

# Root Cellars Rock

## Food Skills Workshops

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A Resource for Community Organizations in  
Newfoundland & Labrador

### Planting: Composting





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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)

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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](http://www.foodsecuritynews.com)

## Root Cellars Rock

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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](http://www.rootcellarsrock.ca).



## The 4Ps of Local Food

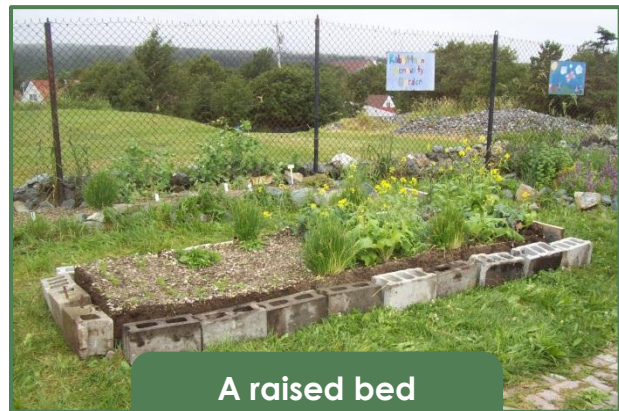
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The concept of the 4Ps of Local Food was coined by Neil Tilley, who was a Newfoundland and Labrador community organizer, organic farmer, and advocate for environmental stewardship. FSN respectfully uses the 4Ps of local food in his memory. The 4Ps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

## The Food Skills Workshops

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### 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](mailto:info@rootcellarsrock.ca)

## *How to Use the Workshops*

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

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

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

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

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

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



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

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

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

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

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

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

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

### Quick Tip

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

# Evaluation and Follow-up

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

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

Email: [info@rootcellarsrock.ca](mailto: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](http://www.rootcellarsrock.ca/children-youth)).

## Build a Welcoming Space for Adult Learners

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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](http://www.foodsecuritynews.com/resources)):

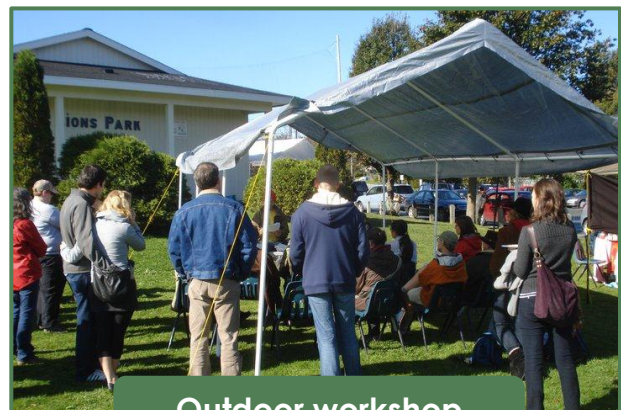
**Draw upon learners' experiences as a resource.** Adults have a wide experience base. Facilitators can help participants share their own experiences and create an environment where participants are encouraged to learn from one another. By focusing on the strengths learners bring to the workshop, learners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

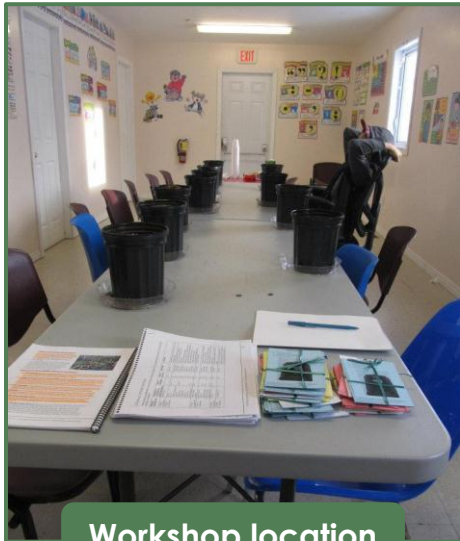
**Create a climate that encourages and supports learning.** Adults have a sense of personal dignity. They must be treated with respect at all times and never feel humiliated or laughed at before others. A safe atmosphere where learners can admit confusion and express different opinions is one that enhances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



## Location

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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

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



Community garden

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

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

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

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

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

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

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

## Materials & Budget

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

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



## Funds to Host a Workshop

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

### Fees

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

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

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

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

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

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

### Fundraising

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

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



## Donations

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

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

## Grants

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

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

## Safety

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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

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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](mailto: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](http://www.foodsecuritynews.com)
- **Promote the event through Root Cellars Rock:** Email [info@rootcellarsrock.ca](mailto:info@rootcellarsrock.ca) to find out about putting notices up on the Root Cellars Rock blog, Facebook, and twitter.
- **Spread the word:** Everywhere you go, tell people about the great workshop you are hosting and ask them to pass the word on. It's helpful to have a handout with the workshop information or a website address that you can direct people to so they will not forget the details later.
- **Share with your network:** Send emails out over listservs, put a blurb in newsletters, post notices on community boards, make a Facebook event, promote the workshop on twitter, and post the details on group websites.
- **Use free local media:** Make a radio public service announcement (PSA) or create a press release and distribute that to local media to generate interest for articles and news stories.
- **Connect with local groups:** Brainstorm about other local groups that have members that may be interested in attending and then ask if you can promote the workshop through them. For example, if you are doing a workshop on container gardening then perhaps local community gardens, horticulture clubs, community centres, seniors groups, or schools would be interested in promoting the event.



Leading a workshop

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



Having fun at a workshop

## Preparedness

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

# FSN Resources

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

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

## Root Cellars Rock online:

- The Root Cellars Rock blog ([rootcellarsrock.ca](http://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](http://www.youtube.com/user/RootCellarsRock))
- For daily local food tips, resources, and opportunities visit the Root Cellars Rock Facebook page ([www.facebook.com/rootcellarsrock](http://www.facebook.com/rootcellarsrock)) and Twitter ([twitter.com/#!/rootcellarsrock](http://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](http://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](mailto: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](http://www.foodsecuritynews.com/resources)

**10 Ways to Eat Local Food**

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

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

Contact FSN for more information on how you can take action.  
[www.foodsecuritynews.com](http://www.foodsecuritynews.com)

Food Security Network  
A Network of Leaders  
Food for all!

## FSN Fact Sheet



**Best Practices Toolkits:** FSN developed four Best Practices Toolkits for community organizations which feature step-by-step guides and resources for starting and maintaining community gardens, farmers' markets, community kitchens, and bulk buying clubs. Contact FSN to get copies or find them online at [www.foodsecuritynews.com/resources](http://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](http://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](http://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*:		
<b>Total Estimated Expenses</b>	<b>\$</b>	

\*'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:		
<b>Total Estimated Funds</b>	<b>\$</b>	

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.

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

## Appendix D: Sample Poster



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

**DATE:**

**TIME:**

**LOCATION:**

**CONTACT:**

**DETAILS:**



**[WWW.ROOTCELLARSROCK.CA](http://WWW.ROOTCELLARSROCK.CA)**

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

# Appendix E: Sample Registration Form



Return completed forms to:

## Food Skills Workshop Registration Form

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

**Name:**

**Phone  
Number:**

**Email:**

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

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

Yes     No

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

1                      2                      3                      4                      5

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

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

# Appendix F: Registration Tracking Template

Workshop Title:

Date of Workshop:

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



# Appendix G: Garden Safety

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

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

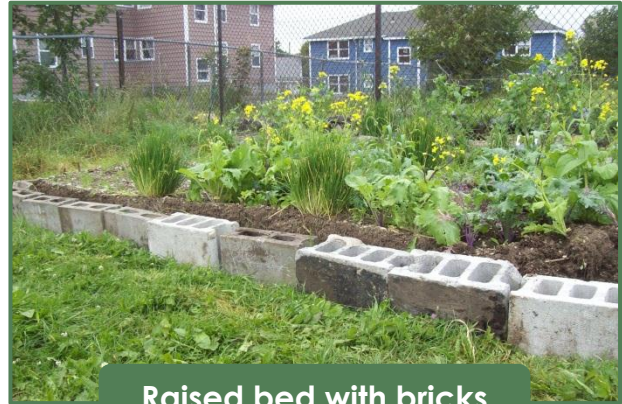
- wear a hat and adequate clothing for the weather
- apply sunscreen
- take breaks in the shade
- drink enough water to stay hydrated
- eat enough healthy food to maintain energy
- pace yourself and be aware of your physical limits
- stretch after vigorous activity or keeping to one position for a long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

## **2. Stay safe when using garden machinery and tools:**

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

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

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



Raised bed with bricks

### 4. Ensure food safety in the garden:

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

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

# Appendix H: Food Safety

For more information on food safety visit:

[www.health.gov.nl.ca/health/publichealth/envhealth/foodsafetyinfo.html](http://www.health.gov.nl.ca/health/publichealth/envhealth/foodsafetyinfo.html)

**FOOD SAFETY  
SERVED HERE**

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

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

### **Handle perishable foods safely**

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

#### **Avoid the temperature danger zone!**

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

#### **Cross contamination control:**

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

#### **Thaw frozen food safely**

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

#### **Cooking food thoroughly**

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

#### **More food safety tips**

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

**Food Safety Awareness**

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

**CLEAN:**

Wash your hands frequently with soap and water.

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

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

**COOK**

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

**CHILL**

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

**SEPARATE**

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

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



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

**Food Safety Awareness**

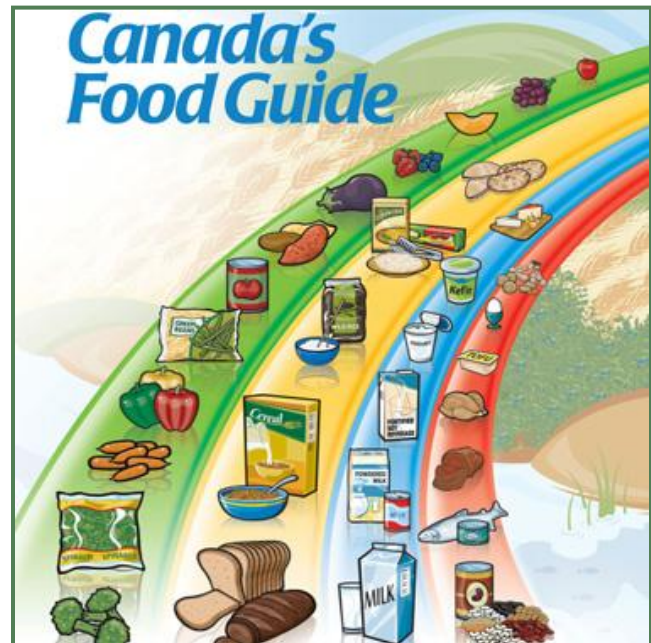
# Appendix I: Nutrition

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

Health Canada also produces a complementary food guide tailored to reflect the food traditions and choices of First Nations, Inuit and Métis. To access copies of Canada's Food Guide or Canada's Food Guide for First Nations, Inuit and Métis, visit the Health Canada website ([www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php](http://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](http://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/](http://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](http://www.avivacommunityfund.org)
- **Carrot Cache:** <http://carrotcache.com/>
- **Community Foundation of Newfoundland and Labrador:** [www.cfnl.ca](http://www.cfnl.ca)
- **Community Youth Network, St. John's- Special Project Grant:** [www.thrivecyn.ca/main.php?sid=31](http://www.thrivecyn.ca/main.php?sid=31)
- **Nature's Path Gardens for Good:** [www.facebook.com/naturespath/app\\_401418026549919](http://www.facebook.com/naturespath/app_401418026549919)
- **New Horizons for Seniors Program:** [www.hrsdc.gc.ca/eng/community\\_partnerships/seniors/index.shtml](http://www.hrsdc.gc.ca/eng/community_partnerships/seniors/index.shtml)
- **NLEN Member Support Program:** [www.nlen.ca/resources/member-support-program/](http://www.nlen.ca/resources/member-support-program/)
- **Provincial Wellness Grant:** [www.health.gov.nl.ca/health/wellnesshealthyliving/provincialwellness.html](http://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](http://www.health.gov.nl.ca/health/wellnesshealthyliving/wellnesscoalitions.html)
- **Shell Fuelling Change:** [www.shell.ca/home/content/can-en/environment\\_society/fuellingchange/](http://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](http://www.fef.td.com)
- **VOCM Cares Foundation:** [www.vocmcares.com](http://www.vocmcares.com)
- **Walmart-Evergreen:** [www.evergreen.ca/en/funding/grants/walmart.sn](http://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](http://www.ma.gov.nl.ca/ma/emp_support/ceep.html)
- **Graduate Employment Program:** [www.aes.gov.nl.ca/students/graduate.html](http://www.aes.gov.nl.ca/students/graduate.html)
- **Job Creation Partnership (JCP):** [www.aes.gov.nl.ca/lmda/jcp.html](http://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](http://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](http://www.hrsdc.gc.ca/eng/employment/employment_measures/older_workers/index.shtml)

# Appendix K: Garden Crops in NL

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

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

Type of Produce	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Anise												
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												



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

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

# Planting

## 2. Composting

This composting workshop kit was created in consultation with the Multi Materials Stewardship Board (MMSB) and MUN Botanical Garden. FSN would like to thank these organizations for sharing assistance and resources. For further information on composting in Newfoundland and Labrador refer to their websites:



[www.mmsb.nl.ca](http://www.mmsb.nl.ca)



[www.mun.ca/botgarden](http://www.mun.ca/botgarden)

### 2.1. Preparation

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#### 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.

## Materials

- 1 copy of the **FSN E-News Sign-up Sheet** (page 89)
- Evaluation forms photocopied for every participant, volunteer, and facilitator (see **Evaluation Form**, page 86)
- Agenda – either one copy to post or several to hand out to participants (see **Sample Agenda**, page 85)
- Photocopies of the **Resources** sheet (page 88) for each participant
- Pens or pencils
- White board or chart paper (optional)
- Markers (optional)
- Materials for chosen activities (see **Activities**, page 75)
- Name tags for participants and facilitators
- A small bucket of finished compost (if you have not made compost yet, then a small bag can be purchased from a garden centre)

## Location

This workshop can be done indoors or outdoors. If indoors, be prepared to clean up some mess and consider putting down newspaper or plastic to protect work surfaces during activities. If outdoors, try to choose a covered area out of the wind and with comfortable seating for all participants.

## Participants

This workshop is recommended for a maximum of 15 participants. Review the **Activities** section (page 75) 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.



Indoor workshop

## Timeline

This workshop has been created to fit into a 2 hour time period and a sample agenda is provided in **Supplementary Materials** (page 85). Once you begin

organizing the content and activities 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.

Refer to **Appendix H: Food Safety** (page 35) if you plan on serving food during the workshop.

## 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, choose what information you want to present based on participants' experience and interests, timeline, and available materials. If you are following the agenda included here, **Digging In** has been allotted 40 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 composting. To go into more depth on the topic, refer to the **Bibliography** (page 83) and **Resources** (page 88) pages for more sources to check out. This workshop kit covers both backyard composting and vermicomposting. In the interest of time you may wish to focus on one of those methods and only mention the other briefly.

The **Activities** section (page 75) offers several options for hands-on, interactive activities that you can organize for your group. Participants really enjoy these

### Note: Digging In

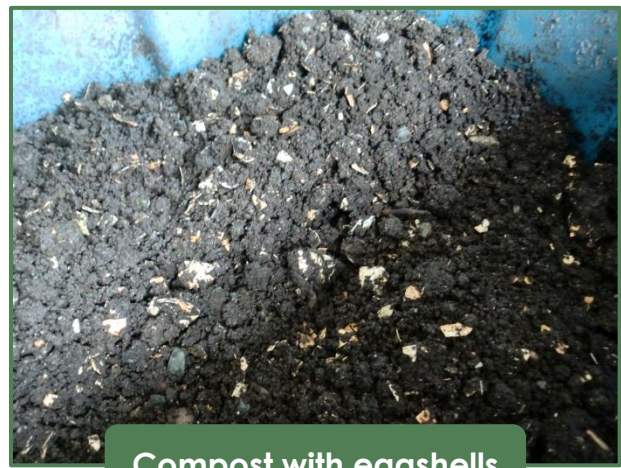
The information in this section can be shared through a traditional presentation, but participants may enjoy themselves more if creative techniques are used. Consider organizing games, discussions, small group interaction, demonstrations, or displays to convey the information. There are lots of lists 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 88).

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 the **Activities** over carefully prior to the workshop, choose which you want to do, and then assemble any necessary materials. You could also ask participants to bring in some materials themselves such as items that are readily available in people's homes.

It's up to you when in the agenda to put the activities. In our **Sample Agenda** (page 85) 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 82) 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.



Compost with eggshells

## 2.2 Workshop

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### *Introduction*

(10 minutes)

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

You can also take this opportunity to promote the group's upcoming events, contact information, volunteer opportunities, and 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 network that promotes comprehensive, community-based solutions to ensure food security for all. To learn more about FSN visit [www.foodsecuritynews.com](http://www.foodsecuritynews.com).

Today's workshop is one of eight that have been created based on the 4 Ps of Local Food: planting, picking, preparing and preserving. These workshops build food skills and create a space to share traditional food knowledge. To learn more about all eight workshops and to find out how to host more in your community visit [www.rootcellarsrock.ca](http://www.rootcellarsrock.ca).

**Step 4:** Pass the **FSN E-News Sign-up Sheet** (page 89) 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 85) 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 improvising while public speaking and redirecting focus back to the agenda items as needed.

## Roots of our Local Food

(10 minutes)

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

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

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

**Step 3:** As participants say what they want to learn, you may want to 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 'The Home Front' by Harriot Curtis. It first appeared in the International Grenfell Association periodical called *Among the Deep Sea Fishers* in 1940 and it gives us a glimpse into the gardening traditions of Newfoundland and Labrador, of which composting was part:

“'Fight the war in the cabbage garden!' 'Why spend your money on dog-food when there is plenty to be caught in the sea?' Slogans like these announced a public meeting in St. Anthony on the first of June, called to promote a campaign for bigger and better gardens. Gardening is no joke on our coast, where the land is covered with a low scrub growth, and is either full of rocks or very marshy. But the Government had sent out a call for more land clearing, and it was essential that there should be more production, to cut down the importation of food, and to ensure a more adequate diet for the public, many of whom will have little money for food this winter, as their only cash 'crop', the fishery, has been a failure, especially in our district. There have always been gardens, but never enough, so this very practical effort could well be a real contribution toward Newfoundland's share in the war effort on the Home Front. The whole population set to work on their old gardens and cleared, fenced and planted new land. The Mission offered good vegetable seeds to all who asked for them, fertilizer from our compost heaps, and land to anyone who had none on which to work. Two hundred and fifty families from all along the shore came in for the seeds and many a new garden was cultivated this summer on Mission land. The Public Welfare Committee had procured several hundred barrels of seed potatoes which the people could acquire by promising to return an equal quantity and a little more from their fall crop and the Mission sold many thousand seedling cabbages which had been sown in the greenhouse several weeks before outdoor planting was possible. A hot sunny July brought everything along well, and our annual agricultural and food show at the end of September will be the best ever.”

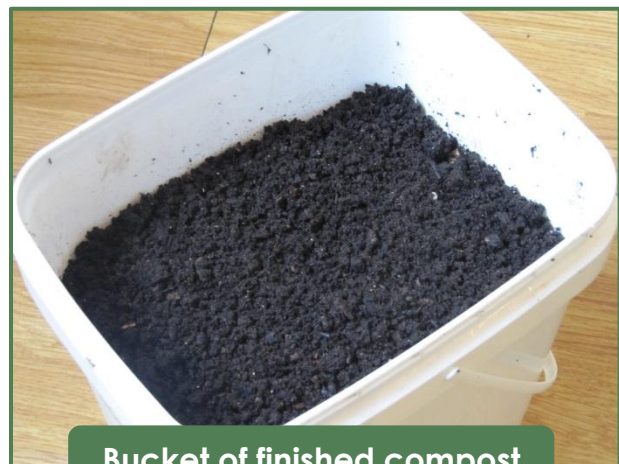
## Digging In

(45 minutes)

Present the information you have chosen to use from this section. This is the main content on how to compost. 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 to the participants of your particular workshop. Refer to the **Resources** section (page 88) 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.

### What is Composting?

Composting is the decomposition process that converts organic matter (things that were once living) into a dark brown, crumbly, earthy-smelling material called humus. Composting is basically organic materials being returned back to the earth. When we compost at home we are creating the conditions to help make that happen more easily with our household organic wastes. The hard work of composting is done by bacteria, fungi, worms, insects and other decomposer organisms. When the resulting humus is added to soil it helps plants grow. Composting is easy to do and it can be convenient (recycling waste at home to use right there) and affordable (using low-cost or free reused materials).



Bucket of finished compost

There are two situations under which composting can take place: aerobic and anaerobic decomposition. Aerobic decomposition happens when organisms that need oxygen to survive break down organic matter in the presence of oxygen. Anaerobic decomposition happens when organisms that do not need oxygen to survive break down organic matter where oxygen is not available. Aerobic decomposition is the best kind for home composting because it produces a pleasant earthy smell. Anaerobic decomposition can produce unpleasant smells because of the release of methane and other gasses during the process. Proper care of your compost will ensure that aerobic

decomposition is what's happening in your bin. Bad smells in a compost bin are an indication that you need to do some maintenance and get the compost back to an aerobic state.

## Reasons to Compost

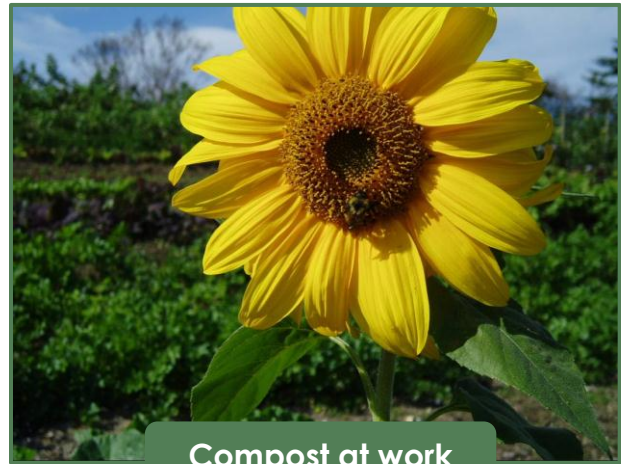
- **Reduce waste to landfills:** According to MMSB, in Newfoundland and Labrador 400,000 tonnes of waste is sent to landfills every year and about 30% of that is organic waste. Through composting we could be diverting 120,000 tonnes of organic waste away from landfills and turning it into a valuable resource to improve our province's soil.
- **Grow a sustainable yard:** Compost is a must-have for growing successful gardens in Newfoundland and Labrador. Compost adds healthy microorganisms to the soil and makes more nutrients available to plants. It helps soil to retain water so that you do not need to water your lawn and garden as often. It creates air pockets in the soil that help roots to grow stronger. It extends the growing season by making the soil richer and darker so that it attracts and holds onto heat better. Compost also deters soil erosion and salination. Get the most abundant harvest in your garden by improving the soil with compost and spread compost on lawns and flower beds to help them flourish.
- **It's inexpensive:** Beyond the initial start-up expense of setting up a bin, composting will cost nothing because it only requires kitchen and yard wastes that would otherwise go in the trash. Making compost means you are less likely to need to buy costly fertilizer, new soil, and replacement plants to have a healthy garden.
- **Protect the environment:** Home composting is a safe way to recycle organic waste so that it improves the environment rather than becoming a pollutant. Turning household waste into compost promotes the growth of healthy plants and increases biodiversity. Sending organic waste to landfills is unsustainable and stresses the environment. When organic waste breaks down anaerobically at landfills it can send leachate (harmful runoff) into our water systems. It also gives off methane, a climate change causing gas.

## Quote

"[Composting] mimics the way nature works – the unending cycle of birth, growth, maturation, decline, death, decay. Each generation of plants grows in and feeds off the decayed remnants of previous generations, eventually taking its place on the forest floor as the medium for future generations."

– Bruce Borque,  
The Independent.ca

- **Learn more about nature:** As you compost you can learn a lot about the soil, plants, life cycles and about other organisms. Everywhere in nature decomposition is happening naturally and creating our forests and farmland. Compost bins are mini laboratories for better understanding nature's processes.



Compost at work

- **Reduce pesticide and chemical fertilizer use:** Adding compost to the soil helps to produce healthier and more pest-resistant plants, making it less necessary to use pesticides. Compost can also be used as a soil amendment in place of chemical fertilizers, to help grow lush gardens chemical-free.
- **Connect with our food and our heritage:** Kitchen gardens were common throughout Newfoundland and Labrador's history and good gardeners knew that compost helped to grow the best plants. Historically, residents have turned fish offal, capelin, seaweed, manure, and household organic waste into their soil in order to enrich it. The techniques described here for home composting are age-old and have been passed on and adapted into the modern practices we use now.

### Try This

If you have a small bucket of finished compost, now is a good time to pass it around the group for everyone to see, touch, and smell.

## Keeping the Decomposers Happy

Decomposers are the organisms doing the work to make your compost. They need air, water, shelter and food to survive, just like we do. Creating a healthy situation for those organisms to live in through a bit of careful maintenance will ensure that your compost thrives. In the sections on **Backyard Composting** (page 57) and on **Vermicomposting** (page 66) there will be more tips for how to create the right conditions of air, water, shelter and food in your compost bin.

### Air

To have a successful and pleasant smelling compost bin, you need to provide air so that aerobic organisms can survive and do their job. Make sure that whatever container you use has ventilation. Try to keep your bin from getting

soaking wet inside, because excess water limits airflow. Turn or fluff compost regularly to help air to reach all parts of the pile.

### **Water**

Some water is needed for decomposition to take place and to keep decomposer organisms alive, but too much water will do harm. If you pick up a handful of decomposing compost it should have the consistency of a wrung-out sponge, moist but not dripping wet.

### **Shelter**

Compost will break down faster in an enclosed structure of some kind, even if it is only enclosed on a few sides. Structures keep compost warmer and protected from rain. Enclosed compost piles also look more tidy and attractive.

### **Food**

Just like with human diets, some foods are better avoided to help decomposers stay healthy. Both the **Backyard Composting** (page 57) and **Vermicomposting** (page 66) sections have lists of what to put in your compost bin and what to avoid for those methods.

## **Try This**

If you have a small bucket of finished compost, now would be another good time to pass it around the group for everyone to feel for that sponge-like consistency.

## **Quote**

“Composting is not an exact science. Rather composting can be considered a relaxed kind of art. As long as you follow a few basic rules and regulations, you have lots of room to adapt composting to fit your particular needs.”

–John Evans, MUN Extension Services, Home Vegetable Gardening

The basic idea is that decomposer organisms need good supplies of 1) nitrogen (greens) which give them energy, and 2) carbon (browns) which help them grow and reproduce. Greens are generally organic materials that are fresh and moist whereas browns are generally organic materials that are dry and fibrous.

When adding to your outdoor compost bin put in equal amounts of greens and browns to balance out the ratio of nitrogen to carbon and also to keep the right moisture levels in the bin. In a vermicompost bin the bedding that worms live in (and also eat) is the browns and the food scraps given to them are the greens.

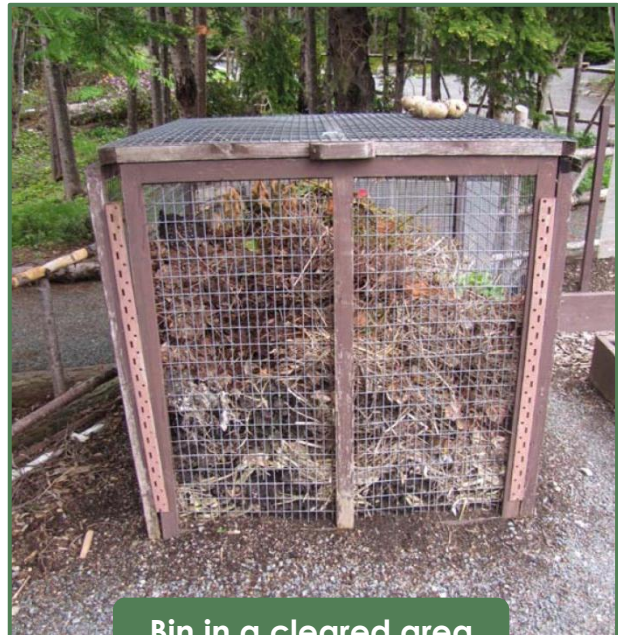
## Myths, Facts and Tips

The following are common myths associated with composting that may deter people from giving it a try. For each myth there are some facts and tips that highlight the benefits of composting.

### **Myth: Compost Attracts Rats**

**Fact:** Compost will not attract new rodents into an area but if there are already rodents there, then compost piles can be a place where rodents nest and hide. To avoid that, follow some of these tips:

- Place a layer of finely woven metal screen or mesh between the bottom of an outdoor compost bin and the ground, creating a barrier that rodents cannot get through.
- Keep bins away from fence lines and the sides of buildings. Rodents run along those lines and do not like crossing open spaces.
- Clear the area around compost bins so that there are no bushes or other hiding places right next to them.
- Turn compost often so that it is an inhospitable place for rodents to nest.



Bin in a cleared area

### **Myth: Compost Smells Bad**

**Fact:** If backyard and vermicompost bins are properly maintained, they should only have a pleasant earthy smell like garden soil. Unpleasant smells can occur when there is not enough oxygen in the bin and unwanted anaerobic bacteria have moved in. They can also occur when animal products like meat, dairy, and sauces have been mistakenly added into the compost. To avoid bad smelling compost, follow these tips:

- Be careful what you put into the compost bin, referring to the list for **Backyard Composting** (page 57) and **Vermicomposting** (page 66) on what to include and what to avoid.
- Choose a compost bin that allows for air flow through air holes, open slats, or air pipes.

- Turn the compost pile often to make sure that air is always available to good aerobic organisms.

**Myth: I Don't Garden so there's No Reason for Me to Compost**

**Fact:** Composting is still a fantastic way to divert waste from landfills and to do your part for the environment. If you still want to compost but do not garden, consider other ways to use compost:

- Talk to family members, neighbours and friends who do garden because they will be happy to receive your finished compost.
- Get in contact with a local community garden and give them your finished compost or make arrangements to drop off your organic household and yard waste at their compost site. To find community gardens across NL, use the FSN Food Security Initiative Inventory ([www.foodsecuritynews.com/resources](http://www.foodsecuritynews.com/resources))
- Sprinkle finished compost onto your lawn to help grass grow or around the bases of trees and bushes.
- Mix in finished compost when potting houseplants
- Turn finished compost into compost tea and use that to water houseplants or lawns. See the compost tea activity (page 76) for instructions.



**Donate compost to a community garden**

**Myth: Composting is a Lot of Work**

**Fact:** Composting is a natural process that is happening constantly in nature without human intervention. When we set up home compost bins we are helping that process along, but decomposer organisms are doing most of the hard work. Once you get into the routine of putting organic waste into your compost bin instead of into the trash can, the time it takes will be almost the same. Turning the contents of your bin once in a while does not take long and the rewards of getting rich compost make it worthwhile. To avoid spending too much time on your compost, follow these tips:

- Get into a routine for collecting your kitchen scraps. Cut them up small at the same time that you prepare meals and save them in a plastic container with a lid on your kitchen counter or in the fridge until you are ready to put them in the compost bin.

- Use regular garbage pick-up days as a reminder and add scraps to your compost at the same time that you take out the garbage.
- Have a stockpile of browns ready for outdoor bins. When you rake leaves or dispose of other brown items shred them up and put them into a garbage can or bag next to the compost bin. That way they will be there dry and ready to use when you need them.



- Keep outdoor compost bins in a convenient location near your home that is easy to reach even in poor weather. Likewise with a vermicompost bin, keep it somewhere where you will notice it often.
- Whatever you plan to use to turn and aerate outdoor compost, like a pitch fork or shovel, can be kept right next to the bin. Every few times you add new scraps to the bin you can also give the contents a quick turning. This will help you avoid doing a more labour-intensive turn when the contents are really full and compacted.
- Once you get comfortable composting, consider starting a second outdoor bin or vermicompost. If one fills up there is still somewhere to put organic waste and you will not lose the habit of composting.

### ***Myth: I Live in a Small Space, and I Don't Have Room to Compost***

**Fact:** Often when we think of composting we picture big backyard bins and heaps, but there are actually several composter types that take up very little space. Those small composters can work right in your kitchen or on a deck or balcony. To compost in a small space, consider these options:

- Vermicompost! With very few materials and healthy worms you can have a steady supply of compost made right in your home. Refer to the **Vermicomposting** section page (66) for instructions on how to set up a worm bin
- Build a small-scale stacking compost set-up, like a balcony composter ([www.goveganic.net/spip.php?article201](http://www.goveganic.net/spip.php?article201)) or terracotta pot composter ([www.instructables.com/id/Terracotta-home-composter/#step1](http://www.instructables.com/id/Terracotta-home-composter/#step1)). You can also purchase versions of those from garden stores if you would rather not make them yourself.



- New on the market are small indoor composters that run on electricity and can break down food waste in as little as 24 hours. They are very expensive now but may become more affordable over time. Examples are the Red Dragon ([www.cityfarmer.info/2010/05/07/the-electric-red-dragon-a-new-type-of-composter/](http://www.cityfarmer.info/2010/05/07/the-electric-red-dragon-a-new-type-of-composter/)) and the NatureMill ([www.naturemill.com](http://www.naturemill.com)).

## Backyard Composting

Follow these simple steps to start up your own backyard compost bin:

### Step 1: Choose a Bin

Almost any kind of bin can be adapted to compost in. As a general rule choose a bin that is between 3' x 3' x 3' and 5' x 5' x 5' in size. Any smaller and not enough heat will build up to decompose waste; any bigger and it will be difficult to turn and aerate the pile so anaerobic bacteria could move in and cause trouble. Design your own bin or choose one of several standard styles with designs to suit your backyard and composting needs:



Molded plastic bin

#### *Molded Plastic Bins*

These are usually either domed or rectangular and they are made of molded plastic. They work well because they retain heat and deter pests and many people find them more attractive to look at than open-design bins. Their contents need to be turned regularly to allow for enough air flow. You can buy molded plastic compost bins at home and garden centres or contact your municipality or MMSB to find out if they are being retailed locally through a program. You could also make your own version using a plastic garbage can and these instructions: <http://reduceyourwaste.ca/build-your-own-composter.asp>

#### *Portable Compost Bins*

There are many designs for portable bins that can be made with wooden flats, chicken wire, screens or other light-weight materials. The benefit of portable bins is that they can be picked up off of a compost pile to make room to turn and sort the compost. The portable bin is then put in a new location, refilled with materials that are not finished composting and the process begins again of adding new waste. One drawback of these bins is they are generally very open to the weather and susceptible to overwatering from rain or drying out from

wind. An open-concept portable bin should be kept in a sheltered location. Portable compost bins are usually homemade and there are many designs and tutorials online to choose from or check out some of the links below.

### *Multi-compartment Systems*

A multi-compartment system is larger than a single bin and allows for continuous composting of large quantities of materials. They work very well for community gardens or in rural areas where there is a lot of yard waste to process. One section of the system is for storing dry brown materials. The other sections will hold compost in various stages of decomposition. Multiple compartments allow for full turning of compost as it is moved from one bin to the next.



**Chicken wire bin**



**Wooden multi-compartment bin**

### *Rotating Compost Bins*

Rotating bins are usually cylinders that are raised off the ground on a support structure and have a handle at the side that allows the whole bin to be turned. They can be homemade using reused plastic or metal barrels or can be commercially purchased. Turning a rotating bin aerates and mixes its contents well. Soil or other compost activators should be added into rotating

bins; they are elevated and cannot access organisms in the ground directly. At some point when using a rotating bin it will be necessary to leave it alone for a while so contents can finish decomposing, which may interrupt your composting routine.

### *Stacked Compost Systems*

Stacked compost systems are great for small spaces because they take up room vertically rather than horizontally and are generally compact. In a stacked system waste is added into the top compartment, breaks down slowly and then is moved down through the lower compartments, until finally finished compost can be harvested from the bottom. Stacked compost systems cannot process a great deal of waste and are better for small households. For links to patterns to make stacked compost bins see **Resources** (page 88).

## **Note: Homemade Compost Bins**

Tips for building good homemade compost bins:

- Always use materials that are free from toxic substances when building your compost bin.
- Choose natural wood rather than pressure treated. Cedar is a good choice because it stands up to moisture well, but it can be expensive so keep an eye out for salvageable cedar to reuse.
- To protect the exterior of a wooden bin, coat it with a layer of linseed oil each spring, which can be purchased at hardware stores.
- Use food-grade plastic or metal barrels. Talk to food wholesalers and restaurants to find out where to get those locally to reuse.
- If there are rodents in your area, then keep in mind the tips for deterring them when choosing a new bin (page 54)
- Protect bins from too much moisture by covering them with a lid or tarp.

Compost bin patterns:

MMSB: [www.mmsb.nl.ca/backyard-composting.asp?s=compost-bin-plans-and-retailers](http://www.mmsb.nl.ca/backyard-composting.asp?s=compost-bin-plans-and-retailers)

The City of Edmonton:

[http://www.edmonton.ca/for\\_residents/PDF/compost\\_bins\\_build.pdf](http://www.edmonton.ca/for_residents/PDF/compost_bins_build.pdf)

Composting 101: [www.composting101.com/building-a-bin-article.html](http://www.composting101.com/building-a-bin-article.html)

University of Wisconsin Extension:

[www3.uwm.edu/Dept/shwec/publications/cabinet/html/compost/Bin%20Plans.htm](http://www3.uwm.edu/Dept/shwec/publications/cabinet/html/compost/Bin%20Plans.htm)

## Step 2: Choose a Location

If possible, place your bin in a location that:

- is convenient to get to even in bad weather
- has level ground
- has good drainage
- gets sunshine
- is sheltered from wind
- is away from fence and building lines, bushes, or other hiding spots if rodents are a concern

Many resources from the mainland say to put compost bins in a shady spot but with the short warm season in NL a sunny spot is preferable to speed up decomposition.

It is best to pull up some sod or ground cover at the bin's location so that the bin has direct access with the soil. That will make it easier for decomposer organisms to get inside. The exception to this is rotating and stacked composters that are off the ground. To activate decomposition in those types of bins, add in a few handfuls of garden soil or manure or sprinkle the contents with compost tea.

In an area with poor drainage, raise bins off the ground with cinder blocks, pieces of wood, or a pallet. Keep the contents from spilling out of the bottom using a piece of tightly woven metal screen or chicken fencing. Add soil, manure or compost tea as needed, as with other raised composters, to ensure that microorganisms get inside.

## Step 3: Put in Organic Materials

For a healthy compost bin, put in an equal amount of green and brown organic waste. That balance helps to maintain the ideal moisture level and the right ratio of nitrogen to carbon.

Tips for saving and adding organic waste:

- Keep a small plastic container with a lid in your kitchen to store scraps in until you are ready to put them in the outdoor bin. Reused yogurt or ice cream containers work well.
- Cut food scraps up small so that they will decompose faster.



Organic kitchen waste

- When you prepare meals, cut up food scraps at the same time and put them in the storage container.
- Ideally, take scraps out to the compost bin at least once a week. If that is inconvenient then keep the storage container in the refrigerator or freezer until you are ready.
- If you will be going away for a few days then store the container in the freezer.
- Once emptied, wash your kitchen scrap storage container with soap and water or put it through the dishwasher before using it again, to avoid any odours or mold developing.
- Every time you add new green kitchen scraps to the compost bin cover them with an equal layer of brown yard or paper scraps.
- Keep a container next to your compost bin that holds dry brown materials that are ready to use so that it is convenient to add them at the same time as the greens.



**Browns: dryer lint and an egg carton**

The following is a list of green and brown items to put into your compost bin, as well as a few tips about them:

<p><b>Browns provide carbon (for energy) and they are dry and fibrous.</b></p>	<p><b>Greens provide nitrogen (for growth &amp; reproduction) and they are fresh and moist.</b></p>
<ul style="list-style-type: none"> <li>➤ paper (shredded or ripped up small)               <ul style="list-style-type: none"> <li>○ white paper</li> <li>○ newspaper</li> <li>○ boxboard like from cereal and cracker boxes</li> <li>○ egg cartons</li> <li>○ drink trays</li> <li>○ paper towel and toilet paper rolls</li> <li>○ napkins and paper towels</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ tea leaves</li> <li>➤ coffee grinds</li> <li>➤ fruits peels and scraps cut up small</li> <li>➤ vegetable peels and scraps cut up small</li> </ul> <p><b>Note:</b> The smaller you cut up fruits and vegetables before adding them to compost, the easier it will be for decomposers to break them down. To get finished compost faster put in</p>

**Browns provide carbon (for energy) and they are dry and fibrous.**

- coffee filters
- tea bags
- dried leaves
- dried grass clippings
- grain foods (cooked or dry; without any sauce or oil)
  - pasta
  - rice
  - bread
  - other grains

**Note:** As with fruits and vegetables, it is best to put in the smallest grain food pieces possible. Grains like rice are already perfect, but whole pieces of bread should be broken up smaller. Large grain products may start to mold before they are broken down if they are put in whole.

- twigs, woody stalks and branches (broken up very small)
- floor sweepings
- pet and human hair
- pet bedding
  - wood chips
  - shredded paper
- dryer lint (but not if perfumed dryer sheets were used)
- sawdust from untreated wood
- peat moss
- chopped up straw
- ashes from untreated wood

**Greens provide nitrogen (for growth & reproduction) and they are fresh and moist.**

smaller items. Large items like oranges may start to mold before they are broken down so avoid adding them whole.

- fresh grass clippings
- fresh garden waste like pulled weeds and trimmings
- manure
- pet droppings (not from cats or dogs, but rabbit and hamster droppings are okay)
- fresh hay
- egg shells

**Note:** Before adding eggshells rinse them out and crumble them up small, being careful of their sharp edges. Do not add eggshells if the egg has been boiled in them.

- seaweed

**Note:** Seaweed has been traditionally used in Newfoundland and Labrador for composting and it is an excellent addition to your bin. As with other organic matter, it is best to break up large pieces before adding them so that they will decompose faster. Refer to this Root Cellars Rock post for more information:

<http://rootcellarsrock.ca/2012/05/seaweed/>

The following is a list of items to avoid putting into your compost bin. Some of the items are compostable but they may attract pests or give off unpleasant odours, so they are best avoided when backyard composting.

#### Avoid:

- meat, fish, poultry
- bones
- dairy, including cheese and yogurt
- fats (including grease, oil, lard, butter, margarine, and mayonnaise)
- sauces and dressings

**Note:** Traditionally people in Newfoundland and Labrador did use some of the above items for their compost, especially small fish like capelin and the leftovers (fish offal) from processing larger fish like cod. However, using them in your backyard or vermicompost could be problematic because they may attract pests and could give off unpleasant odours. Commercially-sold compost often has fish offal in it because it has been made on a farm or in a facility that can manage those issues. If you want to use fish-based compost because of its beneficial properties, it is best to purchase some rather than making it at home.

- Eggshells that eggs have been boiled in: they break down very slowly and could begin to smell.
- Bulky items like tree branches, pieces of wood or thick cardboard that will take up a lot of space and decompose very slowly.
- Weeds that have gone to seed- composting may not kill the seeds and they could germinate and spread when you use the finished compost.
- Dog and cat waste- they may have pathogens in them that are harmful to humans.
- Plants that have had pesticide treatment or are diseased- the pesticides or disease could affect your garden when you use the finished compost.
- Coniferous tree clippings, Christmas trees and pine cones- they break down very slowly.
- Glossy or wax-coated papers
- Vacuum fill or other sources of synthetic fibres- carpet fibres are usually not organic and will not break down.
- Non-organic materials such as glass and metals

## Step 4: Maintain the Compost

There are a few things to check for when maintaining a healthy compost bin. These tasks are not difficult; they just take a bit of practice to build into a regular routine.

### Aeration

To maintain compost as a good home for aerobic decomposers, make sure that it is getting enough air flow. Keep a pitchfork or shovel next to the bin and when you add new scraps, also turn the contents.

### Moisture

The contents of a healthy compost bin will have the consistency of a wrung-out sponge, but will not be dripping wet, and you should check the moisture level about once a month except in the winter when the pile may be frozen. With gloves on, pick up a handful of the decomposing compost and squeeze it into a ball in your hand. If when you open your hand it mostly stays together like a snowball then it is moist enough; if it crumbles apart then it is too dry. If the compost is too dry, mix in more wet green ingredients or sprinkle it with a bit of water or compost tea and mix that in. If the contents are dripping wet then there are a few things you can do: 1) expose the pile to some light and air to dry it out a bit, 2) give it a good turning so that moisture is evenly distributed, and 3) mix in more dry brown ingredients.

### Smell

If you notice that the compost bin smells bad, then a couple of things might have happened: 1) without enough air flow aerobic bacteria might have been replaced with anaerobic bacteria that give off methane and other gases when they decompose organic matter, or 2) foods that smell bad when decomposing could have been added by accident to the bin, such as meat, dairy or other items on the list of things to avoid. If the offensive scraps are still on top and easy to remove, then you could take them out of the compost bin. Be sure to give the contents a really good turning to get air flowing back through the pile again. Let the contents dry out if they have become too moist.

## Note: Turning Compost

If turning the compost pile is difficult for you, consider 1) inserting perforated air pipes into the pile that will let air move throughout so that turning is less necessary, 2) choose lightweight tools that you are comfortable using, and 3) create a compost pile that is an appropriate size for you to manage because it might be easier to have a few small bins rather than dealing with one large one. Refer to **Appendix G: Garden Safety** (page 33) for more tips.



### Step 5: Harvest the Finished Compost!

In Newfoundland and Labrador, after about a year, or two summers, your backyard compost bin should produce rich, valuable compost! Following all of the tips described above will help to speed up that process.

You will know when compost is finished when almost all of the scraps that were added have broken down and are no longer identifiable. There may be a few twigs or other sturdy items that are still whole, but those can be easily removed. Finished compost should only have a pleasant smell like rich earth.



The final product

Different types of compost bins have unique methods for how to harvest the completed compost from them. For example, rotating composters need to sit for a while for materials to finish breaking down whereas some molded plastic bins have a small opening at the bottom where smaller amounts of compost can be regularly harvested as the contents decompose. Once you have chosen which bin you will use, follow manufacturer's instructions if you have purchased it or refer to **Resources** (page 88) for a list of good websites to help you harvest compost from your type of bin.

Here are a few ideas for what to do with your finished compost:

- Dig it into the soil of a new garden bed.
- Add it into potting mix when starting new container plants.
- Sprinkle it onto lawns or established gardens.
- Spread it around the bases of trees and bushes as mulch.
- Sprinkle it into rows when putting in seeds or transplants.
- Donate it to a community garden. To find community gardens in your area use the FSN Food Security Initiatives Inventory ([www.foodsecuritynews.com/resources](http://www.foodsecuritynews.com/resources))
- Give it to neighbours or friends who garden.
- Use it on a section of damaged lawn to help grow new sod or seeds.

### Quick Tip

Let compost dry out for a few days in the sun outdoors before bringing it inside, that way you won't also bring in insects.

- Add it into potting mix when starting new houseplants or sprinkle it as mulch on top of the soil of existing houseplants.
- Turn it into a nutritious compost tea to use when watering houseplants, garden plants, or your lawn. See the compost tea activity (page 76) for instructions.

## Vermicomposting

Vermicomposting happens when worms eat and digest organic matter and decompose it into castings (worm poop), which is nutrient-rich material that improves soil for growing plants. Three of the perks of composting with worms are:

1. It is an ideal way for people to compost who live in small spaces because the whole vermicomposting process takes place in a small worm bin that can be kept under the sink or in a cupboard.
2. It continues to break down organic material even in the winter when the ground outside and backyard compost bins are frozen.
3. It is very convenient to build into your daily routine. Vermicompost bins can be kept right in the kitchen so that scraps are disposed of into the worm bin as soon as they are made.



Wooden worm bin

Follow these steps to start up your own worm bin!

### **Step 1: Choose and Prepare a Bin**

You can be creative when deciding what to use for a vermicompost bin. Reuse plastic storage totes, wooden crates, and other household storage bins, or buy or make a new bin. Worms will thrive in both wood and plastic bins. Wooden bins allow for better air and water absorption but plastic bins are more portable and will not

degrade over time. Worms do not like light so choose a bin that is opaque. Whatever bin you choose, be sure to put air holes in it. Some vermicompost bins also have drainage holes in the bottom and a tray to collect excess moisture underneath the bin. Start off without drainage holes and see if moisture becomes a problem, because you can always add drainage holes later. If there is a water cache under your bin, be sure to empty it often to avoid any unpleasant odours developing.

Use these instructions to make your own wooden bin from the City of Edmonton ([http://www.edmonton.ca/for\\_residents/PDF/compost\\_bins\\_build.pdf](http://www.edmonton.ca/for_residents/PDF/compost_bins_build.pdf)) or make a worm bin using a plastic storage tote by following the instructions in the **Start a Worm Bin** activity (page 79).

As well as choosing a bin with a lid, cover the worms and bedding over with a layer of burlap or a piece of cardboard inside the bin to further shelter the worms from light and drafts.

Red wiggler worms are pretty adaptable and they do not mind being in captivity, especially with the regular buffet of organic waste you will be providing them. Rather than getting too caught up in creating the perfect bin habitat, focus on choosing a bin that suits your home in terms of size, appearance, accessibility and affordability. If a bin works for your situation, you will be more likely to use it regularly and keep your worms thriving. MUN Botanical Garden recommends these sizes as a general guideline for choosing your bin:



Red wiggler worms

Number of people producing organic waste	Amount of worms	Size of bin
1-2	1 lb	1' x 1.5' x 2'
2-3	1 lb	1' x 2' x 2'
4-6	2-3 lb	1' x 2' x 3.5'

### Step 2: Choose a Location

Follow these tips when deciding how to place your bin once it's ready:

- Choose a spot that does not get too hot or too cold. Worms like temperatures between 15-25°C so avoid putting your vermicompost bin near heaters or cold drafts.
- Put your vermicompost bin somewhere convenient for you to use it. If you put it out in the garage and forget about it then it will not be able to do its job. Under the sink, in a kitchen cupboard, or a closet near the kitchen are all good places.

- If the floor that the bin is sitting on tends to get cold, then place the bin on top of a few layers of cardboard or a mat.

### Step 3: Set Up the Bedding

Worms use the bedding in their bin for shelter but they also slowly eat it and break it down too. The bedding in a worm bin is equivalent to the browns in a backyard compost bin and very similar things are added.

Make sure that all bedding is either shredded into strips or ripped up small because smaller bedding pieces will get broken down faster. Fill up the worm bin to nearly the top with dry bedding materials. Later on when it is moistened that bedding will condense down.



Shredded paper bedding

Worms like it if their bedding has a variety of different materials in it so choose a combination of a few items. If you are bringing in bedding from outdoors, like dried leaves or grass, dry them out in the sun first and be sure that they are free of pests, like insects or mold, that you don't want to invite into your home. Here are a few common items that could be included in your vermicompost bin's bedding:

- dried leaves
- peat moss
- dried grass clippings
- chopped up straw
- dry horse manure
- sawdust and wood shavings from untreated wood
- paper (shredded or ripped up small)
  - white paper
  - newspaper
  - cardboard
  - boxboard like from cereal and cracker boxes
  - egg cartons
  - drink trays
  - paper towel and toilet paper rolls
  - napkins and paper towels
  - coffee filters
  - tea bags

Over time the bedding will start to decompose along with the green food items that are added. New bedding can be added when you harvest finished

vermicompost after a few months or if you notice the bin getting too wet. Refer to Step 8 (page 73) for more details.

#### **Step 4: Add in Grit and Calcium**

Like birds, worms' bodies have gizzards to digest their food. Worms' gizzards need bits of grit in order to function properly. So when you start a vermicompost sprinkle in a handful of dry garden soil or sand. Do not use sand from an ocean beach because the salt content will be too high for the worms. Another source of grit is coffee grinds and they can be added to the bin along with other kitchen scraps.



**Worms working**

Calcium helps worms to reproduce and grow and a bit should be added to your bin. A great source of calcium for worms is eggshells. Rinse out a dozen eggshells and let them dry out inside an egg carton. Once they are dry, crush them up inside the carton. Or crush them up using a coffee grinder, food processor or even with your hands, but be careful because they may be sharp. Mix the crushed up eggshells in with the bedding when you start a new bin. The egg carton can then also be used as bedding once it is shredded up. Continue to crush up eggshells and add them over time when you put in organic waste. Eggshells break down very slowly so do not be surprised if they are still in the bin when other things have been turned into compost already. It is fine if small pieces of eggshells are mixed in with finished compost when you use it.

Eggshells in soil deter some pests who do not like moving over them, particularly slugs, and the eggshells will continue to break down in the soil over time.

#### **Step 5: Add Some Water**

Once all the bedding, grit and eggshells are mixed together in the bin use a spray bottle or your hands to spritz the bedding with water until it is slightly damp but not soaking wet. Over time the food you add will keep the bin moist but it is still a good idea to keep an eye out and sprinkle on some water if the bedding starts to look too dry. Worms are mostly composed of water and they prefer a moist environment to stay healthy.

Ideally let the moistened bedding sit for about two days before adding in worms so that the bedding begins to decompose and has a stable temperature.

### **Step 6: Send in the Worms**

To add the worms, place your bin with the lid off in a brightly lit spot. Spread the worms out on top of the moist bedding. Worms do not like light and so they will burrow into the bedding and make themselves comfortable down below. Let the worms acclimatize for a day or two before moving on to the next step and feeding them their first meal.

The best worms for vermicompost bins are red wigglers (*Eisenia fetida* and *Lumbricus rubellus*). They eat a lot and they thrive in the small space of a worm bin. A worm will eat about half its weight in food scraps a day so use that as a guide for how many worms you need based on how much food waste you produce. Refer to MUN Botanical Garden's chart (page 67) for a guideline of how many worms to get for your household.

Worms mature and reproduce after about 90 days so over time your worm bin will grow a bigger population. Worms will only multiply up until they reach the carrying capacity of their space and then reproduction will slow down or stop. Once your bin has produced a large number of worms you can divide them up to start a second bin for yourself or give them to a friend to start a bin.

If you know someone that has had a vermicompost bin for more than a few months then chances are they have extra worms that they can give you for free to get you started. If you do not know anyone with a worm bin then you can order red wiggler worms by the pound from Troutier's Special Worm Farm in Witless Bay and they will mail them out across the province. They recommend that you place orders early in the week on a Monday or Tuesday so that the

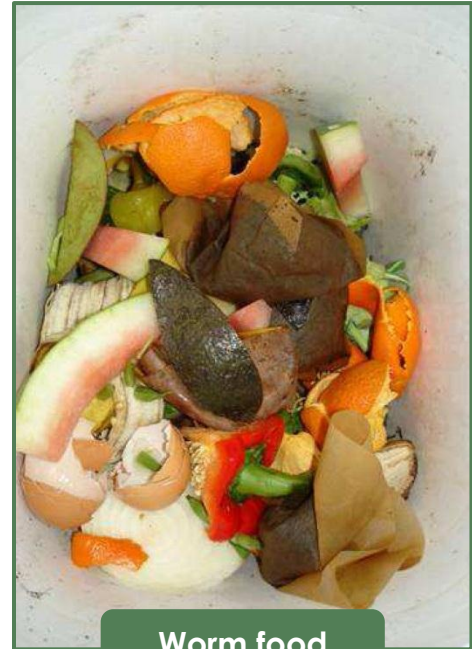
### **Fun facts about red wiggler worms:**

- they have 5 hearts
- they are hermaphrodites with both male and female sexual organs
- they can double their population in a year or two
- the band on their body indicates that they are mature and able to reproduce
- their bodies have bristles on them to help them move around
- they are sensitive to light, changes in temperature, loud noises, and chemicals
- if a worm dies in the bin it will dry out and decompose to become part of the vermicompost

worms can be mailed in enough time that they do not sit over a weekend at the post office. Trouter's Special Worm Farm also sells vermicompost kits that include bedding and a bin, but those are only available for pick-up and not by mail. Contact the farm for full details: Trouter's Special Worm Farm, (709)334-3531, [jcsodfrm@nfld.com](mailto:jcsodfrm@nfld.com).

### **Step 7: Feed the Worms**

Feeding worms is similar to adding food to a backyard compost bin, with only a few exceptions. As with a backyard compost bin, the smaller the items are that you put in, the faster they will decompose. You could even run your kitchen scraps through a food processor before feeding them to the worms so that the scraps are very small; chopping them up with a knife works very well though too.



**Worm food**

Citrus fruits and bread products should only be used in moderation because they tend to mold faster than worms are able to eat them. As a result they can attract fruit flies or give off unhealthy mold spores. Be sure to cut them up very small when using them.

To add food to a vermicompost bin: 1) push bedding aside in one corner of the bin, 2) place the food in the corner, and 3) cover the food over with the bedding. Next time you feed the worms put food in a different corner, that way you can easily harvest a pile of vermicompost from one corner after the worms have moved on to a food pile in another.

The following is a list of foods to **add** and **avoid** putting into vermicompost bins:

Add to Vermicompost	Avoid in Vermicompost
<ul style="list-style-type: none"><li>➤ Tea leaves</li><li>➤ Coffee grinds</li><li>➤ Fruit peels and scraps cut up small</li><li>➤ Vegetable peels and scraps cut up small</li><li>➤ Eggshells, rinsed out and crushed up</li><li>➤ Small plant trimmings like from houseplants</li><li>➤ Indoor pet droppings (not from cats or dogs, but rabbit and hamster droppings are okay)</li><li>➤ Cooked grains like rice or pasta (no sauce or oil)</li><li>➤ Human and pet hair</li></ul>	<ul style="list-style-type: none"><li>➤ Meat, fish, poultry</li><li>➤ Bones</li><li>➤ Dairy, including cheese and yogurt</li><li>➤ Fats (including grease, oil, lard, butter, margarine, or mayonnaise)</li><li>➤ Sauces and dressings</li><li>➤ Eggshells that eggs have been boiled in- they break down very slowly and could begin to smell.</li><li>➤ Large pieces of citrus fruits</li><li>➤ Large pieces of bread products</li><li>➤ Corn cobs and hard melon rinds: they will break down eventually but take a very long time. They are better suited to go in a backyard bin.</li><li>➤ Dog and cat waste: they may have pathogens in them that are harmful to humans and they will smell bad in an indoor bin.</li><li>➤ Plants that have had pesticide treatment, are diseased, or have gone to seed</li><li>➤ Coniferous tree clippings and pine cones</li><li>➤ Glossy or wax-coated papers</li><li>➤ Vacuum fill or other sources of synthetic fibres- carpet fibres are usually not organic and will not break down.</li></ul>



### **Step 8: Harvest the Finished Compost!**

Finished vermicompost should be ready in about 3 – 6 months. You can tell it is ready when:

1. most of the original bedding material has been broken down
2. food scraps have been broken down
3. what is left are worm castings that look and smell like rich earth



Be sure to harvest finished vermicompost regularly because it can be toxic for the worms to keep living in it once it is broken down.

There are several ways to harvest finished vermicompost. MMSB has done an excellent job outlining three methods which can be referred to when your bin is ready: [www.mmsb.nl.ca/vermicomposting.asp?s=harvesting-and-using-finished-vermicompost](http://www.mmsb.nl.ca/vermicomposting.asp?s=harvesting-and-using-finished-vermicompost). Choose the method that makes the most sense to you in terms of your time and location. This link is also included in **Resources** (page 88) for participants to refer to later. In general you will be choosing to either 1) sort the finished compost by hand to separate out the worms, 2) divide the contents of the bin up and over the course of several weeks draw the worms over from the finished compost into new bedding, or 3) use a combination of both methods, dividing the bin and then later sorting through the finished compost to be sure that most of the worms have moved. When harvesting finished compost it is okay if some worms are taken out of the bin along with the compost. When the compost is used they will be a beneficial addition to soil along with the finished compost. Until you use it, keep finished compost in a cool, dark location.

Refer to the list of ideas on page 65 for what to do with your finished vermicompost.

### **How to Avoid Some Common Problems When Vermicomposting:**

#### **Fruit flies**

- Bury food scraps under the bedding in your vermicompost bin and then cover the bedding with a layer of burlap or cardboard.
- Keep the lid of the bin closed as much as possible.
- Do not add more food than the worms in your bin can decompose quickly because food that sits for a long period of time may attract flies.

- Avoid putting in whole pieces of fruit, especially citrus, that break down slowly.

### Unpleasant odours

- Fluff up the contents every once in a while to promote air flow.
- Choose bedding materials that do not compact densely.
- Make sure that your bin has air holes on the sides and in the lid.
- If you notice a lot of moisture in the bin, add drainage holes and a water cache below the bin. Empty the water cache regularly.
- Do not add more food than the worms in your bin can decompose quickly because food that sits for a long period of time may begin to smell.
- Avoid putting in whole pieces of fruit, especially citrus, that break down slowly.

### Contents too wet

- If the bin does not have drainage holes, carefully pick it up and angle it to pour off excess water into a sink or outdoors. You may want to use a strainer to catch any worms or compost that may fall out as the water pours.
- Mix in more dry bedding ingredients.
- Leave the burlap on top of the bedding but take the lid off the bin to allow it to air out a bit. Be sure to do so in a brightly lit place so that worms stay down below.
- Add drainage holes and a water cache below the bin. Empty the water cache regularly.
- Make sure that drainage holes are not blocked at the bottom of the bin.

### **Note: Excess Water**

Excess water from worm bins should not be used directly as a compost tea on plants. It may still have materials in it that are not fully decomposed and could harm plants. Instead, sprinkle the vermicompost leachate into a backyard compost bin as an activator and be sure to add browns at the same time to keep moisture balanced in your backyard bin.

### Contents too dry

- Spritz the contents of the bin with water.
- Fluff the contents so that wetter food scraps and dry bedding are in better contact with each other.

## Activities

(40 minutes)

### Roots to Rooftops Composting Activities



Roots to Rooftops is a series of free workshops that were created by FoodShare in Toronto. Their purpose is to teach skills that lower our carbon foot-print and reduce climate change. One of the workshops is on composting and included in it are several

excellent activities that you can use. 'Rotten Apple Party' helps participants to better understand what is happening in a compost pile and what all the decomposers involved are doing. 'All About Worms!' is for young children and includes songs and games, and 'Vermicomposting' is for older children who want to start a worm bin in the classroom. 'Learning about composting at the compost bin' is an activity where participants get to check out an existing compost bin and learn how to care for their own bin through demonstration. 'Waste Watchers' is a sorting activity that can be done using actual food or pictures to teach participants about what to put in and what to avoid adding to a compost bin. To incorporate any of these activities into your workshop visit: [www.foodshare.net/toolbox\\_roots-rooftops-composting.htm](http://www.foodshare.net/toolbox_roots-rooftops-composting.htm)

### Compost Gin Card Game

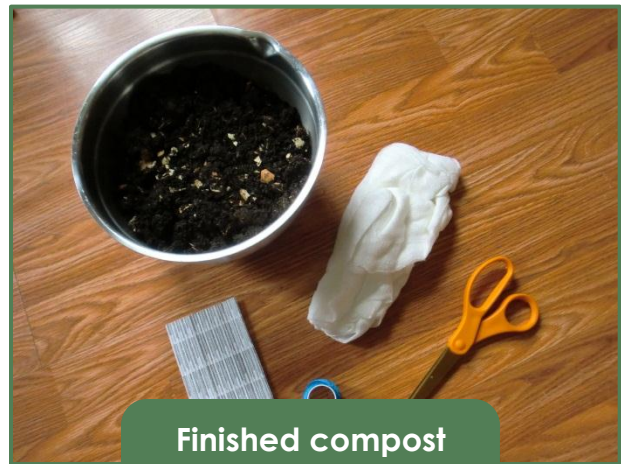
Created by Stan Slaughter, the Eco-Troubadour, this is an educational card game about the basics of composting that uses similar rules to the classic card game gin. It can be purchased online for about \$15 and used over and over as an activity for teaching about how to make perfect compost: [www.eco-troubadour.com/node/15](http://www.eco-troubadour.com/node/15)

## Make Compost Tea

This activity is appropriate year-round. It is a quick activity that is easy to do. Participants get to leave with a compost tea pouch to use at home.

### Materials

- finished compost, approximately one handful per participant (Be sure that it is finished by checking that almost all materials are broken down and it has a pleasant, earthy smell.)
- fabric with a slightly loose weave and preferably made of natural fibres—enough for one 10"x10" square per participant (try burlap, old plain cotton t-shirts, linen, or multiple layers of cheesecloth)
- twist ties, one per participant
- a roll of heavy twine or string
- stencils cut from reused cardboard that are 10"x10" square, ideally one to every 1-2 participants
- pencils
- scissors, ideally a pair to every 1-2 participants



Finished compost and supplies to make compost tea

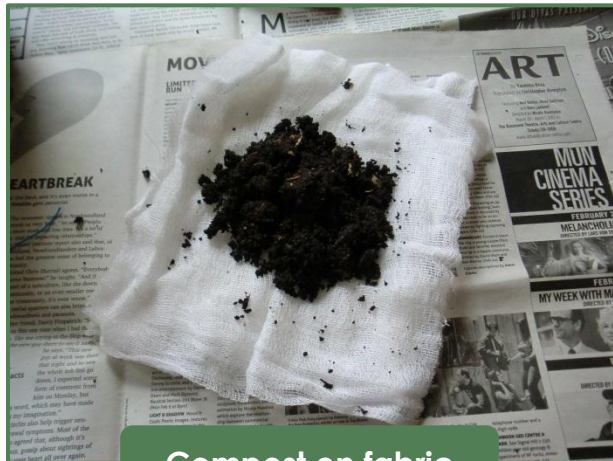
**Step 1:** Following the instructions below, prepare the materials to make one demonstration compost tea pouch before the workshop, but do not assemble it.

**Step 2:** Lay down newspaper or garbage bags to protect work surfaces from mess.

**Step 3:** Distribute scissors, fabric, stencils, twine and pencils around the group and one twist tie to each participant.

**Step 4:** Instruct participants to a) place a stencil on top of the fabric, b) trace around the 10"x10" square with a pencil onto the fabric, and c) cut out the fabric square. Show them your finished square as an example

**Step 5:** While participants are completing Step 4, tell them a bit more about compost tea. It is made by diluting compost into clean water and it is used to water the soil around plants or applied to the leaves of plants to protect them from harmful bacteria, fungi and insects. Applying compost tea improves soil microorganism populations and helps to create more pest-resistant plants.



Compost on fabric

Fermented compost tea is what you are making in this activity and it involves steeping a bag of compost in water or passing water through a container, like a trough or basket, filled with compost. It is very important when making compost tea to be sure that the compost is fully finished first. To tell if your compost is fully finished, check to make sure that almost all the waste materials are broken down and the compost has a pleasant earthy smell.

**Step 6:** Once all the fabric is cut up, get each participant to cut a length of cord approximately 1.5' long.

**Step 7:** Demonstrate that participants should lay their fabric square flat on a table and then place a small handful of compost on the middle of it. Lift up the sides of the fabric and gather it at the top to make a pouch around the compost. Tuck in any sides that are sticking out so that the compost will not fall out.

**Step 8:** Demonstrate that participants should gather tightly the fabric at the top of the bundle, twisting it a bit. This is done similar to how you would close up a bag of bread. Participants should then wrap their twine around the top of the bundle tightly and tie it off with tight knots. A long piece of the twine should be left hanging down from the pouch like the tag on a regular tea bag.

**Step 9:** The twine should keep the pouch closed if it is tight enough, but just in case participants should also wrap their twist tie around the twine and twist it closed tightly. Tuck the stray end of the twist tie into itself or the twine so that it is out of the way.

**Step 10:** The compost tea pouches are complete. Let participants know that to use their compost tea pouch they should do the following at home:

- Fill a large container with water, like a bucket, rain barrel, or large watering can.
- Use the cord on the tea pouch to tie the pouch to the handle of the water container or to its lid.
- Drop the tea pouch into the clean water and let it steep for at least 24 hours, stirring it occasionally. If mosquitos and other pests are an issue where you are making compost tea, then cover the container with a fine screen or perforated lid that allows air in but keeps pests out.

- When the compost tea is steeped use it to water the soil around houseplants, garden plants, or apply it to lawns about once a month.
- If you notice that leaves yellow or die where the tea has been applied then the compost used might have been unfinished. Pour the remaining tea onto an outdoor compost pile as an activator, rather than using it on growing plants, and next time try to use fully finished compost when you make compost tea.



Compost tea bag

**Step 11:** Tidy up the workspace with the help of participants.

## Start a Worm Bin

This activity is appropriate year-round. The completed worm bin can be used by one of the workshop's hosting groups or participants in the workshop could enter into a draw to take home the worm bin.

### Materials

- 1 lb (that's about a thousand!) red wiggler worms (Note: see page 70 for details on getting worms)
- 1 plastic storage bin with lid (53L or 14 gal is a standard size to choose if the bin will be used by 1-2 people adding in organic waste. If more people will be using the bin then refer to page 67 for size guidelines.)
- an assortment of brown items such as newspaper, cardboard, toilet paper and paper towel rolls, napkins, egg cartons, beverage trays, peat moss (Remember that worms like it when you mix several things together to make their bedding, so choose a few different materials for the bedding.)
- a handful of used coffee grinds or sand (Do not take the sand from a salt-water beach.)
- water
- 12 eggshells, rinsed out and dry
- an egg carton
- a drill (or a hammer and nail if a drill is not available)
- a piece of burlap or similar fabric a bit smaller than the bin's lid
- scissors, to be shared by participants

### Quick Tip:

In order to make this activity hands-on, ask participants to do some of the tasks involved.

**Step 1:** Lay down newspaper or garbage bags to protect work surfaces from mess.

**Step 2:** Tell participants how the vermicompost bin will look when it is completed. The 53L bin will be perforated with air holes. The worms, their bedding, and their food will be inside the bin and covered with the piece of burlap. A lid will go onto the large bin to keep out light.

**Step 3:** Using the drill (or hammer and nail), put about 20 holes in the lid of the bin and about 12 more around the sides of the bin at the top. These holes will allow air to flow and excess moisture to evaporate.

**Step 4:** Hand out scissors to the group. Ask participants to use scissors or their hands to shred the 'brown' bedding materials into thin strips and small pieces. Make sure that they are doing this to several different kinds of materials, because the worms like variety in their bedding. Continue adding these pieces into the bin until there is enough to fill it to the top loosely. The materials will shrink down by about half later when they are wet.



Worm bin with air holes drilled in sides

**Step 5:** While participants are shredding brown materials, review some of the information from the **Vermicomposting** section (page 66) or ask trivia questions about vermicomposting using The Ultimate Vermicomposting Quiz:

<http://home.howstuffworks.com/vermicomposting-quiz.htm>

**Step 6:** Once the bedding is in, ask a participant to sprinkle the coffee grinds or sand onto the bedding and then fluff it up. Explain that worms have a gizzard like birds and they need grit, like soil or sand or coffee grinds, to help them digest.

**Step 7:** Show participants the rinsed out and dry eggshells in their carton. Ask a participant to crush up the eggshells inside the carton by stepping on it or banging it with a fist. Once the eggshells are crushed up fairly small, ask the participant to sprinkle the crushed eggshells onto the bedding and then fluff the contents up. Explain that the eggshells provide the worms with calcium which helps with their reproduction and also helps maintain the acidic balance in a worm bin. To save eggshells for a worm bin 1) rinse them out well, 2) let them dry, and 3) crush them up small. Eggshells can be crushed inside an egg carton or using a coffee grinder or food processor. You can also crush them by hand but be careful because they can be sharp. Add more crushed eggshells later every few times the worms are fed. Eggshells break down very slowly so do not be surprised if they are still in the bin when other things have been turned into compost already.

**Step 8:** Taking turns, get participants to sprinkle water onto the bedding in the bin, fluffing it up and mixing it as they do so. This should continue until the bedding has condensed to fill the bin up about halfway and has the consistency of a damp wrung-out sponge. It should not be dripping wet and if it is then excess water should be poured out.



**Step 9:** Ideally you would let the bin sit for up to 2 days before adding the worms but you can choose to finish the activity in one day if you prefer. Pass the container of worms around the group letting participants see them and touch them gently. Under bright lighting let participants take turns distributing the worms on top of the damp bedding. Worms prefer dark places so the bright light will get them to burrow down into the bedding. While waiting for the worms to burrow down, wrap up the Conclusion part of the workshop on page 82. Place the burlap gently on top of the bedding as an extra layer of insulation and then put the lid on the bin. Give the worms a few days to adjust before feeding them for the first time. When they are ready to be fed, refer to page 71 for what to put in and what to avoid.

**Step 10:** Tidy up the workspace with the help of participants.



Worm compost

## Conclusion

(15 minutes)

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

**Step 1:** Ask participants to reiterate some of the reasons to compost.

**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 88) for participants to take home with links to websites and recommended books for further learning. You could also open any remaining questions up to the group and see if participants can answer the missed questions from their own experience.

**Step 3:** Hand out the **Evaluation** sheet (page 86) and pens and ask that participants all fill them in and hand them back to you before leaving. Completed evaluation sheets should be photocopied after the workshop so that you can keep a record to guide future workshops that you host. Send originals, along with the completed FSN E-News sign-up sheet, back to FSN as soon as you are able. For instructions on how to do that see **Evaluation and Follow-up** (page 13).

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

*We hope you enjoyed the Composting Workshop!*



Kids composting

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## 2.3. Supplementary Materials

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### *Sample Agenda*

# Workshop Agenda Composting

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](http://www.rootcellarsrock.ca)



## Evaluation Form



**Return completed evaluation forms to:**

Food Security Network  
 44 Torbay Rd. Suite 110, St. John's, NL A1A 2G4  
 Fax: 709.237.4231  
 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.

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

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

- participant    facilitator    volunteer    representative of a hosting group  
 other \_\_\_\_\_

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

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

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

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

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

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

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

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

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

Comments:

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

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

Comments:

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

Not helpful		Somewhat helpful		Very helpful
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Comments:

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

Little Understanding				Very Knowledgeable
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

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

Little Understanding				Very Knowledgeable
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**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.**

# Planting: Composting Resources

All content from this workshop is available at  
[www.rootcellarsrock.ca/workshops](http://www.rootcellarsrock.ca/workshops)

## Websites

Backyard composting, vermicomposting, community composting (MMSB) [www.mmsb.nl.ca](http://www.mmsb.nl.ca)

Children & Youth - Resources for Composting (Root Cellars Rock) <http://rootcellarsrock.ca/children-youth>

Compost Council of Canada [www.compost.org](http://www.compost.org)

Composter Designs (Composting 101)  
[www.composting101.com/building-a-bin-article.html](http://www.composting101.com/building-a-bin-article.html)

Composter Designs (City of Edmonton) [www.edmonton.ca/for\\_residents/PDF/compost\\_bins\\_build.pdf](http://www.edmonton.ca/for_residents/PDF/compost_bins_build.pdf)

Composter Designs (University of Wisconsin Extension)  
[www3.uwm.edu/Dept/shwec/publications/cabinet/html/compost/Bin%20Plans.htm](http://www3.uwm.edu/Dept/shwec/publications/cabinet/html/compost/Bin%20Plans.htm)

Garbage Can Compost Bin (RRFB)  
<http://reduceyourwaste.ca/build-your-own-composter.asp>

FoodShare Roots to Rooftops Composting Workshop  
[www.foodshare.net/toolbox\\_roots-rooftops-composting.htm](http://www.foodshare.net/toolbox_roots-rooftops-composting.htm)

MUN Botanical Garden [www.mun.ca/botgarden](http://www.mun.ca/botgarden)

Stacking Composter (Veganic Agriculture Network)  
[www.goveganic.net/spip.php?article201](http://www.goveganic.net/spip.php?article201)

Terracotta Pot Composter (Instructables)  
[www.instructables.com/id/Terracotta-home-composter/#step1](http://www.instructables.com/id/Terracotta-home-composter/#step1)

## Videos

Applying Organic Matter to Soil (MUN Extension Service Archive) <http://tinyurl.com/mun-extension-compost>

How-to: Double-compartment Vermicompost Bin (Note: In NL keep bin indoors) <http://youtu.be/51GKAFRHc34>

How-to: Backyard Compost  
[http://youtu.be/ZAMy\\_ZJ0Xa8](http://youtu.be/ZAMy_ZJ0Xa8)

## Vermicompost Worms in NL

Trouter's Special Worm Farm: (709)334-3531,  
[jcsodfrm@nfld.com](mailto:jcsodfrm@nfld.com)



Resource Sheet 2 out of 8



Photo: MUN Botanical Garden



Photo: Sarah Crocker

## Books

*Ask Ross Traverse About Gardening* by Ross Traverse

*Worms Eat My Garbage: How to Set Up & Maintain a Worm Composting System* by Mary Applehof

*Backyard Composting: Your Complete Guide to Recycling Yard Clippings* by Harmonious Technologies

## Photos

8 ways to compost photo slideshow (Treehugger)  
[www.treehugger.com/slideshows/green-food/8-ways-to-compost-and-which-one-you-should-try/](http://www.treehugger.com/slideshows/green-food/8-ways-to-compost-and-which-one-you-should-try/)



## 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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