Seedhead News

Spanish Language Seed Saving Course a Success

Program Accomplishments: *Native Seeds/SEARCH's* 2015 Annual Report



WINTER 2016 NUMBER 121

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Front and back cover photo credit: Blue speckled teparies courtesy Ali Traut. The nonprofit mission of Native Seeds/SEARCH 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.

Enduring Seeds and the Future of Food

As we celebrate another successful year at Native Seeds/SEARCH, we are thrilled to also celebrate our hometown of Tucson being named a UNESCO World City of Gastronomy. This designation honors not only Tucson's vibrant restaurant scene and diverse food culture, but also its long past where local people have been growing crops for over 4,000 years.

At NS/S we are honored to be among the caretakers of precious arid-land crop resources. Jonathan Mabry, Tucson's Historic Preservation Officer, calls food part of Tucson's "intangible heritage" and the seeds NS/S has been working to conserve for 33 years are an essential part of that heritage. For without local seeds, there is no local food.

Members of the NS/S family have been deeply involved in this project. One of the NS/S founders, ethnobotanist Dr. Gary Paul Nabhan, spearheaded the City of Gastronomy nomination process, but many creative people jumped in to put in the hard work that over two years led to the designation. Board member Doug Biggers is editor and publisher of *Edible Baja Arizona*, the media sponsor of the project. Board chair Janos Wilder has long contributed to Tucson's unique food atmosphere as he frequently features foods grown from NS/S seeds in dishes at his popular Tucson restaurant.

And you, our members, have contributed, too, by growing and eating these heritage foods, keeping them alive not just as a memory but as a vibrant part of our local diet. For example, you have helped NS/S conserve several varieties of tepary beans which Tohono O'odham farmers domesticated over centuries from tiny wild beans the size of the head of a pin to the meaty beans we grow and cook today. These beans are part of Tucson's mainstream culinary offerings and offer many advantages for growing food with little water. Additionally, you have helped NS/S conserve seeds of Chapalote corn from near obscurity. This type of corn was once grown in the ancient fields of the Santa Cruz valley 4,000 years ago. Although it has evolved from the first harvest, Chapalote seeds are still available to be grown today thanks to seed conservation efforts.

While it has been fun to celebrate this honor, there is much to be done as farmers face increasing challenges including global climate change. Dr. Nabhan, a professor at the University of Arizona, has been named the head of a new Center for Regional Food Studies. He says, "The Tucson basin deserves this honor not only for having some of the oldest continually farmed landscapes in North America, but also for emerging as a global hotbed for ideas on re-localizing food economies and growing food in a hotter, drier climate."

The seeds resting in cold storage at the NS/S conservation center and those in packets ready for your garden hold some of the keys to future food production under more stressful conditions, not just in the Sonoran desert, but worldwide. As Debbie Weingarten wrote in *Edible Baja Arizona's* Community Spotlight featuring NS/S, "The Seed Bank is, quite literally, a place where time has stopped, and I have the sensation of being surrounded by unrealized food, fibers, and dyes in the form of thousands of sleeping embryos."

A sincere thank you to our members, donors and volunteers, for supporting our critical work. Each year when we look back on our accomplishments we are humbled by the generosity of this community. We look forward to your continued support in conserving this important genetic diversity on which global food security depends.



Spanish Language Seed Saving Course a Success

Native Seed/SEARCH hosted the first Spanish-language seed saving workshop on March 7, 2015 at the Western Institute for Leadership Development (WILD) in Tucson. Twenty-five participants attended the workshop with the majority of them coming from three border communities in Arizona: Rio Rico, Nogales and Naco. The course covered cultural aspects of seed saving in the Southwest and the basics of seed saving for tomatoes, corn, squash, and beans. Judging from participant feedback, it is hard to understate the demand for NS/S continuing to do outreach and service within these communities.

All of the instructors were trained by former NS/S intern Elizabeth Pantoja, the conservation staff at NS/S and a mixture of folks from the Food Bank of Southern AZ and WILD, and NS/S volunteer Shirley Lewis. This work was funded by two grants from the Punch Woods Endowment and Left Tilt Fund. With continued funding, we hope to offer additional Spanish language courses to the border communities in the future.

Left: Participants at the inaugural Spanish Language Seed Saving course.

Adaptable and Dedicated: Betsy Armstrong Celebrates 25 Years

If you have ordered seeds, gifts or food items from NS/S in the last 25 years, chances are pretty good that your order was packed and shipped by Betsy Armstrong. Betsy began her long career at NS/S by packing orders in the small office at the Tucson Botanical Gardens. The orders were sent out in gently used boxes and packing materials gathered by Barney Burns and other staff members. From early on Betsy proved to be an adaptable and reliable member of the NS/S crew.

A Midwestern girl who came west for college, Betsy joined the small staff of NS/S in 1991. She was recruited by her college friend, Junie Hostetler, who was the first Distribution Manager. As the organization grew beyond the walls of the TBG, Betsy and Junie moved the distribution department to the store and offices on the busy and eclectic Fourth Ave. in Tucson. The catalog of seeds soon expanded to include many craft and food items unique to the greater Southwest. Betsy finally needed to order a supply of *new* boxes to keep up with the orders. These days, if you are passing through the shipping department in mid December you might find Betsy mumbling to herself, "We are not Amazon!", but always with a smile on her face.

Betsy is known in the NS/S community for her tasty bean creations, her large collection of bright colored reading glasses, silly socks and intelligent humor. Throughout her career at NS/S Betsy raised her son Scott, who is now a lawyer in San Francisco.

Next time you place an order, say thank you to Betsy, the longest continuously working NS/S staff member.



Program Accomplishments

(OCTOBER 1, 2014 - SEPTEMBER 30, 2015)

Conservation

The health of our *ex-situ* (seed bank) collection has been steadily increasing as we have streamlined our seed germination and inventory procedures. Once complete, this will provide us a strong foundation to expand our *in-situ* efforts of uniting seed distribution and education to small-scale farmers, throughout the Greater Southwest. The ADAPTS platform was launched this year and provides unprecedented access to seeds and data in the NS/S collection.

Our Conservation Internship Program was once again a great success. Three young Native American leaders participated in the program and learned the art and science of traditional crop seed conservation. Their internship experience spanned between our Seed Bank in Tucson and our Conservation Farm in Patagonia. The program has facilitated the transitions of these born leaders into strong seed diversity stewards. These individuals also greatly contributed to our *ex-situ* conservation efforts by assisting in germinating, cleaning, and organizing seed, while learning about botany, biology, seed sovereignty, and ways to ensure the future of agriculture. At our Farm, they played an essential role in the execution of our seed regenerations, seed processing, and ultimately the return of seed to our *ex-situ* seed bank. Generous grants from The Christensen Fund and Robert Rauschenberg Foundation enabled us to continue a number of these important initiatives.

We continue to offer a black boxing program at our facility for community seed banks and individual seed savers in the Southwest. Participants can store backup samples of their seed collections in our -18° C freezer and retrieve them when needed, therefore enhancing the security of their collection.

We also continued our second year of the Native American Grower's Network to support Native American farmers in growing traditional crop varieties. We collaborated with four farmers from the pueblos in New Mexico and Navajo nation to produce maize and amaranth seeds. Finally, we committed to purchasing seeds from the growers at the end of the season for distribution through our Bulk Seed Exchange and Native American Seed Request channels.

Farm

Seed was successfully regenerated from 20 diverse crop accessions at our Conservation Farm in Patagonia. During these successful regenerations, we began the process of transforming our farm into a much more sustainable system that will strengthen our capacity to generate larger numbers of accessions. Health of the soil and farm ecosystem equates to healthier seeds and abundance, and integrating this philosophy will help us to increase productivity in the near future.

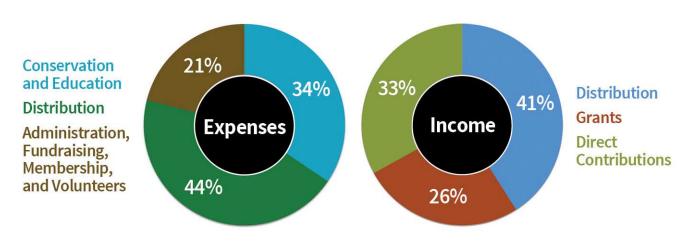
Farm staff and volunteers constructed a new high tunnel green house in order to get a jumpstart on the spring season. There was also an investment in several new farm implements such as a walk behind tractor, spader, and twin screen seed clipper. The seed clipper was particularly valuable while cleaning an abundant crop of blue speckled teparies this past year (*see article, page 7*). Investment in this equipment has greatly increased the Farm's efficiency and commitment to sustainable growing practices.

Distribution

The Community Seed Grant Program supported over 104 projects and provided access to over 2,500 free seed packets. Community seed grant recipients included over fifty K-12 school gardens in addition to seed libraries, senior living centers, and community garden projects in the Southwestern region. The majority of the recipients are in the Tucson and Phoenix metro areas. Approximately 16 projects serve primarily Native American communities and 13 serve primarily Hispanic communities.

We have continued to put significant resources towards facilitating access to seeds by Native growers through our Native American Seed Program, now referred to as the Native American Seed Request.

continued next page





The Bulk Seed Program, now referred to as the Bulk Seed Exchange, gained momentum. In 2015, in addition to the replanting of 15 accessions by the growers involved in 2014, six additional growers participated. We distributed approximately 35 lbs. of seed for planting and are beginning to receive seeds back from a number of the growers. We provided access to seeds from our seed bank when needed and a small startup stipend to facilitate their growing season.

Education/Outreach

In April and September of 2015, 54 students were trained during two Introduction to Seed Saving workshops held at our Conservation Center. In March, a successful pilot of the one-day Basics of Seed Saving course was presented in Spanish in partnership with the Food Bank of Southern Arizona and the Western Institute for Leadership Development. Participants came from both sides of the border (see article, page 3). Also in March, Native American farmers were hosted during a two-day Seed Growers Workshop held at our Conservation Center in Tucson and our farm in Patagonia. Twenty-eight participants from seven indigenous nations in Arizona and New Mexico participated.

Dozens of other individuals received seed saving education during tours, off-site presentations, and workshops hosted at local libraries. We also built upon our successful partnership with Pima County Public Libraries by launching a partnership with the Phoenix Public Library system, and have begun offering 1-hour seed saving and arid lands gardening programs at several branches.

This year we updated and expanded our educational content online, in our annual *Seedlisting*, and in print handouts for distribution at our

retail store and events. Much of this information was also translated into Spanish. Culinary and nutritional information about regional foods as part of the *Desert Foods for Healthy Living* program was published and represents updated information from the popular Desert Foods for Diabetes program. This information, funded by the Tucson chapter of the Eating Disorders Professional Association, includes recipes and cooking guides for desert foods such as tepary beans, mesquite, and cholla buds.

Online, we launched a new program that provides the stories about several seed varieties in the NS/S collection. *Seed*

Above: Manzo Elementary student harvesting greens. *Photo courtesy Moses Thompson.* *Diaries* presents the history, ethnobotanical uses, and culinary information of seeds including Bisbee Black Cowpea, Mayo Deer Dance Rattle Gourds, and Navajo Robin's Egg Corn. There is also downloadable curriculum for K-12 educators to use with students to create artistic expressions of the seed stories. 2015 also saw the introduction of a series of *Celebration of Heritage Foods* events. The celebrations included educational blog posts on how to grow, harvest, and prepare heritage foods and tasting events hosted at the retail store. This year popcorn and tepary beans were highlighted.

The Seed Diaries curriculum is one of the ways NS/S expanded K-12 education efforts in 2015. Additionally, we developed a one-day training course for K-12 educators focused on integrating seeds into science, art, and social studies classrooms to be offered in 2016 (see article, page 9). We also presented seed education at several Tucson area schools, including Borton Magnet School, and hosted several schools at the Conservation Center for tours and hands-on seed activities. We partnered with educators from Manzo Elementary to develop a school-year-focused planting calendar for the Tucson Unified School District and assisted TUSD curriculum development on

biodiversity.

NS/S staff attended a variety of events this past year to distribute seeds, seed grant application forms and educational resources. These events included the Southwest Tribal Food Sovereignty Conference (*see article page 6*), Leupp Family Farms Harvest Festival, Apache Harvest Festival at Ndee Bikíyaa, Tucson Organic Gardener's Fair, University of Arizona Social Equity Forum, and Naco Wellness Institute Health Fair.

Thank you! In 2015, 66 volunteers gave 2,700 hours

One of the greatest forces behind all that we do here at NS/S is the devoted and enthusiastic bunch of volunteers. This year we have had many new hands join in the good work, along with the continued solid support of those who have been around for years. Completing tasks in farm work, seed processing, seed packing, germination testing, web and mail orders, outreach, and special events, they have pushed the organization forward in our mission to conserve and distribute these beautiful seeds. We would not be who we are without them! Many thanks to those who gave their time.



NS/S Interns Attend Southwest Tribal Food Sovereignty Conference in Shiprock, New Mexico

by Samantha Martinez, Outreach Coordinator, Americorps VISTA member

Toward the end of last summer, Conservation Interns Chris, KC, Raymond, and I all made the road trip to the Four Corners region to attend the Southwest Tribal Food Sovereignty Conference hosted by Diné College at their campus in Shiprock, New Mexico. We had the privilege of hearing about regional efforts in tribal food sovereignty, the progress in rights of indigenous people, nations consultation on climate change, as well as outreach and student programs addressing food security.

One of the most impactful presentations was one in which we were exposed to the United Nations Declaration on the Rights of Indigenous Peoples. Many of the articles applied to the topics of food sovereignty and native health. Several council members and leaders from different tribal nations were present and shared their perspectives and insights on the actions needed to support food sovereignty in the Southwest. Native Seeds/SEARCH had a table during the seed swamp and product exchange portion of the event where we distributed various seeds, informational materials, and Native American Free Seed Request Forms.

Some of the experiential highlights of the trip included the delicious meals served to participants. We tasted many traditional Navajo foods, such as mutton stew, kneel down bread, blue corn mush, and sumac berry tea.

There was a traditional horsemanship demonstration where we learned about the importance in building respect with your animal through touch and intention, as well as physical care of the animal.

Overall it was wonderful to hear about the initiatives in the native communities that were represented, to connect with people who have similar concerns and dreams, and to be inspired by the passions of all ages and stages working toward a future of abundance and good health.

From the NS/S Farm to Global Research:

Former Crop Curator, Colin Khoury travels the globe studying crop diversity

In 2001, with his Bachelor's degree in hand and few years of travel under his belt, Colin Khoury arrived in Tucson to work as a crop curator for NS/S. His work ethic and diverse skills were quickly noticed and he was put in charge of the bean growout at the Patagonia Farm. Colin's deeper interest in crop diversity was apparent when he authored an article for the *Seedhead News*

entitled, "Old World Crops Meet New World Needs". Once the regenerated bean collection was safely stored in the Seed House, Colin embarked on a 10year journey studying and working on global food supply issues. He completed a Master's Degree at the University of Birmingham in England in Conservation and Utilization of Plant Genetic Resources. While working in Rome for three years with the Global Diversity Trust (GDT), he supported national genebanks to recover the aging collections in their freezers. At the time, the GDT was working with the Norwegian government to establish the Svalbard Global Seed Vault. Colin was encouraged to pursue his PhD and chose Wageningen University in the Netherlands, which allowed him to complete his doctoral research while on a fellowship at the



International Center for Tropical Agriculture in Cali, Colombia. In 2014, his journal article on his research on global crop diversity made headlines around the world. Colin has returned to the US and is working at the USDA National Laboratory for Genetic Resources Preservation in Ft. Collins, Colorado. Congratulations Colin and we hope to see you in Tucson soon.



From left:

Morgan Parsons running corn cobs through shelling machine. Parsons and Melissa Kruse-Peeples using the new seed clipper.

Farm Crew Celebrates New Seed Cleaning Machine

by Shannon Scott, former NS/S staff member

Does anyone out there remember dancing on the pile of dried bean pods on a big blue tarp at farm harvest celebrations? Or, hours spent blowing the dried pod flakes away from tiny amaranth seeds?

Cleaning seed is one of the most labor intensive jobs at the farm and can take hours of winnowing to extract the precious seeds from their pods. And as with most small farms, the work is accomplished by hours and hours of human labor. It is often not possible or practical to own the machinery needed to do the work.

The regeneration of healthy seed has been a top priority at NS/S for the last two decades. Now, we are at a point in our conservation work where we are growing out larger quantities of some high demand seeds for distribution to the Native American free seed program, Bulk Seed Exchange, Community Seed Grants, as well as for the general public. This means larger quantities of seed to clean.

Thanks to a USDA SARE (Sustainable Agriculture Research and Education) grant and a match of funds from a private donor, the farm crew was able to add a very practical machine to the farm tool shed. NS/S is now the proud owner of a 'twin screen seed clipper'. This machine uses vibrating screens to shake off and remove pods and

debris. The holes in the different screens come in a range of sizes to allow the cleaning of a variety of seeds. Seed cleaning at the farm has never been so easy!

One of the first uses of the clipper was a bulk harvest of blue speckled tepary beans (*see cover photo*). The seed clipper has a busy future ahead, according to Morgan Parsons, Farm Manager. Eventually he would like to purchase different size screens in order to maximize its use and expand the number and types of accessions that we could grow and clean. We are also able share the seed clipper with Borderlands Restoration, a Patagonia-based group that works with pollinator plants, native grasses and riparian restoration. Morgan views Borderlands Restoration as co-producers, while we conserve cultivars they conserve native plants. They share the same watershed and they do work to restore the riparian environment which helps build resiliency within the watershed. The small screens of the seed clipper will be perfect for cleaning native plants and grasses.

Thank you to the USDA SARE grant and the private donations for making it possible to purchase the seed clipper. We will still invite all of you to help with our fall harvest because we know you love dancing on beans!



From left: Cody Davisworth, Javier Ortiz, Colin Hall, Michael Gaines, Aaron Morgan, Frankie Lee, Ryan Henkel, Andrew Cota, Trey Waltz, and Daivon Lee.

Eagle Scout Project at Conservation Center

Aaron Morgan, a local Boy Scout, chose to volunteer at Native Seeds/SEARCH for his Eagle Scout project. Thanks to Aaron, his friends and NS/S staff, the Conservation Center now has an enclosed garden space.

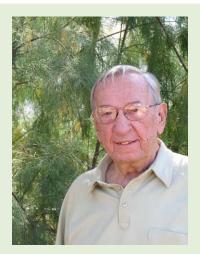




Farm to Table Picnic at Mission Gardens: A Delightful Gathering

We love sharing food with the Tucson community and last fall we joined the Friends of Tucson's Birthplace to host a Farm to Table picnic dinner at the Mission Garden. It was a beautiful day as friends old and new enjoyed delicious foods from several local restaurants. Thanks to Downtown Kitchen + Cocktails, Bianco's Pizza, Feast, Lowe's Ventana Canyon Resort, Blue Willow, Proper, Time Market, Mother Hubbard's Restaurant, Prep and Pastry, and Dragoon Brewery.

Thank you to the generous sponsorship of Desert Diamond Casinos & Entertainment, an enterprise of the Tohono O'odham Nation. And we honor the long line of Tohono O'odham farmers, who have grown many of these heritage foods for hundreds of years.



Volunteer Ed Hacskaylo Honored

Here is a quiz for all of you plant folks: Can you define Mycorrhiza?**

To help you find the answer you could show up at the Conservation Center on any given Thursday and talk to Dr. Ed Hacskaylo. In addition to being a 20 year volunteer for NS/S and former Board Chairman, Ed was a leader in mycorrhizal research and a founder of the First North American Conference On Mycorrhizae (NACOM) in 1969. Forty-six years later, in August of 2015, Ed was honored as a pioneer in mycorrhizal research and as the founder of the conferences at the International Conference on Mycorrhizae (ICOM) that took place at NAU in Flagstaff, Arizona. Attending the 2015 conference were a record 500 participants from 50 countries. In 1969, Ed had brought together 55 scientists. He named the conference the "First" with the hope that a second would follow. After the 10th conference was held in 1996, the name was changed to the International Conference On Mycorrhizae (ICOM) and six biennial conferences have been held since then. Ed received a standing ovation after receiving his award. Dr. Pat Reid, a long time NS/S member and former Director of the School of Natural Resources at the University of Arizona was also honored at the conference.

Ed turned a young 90 in December. We are honored to be a part of his long life.

**Mycorrhiza: Symbiotic association of beneficial fungi with roots of most terrestrial plants.



Tucson area teachers at Teaching with Seeds workshop.

Teaching with Seeds

by Melissa Kruse-Peeples, Education Coordinator

Schools have been embracing the garden movement in recent years. It is easy to understand why if you have ever witnessed normally picky eaters enjoying fresh produce straight from the garden or the excitement students express when they find sprouts pop out of the ground. Native Seeds/SEARCH has proudly supported the school garden movement with small donations of seeds through our Community Seed Grant Program. To date we have provided arid-adapted seeds to over 150 garden projects working with youth in the Southwestern region. Participants in this program have been asking NS/S for educational materials to more fully integrate seed education into their gardening programs.

In October Native Seeds/SEARCH introduced a new workshop called *Teaching with Seeds* for K-12 educators to meet this desire for increased youth gardening education. During two one-day workshops we hosted 56 educators at the NS/S Conservation Center in Tucson. Participants included traditional educators in public and charter schools as well as educators working with youth language preservation programs, outdoor education camps, and garden oriented non-profit organizations. We were delighted by the enthusiasm and popularity of the workshops which drew participants from across Arizona, New Mexico, and Southern California.

During the workshop we focused on providing lesson plans for how to incorporate seeds into classroom education. Aware that not every school has the resources for a garden, we designed the workshop to include lessons that can be done exclusively in the classroom or could involve an on-site garden component if available. The curricula addressed questions such as: *Where do* seeds come from?, What makes seeds grow?, and How did people create diverse types of seeds? Seeds have obvious connections to STEM (Science, Technology, Engineering, and Math) education and these lesson plans addressed topics including scientific inquiry, botany, genetics, and biodiversity. But seeds also have a connection to history, culture, language and the arts. Therefore, we also provided lesson plans that incorporated these aspects of seeds through our exploration of *what are the stories of seeds*? The cultural context of seeds from the Southwest region was one aspect that participants found particularly valuable and unique about the NS/S program.

We also covered some basics of planting and saving seed in school garden settings. School gardens have many unique challenges including a restrictive school year session, small spaces, and limited resources. We were able to discuss strategies for sustainable school gardens including what to plant when and how to save seeds from crops such as beans, herbs, and tomatoes. Saving seeds from school gardens not only provides sustainable seed supplies for that garden but seed resources that can be shared with students to grow gardens at home.

Educators left the workshop with numerous tips and tricks for their school gardens as well as curriculum they can directly implement. We also provided participants with a seed biodiversity starter kit they can use to explore seeds with their students. Feedback from the workshop has been terrific and teachers are already using the material. Thanks to funding from the GRIC (Gila River Indian Community) and the Raushenburg Foundation for making this workshop possible. 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.

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Accounting Assistant Wendi Mogul

Membership Coordinator & Administrative Assistant Lahsha Brown

Director of Conservation Matthew Kost

Education Coordinator Melissa Kruse-Peeples

Education Assistant Joy Hought

Outreach Coordinator & Americorps VISTA Member Samantha Martinez

Seed Distribution Coordinator Sheryl Joy

Fulfillment Coordinator Betsy Armstrong

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Farm Manager Morgan Parsons

Farm Assistant Raymond Antone

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Retail Manager Chad Borseth

Retail Assistants Nancy Reid, Melissa Barrow, Laura Neff

News & Notes

With the departure of former executive director **Larrie Warren**, Laura Jones, Distribution Manager, has stepped into the role of interim director. She is working with a management team that includes Matthew Kost, Ph.D., Director of Conservation, and Sheri Morgan, Director of Finances and Operations.

During the last six years, Laura Jones has served in a variety of roles for Native Seeds/SEARCH, including coordinating volunteers, pollinating at the farm and working in the retail store. Recently, she managed our bulk foods operation, retail store, and most recently our entire distribution operations. Laura graduated from Lesley University with a degree in Environmental Studies. She has worked in natural resource management, disaster preparedness/response, education, and volunteer engagement with AmeriCorps Cape Cod. Laura also brings experience in conservation, education, and agriculture from both Hawk's Wing Organic Farm in Massachusetts and the Town of Chatam Conservation Department, and retail experience from Trader Joe's and Summit Hut.

Sheri Morgan lived most of her life in England because of her father's military career. She arrived in Tucson 24 years ago and holds dual Bachelor's degrees in Accounting Business and Administration from the University of Phoenix. Sheri has worked in the government and nonprofit accounting field, mainly working on budgets and financial statements for the Town of Marana and Pima County for 15 years. Her son Aaron is the Eagle Scout who organized the construction of the enclosed garden space at the Conservation Center. (see story page 7)

Matthew Kost joins us as the Director of Conservation. Matthew's time studying the genetic basis of local adaptation in the maize landraces of Chiapas, Mexico, provided him with in-depth understanding of the roles that culture and the environment play in shaping crop diversity, which in turn forms the basis of resilient and sustainable agricultural systems. Matthew offers deep insight into the domestication of plants and understands the important role that crop wild relative diversity plays in resilient agriculture systems and food security.

His postdoctoral work in Peru gives him a strong background from which to educate others on the role that the seed and food sovereignty movements play in the conservation of crop diversity and, ultimately, the future of global agriculture.

His time in Latin American countries, interacting with a number of self-reliant cultures practicing sustainable agriculture, has prepared him to interact with diverse cultures on the importance of conservation and utilization of genetic diversity.

While Laura Jones is working with the management team, **Chad Borseth**, has moved into the position of Retail Store Manager. Chad has been with NS/S for three years and is an avid desert gardener and cook. A highlight from his Tucson garden is successfully growing full ears of Diné Robin's egg corn. He is inspired to see people starting desert gardens and enjoys sharing the hard to find flavors of the desert with customers. He feels that the diverse array of products at the NS/S store reflects the diversity of the Southwest and that sharing his passion for gardening and NS/S has been a joy and a blessing.

The distribution of seeds and products is in the capable hands of Betsy Armstrong, Fulfillment Coordinator (see story page 3) and Sheryl Joy, Seed Distribution Coordinator. Sheryl started as a volunteer at NS/S almost four and a half years ago and before long was hired on to do a variety of part time jobs, including printing seed packets, working at the retail store, and assisting our financial manager, as well as weeding out a particularly nasty outbreak of Russian thistle at the Conservation Center. In her current full time role as Seed Distribution Coordinator, she sends the seeds from our safe haven out to the people who want them and need them. Sheryl describes her work in her own words: "I've worked in non-profit organizations all my life, but I truly feel that NS/S is the most special place I've been. The seeds in our collection are such a precious resource, the result of such hard work by so many people that have been



From left: Retail Manager Chad Borseth. *Photo courtesy Debbie Weingarten*. Cochiti popcorn.

passed from hand to hand over many generations. I'm privileged to be one of the hands passing these seeds on into the future."

Last fall, we said goodbye to Lynda Prim, Farm Manager. Lynda brought a lifetime of experience and passion to the NS/S farm, working tirelessly to improve farm operations and create a resilient and sustainable system. We thank Lynda for her contributions and wish her the best in her future endeavors. Morgan Parsons, who worked closely with Lynda in Patagonia as the Field Operations Technician, will take over the management of the farm. Morgan hails from Tuscaloosa, Alabama where he studied Sustainable Agriculture. He is passionate about NS/S because it has given him an opportunity to work with an amazing collection of resilient indigenous people as well as the opportunity to educate and work with young indigenous people. His main goal in life is to pass on the knowledge to young inspiring farmers.

Samantha Martinez, Americorps VISTA Member and Outreach Coordinator, joined the organization in July of 2015 to work toward food security and seed sovereignty for future generations. Sam is a transplant to Tucson from the north woods of Wisconsin. She is an artist, ethnobotanist, and believes that seeds have souls.

In August, we bid farewell to the very dedicated and welcoming **Betty Moore** whose warm regard and sincerity shows in all that she does. Thank you Betty! The competent and friendly **Lahsha Brown**, who joined NS/S in August as our Membership Coordinator and Administrative Assistant, now handles all membership details. Lahsha brings two decades of conservation experience to the job having worked for several local non-profits, most recently Friends of Sabino Canyon and Friends of Ironwood Forest.

Two old friends return to the NS/S Board of Directors. Welcome back to Karen Reichhardt and Dody Fugate.

Karen Reichhardt is co-founder of Native Seeds/SEARCH, was the first paid employee, and edited the first *Seedlistings* and *Seedhead News* for

many years. After leaving Native Seeds/SEARCH and the University of Arizona Office of Arid Lands Studies, she was employed by the federal government in public lands management, natural and cultural resources management, and land use planning. Her extensive career included academic research, private botanical consulting, government contracting and implementing environmental law. She retired a year ago from the Bureau of Land Management and lives in the Gila Mountains outside Yuma, Arizona with her husband, James L. Heard.

Dody Fugate is a native New Mexican who received her Masters Degree in Archaeology from the University of Arizona with an equivalency in museum administration.

In 1989, Dody moved to Santa Fe, New Mexico to work for the Museum of Indian Arts and Culture/Laboratory of Anthropology. It was there that she became involved in the implementation of the Native American Grave Repatriation Act. Dody worked with the native people of New Mexico and several groups from Arizona in an attempt to facilitate the return of sacred objects as well as dispensation of ancestral remains to the satisfaction of descendant populations. In doing this, she worked closely with the museum's Indian Advisory Counsel and tribal preservation officers. Dody credits a great deal of her training to two of her mentors, Edmund Ladd of Zuni Pueblo and Emery Secaquaptewa of the Hopi People.

Dody has been credited with implementing and maintaining the 'Let's Take a Look' program where the general public may bring in artifacts to be examined and identified by curators. Her own area of expertise is the study of pre-European dogs in the Western Hemisphere.

Term limits and life events have led to the recent departure of several board members. We would like to thank **Cynthia Anson, Daniel Armenta, Martha Burgess, Karen Jambeck** and **Ronald Austin Wells** for their time and dedication to our mission.

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And later this summer: Monsoon Plant Sale

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Do you have gardening questions? Need some pointers? Want to meet with fellow gardeners and talk about your successes or failures? If you answered *YES* to any of these questions, come and join us at the NS/S Retail Store, 3061 N Campbell Ave., the 3rd Thursday of every month from 2-4pm for our new series: *Garden Gab: Let's Talk Dirt!*