

2024 Annual Report

 **BREEDING DIVERSITY, COMMUNITY, AND
HEALTH: MOBILIZING LANDRACE SEEDING
BREEDING IN NORTHWESTERN ONTARIO**

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What's Inside

Partners
page 2

Planting
page 3

Participation
page 4

Preparations
page 5

Contact Us
page 6



About the Project

Landrace seed breeding is a millennia-old sustainable breeding technique that works collaboratively with communities and ecosystems to develop genetically diverse crop populations that produce regionally adapted, stable yields. It is also an accessible way to introduce people to, and involve people with, seed saving and sustainable agriculture. Landrace seeds are highly resilient and adaptable to changing environmental conditions. This project aims to breed landraces at the Lakehead University Agricultural Research Station (LUARS), on farms in the Thunder Bay region, and in communities across northwestern Ontario. Through this work we aim to build landrace breeding capacity and gain a better understanding of the impacts of this practice in supporting resilient regional food systems and seed sovereignty in our region.



Lakehead
UNIVERSITY

Agricultural
Research Station



Sustainable Canadian
Agricultural Partnership

Ontario 

Canada 

Partners

In the spring of 2024, we met for the first time with our project partners: the Ecological Farmers Association of Ontario (EFAO), Superior Seed Producers (SSP), Roots Community Food Centre (RCFC), Sioux Lookout First Nations Health Authority (SLFNHA), Thunder Bay and District Health Unit, Gaia Organic Seeds, Root Cellar Gardens and Going to Seed. While diverse in mandates and locations, the partners all share a commitment to building community, food sovereignty and seed sovereignty. Together we have worked to share information about working with landraces, offer learning opportunities, and connect growers with locally adapted landrace seeds. Since the spring we have gained additional partners on the project: The Lake Superior Living Labs Network (LSLLN) and The Thunder Bay and Area Food Strategy (TBAFS).



Planting



Preparing to plant landrace watermelons at the LUARS site, June 10, 2024

100
row feet of
watermelons
planted

In 2024 we began working with the land at the LUARS site. We tested and amended the soil, mowed, cultivated, and tilled. We weeded, laid fabric mulch, and tenderly transplanted 40 small landrace watermelon plants. We covered them with floating row cover to protect them from cold night temperatures. In the weeks and months that followed we uncovered them, weeded them, and watched them grow. By the end of the season, we were able to harvest 12 small watermelons from the 12 remaining plants. Not a huge harvest but encouraging none the less as they were grown without water or fencing.

Each of the 12 melons harvested were sampled by either project partners or community members. Eaters ate melons, but they also selected and saved seeds. From this collective effort, over 500 genetically diverse seeds were saved for future planting and sharing.

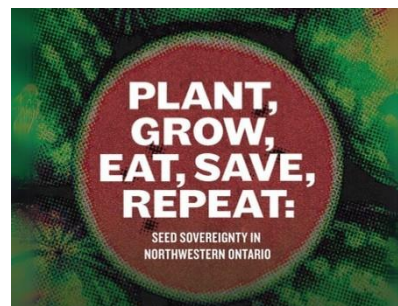
500+
seeds saved

1
acre
prepared

While the watermelons grew, work began preparing the remainder of the research plot for the summer of 2025. The well-established alfalfa was mowed, chopped, and turned into the soil. Rye grass was seeded as a cover crop. At the end of the season this rye grass and the remaining determined alfalfa will be plowed into the soil.

Participation

In September we brought together partners and community members for a two-day event that included a hybrid-format panel discussion on seed-human relationships, tours of seed production gardens in Thunder Bay, squash and watermelon tasting, and workshops on harvesting, cleaning, and storing seeds. This joyful event brought together seed-curious folks from all walks of life and from near and far.



**Watermelon
tasting**

Landrace watermelons grown at LUARS, along with other melons grown by our partners at Roots Community Food Centre and Root Cellar Gardens were tasted by many at the Roots urban farm. Here folks also were able to learn about what landrace breeding is, how it works, and why it is important. Finally, all were invited to save some seeds.



**Learning about
seeds together**

A day of seed-learning was provided by our partners Superior Seed Producers and Roots Community Food Centre. Tours of seed-filled gardens and opportunities for hands-on learning allowed participants to gain experience and confidence to bring to their own gardens and communities.



**Hybrid panel
discussion event**

With a hybrid format we brought together over 50 participants and five presenters on seed-human relationships. Indigenous, academic, community, commercial, and policy lenses were all shared and explored – and of course we had watermelon and squash on hand for folks taste test as well.

[Watch the recording here.](#)

Preparations for 2025

In the upcoming year of this project, we aim to bring further collaboration with partners, landrace crop production at the LUARS site, educational events and community engagement. To this end we have begun putting together some of the pieces and doing the groundwork required to make this a reality.

Field work was done on our plot at LUARS to prepare the space for a full planting of landrace crops in 2025. Specifically, we plan to grow out five populations of landrace watermelon developed by Ontario growers alongside a commercial check. This planting will allow us to evaluate the landraces, as well as provide a hands-on learning and seed saving opportunity for community members. We also intend to plant out a winter squash landrace in development. This crop will similarly provide learning opportunities and seeds. Importantly, it is also a crop that tends to be more easily grown in our northern region and so may provide more opportunities for success for those who receive their seeds.

We have also applied for both of these plantings at the LUARS site (watermelon and squash) to be part of a Farmer-Led Research project supported by the Ecological Farmers Association of Ontario. Root Cellar Gardens will continue to partner with us, growing out these landrace squash and watermelons at their site.



Alongside the hands-on learning this project, we will collectively create a handbook on landrace breeding to be shared and used publicly. To this end, work has begun to determine the scope, format, and approach for this resource.

We look forward to continue to build connections and relationships with our partners and the communities they serve. We also look forward to our continuing work with regionally adapted landraces and the opportunities to learn and grow that they present along the path to increased food and seed sovereignty in northwestern Ontario.

Further Reading

[Becoming-the-dash:
Exploring the
connections between
landrace seed breeding
and an ecosocial
approach to health. A
Master's thesis by
EvilisaMcIlffaterick
\(2024\)](#)

[Watermelons in Thunder
Bay: A Landrace
Breeding Project. An
article by Sarah Larson
\(2024\)](#)

[Evalisa' Ontario
Watermelon Project. An
article by Kay Everts
\(2024\)](#)



Contact Us

For further information, check out our website at
<https://foodsystems.lakeheadu.ca/agroecology-in-canada/>

