

# Rooting Through Corn, Planting Families

A Community Project  
Supported by USDA-SARE, 2021-2023

# Many participants

## **Zuleyja Prieto & Gerardo Morales (Goshen)**

Jose Chiquito Galvan (Goshen)

Faith Hunsberger (Warsaw)

Andrew Hudson and the AMBS seminary community (Elkhart)

Jon Zirkle & Adrienne Laws Landis (Goshen)

Bushelcraft Farm (Elkhart)

Trystan Nisley (Goshen)

Jefferson Ballew IV (Bear Clan Potawatomi, Michigan)

Sara Mlotshwa (Goshen )

Kaeli Evans, John & Ruth Mischler at Merry Lea Env. Learning Center (Wolf Lake)

Thomas Meek (Ft. Wayne)

John Sherck (Bristol)

Luke & Becky Gascho (Goshen)

Tereso Rodriguez (Goshen)

Savino Rivera, Jr. (South Bend)

Dana Soyland (Elkhart)

Tara Burch & Nathan Kingsley (Goshen)

Fellowship of Hope (Elkhart)

Marcos Stoltzfus (Goshen)

Steve Shantz (Goshen)

Many more!

This project would not have gotten started if not for John Sherck of Bristol, IN, who has shared seed, taught what he knows about corn, and inspired many. We thank John for generously sharing seed, some of which was received from indigenous sources and from careful breeders of rare corn in Mexico and other parts of Latin America.

Grant support comes from US Department of Agriculture and the Sustainable Agriculture Research & Education (SARE) program, North Central Region. [https://projects.sare.org/sare\\_project/fnc21-1295/](https://projects.sare.org/sare_project/fnc21-1295/)

# Corn

With

Community

Small-scale,  
growing for home  
consumption



Honoring

Sacredness



# Ceremony



And  
beauty



And eating

together



# Heritage Corn

Many of the corn varieties this group of households stewards are rare and many many come originally from indigenous sources. We wish to honor these seeds and varieties, tell their stories, and find others who want to keep these seeds and stories alive.

Unfortunately, it's challenging to grow for human consumption in northern Indiana with the risk of cross contamination with hybrid and GMO corn varieties. But it is possible. The question is how best to do so on a small scale....



# Research Questions This Group Set Out to Answer:

Does planting corn late in the season sufficiently help avoid cross contamination of heritage corn and GMO corn?

Can we use **time** of planting to deal with the vast amount of GMO corn all around us and still harvest heritage corn free of GM traits?

Is it effective (and worth the time and resources) to hand pollinate one's corn (and bagging ears) to be extra sure our heritage corn will not be GMO contaminated?

We tried this out!

# Meet some of our growers and their backyards



# Trystan Nisley

A backyard patch  
of corn can be  
beautiful



Trystan  
Nisleys

raised beds



# Kids can participate!

Photo by Trystan Nisley



# Red ear of 'Vicentino' corn

Photo by Trystan Nisley



# Tristan Nisley photos

Grew two varieties:

'Vicentino' (L) and 'Avati Moroti Mita' (R)



# Nixtamalizing

'Avati Moroti Mita'





Tortillas!



Presentation by Faith Hunsberger

# Group corn data from 2021

## 'Avati Moroti Mita'

### Zuleyja Prieto

Planting	Tasseling	Harvest	
May 23	July 7, 20 (45 days)	Aug 30	=99 days

### Sarah Mlotshwa

Planting	Tasseling	
June 24	Aug 9 (47 days)	

### Trystan Nisley:

Planting	Tasseling	Harvest	
May 29	July 6 (39 days)	~Aug 20	=84 days

# Walpole Island White Flour Corn (Bnugzegnug): origins

Jon Zirkle of Bushelcraft Farm acquired a small amount of seed from John Sherck, who received Bnugzegnug kernels from Kevin Finney and Potawatomi folks from the Jijak Foundation (Michigan) and grew them out at his farm in Bristol, IN.

Seed was grown at Jon Zirkle's backyard in Goshen, IN in 2020 with seed selected from middle of healthy ears for saving. This seed was then blessed during ceremony in March 2021 as part of the *Rooting Through Corn, Planting Families* project, with ceremony led by Zuleyja Prieto.

In June 2021, a small ceremony at Bushelcraft Farm was led by Zuleyja Prieto and Jefferson Ballew IV (Citizen of Pokagon Band of Potawatomi) along with Jon Zirkle. An area of about 20' x 150' was prepared at Bushelcraft Farm (Elkhart), along with help from Bushelcraft Farm staff members Mary Shepphard and Kat Columna.

We are blessed by the generous gift of seeds, the chance to work alongside others, and the opportunity to share.

Early July

After flooding rains

July 2, 2021

8-10 days

after planting



Corn is up

'Bnugzegnug' at

Bushelcraft Farm

July 11, 2021



Aug 5-6



Aug 6





# Tasseling - Aug 16



# Aug 19

Bushelcraft Farm 2021 - Bnugzegnug

Planting                      June 23-25

First tassel                 Aug 9

Hand pollinating        Aug 20, again in early Sept

Harvest                      Sept 27-mid October



# Hand pollinating: August 2021



Hand  
Pollinating

Aug 20-21



Aug 26, 2021

Looking down at  
the corn patch  
at Bushelcraft farm



# Walpole Island White Flour Corn

‘Bnugzegnug’

Straight slender ears

Corn often 8-10’ tall

Grain grinds very fine and rather easily

Photo by Merry Lea ELC



# Walpole Island White Flour 'Bnugzegnug' 2021

Days from planting to tasseling in 2021: ranged from 47-51 days for our growers

Days from planting to harvest:

June 16-Sept 13 (Merry Lea)

June 23-25-Sept. 27 through October (Bushelcraft)

# Walpole Island White Flour Corn

‘Bnugzegnug’

Grown by Kaeli Evans at  
Merry Lea Env. Learning Center  
of Goshen College (Noble Co.)

Photo by Merry Lea ELC





# GMO testing procedures & results (2021)

From three farms, a mixture of 600+ kernels from multiple ears were submitted for testing to FoodChain ID Testing (in Virginia).

Qualitative test (detected/not detected), with a 0.5% detection threshold.

## **2021 Results:**

Prieto HP: none detected

Prieto OP: none detected

Bushelcraft HP: none detected

Bushelcraft OP: none detected

Stantz OP: none detected

Note: the Non-GMO Project uses 0.9% as its threshold. Thus our results are below that level.

# GMO Testing: heritage corn from three farms tested (in town & rural)

Zuleyja Prieto (Goshen, in-town)

‘Avati Moroti Mita’

Hand pollinated (and bagged) corn, open-pollinated (not bagged) corn

Bushelcraft Farm (rural southwest side of Elkhart)

‘Bnugzegnug’ or Walpole Island White Flour Corn

Hand pollinated (and bagged) corn, open-pollinated (not bagged) corn

Steve Shantz (rural northeast side of Goshen)

‘Darwin John’ open-pollinated (not bagged) corn

# Mycotoxin results

2021 'Benugzegnug' corn from Bushelcraft Farm was submitted for testing to FoodChain ID Testing Services (Virginia).

Of the 14 types of mycotoxin,

(includes aflatoxins, fumonisins, ochratoxin, deoxynivalenol, T-2 Toxin, HT-2 Toxin, and zearalenone), no mycotoxins were detected above their minimum level of detection (LOD).

Such good news!

# Making masa with metate and comal

[Video demonstration](#)

Questions? Want to grow backyard heritage corn and be part of our project?

Visit the *Rooting Through Corn, Planting Families* page on Facebook

Email Zuleyja Prieto at [drazuleyja@gmail.com](mailto:drazuleyja@gmail.com)

**Upcoming Webinar: Part of the Zero Waste Goshen webinar series**

February 24, 2022. Thursday, 6:30pm ONLINE

**Registration Link:** [https://us02web.zoom.us/webinar/register/WN\\_DNdp1VocS6qQOJYzsRa9lw](https://us02web.zoom.us/webinar/register/WN_DNdp1VocS6qQOJYzsRa9lw)

\*Photos in this presentation were taken by RTCPF corn growing participants\*