

Seedhead News



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FROM THE CONSERVATION DEPARTMENT



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Thirty five years ago, Native Seeds/SEARCH was founded to help protect Indigenous agriculture by preserving seeds. Today we're honored to be able to offer more than 500 seed types, and also to see on the pages of numerous other heirloom seed catalogs some of the plants that were first shared with the public through this collection. Many of the remarkable wheat, beans, amaranth, and corns from southwestern farming traditions now live in fields and gardens around the world, stewarded by new farmers and new traditions. With such a robust and culturally significant seed collection, and so many joining us in the course of seed preservation, we need to ask now not only how to save this precious resource, but why are we saving these seeds and for whom?



These are seeds from perfect plants, generated by the collective work of expert farmers of the southwest over thousands of years. This shared geography is reflected in most of the collection's ability to thrive under challenging conditions--such as nutrient-poor soils and low rainfall--and this resilience is a product of interactions among peoples, places, and plants. As successive plant generations are grown with the same time-tested methods in the same locations, the relationship among all three becomes more intimate: crops become better able to meet human nutrition needs and better suited to the farm with fewer inputs. But heirloom seed collections like Native Seeds/SEARCH are endangered by a Western scientific

viewpoint, which sees them as repositories of genes most valuable to breeding programs. While genes are fundamental to life, they are a very small part of our seed bank's story. If we were to view the seeds as an inert collection of genetic material, we might miss the beans that already produce plentifully with only monsoonal rainfall, corn that yields 60 days after planting, and sunflowers that suppress weeds.

So our conservation paradigm at Native Seeds/SEARCH is about more than just saving seeds: our goal is to nurture this relationship between plants, people, and place. Our goal is also to preserve *whole plants*, and to preserve their unique and hard-won adaptations by growing more of them at their places of origin. Bringing the seeds home again while helping their rightful heirs heal their lands and maintain their stories at the same time.

Together with our community of small farmers and supporters, we are shaping the future of agriculture through practices that maintain continuity with the past. I hope you'll continue to join us as we pursue the promise of the collection.

Nicholas Garber
Conservation Program Manager

Front Cover:

Seed Saving Class at Hopi
Tutskwa Permaculture;
NS/S Staff and Volunteers
harvesting tomatoes at
Mission Garden; Guarjio
Nescafe Okra (front & back)

Conservation Department left
to right: Liz Fairchild, Nick
Garber, Sheryl Joy



ADOPT-A-CROP UPDATE 2018

By Nicholas Garber, Conservation Program Manager

Every growing season has its challenges--last season many farmers we work with experienced apocalypse-levels of grasshoppers and squash bugs--but this time the challenges were climatic. Where **Jon Naranjo** lives, in New Mexico's Rio Arriba County, the National Drought Information System has labeled the 2018 drought "exceptional," its most severe drought level. This is the second year we've had the pleasure of working with Jon, who farms in Espanola very close to Santa Clara (Okay Owingeh) Pueblo and to Flowering Tree Permaculture Institute. In spite of this hardship, Jon has only lost about 10% of the **Paiute Tepary beans** he planted and will help replenish the NS/S Seed Bank with his harvest. Tepary beans have adaptations that have allowed them to survive many challenging past seasons, and thanks to Jon's effort, the beans harvested will also have a memory of this exceptional drought.

In August our Collections Curator Sheryl Joy checked in with **Janna Anderson** at Pinnacle Farms, in Phoenix, to see how the **Little Tucson Brown** Tepary bean was doing for her. It turned out that Janna was concerned that the Phoenix heat would be too much for the little beans and so had been holding off to wait until fall, when common beans are typically planted in these parts. After discussing the resilience of landrace plants like the ones in the Native Seeds/SEARCH collection, Sheryl easily convinced Janna that not even Phoenix summers could keep these little beans down. The beans are in the ground today, and we expect a bountiful harvest.

We caught up with **Clayton Harvey** and **Emily Maheux** at Ndée Bikíyaa (The People's Farm) at the 6th Annual White

Mountain Apache Harvest Festival. NS/Sww brought hundreds of dried Apache Dipper Gourds for the crowd to make into their own creations, and we enjoyed a beautiful day eating incredible traditional foods like acorn stew and the delicious Apache variant of cornbread from a griddle. Ndée Bikíyaa has been growing the **Colonia Morelos Speckled** Tepary (pictured) with only rain, and the results are stunning, healthy plants rife with purple blooms.



It isn't hyperbole for me to say that **Jeremy King's** farm at Hopi in Pasture Canyon is my favorite farm and one of my favorite places on Earth. Drought has hit the Four Corners area hard and many farmers didn't plant or are experiencing severe crop reductions. Jeremy's fields, however, have been in cultivation for the past 2,000 years or so, and the canal running from the artesian spring that runs alongside them has continued to flow. Jeremy's **Hopi White Tepary** beans are covered in blooms, and aside from any grazing from his neighbor's cows, we will have a healthy haul from his plants, along with the Hopi sweet corn, black dye sunflowers and yellow limas!

The update on the **Pima Beige and Brown** Tepary beans comes from right outside my office window on River Rd. in Tucson. We planted the tepary beans at our Día de San Juan party June 23rd, and I have never been more excited by a monsoon planting! These beans promptly emerged three days later and have never shown signs of stress. Our tepary beans have just bloomed and the tiniest of pods are beginning to emerge. Please come by our Conservation Center to see the plants and **join us November 17th** to thresh and winnow them!

Top left to right: Jeremy King's farm in Pasture Canyon at Hopi; Pima Beige and Brown Tepary Beans growing at NS/S in Tucson.

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COLLECTION SPOTLIGHT: *Orach*

By Sheryl Joy, Collections Curator

The first time I ever heard the word “orach” was in a community garden in Minnesota where a fellow gardener raved about the plant: how much easier to grow than spinach, how great the leaves were in salad, etc. I thought it was an odd word (aura? oryx?) and I never got around to finding seed for it until I moved to Tucson and ran across **Chamisal Quelites Verdes** in the NS/S collection. By this time I’d had several failures trying to grow spinach in the low desert and was ready for something easier. Now orach is one of my favorite plants to grow in the cool season in Tucson.

If orach is not already a friend of yours, it’s time to make its acquaintance. Also known as Mountain Spinach or Saltbush, orach is *Atriplex hortensis*, and is a relative of Four Wing Saltbush, a common wild shrub in the Western states. As the name implies, it is tolerant of alkaline soils, which makes orach a good choice for southwestern gardens. It doesn’t bolt as easily as spinach, but when it does bolt you can easily pinch back the flower stalk to encourage more leaf growth. If you garden in the mountains or in northern latitudes then you’ll want to plant it in the spring or late summer for a fall harvest.



In the low desert it is a cool season plant, best planted in fall or very early spring. Orach leaves can have a slightly salty flavor, but the leaves are quite tender and mild tasting, without the oxalic acid bitterness that spinach leaves often have. Use them fresh in salads, chopped up on a sandwich, sautéed in an omelet or dropped into a soup ... in pretty much any of the ways you would use spinach or chard leaves. Like other leafy greens, orach is a nutritional powerhouse, packed with calcium, potassium, magnesium, zinc and more. The more colorful varieties have lots of health-boosting anthocyanins. The seeds are edible and plentiful, too.

NS/S has one accession of orach currently available: Chamisal Quelites Verdes. It is a green-leaved, semi-wild orach that was collected from the edges of fields and driveways in the village of Chamisal, near Taos in northern New Mexico. When we grew this variety at our Patagonia farm it produced leaves up to 7 inches across! Tucson-grown leaves are more modest, about 4 inches wide, but still quite productive. NS/S also sells Purple Orach, which is a beautiful addition to any garden even if you don’t eat it - but you’d be missing out if you don’t taste these tender, healthy leaves!



Left to right: Tarahumara Mostaza, Tarahumara Espinaca, and Mostaza Roja

EAT YOUR *SPICY* GREENS!

If you prefer your greens to have more *presence* on your plate, try these winter greens from the seed bank collection. In the same plant family as horseradish, these hearty mustards are no wallflowers! The milder young leaves can be eaten fresh in salads. They’re also spicy enough to keep ground squirrels from nibbling, an advantage in many southwestern gardens!



Adventures in **SMALL PLOT FARMING**

By Michelle Langmaid, Communications Coordinator

The support of our donors and members has enabled us to expand the demonstration garden at the NS/S Conservation Center, making it a perfect spot to observe how the crops in the collection behave in a very hot, dry, low desert climate. Having this garden in our backyard also allows us to experiment with low-input techniques such as usage of on-site nutrients, water conservation methods and planting the right crop at the right time!

Not only is low-input agriculture an environmentally responsible choice, it also reflects the situation of many of our stakeholders. Many communities that are the most food insecure do not have access to commercial fertilizers, irrigation infrastructure, or a large budget.

That said, we have woes like any other farmer or gardener. If you've paid a visit to the Conservation Center you know the area is riddled with ground squirrels, there is almost no shade on the property, and we do not have sufficient rainwater harvesting infrastructure to meet our needs--all common barriers. But growing food has never and will never be easy! There is no miracle irrigation that never breaks or pests that are easily controlled year after year without doing damage. We do the best we can and keep learning. The more we can all learn about regenerative agriculture in an aridland food production system, the closer we come to to a more resilient food system in the Southwest.

Top Left to Right: Students in TUSD's workplace readiness program sift compost at the Conservation Center. NS/S Volunteers preparing beds at Mission Garden. NS/S Volunteer Pat Mount weeding newly-emerged sorghum.



El Fuerte Segualca squash taking over the garden during monsoon season.



This clay pot olla was the sole source of water, along with rainfall for the **Ke:li Ba:so** melons.



Fort Apache sunflower heads drying after harvest.

SHOP TALK

AT 3061 N CAMPBELL

Native Seeds
S.E.A.R.C.H



What makes chiltepinos so special?

One of the reasons I love this powerful chile is that it's nature's single-serving chile. One chiltepin seems to be just about right to spice up any plate.

It's exciting to think that it's the ancestor of all capsicum annum chiles. It's also one of my favorite plants to grow in the garden--once established they can live to be a decade old with very little care needed.

(For my chiltepin cheese recipe see p.23 of the 2017 Seedlisting)

-Chad

What is Sonoran White Wheat?

Arriving to our Sonoran Desert region with Father Kino, this wheat has thrived in our dry desert area ever since. It's drought tolerant and tastes delicious. Plant in the cool season and harvest by hand in June.

To make flour--well if you own a grain mill you're in business. Those of us who don't have that luxury, we toil over the mortar and pestle.

Sonoran White Wheat has a soft kernel that yields a lower gluten flour that's great in pastry dough, cookies and quickbreads.

-Nancy

How do you cook tepary beans?

I tend to cook beans using very similar spices, regardless of the type of bean. I would prefer to slow-cook tepary beans throughout the day which takes at least 10 hours, but that requires forethought that I typically don't have. That's why I pressure cook them for 45 minutes with onion and green chiles (preferably roasted).

My go-to spices are Mexican Oregano, Pasilla de Oaxaca dried chiles, fresh garlic, and a few dried chiltepinos for a good kick!

-Neff

Why should I eat more mesquite flour?

Because it's delicious, and a unique taste of the Sonoran Desert!

Mesquite meal, from the ground beans and pods of the mesquite tree, tastes mildly sweet with a hint of burnt caramel or molasses. Toasting enhances the sweetness, and improves digestibility.

Raw meal is fine for baking/cooking, usually combined with another flour. Mesquite meal is mineral-rich, low-glycemic, gluten-free, and energizing!

-Melissa



Community Seed Grant SUPERSTARS

By Laura Neff, Education Assistant

Thanks to the generosity of our members and donors, Native Seeds/SEARCH has awarded 112 Community Seed Grants so far this year, totaling over 2500 free packets of seeds to projects around the Southwest. So, what can a seed grant do?

Ochoa Elementary School
Enhance a substantial and beautiful school garden!

“Parents, substitute teachers and members of the community have given me great praise for the garden. I tell all of them that it is not me, or even the students who love and care for the plants, but it is the seeds from Native Seeds/SEARCH. These desert-adapted seeds are magic. They face the temperatures and produce. We have lush beds in 100-degree weather. My students call it a jungle!”
--ADRIANA PROVENZANO

“It has been a tremendously successful year...the 2017 seed grant came in May, so our seed starting was slow but sure. Our second grant arrived in September of 2017 in plenty of time for 2018 garden planning... all three of us have attended your Intro to Seed Saving Workshop for certification! On May 8, I taught a seed saving class to the Bisbee Garden Club and am excited to report this effort has birthed the idea of a seed swap event for the future...”

-AUTUMN GILLARD

Cochise County Master Gardeners
Start a thriving seed library program

Pipe Spring National Monument
Be a foundation for a new educational garden!

“The seeds provided under this grant were used for a living demonstration garden within the monument boundaries to showcase some of the traditional plants that the Southern Paiute people would have utilized and also the Ancestral Puebloan people. This grant has made a huge impact on the community and also the monument. It has become a popular display for visitors to walk around in but also contributed to the pride of the Southern Paiute people to be able to come to the monument and see traditional plants that have not been utilized in long periods of time.”

--DEBORAH AVERY-HARGROVE



A QUIET REVOLUTION

By Nicholas Garber, Conservation Program Manager

Johnny Ortiz has translated his experience as a chef in fine dining into producing food sustainably himself. His learning laboratory is his own farm, and the hours-long dinners he serves there are evidence of his successes. In returning to slower traditional methods, he reveals what we have all lost to the convenience of industrial farming; and by farming on his own he uncovers how rich a life farming can provide.

Johnny planted his fields this year with seeds from our Bulk Seed Exchange Program for growers. We provide the seeds free of charge, with the expectation that they'll be grown in a way that preserves biodiversity, and that quality seed replenishes the seed bank. Through our Bulk Seed Exchange, we provide field-scale quantities of seed and ask for a return from a successful harvest--3 times the original quantity provided for most growers, or like Johnny--whose family is from Taos Pueblo, 1.5 times for Native American farmers. Johnny came through Tucson to pick up the seeds himself. Driving a huge diesel pickup he was touring the Southwest and stocking up with all the supplies he'd need to start the season at Owl Peak Farm in Madera, New Mexico. He left Native Seeds/SEARCH with 200 lbs of Sonoran White Wheat, 50 lbs of Pima Club Wheat, and 5 lbs of Hopi Black Dye Sunflower, before heading back to New Mexico to load a small flock of Churro Sheep.

Johnny's Taos Pueblo ancestry is actively relevant to him as he engages with farming. Near his ancestors' land, he is also examining his ancestors' ways of raising plants and animals for food, working with his hands, and making use of everything and avoiding waste. "We use old stone grinders from various pueblos, my great grandmother's

mixing trowel, my father's old shovels, sandstone rocks to sand the vessels. We are by no means perfect in this. But we are always trying, and still learning," says Johnny.

The modern seed industry endangers heirloom seeds like those in the Native Seeds/SEARCH collection, but practices required by modern conventional farming threaten the survival of these crops, too. One of the reasons these plants are so valuable is that, while they are locally adapted to a variety of low-input farming traditions, they grow with a variability that may not be suited to conventional farms. Plants may not flower at exactly the same time, or fruits may be slightly different sizes and shapes, making them harder to harvest. But it's this variability that is the result of surviving so many challenging and unpredictable seasons, and which allows them to blend into their surroundings and work hard to survive.



Johnny Ortiz

"We are able to harvest and cook with plants that tell a story about where we live, but they are being slowly forgotten. What a beautiful task to keep them going..."

Integrating his fields into the landscape, Johnny's farm maintains a balance between cultivated and wild plants that is so important to the flavors and philosophy of the food he makes. By considering all of his neighbors on the watershed, Johnny farms in a way that provides services to the ecosystem so that wild plants aren't just surviving, but flourishing. He says, "New Mexico has the most diverse array of edible food plants in the country.



“All of the magic and substance is in the process...”

-Johnny Ortiz, NS/S Partner Grower

We have mountains, valleys, the desert, canyons, rivers and lakes just to name a few. We are able to harvest and cook with plants that tell a story about where we live, but they are unfortunately being slowly forgotten. What a beautiful task to keep them going.”

Industrial food systems really only allow one kind of farm suitable only to hybrid crops. The farms in which elite hybrids are planted require large homogenized tracts of land, mechanization, an arsenal of chemicals to eradicate insects, plants and fungi, and synthetic fertilizers to guarantee large, uniform crops. It not only serves the future of the work of Native Seeds/SEARCH to support farms like Owl Peak, where crop biodiversity is being maintained, but as a natural outcome of farming in a way that also preserves tastes, nutrition, and a way of life that stewards the land.

“...We, you, anyone can start a quiet revolution. To actively vote not with our words but with our actions in shaping the world in a way that we would like to see it.”

We are so excited to partner with Owl Peak Farm and others like it to restore diversity to our region’s fields and preserve not only seeds but so many intangibles that modern practices can endanger. Johnny sums up his farm’s mission and his /Shed project in an inspiring call to action: “We all have different things that light us up. Goals and ideas. /Shed is the practice in that we, you, anyone, can start a quiet revolution, to actively vote not with our words but with our actions in shaping the world in a way that we would like to see it.”



Check out **Owl Peak Farm** on Facebook and follow shed-project.com to learn more and purchase tickets for the special farmhouse dinners hosted there.



Seed: Climate Change Resilience

ALBUQUERQUE MUSEUM OF ART AND HISTORY: JUNE 22 - SEPTEMBER 29, 2019

In 2016 and 2017, Native Seeds/SEARCH partnered with New Mexico-based **Seed Broadcast** and small farmers throughout

the southwest to produce a series of audio interviews, essays and photos – to tell their stories of farming in

a changing climate while cultivating seed, food, and community resiliency. We’re excited to announce that this collaborative art project has grown into an interactive exhibition that will take place at the **Albuquerque Museum of Art and History, June 22 – September 29, 2019**. So save the date and plan to be inspired by these dedicated and courageous farmers.



OUR MEMBERS *Keep Us Running!*

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Melissa Barrow, Laura Neff



Join NS/S as a member and receive special event invitations, regular updates and discounts on purchases.



Bequests and life income gifts help ensure food security for future generations. Legal counsel should be consulted prior to creating or amending any Will.



Celebrate the lives and achievements of special individuals by making gifts in their honor.



Help sustain NS/S through the Combined Federal Campaign, your local United Way, or other workplace campaigns. Many companies offer an Employee Matching Gift Program whereby your contributions will be matched.



Gifts can be made for unrestricted support or for a specific purpose.



FAREWELL, Friends

It is with sadness that we note the passing of several esteemed members of the Native Seeds/SEARCH community this year.

Many of us knew and loved [Dr. Edward] **Ed Hacskaylo** as a committed volunteer and donor since the early 1990s. Every week like clockwork when he came to man the impulse sealer with his other "Rowdy Bunch" friends,

he would bring delicious homemade baked goods like his famous mesquite cookies and pinole bread to share. Ed also gave of his time and leadership as Chair of the NS/S Board of Directors, and was a tireless supporter of the Conservation Farm. Ed was a pioneer in the study of symbiotic fungi (mycorrhiza) which are critical to understanding plants and soils. We will be forever grateful to Ed and his family for the generous estate gift granted to NS/S to carry on our work.



Beloved Tucson community member and supporter **Suzie Horst**, loved volunteering at the NS/S farm, along side her husband and interim NS/S Director Todd Horst. It filled her with joy to just pull weeds, thresh beans, and winnow the harvests in the Patagonia sunshine, writing in the Seedhead News in 2000: "I find the hands-in-dirt, sweaty, outdoor work at the farm so satisfying, it's clear that this is an ancient occupation of tending food plants is an intrinsic part of human nature." She will be missed.

In memory of long time volunteer, Nancy Wall, we share one of her poems.

Top left to right: Volunteer appreciation brunch 2018; Volunteer, Jack Petersen harvesting Punta Banda tomatoes at Mission Garden; Seed Distribution Coordinator, Liz Fairchild assists visiting Artist Uli Westphal; Distribution Manager, Laura Jones planting wild tepary beans at Sand Reckoner Vineyard; Conservation Program Manager, Nicholas Garber processing gourds at the White Mountain Apache Harvest Festival.



LEAVING

A poem by Nancy Wall

*I have stood in all the rooms,
grown smaller in their emptiness,
remembering in each some odd detail:
the telephone pole outside
the bedroom window I mistook
for a saguaro in moonlight
my first night there;
the bare living room, furniture
piled in the hallway, where
I held rehearsals for a play;
a note, urgent, stuck
to the side of the refrigerator
where I would see it as I
entered through the kitchen door.
Now the last load is in the car.
I start to pull away, then stop.
I have forgotten two things-
the garden hose and a last visit
to the three dogs buried at the side
of the house. I unscrew the hose,
loop it in wet circles shoulder
to elbow, one at least for every year
I have lived here, until
it is all wound up. I cram it
leaking into the already full car
and walk toward the graves,
wanting something eloquent
to say to my long ago dogs,
but a quiet moment is what is left.
I pick up the cracked glass
that held a candle once, a light to keep
coyotes off, and carry it to the trash.
I back out of the driveway, heading west
over the mountains, unwinding
toward a place not yet contained
by memory.*



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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 northwestern Mexico to strengthen regional food security.



**SAVE
THE
DATE!**



HARVEST PARTY
Saturday, November 17th
NS/S Conservation Center
3584 E. River

www.nativeseeds.org/events