy of these instructions, one per participant
- Water, preferably non-chlorinated
- Jars of seeds at different stages of fermentation, prepared in advance, to show participants (optional)

Note: Chlorinated Water

Chlorine in water can kill tomato seeds. If your tap water is chlorinated, use a filter or let water sit for a few days uncovered to let the chlorine evaporate.

Demonstrate *Steps 1-4* to participants. Give them time after each demonstration to do the action themselves.

Step 1: Cut tomato in half. Cut through the middle of the tomato rather than from stem to bottom.

Step 2: Scoop out all the seeds and pulpy gel from inside the tomato into the jar.

Step 3: Pour filtered water onto the seeds, covering the seeds by about an inch. After that, stir the seeds, gel and water around in the jar.

Step 4: Cover the jar with plastic wrap and secure the wrap over the top of the jar with an elastic band. Next carefully use the knives to poke a few holes into the plastic wrap.

Step 5: Show participants the jars of seeds you prepared in advance, that are now at different stages of fermentation, so they know what will happen to their seeds. Let participants know that they should take their tomato seeds home and do the following:

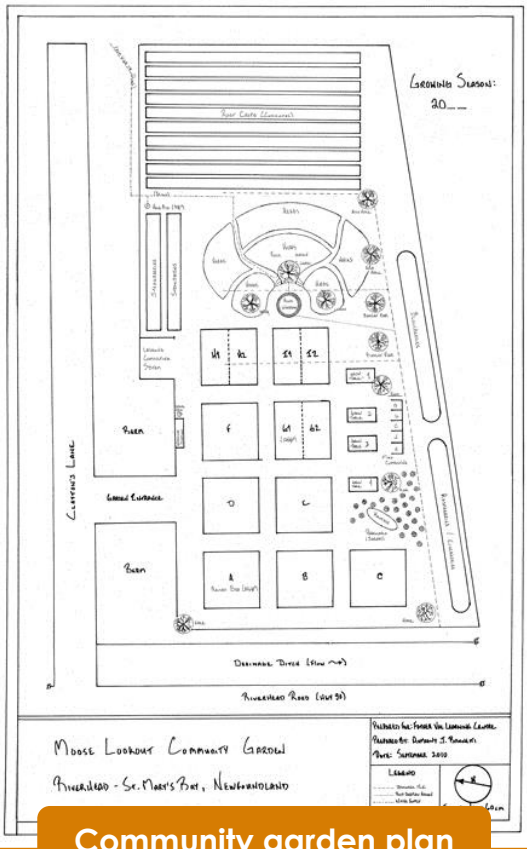
- Place the jar in a warm spot.
- Stir the contents of the jar every few days.
- Let the mixture ferment for a few weeks.
- When it starts looking kind of gross (milky, maybe moldy) and the seeds are sitting on the bottom of the jar, they are ready to dry.
- Skim off any seeds that are left floating, they are probably not viable.
- Pour the mixture through a strainer so that the seeds are left and liquid/gel goes down the drain.
- Rinse off the seeds in the strainer with non-chlorinated water (see **Note: Chlorinated Water**, page 75)
- Spread the seeds out flat on a dry surface somewhere warm with good air flow. Let them dry there for a few weeks, stirring them around occasionally.
- Once the seeds are dry, store them according to the instructions in **Step 4: Store Saved Seeds** (page 65).

Dried cherry tomato seeds (top) and tomato seeds (bottom)

If they are interested in learning more, direct participants to the Root Cellars Rock blog where full instructions are also available along with more information on saving tomato seeds: http://rootcellarsrock.ca/2011/04/saving-tomato-seeds/

Adding Seed Saving into a Garden Design

This activity is appropriate for any time of the year and is best done indoors at tables. There are variations for participants from a community garden interested in saving seed together and for individuals backyard gardening.



Community garden plan

Materials

Variation 1: Community Garden

- Large sheet(s) of paper, poster sized
- Pencils, one per participant
- Markers or other colouring tools
- Scrap paper

Variation 2: Backyard Gardens

- Paper, preferably larger than 8.5 x 11
- Pencils, one per participant
- Markers or other colouring tools
- Scrap paper

Variation 1: Community Gardens

Step 1: Explain to participants that they are going to be designing a layout plan for their community garden that includes a few spots were plants can be grown for seed. Using the information they learned in the workshop today they should decide which plants they want to grow for seeds and where.

Step 2: Give participants time as a group to brainstorm what plants they usually grow at their garden and to draw a rough sketch of the garden layout. It is not necessary for this to be perfect, a better copy can always be made later. This activity is mainly about coming up with ideas.

Step 3: Give participants time to plan out where they could include seed plants in their garden design and what plants they would like to save seed from. Refer back to information from the workshop wherever it could be helpful. If you have access to books on seed saving, then perhaps share those around for people to use as reference. Keep in mind factors like:

- isolation

- annuals/ biennials
- heirloom varieties and plant diversity
- seed costs
- space for plants to grow bigger than normal
- cultivating characteristics that are valuable to the group

Step 4: Display the draft design for the group to see and discuss. Record some next steps so that the group continues working towards seed saving after this workshop. Have a group discussion about any issues that come up when designing for seed saving and try to discover solutions together.

Variation 2: Backyard Gardens

Step 1: Explain to participants that they are going to be designing a layout plan for their backyard garden that includes a few spots where plants can be grown for seed. Using the information they learned in the workshop today they should decide which plants they want to grow for seeds and where.

Step 2: Give participants time to independently brainstorm what plants they usually grow in their garden and to draw a rough sketch of their garden's layout. It is not necessary for this to be perfect, a better copy can always be made later. This activity is mainly about coming up with ideas.

Step 3: Give participants time to plan out where they could include seed plants in their garden design and what plants they would like to save seed from. Refer back to information from the workshop wherever it could be helpful. If you have access to books on seed saving, then perhaps share those around for people to use as reference. Keep in mind factors like:

- isolation for pollination
- annuals/ biennials
- heirloom varieties and plant diversity
- seed costs
- space for plants to grow bigger than normal
- cultivating characteristics that are valuable

Step 4: Going around the group, ask anyone who is comfortable to share their design and the rationale behind it. Brainstorm next steps that participants can take to get their seed saving plan going after the workshop. Have a group discussion about any issues that come up when designing for seed saving and try to discover solutions together.

Conclusion

(15 minutes)

Dried carrot seeds

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 seed saving 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 86) 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 Form** (page 84) 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 this see **Evaluation and Follow-up** (page 13).

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

We hope you enjoyed the Seed Saving Workshop!

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- Page 52: **The Real Seed Catalogue (www.realseeds.co.uk)**
- Page 54: **Camille Cody**
- Page 58: **Rachelle Batstone**
- Page 59: **Camille Cody**
- Page 61: **Rick Kelly**
- Page 62: **Camille Cody** (top and bottom)
- Page 63: **Camille Cody**
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- Page 74: **Rick Kelly**
- Page 75: **Kristie Jameson**
- Page 76: **Rick Kelly**
- Page 77: **Father Val Power Learning Centre Community Garden**
- Page 79: **Rick Kelly**

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

Camille Cody's photos can be found on her blog: Tracing Terroir (tracingterroir.wordpress.com)

3.3. Supplementary Materials

Sample Agenda

Workshop Agenda
Seed Saving

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

ROOT CELLARS ROCK!

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:
[ ] food security
[ ] container gardening
[ ] composting
[ ] seed saving
[ ] edible wild plants
[ ] using culinary herbs
[ ] preparing local vegetables
[ ] canning/bottling
[ ] root cellars
[ ] 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 <u>before</u> attending the workshop:

Little Understanding				Very Knowledgeable
1	**2**	**3**	**4**	**5**

9. Please rank your understanding of today's topic <u>after</u> 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.

Picking: Seed Saving Resources

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

Websites

A Handful of Seeds: Seed Saving and Seed Study for Educators (Occidental Arts and Ecology Centre)
www.oaec.org/school-garden-teacher-training-and-support-program-0/

A Seed Saving Guide for Gardeners and Farmers (Organic Seed Alliance)
www.seedalliance.org/download-form-1/

Basic Seed Saving by Dan Rubin, Perfectly Perennial Herbs and Seeds (Root Cellars Rock)
http://rootcellarsrock.ca/2010/09/eat-atlantic-day/

Basic Seed Saving (International Seed Saving Institute)
www.seedsave.org/issi/issi_904.html

Going to Seed: Growing Organic Seed in Eastern Canada (blog) **http://goingtoseed.wordpress.com/**

Isolation Distances (Vegetable Seed Saving Handbook)
http://howtosaveseeds.com/table.php#table

Saving Seed, by Alison Dyer (The Telegram)
www.thetelegram.com/Arts---Life/2011-10-19/article-2780831/Saving-seed/1

Seeds of Diversity **www.seeds.ca**

Seeds of Freedom (Film) **http://seedsoffreedom.info**

Seed Packet Pattern (Heavy Petal)
http://heavypetal.ca/freebies/

Seed Saving List of Common Crops (Sow True Seed)
http://sowtrueseed.com/seed-saving/

Seed Saving 101 (Comox Valley Growers and Seed Savers) **http://comoxvalleygrowersandseedsavers.ca/?q=node/23**

Vegetable Seed Saving Handbook
http://howtosaveseeds.com

Books

Seed Sowing and Saving by Carole B. Turner

Seed to Seed by S. Ashworth and K. Whealy

ROOT CELLARS ROCK!

Resource Sheet 3 out of 8


Photo: Sarah Ferber


Photo: MacMorran Community Centre

Videos

Banking Diversity **http://usc-canada.org/resources/audio-visual/bankingdiversity/**

Protecting the Future of Food
http://youtu.be/Uwl012o8P7I

Saving Heirloom Seed Varieties
www.growingagreenerworld.com/episode224/

Saving Lettuce Seeds
http://youtu.be/Ltfqd2JR1IU

Saving Green Bean
http://youtu.be/52-4x0WNEWs

Seed Saving Peas and Beans
http://youtu.be/cjUssS970-U

Storing Saved Heirloom Seeds
http://youtu.be/Yzq67rknlpc

FSN E-News Sign-up Sheet

FSN E-News is a monthly update of events, news, opportunities, and resources in Food Security relevant for Newfoundland & Labrador.

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