

Seedhead News



Summer 2022

nativeseeds.org

No. 128

Dear Friend,

Since the last Seedhead News, your support has led to a year filled with accomplishments and growth. We finalized our Seed Policy (available online), which guides our work and helps us be more transparent with stakeholders, supporters, and customers.

This Policy clarifies how we steward the seeds in our care, and how we best support and collaborate with communities that have historical and cultural ties to these seeds. As a result, we made changes in seed access programs, including significantly increasing the number of seeds provided through our Seed Donation program. Since June of last year, we've distributed 17,609 free seed packets. These seeds represent opportunities to save and share heirloom and arid-adapted seeds and facilitate a reconnection with farming and cultural traditions.

Growing space at the Conservation Center has increased; there is a new ramada for cleaning seed and a greenhouse that will be used for seedlings. We are continuing to expand and improve irrigation systems and have added water harvesting basins around our Conservation Center campus.

Our progress relies on the broader community that supports seed conservation. Partner farmers and growers help increase seed stock, while community organizations and farms help distribute seeds, and provide access to healthy and traditional foods. We are deeply grateful for the ongoing generosity of our loyal members and supporters who make this conservation work possible.

With gratitude,



Alexandra Zamecnik
Executive Director



SEEDHEADS SPEAK

“In 2020, our nonprofit Tonatierra received a seed grant from NS/S. Two years later, we’ve witnessed two sunflower super blooms. Through these experiences the youth have learned how to take care of a garden and how to work together as a community. We have been able to hold community events and give seed kits away to encourage other youth to plant seeds in their homes and communities.”

Chitlaxochitl | Phoenix, AZ.
IG: @xinachtliyouth



Conservation Farm Mix sunflowers

“I have been trying to shift my gardening to be more in line with the environment I’m in and the crops that have grown well here for generations, if not over a thousand years. I’ve experimented with new greens, chiles, tepary beans and now corn (for the first time) and have really started to shift how and what I eat. It’s a relief to grow food that can manage with one or two deep waterings per week.”

Jen | Phoenix, AZ
IG: @jenurso

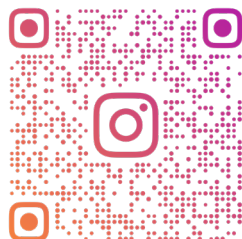


*Left: San Felipe Chile, Center Top: Magdalena Acelgas
Center Bottom: Vadito Quelites Grandes, Right: Texas Wild Cherry Tomatoes*

“I am so grateful to be growing the Mesilla Large Dipper gourd in my Minnesota garden this year. I am truly astounded at how quickly these plants are growing and climbing! Their beautiful blossoms are a special delight as well.”

Emily | Rochester, Minnesota
IG: @emilyannecarson

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NATIVESEEDSEARCH



Mesilla Large Dipper Gourd

Growing with Your Support

By Joel Johnson, Conservation Garden Farmer & Sheryl Joy, Seed Bank Manager

The generosity of donors, members and volunteers has made it possible to increase growing capacity at the Conservation Center. Over the last year, we've doubled land used for agricultural production from ½ an acre to 1.1 acres. In doing so more seed can be grown, saved and shared. Here are some additional garden updates:

As one of our volunteers joked recently, "In the winter, we're part-time gardeners and full-time miners!" That was sure true this winter as we built three huge rain infiltration basins. This involved a lot of excavating (mostly by hand) and hundreds of feet of rock wall building. These structures are key tools to increase water storage in our soils and mitigate flood risk by slowing down and spreading out monsoon rainfall.

A 0.13-acre fenced plot added 24 permanent beds—the largest expansion yet. The earliest plantings in this new area were Texas Hill Country Red okra, Sacaton Aboriginal cotton, and Guarijio Makuchi tobacco. In the fall, a wide pollinator strip will be added to the center of the plot to provide habitat for beneficial insects and encourage more pollinator activity.

A new irrigation installation increased water flow capacity by 5x and gives us the much-needed opportunity to automate most of the irrigation.

The addition of a 1200 ft² ramada was completed in April 2022 - adding much needed space for seed processing and an open-air workshop.

We are grateful to all of the donors, members and volunteers who have made this expansion possible. Thank You!





Garden Expansion translates into more seeds harvested. The number of successful growouts completed at the Conservation Center rose from 25 varieties in 2019 to 35 in 2021. Even more impressive was the increase in quantity—213 lbs of rare seeds were grown in 2021, 3 times more than what was harvested in 2019.

But impressive as they are, numbers are numbers; and the plants in the garden were full of amazing diversity that is important to our region:



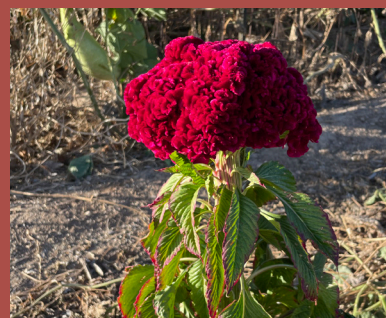
Beck's Gardenville Okra
A Texas heirloom from San Antonio. A vigorous, productive and drought-tolerant plant with green, short, stocky ribbed pods are tender up to 3" long.



Papante Tobacco
Tall plants (>5') with large, deer-eared shaped leaves, lovely pink flowers, and large seed capsules. From the Mayo people in Piedras Verdes, Sonora. This year's Seedhead News cover image!



O'dham Ke:li Ba:so Melon
A favorite of Tohono O'dham and Pima low-desert farmers. The name in the O'dham language means "Old man's chest" referring to the wrinkly appearance of the fruit. O'dham men often refer to it as "ohks tohn" which means "old woman's knees."



Chacari - Mano de Obispo
This ornamental cockscomb from the Mayo decorates graves for Dia de los Muertos (All Souls Day). Flowers are magenta, some golden. The black seed is edible. From Sonora, Mexico.

Partner Farmer Progress

By Dr. Andrea Carter, Outreach Agronomist

This year we are pleased to report an over five time increase in the amount of seed generated through the Partner Farmer Program. As of April, we have received a total of 265 lbs of seed, representing 31 accessions! This returned seed resupplies the seed bank with fresh, quality seed so more will be shared with gardeners and future farmers.

The Partner Farmer program not only helps maintain the viability of the NS/S seed collection, it also represents a direct (powerful) way of reconnecting seeds to communities and places of origin. Moreover, the majority of seed produced remains with the farmer (as food and seed for future planting and sharing).

With your support we were able to partner with over 40 inspiring and passionate farmers who work to grow, share and conserve seeds from the NS/S seed bank collection.

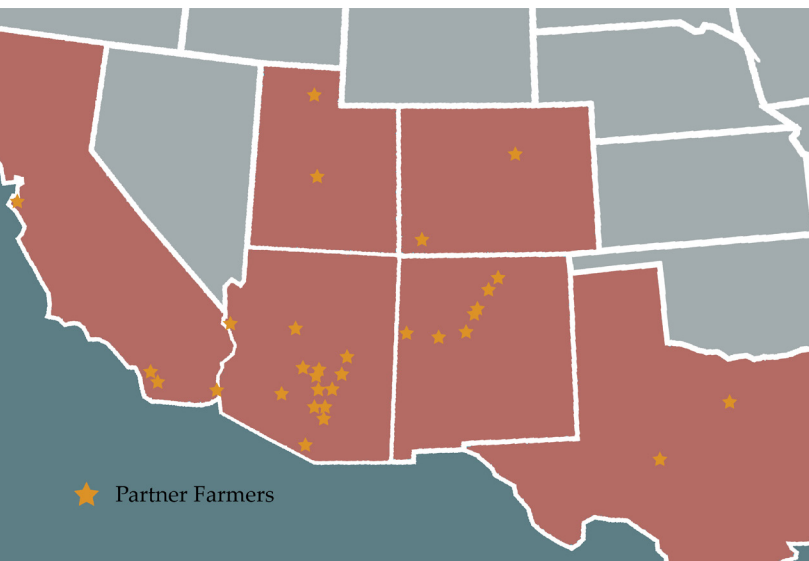


Calico Lima bean, courtesy of Chantae Shor

Let's hear from the Farmers...

"What can we do moment by moment, day by day to usher in and create the Earth we envision living in? Planting and growing climate adapted seeds that have multiple seasons worth of memory logged into their DNA is the answer for me. I'm overjoyed to be growing a second season of calico lima beans for Native Seeds at Ekar Farm. Nature is SO abundant and giving. We can learn so much from Mother Nature when we are quiet enough to listen and still long enough to receive her answers."

-Chantae Shor, Farm Manager, Ekar Farm, Denver Colorado



This map shows Partner Farmers of the Southwest

“The community was excited to see native crops reintroduced in their land. The sunflowers were a big hit with youth learning and harvesting the seeds. The Apache Dipper was a shocker for many community members, not knowing a gourd named after them. Native crops in the community sparked interest in youth and leaders to discover what else grew in their lands.”

-FRTEP* Agent Juan Arias has been a longtime supporter of NS/S. In 2021, Juan and Nalwoodi Denzhone Community became Partner Farmers.

*The Federally Recognized Tribes Extension Program (FRTEP) funds Extension programs on American Indian Reservations and Tribal jurisdictions.



Apache Red Corn (left), Apache Sunflower seed saving (right), courtesy of NDC



“I really enjoyed watching these seeds grow. I was very happy to see a good amount germinate in my fields. Seeds are such a miracle. From a tiny plant to sprawling over the whole field and some fruit as big as a baby ! I’m proud and blessed to know that I will have had a small part in bringing these rare seeds back into availability.”

-Anthony Deluze successfully grew Southern Maiz Negro and Yoeme Segualca Squash all the way out in Ka’onohi, Hawai’i.

Southern Maiz Negro (left), Anthony Deluze holding Segualca Squash (right), courtesy of Anthony Deluze

“It has truly been an honor to be able to grow our traditional sweet corn here back home, where they originate from. They carry the memory of being here and are happy to be back. I am hoping to create a seed bank of as many of our lower Colorado varieties and their relatives so that we can reintroduce a traditional food regimine back to the pipa (people).”

-Tudor Montague, NS/S Board Member of the Fort Quechan Tribe living in Winterhaven, CA. He gre out Yuman Yellow corn and will be returning 1 lb.



Yuman Yellow corn, courtesy of Tudor Montague

Developing Our New Seed Policy

By Alexandra Zamecnik, Executive Director

Over the past 39 years, staff and board members have come and gone and brought different ideas, perspectives, goals and skills. Without the structure of a guiding document, like a Seed Policy, decisions were sometimes made personally and without consistency or broad stakeholder consultation. Building and maintaining trust and transparency with our members, supporters and the Indigenous communities who stewarded the seeds before us is key to our work and motivated the development of this policy.

The seeds in the NS/S collection would not exist without the Indigenous farmers who grew, saved, traded and passed them down to future generations. As a seedbank that actively distributes seeds, we are trying to continue this practice -- in the face of industrial agriculture that seeks to limit seed diversity and consolidate control. To ensure seeds exist in the future, we both conserve and regenerate them, and make them available to the public through free seed programs and our online store.

In addition to the Native American Seed Request and Community Seed Grant programs, we formally added Seed Donations and Rematriation seed access programs. Seed Donations are a way to support organizations who have existing or planned seed banks with larger seed donations. The goal of the program is to help establish and increase populations of traditional seeds in culturally related communities and to promote seed saving.

Since approval of the Policy last summer, we have distributed more than 17,000 free seed packets through these programs. We have provided 15 Seed Donations amounting to 58.2 pounds of seeds. Recipients of Seed Donations have included organizations like the Traditional Native American Farmers Association and the Shiprock Farmers Association in Northern New Mexico, and Tonatierra for an exchange with Yaqui farmers from Vicam, Sonora.

Photo Courtesy of Partner Farmer Mike Benally





Johnson-Su Bioreactor Update

By Joel Johnson, Conservation Garden Farmer

After a full year of decomposing, our first batch of compost was harvested in March 2022. Samples were sent to multiple labs for evaluation, and we couldn't be more pleased with the results. One lab contacted us after the testing to see if we were willing to sell some of the compost since the test showed such a high quality and diversity of microbial life! In particular, the tests showed a high concentration of fungal activity, which is exactly what we were hoping for. Over time, increased fungal activity in our soils should make soil nutrients more available to our crops and reduce the amount of inputs we need to use.

We are using the finished compost as a direct soil amendment, mixing it with raw milk and molasses to make a seed-coating slurry, and blending it in water to create an extract to spray on all our soils as a fungal inoculant.

Volunteers and partnering growers have all taken some of the bioreactor compost to plant with for further experimentation and evaluation. We currently have two bioreactors active at the Conservation Center; the next harvests are scheduled for December 2022 and June 2023. More information about the Johnson-Su system is available for free download at the CSU-Chico website.

A Chiltepin Germination Breakthrough

By Helena Gonzales, Seed Conservation Associate

Germination of chiltepins is very difficult, even when using a germination chamber. They can, at best, take four weeks or more to germinate. We were looking for a practical method to break dormancy and improve germination. A hint in previous NS/S germination notes said to use a drop of vinegar when soaking seeds.

3 chiltepin and 1 chile were tested in 5 different germination methods for 3 weeks. All were germinated in a wet paper towel method (seeds put directly onto wet paper towel and put in germination chamber).

Of the five methods, the most successful was soaking the seeds in 1 measuring cup of water with 1 drop of vinegar for 24 hours.

Compared to the previous germination method (the paper towel method), there was an average of 31% improvement in germination! The vinegar-water is likely helping remove germination inhibitors and helping the seeds absorb water.



Seeds Offer Solace to Schools

By David Rollins, Urban Horticulture/Restoration Ecology Teacher at Sky Islands High School

It is with gratitude that we thank donors and members of Native Seeds/SEARCH for their support in sustaining localized community gardens like ours at Sky Islands High School.

The Native Seeds/SEARCH Community Seed Grant offered immeasurable solace and support this growing season at Sky Islands High School. We received 15 varieties of arid-adapted seed packets—all of which were hand-sown, transplanted, and harvested by our freshman class.

School gardens create a therapeutic space for students, teachers, and volunteers. Through the general rhythms of garden tasks I've seen students grow. I've found that the garden opened up a kind of liminal space of connection and reflection—which is always a welcome gift as an educator.



There is something particularly special when students are able to garden with seeds that have grown here for centuries. All the more so, when they learn how many people took the forethought to grow and save these seeds over countless generations. Beyond this, how these varieties offer a route to speak on the threads of climate resilient agriculture in a place like the Sonoran Desert.

The produce from the garden was gathered and distributed to our culinary program. Here, the older students created dishes for our student body and staff, feeding nearly 100 daily. It was magical to see students putting away large salads of Kyona Mizuna, Purple Orach, and Oakleaf and Jericho lettuces.

Through this process, students in both the Urban Horticulture and Culinary classes gained hands-on trade work experience, and were able to learn about both ends of the localized food industry—knowledge that will last them a lifetime.

Photos courtesy of David Rollins



Volunteers Support the Seed Lab

By Justin Risley, Marketing & Distribution Associate

Engagement with supporters through social media has always been a beneficial tool for NS/S to answer questions, share resources, and see what you grow. We thoroughly enjoy the opportunity to connect with those who grow, save, and share seed throughout the Greater Southwest and across the globe.

Earlier this year, a comment on Instagram about winnowing led us to open-source blueprints for a DIY seed cleaning machine designed by The Real Seed Collection, a seed company in the United Kingdom. Volunteer Keith Lierman, a retired engineer, went home and built the machine, and soon enough the Seed Lab had its own seed cleaner! Like all great things, it needed a name. We sent a call out to our Instagram followers, who came up with the name Chaffie Chafferton



Volunteer Keith Lierman with his creation.

Chaffie replicates a traditional zig-zag aspirator which goes for thousands of dollars. Keith said it cost him around \$30 using scrap materials. He said building from all new materials would probably only cost around \$50. Normally we'd winnow seed with a box fan or pull out chaff by hand, this machine makes the process much more efficient. With the ability to adjust the level of suction, Chaffie can clean seeds as small as amaranth to larger seeds like squash and sunflower. 🌰

Learn more about Chaffie on our Youtube Channel: youtube.com/c/NativeSeedsSEARCH

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Native Seeds/SEARCH is a 501(c)3 nonprofit whose mission is to conserve and promote arid-adapted crop diversity to nourish a changing world. We work within the southwestern United States and Mexico to strengthen regional food security.

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