



CENTER *for*
RURAL AFFAIRS

Mini Seed School 2022

With Center for Rural Affairs,
Golden Hills RC&D, Iowa Western CC

Facilitators - Cait Caughey and Alex O'Hanlon

Welcome!

- Please keep yourself muted unless you are speaking
- We are going to record this workshop, is that ok?
- We will have subtitles. Click on “Live Transcript” to enable this on your screen
- Feel free to type questions in the chat! We want your questions.
- Take note of 1 or 2 seeds you would like to save this season and keep those in mind
- This is fun + informal, feel free to engage as you feel comfortable.



Your seed saving experience



None



Have tried!



Pretty Confident



Save seasonally and experienced!

What is your favorite seed?

Introduce yourself, who you are
affiliated with, where you are from
tell us your favorite
seed by **writing it in the chat!**

Karen Chili seeds from Burma/Myanmar





Topics we will cover this evening

Workshop 1

Story of seeds

Basic seed saving overview

Purpose of seed saving - preservation or creation

Planning your seed saving garden

Dry processing

Workshop 2 (next session)

Genetics and breeding

Seed Patents + History

Processing + seed storage

Seed viability and germination tests

Wet processing

Seed Cooperative/Seed Bank info

The Story - Why Save Seeds?

“Each one of us descends from people who have been in an intimate and reciprocal relationship with plants and seeds since the dawning of time.” - Rowen White

- Resilience - regionally adapted seed
- Climate destabilization
- For food sources
- To restore native ecosystems
- To save \$\$
- To carry on cultural traditions
- To preserve variety and biodiversity
- For improved taste + flavor
- For breeding many new traits (drought tolerance, color)
- Art, the craft of it
- An act of resistance, self-reliance

Why do you want to save seeds?

Put in the chat!



Seed Story (Tip of Iceberg)

We are on stolen land of Umo^ohoⁿ (Omaha) and Očhéthi Šakówinj people.

From Rocky Mountain Seed Alliance;

Seed saving has been practiced for millennia by indigenous peoples around the world. A thorough telling of the history of human interaction with seeds must account for the far-reaching impacts of colonialism, which has for centuries been a process of cultural appropriation and oppression.

Seeds and the art and practice of seed saving are deeply tied to culture. **Seeds tell a story.** They are living embryos passed on through generations. They have the ability to self-replicate and become resilient and thrive where they are planted. Ultimately, seeds are the greatest technology, unlike any other thing in the modern world.



Seed Sourcing

Look for Open-pollinated, heirloom seeds, choose local + regional whenever possible!

Regional Sources

- Buffalo Seed Company, Kansas
<https://www.thebuffaloseedcompany.com/>
- Meadowlark Hearth Farms - Scottsbluff, NE
<https://www.meadowlarkhearth.org/>
- Seed Savers Exchange - Decorah, IA
www.seedsavers.org
- Nature and Nurture - Ann Arbor, MI
<https://natureandnurtureseeds.com/>

Other Sources

- TruLove Seeds
- Native Seeds <https://www.nativeseeds.org/>
- High Mowing Seeds (wide selection of organic)



 **Nature & Nurture Seeds**



**TRUELOVE
SEEDS**

Seed Saving Terms

Hybrid: a plant or variety created by crossing two stable, genetically distinct parental populations; of or related to such a plant or variety; also called an F1 hybrid

Open-pollinated variety: a variety that, when allowed to cross-pollinate only with other members of the same population, produces offspring that display the characteristic traits of the variety

Heirloom variety: an open-pollinated cultivar that has been grown and shared from generation to generation within a family or community



What are you saving for - Preservation or Creation?

- **Preservation-** This is a good place to start as a seed saver. The goal of preservation is to save seed that is **true to type**, that is seed that results in plants that resemble the plants that the seed came from. You will need to start with open-pollinated seed.

Examples //

- Stupice tomato
- Banana

Pepper

Tonight we are going to talk mostly about preserving varieties

- **Creation** - This is where we become plant breeders. The goal of creating a variety is to select for certain traits that you want a plant to have, like color, taste, drought tolerance, or pest resistance (just to name a few). You can take this approach to some degree as you try to preserve a variety. For example, if you want to select for drought tolerance you might only save seeds from plants that display that trait. To create a variety takes observation, selection, and time.

Examples // We will talk about these next week

- Landrace vegetables
- Plant breeding
- Hybrids

Planning for Seed Saving ?s

1. What do I want to save? Include scientific name.
2. What is lifecycle of my seed - annual, biennial, perennial?
3. What is the minimum population I need for genetic diversity? Can I achieve this?
4. What is the isolation distance?
5. When is the seed ready to be harvested?
6. How do I process the seed?
7. How do I properly store the seed?



Tending Your Seed Saving Garden

- Healthy soil, healthy plants (pages 9-10 in Seed Alliance Guide)
- Spacing, Watering, Trellising considerations
- Do not harvest seed from diseased plants or plants with pest pressure
- When to harvest appropriately

Annuals - you will wait for annual vegetables (lettuce, spinach) to 'go to seed' this will mean that they will form a stalk. Annual fruits need to be harvested when they are very ripe. Some veggies, like cucumber, are generally harvest 'underripe' so the difference between harvesting cukes for market and cukes for seed is pretty different. But on a small scale we usually wait until our tomatoes are ripe to pick em to eat,

Biennials - most common biennials are harvested for eating in their first year. But they need to go through the process of vernalization before they go to seed. Vernalization is exposure to cold weather and it is what causes things like onions, garlic, carrots and cabbage to 'go to seed'

Perennials - perennials generally go to seed every year but at different times throughout the year, depending on when they flower.



5 minute break!

SEED SCHOOL

Seed School
2020

For a more resilient future
full of saved seed
by the community
for everyone
to share

at City Sprouts South
featuring farmers, gardeners
ag educators

seeds are for
everyone + show
us the abundance
of life

Dry Processing Techniques

Seeds that are dry processed (examples)

Beans, okra, einkorn, blazing star, goldenrod, oregano

When to harvest for dry processing

Must be DRY, brown

Tools for harvesting - paper bags, sharpie, tape,

Storage for processing your seed later - bins, labels, date, var location

There is not one method for dry processing.

Trial and error. First step is identifying the seed vs the chaff.

Threshing

Winnowing

Sifting

Zinnia seed story - Alex

Tools for processing

Seed screens, fans, paper bags, totes

Record your experience! Record keep!!



Seeds that are dry processed....

Plants that are dry processed

Herbs, flowers, prairie plants, lettuce, arugula, grains, legumes

Easy seeds to start with

Annual grains like wheat, oats, rye

Bush or pole beans

Annual flowers like zinnias, marigolds, calendula

Prairie grasses like little bluestem, big bluestem

Lettuces

Seed is dry when you cannot make a dent with your fingernail, called the “fingernail test” Seed must be **completely dry!**



Let's practice! What Variety do you want to save?

1. What do I want to save?
 2. What is lifecycle of my seed - annual, biennial, perennial?
 3. What is the minimum population I need for genetic diversity? Can I achieve this?
 4. What is the isolation distance?
 5. When is the seed ready to be harvested?
 6. How do I process the seed?
 7. How do I properly store the seed?
1. Rattlesnake Beans
Phaseolus vulgaris
 2. Annual
 3. 5-10 plants
 4. 10-20 feet
 5. Completely brown, dry pods
 6. Remove from pods, thresh
 7. Paper seed packets, cool dry dark place

Questions? Get in touch with us!

Cait - Center for Rural Affairs and
Mullein Hill Farm

caitc@cfra.org

Alex - One Omaha and Free Farm
Syndicate

alexandrialohanlon@gmail.com



Great upcoming opportunities

- **Seed Rematriation Webinars**
Tuesday, Jan 18th
- **Co Bluffs Seed Library Opening**
Sat, March 5th
Time TBD
- **Seed Share**
Sat, March 5th 10 - 4pm
At Fabric Lab Omaha
City Sprouts/Big Garden/Big Muddy



Seed Savers
EXCHANGE

WELCOMING SEEDS HOME:

SEED REMATRIATION WEBINAR SERIES



FEATURED PARTNER:
DR. REBECCA WEBSTER
- enrolled citizen, Oneida Nation,
and founder, Ukwakhwa



FEATURED PARTNER:
KELLIE ZAHN
- agricultural agent with
Stockbridge-Munsee Community



WEBINAR HOST:
SHELLEY BUFFALO
- advocate for land back,
Indigenous food ways, food
justice, and rematriation



NORTH CENTRAL
SARE
Sustainable Agriculture
Research & Education