



The mission of Native Seeds/SEARCH (Southwestern Endangered Aridland Resources Clearing House) is to conserve, distribute, and document the adapted and diverse varieties of agricultural seeds, their wild relatives, and the roles these seeds play in the cultures of the American Southwest and northwest Mexico.

SUMMER 2014 NUMBER 117

2

From Our Interim Executive Director

3

Volunteer Salute: Maggie White
From Our Friends

4

Recipe: Flaky Sonoran Pie Crust
More Great Salons!

5

Creating Biodiversity for Farm and Garden with Crop Cover Management

6-7

Seed Diaries

8

Reviving Seed Traditions

9

We Are the Seeds: An Interview with NS/S Conservation Intern Elizabeth Axcahuiani Pantoja

10

Replanting History

11

News and Notes

Seedhead News



White Sonora wheat dries down on the NS/S Conservation Farm. Photo by Bill Steen.

SARE Grant Supports Successful Reintroduction of Heritage Grains

by Joy Hought, NS/S Research and Education Program Manager

Cereal grains are the nutritional foundation for many diets in the United States. The local agricultural production of well-adapted, low-input grains has the potential to substantially reorient food systems toward greater sustainability. Currently there is very little organic grain production in Arizona (less than 400 acres), and 95% of conventional grain produced is shipped out of state. In 2012, NS/S was awarded a two-year grant from the USDA's Western Sustainable Agriculture Research & Education (WSARE) program in order to reintroduce into sustained production two heritage grains with historical presence and good potential for adaptation in the arid southwest: White Sonora wheat and Chapalote flint corn.

Unlike vegetable crops, bringing back local production of grains involves rebuilding the complex supply and processing chains that went extinct in many American communities at the turn of the twentieth century. This project required an ambitious collaborative strategy that engaged researchers, community non-profits, producers and end-users from farm to table. Working together with researchers at NS/S were five growers in Pima and Maricopa counties, a food bank and associated production farm (Community Food Bank of Southern Arizona), an artisan-scale miller (Hayden Flour Mills), two regional heritage food marketing and promotion non-profits (Santa Cruz Valley Heritage Alliance and Cultivate Santa Cruz), a historic preservation site (Tubac Historical Society), and a sustainable agriculture demonstration site and training center at a non-profit ecovillage (Avalon Organic Gardens).

The grant supported research to help answer specific questions for growers in our region, such as optimum planting and harvest times, the most efficient cleaning and storage methods, and the effect of farm management on nutritional content and flavor. In addition, a number of education and outreach events were targeted to growers and consumers: one week-long Grain School was held at

continued page 4



From Our Interim Executive Director

At Native Seeds/SEARCH we believe that sustainable access to food for all people is achievable given the right priorities and strategies. As a partner in our mission, you understand that our work represents several of those strategies. With your help, we have been able to preserve and share the Southwest's rich agricultural heritage for more than thirty years. Together we brought White Sonora wheat from obscurity to its rightful place in local food systems in Arizona. We've connected farmers and gardeners throughout our region with nearly one million packets of arid-adapted crop seeds. And we've educated countless individuals on the importance and practice of promoting crop diversity.

Your support has made our critical conservation, seed access, and education programs possible.

But just as our food systems are at an important transition point, so too is Native Seeds/SEARCH. We are building on our existing programs with new priorities such as a greater focus on local community-based seed initiatives; facilitating climate change adaptation; building program and research collaborations; and establishing stronger education and outreach programs while enhancing our conservation efforts.

In the coming weeks and months we will be launching new programs that symbolize the new directions in which we are moving, for example:

- * Our new Native American Bulk Free Seed program will complement our existing Free Seed Program by providing sustainable access to sufficient seed quantities to support farm-scale production.
- * By opening our seed bank as a formal backup site for the Southwest's seed banks and seed savers, we will provide an important measure of security for the region's seed systems.
- * We are developing Spanish-language seed literacy and community seed banking courses to augment our regional education strategy.
- * We are renewing our Conservation Farm with improved infrastructure and a vision of a sustainable aridlands agricultural model that promotes biodiversity, productivity and efficient resource use.

We have never been better poised to contribute meaningfully to achieving our shared vision of resilient farms, strong communities and healthy individuals. With your continuing support, NS/S is providing critical access to local crop diversity and encouraging its return to our farms and kitchens. Just as importantly, we are providing agricultural knowledge and seed system training to individuals and communities throughout the region. Thank you for your joining us in this important work!

May your summer be rainy and your growing spaces edible,

Chris Schmidt, Ph.D.
Interim Executive Director



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VOLUNTEER SALUTE

Meet Maggie White

"I often say that what I like most about working with the seeds is they are quiet and well-behaved," says NS/S star volunteer Maggie White with a joking smile. Humorous though her endorsement may be, it makes a lot of sense coming from a recently retired schoolteacher of nearly 30 years. These days, Maggie's biggest disciplinary challenges involve tossing out the "bad seeds" in the germination tests she helps perform as part of her weekly tasks at the NS/S Conservation Center.

Volunteering for Native Seeds/SEARCH is an exciting job, no doubt. But it's a world removed from her last educational stint in the far-flung classrooms of Ecuador and Oman, where she taught high school English and Art. "It was an amazing experience," she muses. "I really felt like I was teaching again." After five years overseas, Maggie returned home to Tucson last June ready to hang up her academic cap—and try on a whole slew of hats at Native Seeds/SEARCH!

As one of our most diversified volunteers, Maggie has done it all: cleaning and packing seeds, shelling corn, filling orders, and even working on the farm. She first began volunteering for NS/S back in 2003 and has had many opportunities to hone her skills. The variety of duties gives Maggie a real insight into the many activities and moving parts involved in the daily operations of a seed bank and nonprofit. "I love that I get to see the big picture here," she says.

Looking at the broader picture comes naturally to Maggie, who is also a photographer, an avid hiker and an environmentalist. She recognizes the significance of the NS/S seed collection as a resource for a more sustainable future. "With climate change, these seeds will be important not only for us in the Southwest but for people around the world," she notes.

Of course, it's also just about amazing food. Growing up in North Carolina, Maggie recalls shopping at the "curb market" for farm-fresh fruits and veggies. While the flavors were delicious, the varieties lacked much diversity—something distinctly different with the crops in the NS/S seed bank. "I especially love the Hopi Purple String beans," she says. "In one handful you might have six different colors and patterns. It always surprises me!"

Even for lifelong teachers, nature always has lessons to impart. We're glad we can help to further your education, Maggie. Thank you for all you do!

Want to volunteer with NS/S? Visit www.nativeseeds.org for details or contact our Volunteer Coordinator: volunteer@nativeseeds.org or call 520.622.0830 x107.

From Our Friends



"Ciudad Victoria Tomatoes. Planted them 7 years ago. They volunteer for me every year. Super yummy and easy to grow in the Low Desert." — Dineen Serpa Chandler, Arizona



"Here is a photo of my Magdalena Big Cheese squash planted in September of last year. Now the vines are all over the place with tons of flowers." — Lisa L. Kuttig Phoenix, Arizona



"Half of this trellis is Hopi Red Lima beans and half is NS/S garbanzo beans!" — Lori Robin Wilson Palm Desert, California



A flint corn traditionally used to make excellent pinole, Chapalote has distinctive chocolate brown kernels and a nutty flavor.

SARE Grant Supports Successful Reintroduction of Heritage Grains

continued from page 1

the NS/S Conservation Center in January 2013 and attended by 25 students from all over the Southwest; a second one-day event was held in November to help farmers connect and problem-solve around equipment challenges.

Gary Nabhan (the grant's co-author and a grower himself) in addition to countless essays in popular and scholarly publications, contributed an article for growers outlining technical issues around harvest and storage. NS/S staff member Joy Hought worked with University of Arizona extension researcher Mike Ottman to develop and publish best practices for planting and managing landrace wheat varieties in the Southwest.

By the conclusion of the grant in 2014, for the first time in decades, the White Sonora wheat landrace was part of a thriving culinary culture. It can be purchased at over thirty outlets, and is used at restaurants, bakeries and breweries in Phoenix, Tucson and surrounding communities.

Joy Hought is Research and Education Program Manager at NS/S. She holds a Master of Science in agroecology and studied wheat breeding systems in Norway, Denmark and the United Kingdom.



MORE GREAT SALONS!

Salons are held every third Monday of the month from 6 to 8 pm at the NS/S Conservation Center, 3584 E. River Road, Tucson, AZ 85718. If the Salon falls on a holiday, it will be moved to the following Monday.

June 16 *Heritage vs. Modern Wheat – What's the Difference?* with Joy Hought, NS/S Research and Education Program Manager

July 21 *Plant Responses to Climate Change* with Theresa Crimmins, USA National Phenology Network

Flaky Sonoran Pie Crust

Makes two 10-inch crusts

1 stick cold unsalted butter

1/2 cup cold (solid) coconut oil

1 ½ cups AP or 00 Sonora white wheat flour

1 ½ cups Sonora whole wheat flour

1 teaspoon salt

1 tablespoon sugar

2 teaspoons baking powder

*8 to 10 tablespoons (1/2+ cup) ice water
(Sonoran flour absorbs more water than regular flour)*

Dice the butter and coconut oil and return it to the refrigerator while you prepare the flour mixture.

Sift the flour, salt, sugar and baking powder together in a large glass bowl.

Add the butter and shortening. Use a pastry cutter or fingertips to quickly blend until the fat is the size of peas.

Add the ice water until the dough begins to form a ball. Do not over-mix.

Dump out on a floured board and roll into a ball, then flatten into two discs.

Wrap in plastic wrap and refrigerate for at least 30 minutes, or overnight.

On a well-floured board, roll each piece of dough into a circle, rolling from the center to the edge, turning and flouring the dough to make sure it doesn't stick to the board.

Bake as directed or at 425 degrees F.

Creating Biodiversity for Farm and Garden with Cover Crop Management

by Lynda Prim, NS/S Conservation Farm Manager

Biological diversity provides the most favorable conditions for a balance to become established in an ecosystem, and this is true for a garden or in a farm landscape. Establishing balance in any food production system means that the natural control of weeds, pests, and plant diseases is more likely to be effective in a biologically diverse system and that the occurrence of specific population explosions of a pest or disease is less likely. In a biologically diverse system, multiple functions such as building soil health, providing food, and beneficial insect and pollinator habitat, can be served by a single component of the system or by several components working together in harmony.

Cover crops, as part of a rotation system, can help to create biodiversity in a garden, on a farm, and in orchards. They can be utilized as a method of pest, soil, and habitat management by attracting populations of beneficial insects, adding nitrogen to the soil while protecting it from erosion, and in general, by establishing a balanced system. Gardening and farming to grow food crops inevitably involves a simplification of the ecosystem, and therefore the interrelationships which usually keep potential pest or disease outbreaks under control can be adversely affected. Cover cropping and crop rotations are a good way to begin to achieve balance by creating biodiversity because they improve insect and disease control by managing the system to benefit both the soil and the crop.

Rotations with cover crops are not the only way of achieving diversity on the farm. Mixed plantings or intercropping of one or more plant species (polycultures) also provide biodiversity. Cover crop mixtures tend to have greater efficiency (or total yield) than monocultures. This is because a mixed cropping system utilizes resources like light, water, and nutrients more efficiently. When legumes are grown, there is the additional benefit of nitrogen fixation. Mixed cropping also results in a reduction in the spread of pests and diseases, and increased opportunities for natural predator insects or improved weed control because there is more competition and complexity in the growing environment.

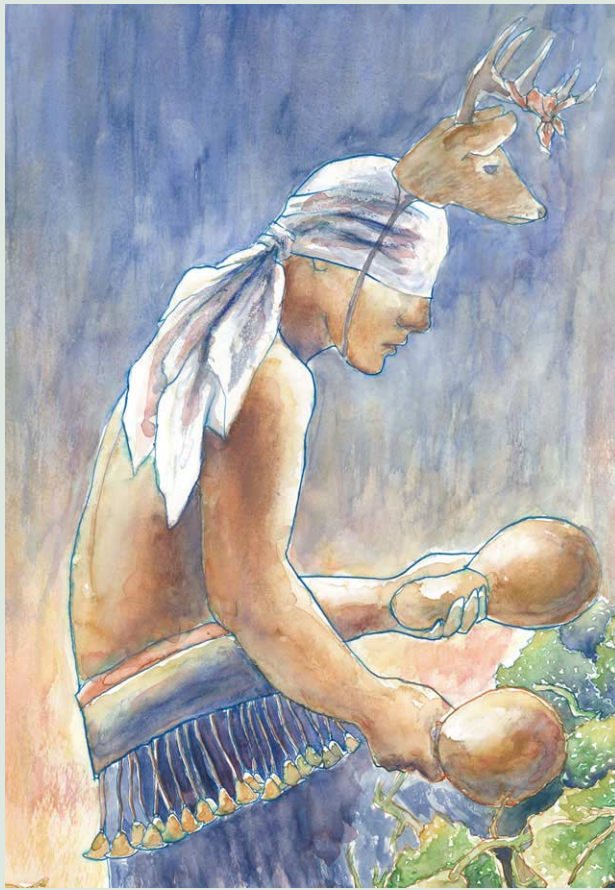
The presence of some “weed” species within the garden or farm landscape also provides a niche for beneficial insects, which can keep pests under control. Additionally, the weeds may act as trap crops for some pests. Weed management can be part of an approach to establishing polycultures in farm and garden systems. In general, polycultures have the advantage of greater protection from soil erosion, improved crop yield stability through diversity, and increased food security by providing a more varied diet.

In orchards, a remnant strip of cover crop can be left down tree lines when the orchard is mowed. This provides habitat edges for beneficial

continued page 7



Hedgerows of pollinator-attracting flowers like Firewheel (*Gaillardia pulchella*) can attract beneficial insects to your farm or garden.



above **Deer Dance Gourd** Karina Moreno — Mayo and Yoeme people perform the Deer Dance as a bridge between the natural and enchanted worlds in a common language that unites people and animals.

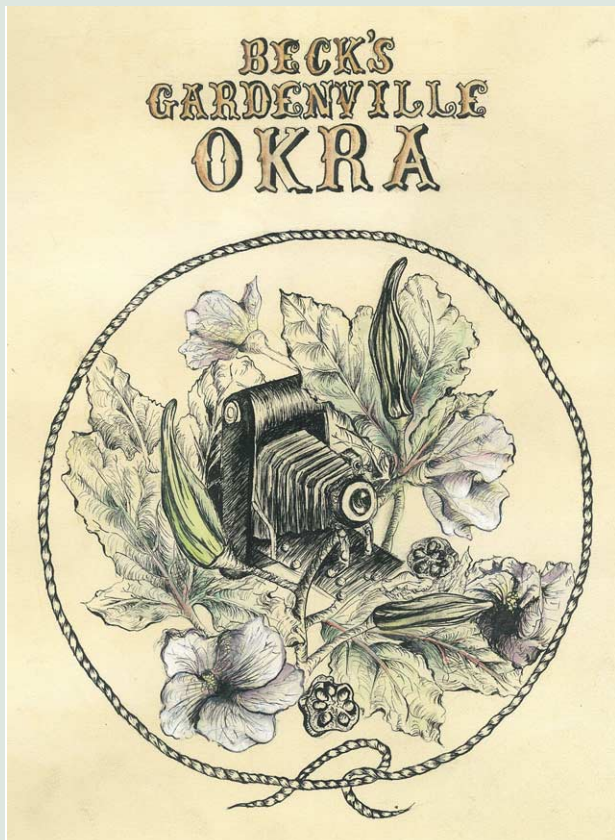
Seed Diaries

Every seed has a story to tell. Some are deeply rooted in a particular place while others travel vast distances, handed down across cultures and generations. Through a grant from the Southwestern Foundation, Native Seeds/SEARCH worked with illustration students from the University of Arizona to create *Seed Diaries*, a series of art pieces that convey the remarkable stories of seeds in the NS/S collection. The series is based on the *Watercolour Diaries* of renowned artist Tony Foster, who captures historical and cultural features in his landscape paintings. Special recognition is due to NS/S farm apprentice Danielle Johnson, who researched and documented the

histories, uses, and cultural contexts behind these varieties. Included here is a sampling of some of our favorite *Seed Diaries* pieces.



left **Mrs. Burns' Famous Lemon Basil** Phyllis Kabins — A Native Seeds/SEARCH favorite, this aromatic basil variety was stewarded for 60 years in southeastern New Mexico by the mother of NS/S co-founder Barney Burns.



above **Bisbee Black Cowpea** Shelby Schneider — The exchange of these seeds between farmers at a southern Arizona truckstop is an example of the time-honored tradition of trading and sharing seeds.

left **Beck's Gardenville Okra** Abigail Oberg — According to Malcom Beck of San Antonio, this variety of okra was brought by a German farmer into the United States before World War II, smuggled inside of a camera.

Cover Crop Management *continued*

insects. For orchard management, intercropping of insectary plants with cover crops is very effective. One example would be to plant a collection of flower and herb varieties that have different flowering times and patterns together with cover crops on the orchard floor. Another approach might be to have low growing, shade-tolerant species planted closer to the tree rows with more vigorous, climbing, sun-loving species planted in the center between tree rows. For nut species, the timing of planting is critical so that the cover crops can reach a useful stage in their growth before mowing the orchard floor under trees for fruit drop and harvest.

Another way to promote biological diversity in the garden and on the farm is by establishing perennial stands of cover crops and beneficial plants. Creating guilds — which are groupings of plants deliberately placed together that did not evolve together — is a very effective method of creating habitat for beneficial insects and pollinators. In the garden and farm, habitat guilds are comprised of trap and nursery crops, herbs and other aromatic crops, perennial borders, cover crops, and annual food crops. In addition, when managing cover crops by mowing or turning them in, some peripheral reservoirs of cover crop can be left to help maintain a population of beneficial insects. A good way to think about this is that biodiversity is more than just the number of species present; equally important are the links between them. So, one of the keys to creating more biodiverse, balanced habitats in our gardens and on farms is finding species that can provide links to lots of other species.

When designing a garden or farm for increased biodiversity, an important question to ask is, “Which cover crop should I grow?” Cover crops serve many purposes, including protecting soil from erosion, preventing leaching of nutrients, fixing nitrogen and adding it to the soil, competing with weeds in a crop rotation, and creating habitat for beneficial insects. However, no single cover crop will serve all situations, and there is also the factor of what cover crop is appropriate at what time of year and in rotation with the food crops you are growing.

To begin answering the question, of which cover crop to grow, first identify the most important objective you have for cover cropping. All of the benefits of cover crops are appealing, but you must set priorities. For example, a cover crop that fixes a great deal of nitrogen may fail to prevent leaching of nutrients already present in the soil. Growers who use a lot of manure may have plenty of nitrogen already; so your concern would be not to lose it. Not only does a particular cover crop need to meet your objective, but it must also fit into your garden or farming system. One possible choice is to build your crop rotation around cover crops that do well on your farm.

Cover crops offer a wide range of possibilities for increasing biological diversity in the garden and on the farm, from the microbial life in the soil to beneficial insect and pollinator habitat. The limiting factors are climate, soil, equipment, labor, and the imagination of the gardener or farmer. The future resiliency of our food system depends on our ability to increase and maintain soil health and biodiversity. Cover crops offer a natural way to serve both these functions.



above **Santo Domingo Tobacco** *Amelia Scott* — Among the New Mexico Pueblo peoples, tobacco is smoked ceremonially as prayers for rain to sustain crops. The smoke symbolizes the gathering of storm clouds.

below **Tohono O'odham Devil's Claw** *Quinton Antone* — The tough black fibers of Devil's Claw are woven into baskets of yucca and bear grass. These baskets are used to prepare food and are carried by young women during basket dances.





Seed Keepers students learn conservation practices on a field trip to Seed Savers Exchange in Decorah, Iowa.

Reviving Seed Traditions: A Report from Seed Keepers

by Rowen White

Native Seeds/SEARCH just wrapped up a week in the beautiful lands of the Shakopee Mdewakanton Sioux community in Minnesota hosting a potent and inspiring Seed Keepers training. The aim of Seed Keepers is to empower and equip indigenous leaders with the tools and knowledge to create sustainable seed sovereignty programs and reintegrate seed stewardship in their communities. Over 30 participants attended this most recent event, hailing from tribal nations across the country including Dakota, Lakota, Anishanaabe, Oneida, and Chippewa.

Many important questions came up during the workshop, such as: How can our communities support and advance seed keeping practices? What does a “Seed Commons” look like, and how do we create economic systems around seeds that protect them and align with our traditional beliefs and values? The indigenous leaders in attendance helped answer these questions with great insight and powerful stories that rooted them in a deeper cultural understanding. Strategic plans were formed around reviving seed sovereignty programs that incorporated the ideas and realizations arising from these discussions.

The workshop also presented many positive implications for the tribal groups involved with benefits for agricultural development, public health, and cultural renewal. Many tangible outcomes and new projects have begun to sprout as a result. Indigenous groups in the Great Lakes region have formed an Intertribal Seed Alliance to support their seed sovereignty efforts. Seed Keepers participants have also created a working group to develop guidelines and policies for tribal communities as protections against seed patenting and bio-piracy.

A truly collaborative effort, this historic gathering would not have been possible without the visionary support of the following groups: First Nations Development Institute, Intertribal Agricultural Council (USDA), the Clif Bar Family Foundation, and White Earth Land Recovery Project. We are looking forward to hosting future Seed Keepers gatherings to support the growing movement around tribal seed sovereignty.

Rowen White is a seed saver, writer, and educator based in San Juan, California. She is co-founder of the Sierra Seeds Cooperative, a pioneering seed grower's co-op, and author of the book Breeding Organic Vegetables.

We Are the Seeds:

An Interview with NS/S Conservation Intern Elizabeth Axcabuiani Pantoja

What about NS/S made you interested in applying for the Conservation Internship program?

I want to help in the work of reviving the role of Seed Caretakers in my community as a means of keeping my People healthy and our ways and the story of our origins alive. I am interested to learn the tools necessary to help build seed libraries and seed banks within the urban barrios and especially for my Nahua-Tlamanalca Indigenous community of Tucson. I wish to help continue our efforts of being a sovereign people with access to our own seeds, food, water and land. When it comes to these issues, I have been very inspired by a lot of movements happening all the way from North to South America.

It can be tough to grow food here in the desert, so I applied to learn more about the diverse seeds that grow well in arid climates, are high in nutrients, give high yields in small-scale farming (especially in the urban barrios) and require very little water. I'm also interested in learning about dryland and traditional farming as well as seed conservation methods. I love learning from these seeds that have endured for so long.

In 2012, I along with many other Indigenous People and representatives had the honor to dialogue, meet, share and express how important, necessary and vital the work and struggle for sovereignty is for us as a people—for our food, our health, our seeds, and our water. These two—our seeds and water—are life. Without them we cannot survive, so they are worth defending and protecting. I told myself that I would learn as much as I can to better serve my People's needs and those of the communities that we have established relationships with from Abya Yala & Tawantinsuyo (the Americas).

When we first met you, your passion and love for the health of your community was clear. Where does this passion come from?

I am Nahua-Tlamanalca and our stories say that we are born from the corn. Food is our teacher and our medicine. Our dances, our stories, our ceremonies, and our way of establishing relationships are all encoded in the land, the seeds, and the way things grow together. The health of our land, our water, our seeds and our food is at risk. And I know from experience that not all have access to nutrient-rich food, clean water, and land. There has been a lot of ongoing work by many people and communities towards these vital issues.

Before 1492, my people had an abundance of food. Their health and that of the land was vibrant. There was a diversity of medicines, herbs and nutrient-rich foods. After 1492, we—Nican Tlaca People for example—were forbidden to grow most of our high nutrient-rich foods that we had a cultural relationship with. We were punished if we were caught eating amaranth! This brings tears to my eyes. We were



punished to the point of annihilation. Our health perished after many generations. The high rates of diabetes, heart issues, addictions and depression among my people are no coincidence. By including these foods back into our diets, we can heal our genetic wound so we might think, feel and act with renewed vibrancy and strength.

What do you hope to do with the knowledge gained during your internship?

Build a seed bank for my people. I will continue in the ongoing work of keeping my Nahua community here in Tucson and other Indigenous communities healthy, strong and vibrant. I will be translating all this knowledge to our Spanish-speaking communities when possible. My efforts will continue in the protection, distribution and caretaking of our seeds. And since we live in a time where seed and water security are at risk, I hope to help share the benefits of these drought-tolerant and nutrient rich crops with other communities that are not already growing and caring for them.

My vision might be a really big one. But I believe it is possible that in ten to twenty years my community will be well in all aspects. The role of the Seed Caretakers will be alive and our children will have the right to grow and use their own food and care for their seeds. They will have access to land, clean water and soil, seeds and food. And the stories and ways of my people will continue.

What does seed keeping mean to you?

Existing. Keeping the story, the teachings, the values and everything that people are as a People alive. Existing as a People, a culture, a way of life—continuing and enduring what is to come. Being a sovereign people. The story of my family, my ancestors, my People and our origins, says that we come from maíz. We are the children of maíz and the genetic memory the seeds carry is found within us. Seeds are part of who we are as an indigenous people. Seeds and water are worth defending for the life of ALL people.

Read the full interview with a Spanish translation at nativeseeds.org

Replanting History:

A Walk Through Tucson's Mission Garden

by Martha Burgess

When you are designing a 300-year-old Spanish Colonial vegetable garden for teaching living history, you can't just go out to Home Depot and grab any seed off the shelf. You won't find historically accurate seed in the catalogs that fill your January mailbox, nor are they found easily online. So, who can you call for these unique, ancient seeds? Native Seeds/SEARCH is your source!

In each of its 31 years of existence, Native Seeds/SEARCH has been the place dozens of parks and museums have turned to for bringing history—and pre-history—alive for their visitors. Travel to almost any National or State Park visitor center in the Southwest and West, and you will probably see a garden plot planted by a devoted park naturalist in her or his precious free-time, displaying the right NS/S crop varieties befitting that park's theme.

So when Friends of Tucson's Birthplace wanted to design a Mission Period vegetable garden as true to history as possible, to be planted on the original soil among cloned Padre Kino orchard trees, they turned to Native Seeds/SEARCH for accurate ideas and appropriate seed. Scholars like Mission historian Diana Hadley had sleuthed out original Spanish documents to find what plant varieties were recorded. Plantsman par excellence Jesús Garcia still has connections with traditional growers in Sonoran mission towns for locating some surviving seed. For finding the great majority of seed varieties, it was up to NS/S archaeologist Melissa Kruse-Peebles and myself, an ethnobotanist volunteer, to locate the right varieties from the NS/S Collection to suit each seasonal planting from the Mission Period.

As the Mission Garden project grew, a series of "time-line" sections took shape for interpreting the long history of food growing in Tucson. NS/S had seed befitting each period: from wild seed known to be harvested during hunter-gatherer times; to wild-type domesticates from the earliest agricultural period ca. 4100 B.P.; to varieties originating from the Hohokam and Tohono O'odham. As the Mission Garden expands to interpret foods and medicines of the many more recent Tucson cultures (Chinese, Yaqui, African-American, and so on) NS/S will continue to provide seed from its collection, and to encourage more cultural communities to come forth to contribute their heirloom food seeds.

On any given Saturday, you can walk down the Mission Garden's living history paths and trace desert agriculture and culinary consciousness through time. Nestled among the fruit-laden pomegranates and fig trees in a seasonal veggie garden plot, you can see (and even taste) Mission Period greens, herbs, root crops, pulses and tall grains growing in the winter-spring season, and then in



Left Mission Garden volunteers harvest heirloom *Magdalena acelgas*, a delicious monsoon and winter garden chard from Jesús Garcia's family.

Right Tohono O'odham sorghum grows profusely in the heat of the monsoon season.

summer view a totally different suite of Mission Period sorghums, beans, pumpkins and melons. Nearby but separated for clear and interesting interpretation are the pre-Hispanic time-line plots. The whole complex is an oasis of refreshment and botanical surprises. Learning from these period gardens gives us a smorgasbord of ideas for our own contemporary gardens—ideas for what has worked to feed people nutritiously in the desert Southwest for centuries, and can work again!

The Mission Period garden plot displays true-to-life food production as it once was in the original Mission San Augustin (formerly standing several yards to the east near the Santa Cruz riverbank, and someday to be restored as part of the Rio Nuevo Project) with both summer monsoon and winter season plantings. In winter to spring, it sports plants of Mediterranean origin, foods the padres brought from Old World areas of winter-dominant rainfall. (They are described in detail in the November-December 2013 issue of *Edible Baja Arizona*, available online.)

Great winter veggie ideas include: White Sonora wheat, Magdalena barley, Tarahumara lentils, Tohono O'odham and Pima peas, Magdalena cilantro and acelgas (chard), I'toi's onions, and Tohono O'odham garlic. Now with summer coming on, here are more heirloom ideas from our Mission Garden monsoon experiences: Tohono O'odham sorghum and pink beans, Mayo blusher squash, chichiquelite berry, Mayo watermelon, chile de arbol pepper, Sonoran chiltepin pepper, and Mayo amaranth greens and seeds.

Like the Mission Garden historians teaching us from the past, the ancient seeds themselves can re-inform us how to live appropriately in the desert and feed ourselves as our climate changes and the desert itself expands. And now you know who to call for the right seeds. Spread the word!

Martha Burgess is an ethnobotanist, NS/S board member, and owner of Flor de Mayo Arts. More of her writing can be found on the blog Savor the Southwest (www.savorthesouthwest.wordpress.com)

News and Notes

Welcomes and Farewells

Since our last newsletter, we've had a number of remarkable people both joining and departing from NS/S. It is with much gratitude that we say goodbye to Executive and Deputy Directors **Bill McDorman** and **Belle Starr** who have parted ways with the organization. During their three years at NS/S, Bill and Belle made many significant contributions in education, outreach, and financial stability. We thank them for their service and wish them well in their future endeavors.

We are pleased to welcome **Felipe Molina**, **Daniel Armenta**, and **Ron Wong** to the NS/S board of directors. A past NS/S employee of nine years, Felipe is a member of the Pascua Yaqui Tribe and a retired elementary teacher with a passion for cultural preservation. A former NS/S intern as well, Daniel Armenta has a background in fundraising and horticulture working at Tucson Audubon Society, the Arizona Sonora Desert Museum, and other southwestern institutions. Ron Wong is a co-owner and third-generation farmer at BKW Farms in Marana, Arizona, one of the collaborating growers in the NS/S-led heritage grains coalition. Welcome aboard, everyone!

We recently said goodbye to several members of the board. **Kim Fernandez**, **Jim Cook**, **Greg Peterson**, and **Ron Wells** have moved on from NS/S to explore other interests. They each played important roles in guiding the organization and served with wisdom, vision and integrity. We are grateful for their contributions.

We also bid farewell to our Development Associate **Stephen Thomas** who has left the organization after three years. During his time at NS/S, Stephen wore a variety of hats from grant writer and event planner to staff photographer and tortilla chef! We wish him the best in his new adventures.

Our longtime Farm Operations Technician **Benito Gutierrez** has moved on from NS/S to tend other pastures. Over the last 11 years, Benito has been a dedicated caretaker of the NS/S Conservation Farm. We will miss the familiar sight of him expertly guiding his tractor between the cornrows. Happy trails, Benito!

It's a great pleasure to welcome **Lynda Prim** to the NS/S family as our new Farm Manager. Lynda comes to us with an impressive background in sustainable agriculture and over 30 years of experience on small farms in Vermont and the Southwest. We are very fortunate to have her with us, and we look forward to watching the farm flourish in her capable hands.

Joining Lynda on the farm are our new Farm Operations Technician **Morgan Parsons** and Farm Assistant **Matt Franz**. A



Tucson Seed School students pose for a graduation photo.

passionate seed lover, Morgan comes to NS/S from the Desert Botanical Garden in Phoenix where he worked as a horticulturist. Matt was one of our farm apprentices last season and brings with him a diverse set of skills in agriculture, construction, and archaeology. We are thrilled to have them on the team!

We were sad to bid farewell to our Retail Store Manager **Vivian MacKinnon**, who left NS/S to spend time with her family. Alongside our stellar store staff, Vivian helped create a warm and inviting space that connects visitors with the amazing flavors, cultures, and diversity of the Southwest. Thanks so much, Vivian!

We also recently said goodbye to our Finance and Operations Manager **Leilani Rothrock**. In her two years with NS/S, Leilani worked tirelessly (and always with a smile) to keep our complex organizational operations running smoothly. We are deeply grateful for her contributions and wish her the best. Stepping in to replace Leilani is **Sheri Morgan**, who has hit the ground running and is already an integral member of the team. An Air Force military brat, Sheri grew up in England before landing in Tucson 22 years ago. It's great to have her with us.

We are proud to welcome **Joy Hought** to the full-time staff of Native Seeds/SEARCH. For the past two years, Joy has worked as a contractor to help teach and develop curriculum for our acclaimed Seed School program. As our new Research and Education Program Manager, she will advance our educational efforts to reach hundreds more students and communities throughout our region. Welcome, Joy!

Our new Conservation Intern **Elizabeth Pantoja** joined us in April and is already deeply immersed in the daily activities of seed conservation. Elizabeth is a passionate food justice advocate and an active member of the Tlamanalcah Peoples, an affiliation of people of indigenous Mexican descent in Tucson. We are blessed to have her in our midst.

Find us on Facebook and Twitter!



Native Seeds/SEARCH
3584 E. River Rd.
Tucson, AZ 85718

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NS/S Staff Contacts

Agricultural Conservation Center 520.622.0830

Interim Executive Director Chris Schmidt *ext 111*
Finance & Operations Manager Sheri Morgan *ext 103*
Accounting Assistant Wendi Mogul
Administrative Assistant Betty Moore *ext 100*
Conservation Program Manager Melissa Kruse-Peeples *ext 106*
Research & Education Program Manager Joy Hought *ext 102*
Conservation Intern Elizabeth Pantoja *ext 104*
Fulfillment Coordinator Betsy Armstrong *ext 113*
Distribution Manager Laura Jones *ext 107*
Seed Distribution Coordinator Sheryl Joy *ext 116*

Conservation Farm 520.394.0227

Conservation Farm Manager Lynda Prim
Farm Operations Technician Morgan Parsons
Farm Assistant Matt Franz

Retail Store and Mail Order 520.622.5561

Assistant Retail Manager Chad Borseth
Retail Associates Gerald Dawavendewa,
Liz Fairchild, Matt Prieto,
and Nancy Reid

We envision the Greater Southwest as a place where farms and gardens, kitchens and tables, stores and restaurants are brimming with the full diversity of aridlands-adapted heirloom crops; people are keeping the unique seeds and agricultural heritage alive; and the crops, in turn, are nourishing humankind.