UWSA Seed Library

CAMPUS SUSTAINABILITY

Maureen Hanlon
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This booklet was compiled and written by me, seed library co-founder Maureen Hanlon. In using the word "we" throughout the booklet, I hope to acknowledge that decisions for and about the library were made not just by myself and co-founder Charlie Crow, but in consultation with the many volunteers and partners who have made this project possible. The UWSA Seed Library is not any one individual, but a group of "us" working together to make the project a reality.
The UWSA Seed Library: An Overview

This booklet tells the story of the University of Winnipeg Students’ Association Seed Library, and we hope it can serve as a resource to others looking to start a seed library of their own. In the introduction, we discuss the origins of the library and the reasons we decided seed saving was a worthwhile sustainability initiative for the university. The next section covers the first four months spent establishing the seed library, including goal-setting, research, and events. This section also includes an overview of basic seed saving for those new to the practice. We move on to discuss project details: policies for lending and borrowing, our cataloguing system, and guidelines for library volunteers. We conclude with our upcoming plans and a vision for the seed library’s long-term future.

What is a seed library?

A seed library functions much like a book library. Users can borrow seeds without charge and are asked to return seeds after they have grown their plants. Some seed libraries are very particular about the responsibilities of users, while some do not track their users at all. The UWSA Seed Library asks that users try to save twice the number of seeds they checked out, but there are no ramifications for not returning seeds. Additionally, seed libraries usually accept seed donations, again with varying levels of stringency. For more information about donations, see our policy summary on page 21.

Key Actors

Many entities played a part in bringing the UWSA Seed Library to life. The initial idea for the library was developed by two students, Maureen Hanlon and Charlie Crow. They were awarded an eco-grant of just under $2000 for their project by GESA, the university’s Geography and Environmental Student’s Association. The eco-grant is awarded yearly by GESA for campus sustainability initiatives and is funded entirely by the student group. In 2016, the eco-grant was awarded to both the UWSA Seed Library and a rooftop gardening initiative.

Hanlon was the coordinator of another student group, EcoPIA (Ecological People in Action), whose members quickly became active in establishing the library. EcoPIA is a UWSA-funded group committed to promoting environmental awareness on campus through student action. Other EcoPIA initiatives include a waste educator program to encourage composting and recycling habits in the student body and the UWSA Bike Lab, which serves as a workspace and action group for cyclists at the university. Because of the EcoPIA’s ties to the student union, the wider UWSA network was also available as a resource for supporting and promoting the library while it was established.

The university also offered a Campus Sustainability class, ENV-4615, during the semester that the seed library was established. The class was taught by Alan Diduck, an environmental studies professor interested in empowering students to effect change at the university and beyond. Diduck’s class allowed students to adopt projects...
Vision and Purpose

The UWSA Seed library was founded to make sharing seeds and seed saving knowledge easier for students, staff, and the wider downtown community. In a world where food is increasingly patented and genetically modified, restoring and maintaining a resilient seed keeping tradition is key to cultivating food sovereignty. This project contributes to the university’s Sustainability Policy, including our goal to “equip students with the skills and knowledge...that will enable people to actively contribute to a more sustainable world.” Saving seeds allows citizens to exercise control over the food system and builds a culture of sustainability. When seeds are made as accessible as books in a library, everyone has the opportunity to participate in the long, dynamic, and ongoing story that produced the seeds we hold in our hands.

Key Actors (cont.)

...proposed by the Campus Sustainability Office and explore options for implementation on campus. By taking this class, Hanlon was able to get credit for her work on the library and workshop ideas as the project developed over the course of the semester. This was critical to goal-setting and organization in the early months of the library. In addition to the seed library, Diduck’s class resulted in suggestions for interpretive signage for the Bike Lab’s new solar panels, a proposal for a sustainability course requirement, and several other innovative projects.

There continue to be many active players in the seed library, including our library users, the Campus Sustainability office, and more. Please see our acknowledgments on page 32 for a more complete list of seed library supporters.

There were also contributions from professors, such as Alan Diduck at the campus Living Lab event. (Photo courtesy of Alana Lajoie-O’Malley)

Background Photo: Cucumbers germinating. (flickr.com/photos/clearlydived)
"It's only by having as many gardeners as we can saving these seeds that we're going to be starting to reverse the rates of extinction." - Caroline Chartrand, Red River Seed Library founder

Other University Seed Libraries

An early step in establishing the library was researching similar projects at other North American universities. We looked at five universities and compared donation policies, expectations for borrowers, storage logistics, public outreach, and organization. Here we review five key observations that influenced the early development of the library:

1. Most libraries founded/supported by students also have some other body to support their efforts. For instance, the Faculty of Agriculture at Dalhousie University helps to run their library, while the seed library at the University of Toronto is part of a larger, city-wide seed library network. Large, stable groups were key to carrying on the work of the libraries from one year to the next as students graduated. We have ended up working closely with the University of Winnipeg’s Student Association, who are able to provide guidance and long-term stability for the library and provided official sponsorship in our formal name.

2. All the libraries use dry storage. Our initial plan had called for refrigeration. While this would prolong the viability of our seeds, it made storage logistics that much harder. Libraries like the Kwantlen Seed Library at Kwantlen Polytechnic Institute indicate that high seed turnover is one of their primary goals, so longevity of seeds is less of a concern. We have stored our seeds in paper coin envelopes in a wooden sewing case for the time being. It’s portable and draws attention!

3. Restrictions on seed donations were few, but groups usually encouraged organic and open-pollinated seeds. Several libraries had systems for rating ease of growth. We originally planned to distribute only seeds that could be direct seeded, but these policies and other research on seed saving techniques turned us in a new direction. We did end up adopting a seed classification system, and we made distribution goals based on these. We now ask that donated seeds be open-pollinated and organic if possible, but we rely on users to regulate their own donations. For more information about our rating system, check out (link), and for more about donations and related policies, check (link).

4. All libraries researched had a strong web presence. For example, the University of San Francisco Seed Library has a sub-page on the school library’s website, a blog, and a twitter account. We now have an online seed catalog, librarything.com/catalog/uwsaseedlibrary, and we are working to advertise the library on the UWSA website and the EcoPIA Facebook page.

5. The Red River Seed Library focuses on preserving a small number of rare seed varieties each season, and they have high expectations for their seeds’ growers. One of our major inspirations for starting our library was the work of the Red River 56
What is the difference between a seed bank and a seed library?

Many people are familiar with high-tech, multi-million dollar seed banks like the Svalbard Seed Vault in Norway. If institutions like this are protecting our seeds from extinction, then why do we need local seed saving initiatives in the first place? While seed banks certainly play an important role in protecting plant genetic material, they approach seed saving differently than seed libraries. Rather than relying on tightly controlled storage conditions free from human interference, seed libraries harness the power of people to ensure that seeds remain viable. Seed library supporters believe the best way for seeds to adapt to local conditions and survive for future generations is to grow them in home gardens and small farms. Seed libraries help maintain the ‘life’ of a seed while empowering growers to participate in the creation of vibrant food systems.

Other Seed Libraries (cont.)

Seed Library at Canadian Mennonite University. We wanted students and community members who lived downtown to be able to access heritage seeds without having to take a long bus or bike ride across the city. We’ve since found that the libraries also have slightly different aims; while the Red River Seed Library works incredibly hard to ensure true seeds are produced for select heritage varieties, the UWSA Seed Library is working to empower new seed savers, meaning we expect lower return rates and thus are dealing in less valuable seed. This means that both libraries can co-exist and thrive in our small city.

The best part of this early research was discovering all the grassroots seed libraries committed to making seeds accessible to their users. We are proud to be part of a wider seed saving movement, and we expect it will continue to grow and mature as more libraries are established.
Seedy Saturdays are a growing tradition within the seed saving movement. On these late winter Saturdays, gardening groups across the country host large-scale, public seed swaps to promote seed saving and knowledge sharing. The UWSA Seed Library made its debut at Winnipeg Seedy Saturday on February 13, 2016. Charlie Crow and Maureen Hanlon served as volunteers at the children’s activity booth and brought brochures to reach out to local seed savers about the upcoming plans for the library. They were also able to collect a number of heritage seed varieties from the swap table, meet with organizers of the Red River Seed Library, and attend a seed saving workshop. We’re excited to be able to distribute seeds at this event in the future!

UWSA Seed Library founders Charlie Crow and Maureen Hanlon show off their first seeds collected on Seedy Saturday. (Photo courtesy of Maureen Hanlon)

Seeds are our cultural and natural heritage

Saturday
February 13
10AM-3PM

Winnipeg Seedy Saturday
Canadian Mennonite University
500 Shaftesbury – North Campus

A gathering of gardeners and foodies celebrating local seeds, native plants, regional food, and the beginning of a new growing season.

Kids Activities throughout the day. Bring your seeds to swap with others. Snacks and drinks on sale from Tall Grass Prairie Bakery

Featuring Dan Brisebois, seed saver, farmer, and author will help us CELEBRATE SEEDS – Friday, Febrary 12 at 7:30pm
A public conversation about seed saving
Tickets: $7.50 student/low wage and $15 full price

Visit www.winnipegseedy saturday.wordpress.com or find us on Facebook.
Seed Saving: The Basics

The first thing you should find out if you want to save a plant’s seeds is the plant’s method of pollination. This tells you how the pollen, containing the male gametes of the plant, makes its way to the female reproductive organs. Plants in our seed library are either self-pollinated, insect-pollinated, or wind-pollinated.

In self-pollinated plants, the male and female reproductive organs will usually pollinate themselves within the same flower. This means very little work for the seed saver because there is no danger of cross pollination; the seeds collected will produce a plant identical to the parent plant.

Insect-pollinated and wind-pollinated plants can cross-pollinate, that is, pollen from a plant other than the one you are growing can impregnate your own plant. This is undesirable, as you want to collect seeds that will grow a plant identical to the parent plant. If you are growing a wind-pollinated or insect-pollinated plant, it will be important to isolate the plant and ensure that it is pollinated with pollen from a plant of the same type as the parent plant.

Isolation

Plants that can cross-pollinate require isolation, or a method of keeping them separate from other plants you don’t want crossing with yours. In rural areas, distance is adequate for isolation. However, in an urban setting, most plants require too great an isolation distance for this to be practical. Thus, urban seed savers use other methods of isolation. Insect-pollinated plants can be isolated by bagging or taping their blossoms and hand-pollinating. This also ensures that your plant will produce fruit. Wind pollinated plants must be caged in a fine mesh with a number of individuals you would like to cross pollinate.

Harvesting Fruit

Once you are sure your plant will produce true seed, you need to grow out your plant for seed saving. Some plants require you to grow the fruit for longer than you might for personal consumption; for instance, a zucchini should be very large and tough before you harvest it for seed. One challenge for the seed saver is choosing when to harvest fruits and when to let them grow for seed. String beans are a good example. As a
Harvesting Fruit (cont.)

You want to pick tender, slim beans as soon as they are ready so your plant will continue to grow more beans; however, as a seed saver, you need to leave a few beans on the vine to mature, which might decrease your production. For this reason, we recommend our library users either choose one plant to save seeds from while reserving the rest for food production, or they can simply save seeds at the very end of the season.

Saving Seeds for Storage

When you have harvested and aged your fruit as necessary, it is time to save your seeds. Dry seed saving, as the name implies, means that you only need to dry out the seeds inside the fruit in order to store the seed for the next season. Some seeds that are dry require threshing (removing from a pod or hull) or winnowing (removing chaff and other debris from seeds). We do not require library users to clean seeds to industry standards.

Wet seed saving is the process of saving seeds that come out of the fruit wet, like tomato or melon seeds. To save wet seeds, first remove the seeds and the pulp and loosen the mixture gently with your fingers. Pour this pulp and seed mixture into a bowl or jar with roughly the same amount of water. Allow the seeds to sit for 24-48 hours. The mixture may bubble or even mold slightly; this is desirable. This fermentation process mimics digestive processes that your seeds evolved to endure, and will make your germination rate much higher than if you just dried these seeds. By the end of the fermentation, the good seeds will have sunk to the bottom of your jar (see background photo). Simply pour off the pulp and bad seed and dry your clean, fermented seed for storage.

We understand that all this information can be overwhelming for the beginning seed saver. One of the benefits of a seed library is that it brings together veteran seed savers and those who are just starting to share seed saving knowledge. For those starting a seed library without much know-how, we recommend attending a seed saving workshop to learn from experienced seed savers first-hand. For our users, we have simplified the process by classifying all seeds as easy, moderate, or hard. Remember that this is simply a classification of seed saving difficulty and is not indicative of how easy it might be to grow out the plants themselves.

Easy

These seeds are either a) self-pollinated, eg. peas, or b) we feel cross pollination will not result in undesirable seeds, eg. basil.

Moderate

These seeds require some effort on the part of the seed saver to avoid cross pollination, but the seeds are ready for storage by fall of the season they were planted, eg. cucumbers.

Hard

These seeds require overwintering and may entail measures to prevent cross-pollination the following spring, eg. carrots.
Attention Seed Savers!

EcoPIA (Ecological People in Action) is starting a seed library! Whether you saved seeds from your own plants or just have extras leftover from packets, come to our lunch to share seeds and stories with other seed savers. We ask that all varieties be open pollinated.

UWSA Seed Library Luncheon

Who? This event is open to students, staff, and members of the community.

When? Saturday, March 5th, 2016 at 1:00

Where? The Hive

Questions? E-mail us at ecopia@theuwsa.ca.

Not a seed saver yet? The UWSA seed library will be hosting a number of events for aspiring seed savers in the coming year! Look out for us at the Gardening 101 workshops.

"When you become responsible for seeds, you're nurturing life."
–From Rogue Primate

Seed Library Luncheon

Though Seedy Saturday collection was successful in the quantity and variety of seeds we collected, the Seed Library also wanted to give students and downtown community seed savers an opportunity to meet and share stories. Thus was born the first spring Seed Savers’ Luncheon!

On March 5th, six seed savers gathered to enjoy samosas and learn about the library. Charlie Crow gave a short presentation about the library’s foundations, and then seed savers had an opportunity to chat about their seeds and their reasons for attending. This was also the first day the library was open for business, and several seed savers both donated and borrowed seeds. We were lucky to be visited by the host of Rogue Primate, a CKUW (the University of Winnipeg radio station) show that tells stories about Winnipegers working on sustainable innovations. The seed library was featured in a segment about urban seed savers and seed saving in a larger context. The entire show is available here.

We enjoyed the comradery and atmosphere of this campus seed swap event, and we hope that it will grow in popularity as the library becomes more visible on campus.

Top: Donors share snacks and seeds.
Bottom: Seed Library co-founder Charlie Crow talks about goals for the library.
(Both photos courtesy of Maureen Hanlon)

Background Photo: Varieties of corn. (commons.wikimedia.org)
The Seed Library also made an appearance at Grass Routes, the University’s sustainability awareness festival. EcoPIA hosted a series of garden workshops early in the week, and the seed library was open for lending alongside composting demonstrations and a campus garden initiative. The library also featured in the “Living Lab,” a series of student presentations about up-and-coming campus sustainability projects.

Seed Spotlight: Frost Grapes

**Type:** Grape  
**Variety:** Frost  
**Difficulty:** Easy (Note: Wild grapes are insect-pollinated, with plants being only male or female. However, we have designated them as “easy” because there is only the one type of wild grape growing in Winnipeg. Growers should be aware that half the seeds checked out will be for male plants, i.e., they will not produce grapes.)

**Source:** Collected from outdoors

**Number Donated:** 25

**Comments from Donor:** My neighbors have these huge wild grape vines in their backyard, and this past year they finally came over our fence. We figured those ones are ours now! The skins are sour, but the insides are sweet. We saved a bunch of the seeds last year in hopes that we can grow some of our own.

Photo: Wild grapes. flickr.com/photos/ccelfgp
Our most recent event was three days of seed giveaways during the last week of classes. While donations were accepted (we got some nice French tarragon), the focus of this event was reaching out to people who may not have otherwise heard about the library. We currently have over 50 users and we’re looking forward to continued growth in the coming year!

Seed Giveaways

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Photo: EcoPIA volunteer checks out seeds from the portable library. (Courtesy of the University of Winnipeg Students’ Association)
We ask that all seeds donated be open-pollinated and organic, if possible. We cannot accept hybrid or GMO seeds. We are primarily a vegetable library, but we accept donations of flowers, fruits, and other plants as long as they are not invasive. Donors are asked to give their name and contact information, the source of their seed, and the year that it was saved. We encourage donors to include any growing tips or interesting anecdotes that future growers might find helpful or amusing.

**Borrowing**

Anyone, including students, staff, and community members, may check out seeds from the UWSA Seed Library. There is no limit on the number of seeds taken out, although we encourage borrowers to try easy seeds if they have never saved seeds before. Borrowers are asked to give their name and contact information. We ask users to try to save and return twice the number of seeds they check out, but we understand that for many growers, this may not happen; there are no repercussions for not returning seeds, and we hope that growers feel empowered to return the next year and try again.

**Long-Term Storage**

The UWSA Seed Library seeks to have continuous lending and return of seeds. That said, every type of seed has a timeline for discard to ensure we are not distributing seeds that are no longer viable. We prioritize distributing seeds that are in their last year of viability.
The UWSA Seed Library has to track seeds donated, borrowed, and collected, as well as user activity. Figuring out how to do this effectively was one of the most challenging parts of establishing the library, and we are still smoothing out the wrinkles. We would like to thank University of Winnipeg librarian Michael Dudley for his assistance during this process.

**Online Catalogue**

Using LibraryThing ([here](https://librarything.com)), an online cataloguing platform, we were able to create a searchable database of available seeds. It is organized as if each seed variety were a book, with all envelopes of that seed constituting a copy of the book. We can now track who first donated the seeds, how many seeds we’ve distributed, and how many are available at any given time.

**Visual Catalogue**

Once we had obtained the bulk of the year’s seeds, we created a visual catalogue to use for events. This has large, eye catching pictures and brief descriptions of each plant.

**Seeds**

The seeds are counted into envelopes, each containing the number of seeds that would typically be grown in a small garden. Each envelope is labelled with the type of seed, variety, number of seeds, difficulty, and the year it was packaged. They are organized by type and variety in the library, which has a small diagram showing where each type is located.

**Users**

Users are issued a form that tracks both seeds donated and seeds returned. They also get a number that is listed in other databases that are public, like the online catalogue.

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**Visual Catalogue**

Above: The online catalogue is searchable and easy to navigate. Right: The visual catalog gives a full description of each variety. (Photo courtesy of Maureen Hanlon)

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**Australian Butternut Squash**

Type: Winter Squash  
Difficulty: Moderate

Description: A gorgeous peach-colored squash that has extra-thick, orange flesh that’s perfect for pies and baking. The 15-lb. fruit keep for a long period. Very rare Australian heirloom. ([rareseeds.com](http://rareseeds.com))

Notes from donor: These were grown in front of a spruce, and the tree roots, drought, and amount of compost we applied got to them.
Do I need to know if a plant is an annual, biennial, or perennial to save seeds from it?

In short, yes. Most gardeners are aware of these distinctions because they indicate when your plant will die and need to be replaced. For seed savers, these terms will also tell you when you can expect your plant to go to seed. (This makes sense; most plants put a large amount of energy into producing seeds, causing the parent plant to die off.) Annuals go to seed at the end of the growing season, biennial plants go to seed the following season, and perennial plants might seed every year, every other year, or in a large reproduction event at the end of their life. Biennials are classified as hard to save by the UWSA Seed Library because they need to be successfully overwintered in our cold climate, a hard task indeed!
Part of our original library grant application included a demonstration garden for practicing different seed saving techniques. We are glad to say that this portion of the project is beginning to take shape. The UWSA has offered the library the use of the raised beds on the north side of McFeetors Hall, and we have been able to contract Urban Eatin’ Landscapes to help with summer maintenance. Student volunteers will also assist with the garden over the summer as needed. Early ideas around the garden include a squash pollination workshop and a native plants plant-in.

We are thankful for the many people who are helping to make this part of the project a reality!

Of course, things will really pick up again for the library in the fall when seeds start coming back in and we have a garden to harvest and clean up for the winter. This will also be an excellent time to offer seed saving workshops with produce from the garden. Finally, we are hoping to host a Harvest Feast to celebrate the efforts of library users and enjoy the fruits of the summers’ labor. And after that? If all goes according to plan, we start over again!
Acknowledgments

The seed library would like to thank the following parties for their contributions to the UWSA Seed Library. It is only through collaboration with many committed individuals that we have been able to make this happen.

Charlie Crow
The University of Winnipeg Geography and Environmental Student's Association
Gaetan Salmon and other University of Winnipeg physical plant staff
Alana Laiole-O'Malley and Alex Webb from the University of Winnipeg Sustainability Office

The University of Winnipeg Students’ Association staff and executive, especially Karolya Vargescarr, Tom Brown, Priyanka Bains, Denae Penner, and Jesse Blackman.

Michael Dudley from the University of Winnipeg library
Professor Alan Diduck and the students of ENV-4614, Campus Sustainability
Natalie Dyck and the Urban Eatin’ Landscapes Workers’ Cooperative
Professor Nancy Loadman and other participants in the Biology Department starts giveaway
All of our excellent volunteers

Bibliography


