



Seedhead News

A newsletter for members of Native Seeds / S.E.A.R.C.H.

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Investing in the Future

By Chris Schmidt, PhD, Seed Bank Director

Native Seeds/SEARCH (NS/S) was honored to receive a \$300,000 grant from the Gila River Indian Community.

The funding comes from the State Shared Revenue Program. The Gila River Tribe (and other tribes) contribute to this fund to support services that benefit the general public in Arizona communities. With this grant support, NS/S will be able to revolutionize the security, physical organization and data management of our Seed Bank collection and complete the initial regeneration of the collection at the Conservation Farm. The funds will also help underwrite the yearly SeedListing catalog and the Native American Free Seed program, as well as support our educational programs such as Seed School. An awards ceremony took place at the Native Seeds/SEARCH Conservation Center on July 23, 2011, with dignitaries from the Gila River Indian Community and the NS/S Board of Directors and staff.

“This couldn’t come at a better time!” exclaimed Executive Director Bill McDorman. “We are so grateful to the tribe. Regenerating the precious collection of seeds is our top priority. We will now have the funding to finish growing out the oldest and most threatened varieties in our care and increase educational programs like Seed School.”

Cheryl Pablo, Program Administrator with the Tribe’s Office of Special Funding had this to say during the ceremony: “Native Seeds/SEARCH is one of the most important organizations of our time. They have stewarded seeds from the Gila River Indian Community for decades. We look forward to helping them take the next step in their development with regenerating their collection to benefit the people of Arizona and to support greater educational opportunities.”

The NS/S collection includes representatives of over 100 species of agricultural crops and their wild relatives from across the region, but faces the same conservation challenges as any seed bank, most notably the need to periodically regenerate accessions (a unique collection of a crop variety from a particular time and place) to maintain their viability. Failure to conduct periodic regenerations (controlled growouts) can result in complete loss of the sample from the collection (or even extinction, if no viable samples exist elsewhere), genetic contamination from other varieties, or loss of genetic diversity.

The new project funded by Gila River addresses perhaps the most urgent threat to the NS/S collection by targeting the remaining accessions requiring regeneration. In 2012 and 2013, a total of 271 at-risk accessions will be grown at the NS/S Conservation Farm, including all remaining squash and gourd accessions (120 total), the remaining chiles, herbs and greens (19 total), the remaining corn (38) and bean (48) accessions, plus the 46 remaining accessions of miscellaneous crops

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From Our Directors

In September, we traveled to California to attend two new national seed events. Held in Santa Rosa, the *National Heirloom*



Expo offered high-profile exposure for the seed diversity cause in a World's Fair atmosphere filled with fun, color and flavors. Almost simultaneously, in San Francisco, the more politically focused were gathered for a conference called *Justice Begins with Seeds* to coincide with

GMO (genetically modified organism) Awareness Week. Both events were reactions to the insecurities—even dangers—of industrial agriculture. Both events lend further evidence that awareness is growing about the vital importance of seeds in building a new, more sustainable food system.

Besides a focus on smaller and more local efforts, the most striking development in this emerging food system is just how much activity is concentrated in cities. Urban agriculture has become all the rage. From Greg Peterson's call for 10,000 Urban Farms in Phoenix to Will Allen's Vertical Farm in Milwaukee, the hip and happening are quickly finding ways to transform empty lots, neighborhoods and abandoned buildings into fresh, organic, urban food mini-farms and projects. So much is happening, in fact, it is starting to feel a little like the '60s. We are having a hard time keeping up with the new projects, non-profits, meetings and conferences. A new world is being invented in real time. This is becoming "the movement" of our day.

Back home in Tucson, we are constantly amazed at the flurry of initiatives adding to the momentum. The Watershed Management Group continues to roll out its revolutionary cooperative education and installation systems to make sure each and every neighborhood uses its water efficiently and effectively. The Community Food Bank and Tucson Community Gardens have developed tremendous resources to bring novice gardeners up to speed with land, water, tools and expertise. Pima County Extension continues to add to an array of knowledgeable garden volunteers with its signature Master Gardener Program. The Food Conspiracy Co-op is expanding its fresh, local-food deli and recently invested \$25,000 in Sleeping Frog, a nearby farm to its growing repertoire of community offerings. (See page 5 for our new collaboration with Food Conspiracy.)

On the seed side of things, Pima County Library is currently putting together a plan to explore the roll-out of "seed libraries" in 3 or 4 branches where gardeners can freely "borrow" seeds, save and return them. Native Seeds/SEARCH is helping launch the project with start-up seeds and educational resources, while also working diligently on our own seed library at our Retail Store on

Greetings to all our wonderful members!

Campbell. In other educational efforts, be on the look out for our free Salon series every third Monday of the month at our Retail Store. Rounding out the year, the last Seed School is slated for late October.

As exciting as the new urban agriculture has become, it will not be sustainable without a deep and diverse selection of local seeds at its heart. To create a truly successful, sustainable city, every gardener and farmer must participate as seed savers on some level. This may sound challenging, but it is not impossible. This is the way farming worked before the industrial storm. We are simply finding our way home.

Thanks to the vision of our founders and the hard work of our directors, staff, volunteers and members, Native Seeds/SEARCH is perfectly poised to play a crucial role in the unfolding events of our time. The work we're doing holds the promise to be the foundation upon which this entire movement rests. And if we ever need incentive, we can recall the wise words of Blake Collins from Borderlands Brewery: "No seeds, no beer!"



We believe Tucson has what it takes to set the scene to inspire us all to reclaim our inalienable right to save seeds. We envision it at the helm of a Seed Town, USA initiative whose slogan is: "We take care of our own!"

Come help us provide the seeds and seed-saving knowledge to those coming on board to build a regenerative world. Join the fun. Become a member. Become a volunteer. And most importantly, plant something – and save your own seeds.

Bill McDorman and Belle Starr

FOUNDERS

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Mahina Drees
Gary Nabhan
Karen Reichardt

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From Our Board Chair



Twenty-eight years ago our visionary founders recognized that many of the arid land adapted food crops that had long nourished southwestern communities were rapidly disappearing. In the years since, NS/S has grown to become the Southwest's leading seed conservation organization. Our Conservation Center now preserves, documents and distributes the seed of almost 2,000 unique varieties of arid land adapted food crops.

The last five years at NS/S was a time of amazing accomplishment. With the generous financial support of our community, we raised almost a million dollars in contributions. We negotiated with Pima County for the long-term lease of the Conservation Center site at the Brandi Fenton Memorial Park, and arranged for the loan for the remainder of the funds necessary to complete construction.

Then, just as we completed construction, the economy tanked. Our traditional institutional donors saw their portfolios shrink and were forced to drastically reduce their support. Members too felt the pinch and contributions slowed. With survival at stake we had no alternative but to take the painful step of laying off several long-term and valued staff members. Tough though it was, it forced us to become lean and focused. Together we worked long and hard to re-imagine our purpose and chart a new course for the way ahead.

As we began to navigate through the economic downturn, we had the good fortune to find Bill McDorman and Belle Starr, and to hire them to step in and lead our efforts to rebuild Native Seeds/SEARCH. I am delighted to say that we have crossed a great divide and are now stronger and more vital than we have been in many years. Bill, our new Executive Director, is a charismatic and visionary leader (as you have hopefully experienced!). As an expert in all matters of seed conservation, Bill is the ideal person to keep NS/S at the forefront of the seed conservation movement. Belle, our Deputy Director, brings a wealth of valuable experience to NS/S, most notably media relations and event production and is the perfect hand to keep the organization moving smoothly.

The NS/S Board of Directors is thrilled to see the amazing progress of our organization in the short time these two have taken the lead. Their energy and enthusiasm have already resulted in tremendous changes. We are now offering trainings called Seed School. We are ramping up the seeds we make available to our community through a new line of seeds, and we have recently unveiled our new Seed Library at our Retail Store.

The timing couldn't have been more perfect to have Bill and Belle on board when we received two significant new grants (\$400,000!) to insure that we can continue to grow out, conserve, and distribute our priceless collection, and work with local growers to bring the unique foods represented in our

collection to local tables and restaurants. For those of you who have worked by our side in years past, thank you so much. Your dedication and support have accomplished wonders. For those new to Native Seeds/Search, welcome. Working together we continue our efforts toward food security and awakening the world to the unique and wonderful benefits we all receive by conserving, protecting and growing amazing heirloom crops from the desert Southwest.

David Tiers, Chairman of the Board: Native Seeds/SEARCH

A Seed Library has been unveiled at the Native Seeds/SEARCH Retail Store.



New Seed Library in Westcliffe, Colorado spearheaded by Seed School students Penn and Cord Parmenter

Seed Libraries are very much like book-lending libraries. Seeds are checked out and returned the next year from successful seed saving ventures. The initial inventory of seeds comes from the community. Packets include information on the name of the seed/plant, geographic details and any relevant stories. This is the best way we know how to engender regional diversity and to create an open source platform for gathering and saving our own genetic resources. While we launch this effort, we will be gathering YOUR seeds that you have saved. Community members may check them out and then next season return twice as many seeds to this community trust. Stop by our Retail Store 3061 North Campbell and we'll tell you more. While there take a peek at our new Seed Central Room where the Seed Library is stationed.

(Continued from page 1)

Investing in the Future

(including amaranth, watermelons, cotton, sunflowers, devil's claw, cowpeas, and tomatillos). In 2013, the focus will also be on "cleaning up" as many as 130 accessions that were previously attempted but failed to produce adequate samples. In most cases, these accessions have never been available for distribution to the public before. By growing them out we will be able to then make them broadly available for the first time. Imagine having as many as 400 new varieties to try at your own farm or garden!

The Gila River grant also supports significant infrastructure upgrades to the Seed Bank. The project includes the purchase of new steel storage racks and storage bins to provide optimal organization, safety and accessibility of the seed samples in the collection. Samples will also be transferred to hermetically-sealed, laminated aluminum foil packets, which are the standard storage containers for most seed banks worldwide because they are air- and moisture-proof, maximally space-efficient, and provide good accessibility. To maximize efficiency and data integrity throughout the myriad tasks involved in curating the NS/S Collection, a barcoding system will be implemented to replace the hand-written labels currently used to identify the approximately 16,000 seed samples in the collection.

Even with optimal seed storage conditions and collections management, accessions may be lost from a collection for a variety of reasons, such as natural disasters or equipment failures. Thus, a standard procedure in seed bank management worldwide is the creation of an emergency off-site backup (i.e., duplicate) collection to ensure that samples are not permanently lost. Currently 40% of the NS/S collection is backed up, but this grant will enable us to complete this process and have a secure backup of our entire collection, enabling replacement of accessions in case of emergency.



Samples of the original seeds collected for each accession will also be photographed to provide digital voucher specimens. These photographs will be standardized, high resolution, color-calibrated, and will include scale bars, providing a valuable tool for monitoring changes in an accession and for documenting its characteristics. The images will also improve the ability of NS/S to make its collection accessible to researchers and the public by providing high quality photo-documentation of all accessions in the collection.

We are immensely grateful to the Gila River Indian Community for their extraordinary generosity and trust. We are excited to take the care of our precious seed collection to a new level, and to expand both the diversity of seeds available to the public and the diversity of our educational offerings. □ ■ □

Conservation Farm Surprises

By Chris Schmidt, Ph.D., Seed Bank Director

It rained this morning at the Native Seeds/SEARCH Conservation Farm. It was one of those atypical early morning monsoon thunderstorms, something we don't expect to encounter

and can't plan for. We had just returned to the barn after a quick walk-through of the corn to evaluate which accessions were ready for hand-pollination. While preparing our pollination supplies inside, we heard the first drops hit the metal roof. We hesitated, unsure whether it would rain enough to spoil our intentions to pollinate this morning—wet tassels don't shed pollen—and decided to focus our efforts elsewhere.



Cochiti popcorn growing at the Conservation Farm in July, showing tassels, silks, and a hand-pollinated ear (covered by the brown paper bag).

With the rain gradually increasing in intensity, Stephen began cutting and bagging ear shoots of Mayo Cacabatchi sweet corn for pollinating at a later date, Evan left to hitchhike to Nogales to see a dentist, and I began assessing the current state of each crop growing on the farm. We didn't get very far. I had just enough time to visit the shadehouse and the chiltepin cage and make some quick mental notes: the Peruvian Brown cotton is flowering beautifully; the Chihuahua Wild devil's claws are loaded with fruit; the *Hibiscus sabdariffa* (used to make jamaica tea) is growing well; the perennial wild cocolmecha bean has a few maturing seed pods, at last; and hey!, two of the chiltepin accessions are fruiting! Then the thunderstorm hit and put a soggy end to our work. We stood inside the barn, taste-testing a Hopi Yellow watermelon (saving the seeds, of course), and watched our desert farm fill with water. Monsoon farming can be unpredictable.

This year's summer growout at the Conservation Farm is primarily focused on replenishing our supply of seeds for distribution of many of our most popular crop varieties, while still allowing for opportunities to conduct research and produce food. From the NS/S collection, a total of 46 varieties representing 23 crop species are being attempted at the farm this summer. The list includes many varieties that will be familiar to our members and customers: Tohono O'dham Ha:l squash;

chichiquelite; epazote; Hopi Black Dye sunflower; Yoeme Purple String bean; chapalote popcorn; and many others. An additional 27 varieties representing 16 crop species are being evaluated for their performance at the Conservation Farm; these are plant varieties from outside the traditional scope of the NS/S collection and will form the basis of our new seed line.

In evaluating our seed distribution needs earlier this year, it became clear that two of our crop categories are in very high demand but currently in very low supply, namely sweet corn and chiltepin. As a result, these two crops are among our highest priorities in this growout. Ten different sweet corn varieties are being grown, along with two popcorns and three flour corns, and each must be hand-pollinated to prevent contamination between varieties. This laborious but strangely satisfying process is a complex orchestration of events made even more complex by the incredible diversity within and among the corn varieties we are growing, from the rapidly maturing and prolific knee-high Hopi sweet corn to the ten-foot tall late-maturing Guarijio sweet corn.

Six varieties of chiltepin (perennial wild chiles) are being grown, including one (a stunning long-fruited variety from Hidalgo state in Mexico) that has never before been offered for distribution. The goal is to overwinter the chiltepin plants and thereby obtain a steady supply of seeds from year to year. It looks like we'll be getting seed off of at least some of the accessions this year.

In an attempt to contribute more directly to the local food system, we are expanding our efforts to grow more produce at the farm. Coming on the heels of our successful growout of wheat (some of which will likely be earmarked for sale as food), we are planning to sell fresh Tohono O'odham ha:l squash and Hopi Yellow watermelon to the Food Conspiracy Coop and local restaurants. We are also growing beans to be sold as food: the popular Colorado River beans, Blue-Speckled teparies, and Tarahumara Bortal runner beans. In our continuing efforts to promote a local grain system in southern Arizona, we are increasing our stock of three low-elevation varieties of flour corn that will eventually be used in a chef's trial, whereby we will elicit feedback on their culinary qualities and market potential. We are also increasing our supply of chapalote popcorn, with the ultimate goal of providing us with a steady source of pinole to sell at our store.

Corn makes a further appearance at the farm this summer in the form of a research plot we are maintaining for Rich Pratt, a corn breeder and long-time supporter of Native Seeds/SEARCH who is now a department head at New Mexico State University and joins us for Seed School. We are working with him to grow out and evaluate forty different varieties of corn with wildly diverse origins, as part of a research effort he is conducting to understand the genetic basis of environmental adaptability in corn.

The farm is overflowing with life. The growout has not been without its failures: the Bisbee Red cowpea succumbed early to disease, as did the Punta Banda tomatoes, while the Yerba Anís had poor germination and the tenacious chilacoyote squash (a holdover from the previous year's growout) finally succumbed to the team effort of spider mites and squash bugs. But the growout as a whole is exceeding our expectations and we are looking forward to sharing the fruits (and seeds) of our labors with you! Thank you to our wonderful farm staff and volunteers for their amazing work this summer, and a special thank you to Benito Gutierrez for his masterful handling of the farm. □ ■ □

A Conspiracy We Can Love

Become a member-owner of Food Conspiracy Co-op, 412 N. 4th Avenue in Tucson, during the month of October and your membership to Native Seeds/SEARCH is free. Membership entitles you to the newsletter you are now reading, discounts at our retail and online store, reduced fees for our educational programs like Seed School, as well as special invitations to our events and celebrations.

Join Native Seeds/SEARCH during the month of October at our Retail Store at 3061 N. Campbell in Tucson and you will receive a \$15 coupon to buy groceries at Food Conspiracy Co-op. Since 1971, Food Conspiracy has been committed to providing the highest quality natural and organic foods and products to the Tucson community. Their produce department is entirely organic, and doesn't include any products known to contain genetically-modified organisms (GMOs). In alignment with their commitment to environmentalism, social justice, and education, they are constantly expanding their line of local, fair trade, and independently produced items which will include Native Seeds/SEARCH seeds and products in the very near future. We are proud to partner with this Tucson institution to promote local food, local seeds and each other.

Contact NS/S Staff

Agricultural Conservation Center 520-622-0830

Executive Director *Bill McDorman* ext 102

Deputy Director *Belle Starr* ext 104

Director of Finance & Operations *Tracey Martineau* ext 103

Administrative Assistant *Maureen Moynihan* ext 100

Seed Bank Director *Chris Schmidt* ext 111

Seed Collection Assistant *Stephen Thomas* 678-469-3724

Seed Distribution Coordinator *Dawna Gravley* ext 114

Distribution Coordinator *Betsy Armstrong* ext 113

Farm Operations *Benito Gutierrez* 520-394-0227

Farm Assistant *Evan Sofro* 208-720-4797

Retail Store and Mail Order 520-622-5561

Director of Distribution *JP Wilhite* ext 5

Retail Assistant *Bill Ziebell*

Bulk Foods Associate *Laura Jones*

Native Seeds/SEARCH Expands Seed Line

In response to the increasing demand for traditional garden seed varieties, Native Seeds/SEARCH is proud to announce an exciting new line of vegetable, herb and wildflower seeds available from our retail and online stores. Our new garden seeds will satisfy the most discriminating gardener with garden seed carefully selected for hardiness and vigor. All seeds are open-pollinated and heirloom varieties, so you can save your own seed year after year.

From Our Friends

"Just a beautiful ear of corn from my planting this spring. I've never seen caramel colored kernels before! I'm saving seed from my harvest to plant again next year."

--Doak Rhoads, Peoria, Arizona



"I am so grateful to Native Seeds/SEARCH for having these ancient seeds to grow and use for experiments to understand the prehistoric methods of processing ancient maize varieties. None of this could occur if we didn't have these precious seeds to begin with. And as always, the process of growing these maize varieties is quite an experience as well. Each year I have grown here in the Sonoran Desert seems drier than the last, yet somehow these seeds are surviving the fierce winds and ferocious heat...the weekly advance of insects, corn worms and now grasshoppers by the hundreds.... gophers, squirrels, mice, javelinias and birds. I have staggered plantings of Reventador, Guarijio and 60-Day Tohono O'odham corn and all are doing very well despite the extreme

conditions. Apache Striped Sunflowers, TO Ha:l and Tepery beans, and Devil's Claw as well as Hopi Red Dye Amaranth. It is nothing short of miraculous to me."

--Joyce Rychener, Aravaipa Canyon Ranch outside Tucson

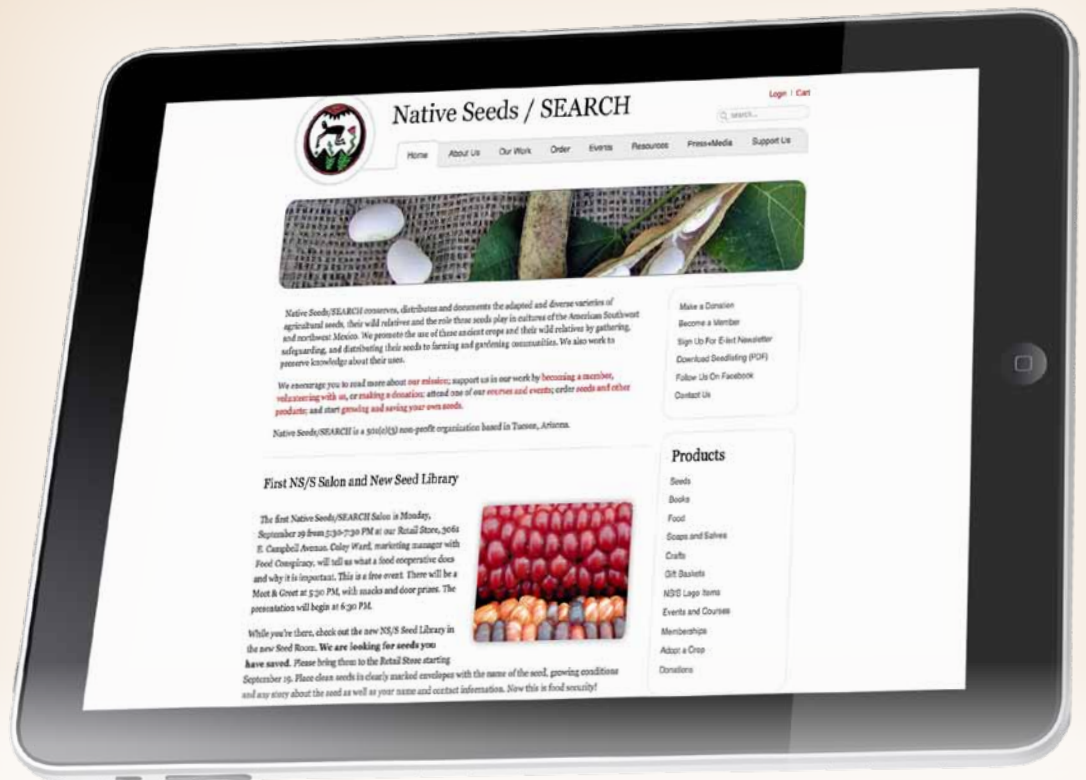
"Here is a recent photo of the Tad Nichols tomatoes we grew in our garden in Sedona. I was a friend of Tad Nichols and helped design his coffee table photography book titled "Glen Canyon: Images of a Lost World." I thought this photo showed the size of the tomatoes nicely."

--Larry Lindahl, Sedona

Share your experience! We would love to hear your stories of success and exploration growing NS/S seeds. Please email your experience and photos to belle@nativeseeds.org.



WE HAVE A NEW WEBSITE!



The new site is more accessible, user-friendly and has far greater capacity for new interactive features. Log on and dig in! Visit www.nativeseeds.org

2011 Nautilus Award Winner Teaches Permaculture at Native Seeds/SEARCH



Powerfully relevant is the best way to describe Toby Hemenway's permaculture course. Toby is the author of *Gaia's Garden*, the best-selling permaculture book in the world for the last seven years. Native Seeds/SEARCH and Toby are collaborating on a permaculture course at the NS/S Conservation Center beginning the weekend of November 12 & 13. The training will be held one weekend a month for six months. Toby was recently

announced as the gold winner of the 2011 Nautilus Award.

"Toby is one of the clearest thinkers and visionaries of our time," states NS/S Executive Director Bill McDorman who will also be teaching. Toby recently relocated to Arizona from the Pacific Northwest.

The Time Has Come!

SEED SCHOOL



David King from the Seed Library of Los Angeles, Lucrecia and Carla from Mexico City at June's Seed School

Adding seed saving to an existing sustainable agricultural program is like adding wheels to luggage. Our highest hope is that in the near future, we will look back at this time when we bought industrial seeds from industrial companies thousands of miles away, and we will ask ourselves *what took us so long to save our seeds?*

Enter Seed School, a download in "everything seeds" that will help you get up to speed whether you are starting a small regional company, adding a seed component to an existing business such as a nursery or CSA (community supported agricultural program) or working on seed security as part of your region's economic development.

Seed School has graduated 58 students from across the United States and even two students from Mexico (in one year!). The course is fun, empowering, experiential and inspiring. As a result of this training, seed libraries, seed businesses and other educational opportunities have all been launched.

Some scholarships are available for educators and Native Americans. Please apply by emailing belle@nativeseeds.org.

Sunday, October 30th – Friday, November 4th

Special guests include Gary Paul Nabhan, Co-founder of Native Seeds/SEARCH and Steve Peters, Family Farmer Seed Cooperative (formerly with Seeds of Change).

\$700 tuition payable online:

www.nativeseeds.org or call: 520.622.0830 ext. 100

Toby has been able to mainstream the permaculture materials so that they are easily accessible to urban professionals, homeowners, planners, and academics. Teachers from major permaculture organizations on the west coast and the long-standing Sonoran Permaculture Guild will also participate. It is adapted to a wide variety of learning styles and is presented via lecture, images, video, group discussion, exercises, and design project.

Toby is an adjunct professor at Portland State University, Scholar-in-Residence at Pacific University, and a field director at the Permaculture Institute (USA). Toby has presented lectures at Duke and Tufts University, as well as University of Minnesota and Delaware, and other educational venues. He has taught over 50 permaculture design courses.

Cost for the course is \$1,000, \$850 if paid by October 21st.
www.nativeseeds.org

Brewers, Bakers and Pizza Makers! GRAIN SCHOOL

January 8th – 13th, 2012

Native Seeds/SEARCH Conservation Center



Grain School is the important link in our transition to a more local and sustainable food system. Scaling your operation to a manageable effort, sourcing, planting, growing, harvesting, cleaning, storage and milling will all be addressed.

Learn the history, philosophy and genetics as well as the practical applications of growing, harvesting and milling heritage grains.

Grain School features:

Glenn Roberts, the founder of Anson Mills, Columbia, SC. Glenn is the driving force behind the creation of a network of organic farmers growing heritage corn, wheat and rice on 5 - 30 acre plots.

Also Presenting:

Jeff Zimmerman, owner of the historic Hayden Flour Mills in Tempe, Arizona, is working with Native Seeds/SEARCH to reintroduce heritage wheat and corn as local food crops for Arizona.

Gary Nabhan, co-founder of Native Seeds/SEARCH, author and eco educator

Facilitated by:

Bill McDorman, Executive Director of Native Seeds/SEARCH & **Belle Starr**, Deputy Director



Plant Seeds. Harvest Change.

By Stephen Thomas, Seed Collection Assistant

The world is changing rapidly, and the safety and security of the food we eat is in jeopardy.

If you're reading this, I'm sure you've noticed. And as a supporter of Native Seeds/SEARCH (NS/S), you're likely doing something about it—in the choices you make and the life you live. Well, you're not alone. There's a food revolution underway around the world, and it all begins with the seeds.

Allow me to introduce myself. I'm Stephen Thomas, a fresh arrival to the Old Pueblo and the new Collections Assistant at Native Seeds/SEARCH. I'm very excited to be a part of an organization engaged in such valuable work. The way I see it, we are living in a time where such efforts are of paramount importance. When Native Seeds/SEARCH was founded in 1983, the mounting loss of agricultural biodiversity loomed as a serious threat to food security. Fast forward to today (nearly thirty years of industrial "progress" later) and the situation is considerably more urgent.

Against a tide of cultural imperialism and commercialization, the heirloom crops conserved by NS/S have all but disappeared from their native fields. The result has been an irreparable loss of biodiversity and cultural identity for indigenous tribes. Tragically, this trend in crop loss is widespread across the world. Genetic diversity in our food plants has been winnowed down over the last 100 years to a handful of commodity crops, often represented by a scant few varieties. Of all the types of commercial veggies grown at the turn of the century, only about 4% still exist today. Just three grain crops—rice, wheat, and corn—make up more than half of all the food consumed globally. Contrast this figure with the 3,000 to 5,000 different species of food plants once used by North American Indians, and the biodiversity crisis comes into jarring focus.

Dedicated to conserving what remains of this vanishing bounty, NS/S maintains a collection of almost 2,000 varieties of aridlands-adapted native crops. The seeds are housed in our state-of-the-art Seed Bank and periodically grown out at our 60-acre Conservation Farm in Patagonia, Arizona to maintain their viability. Central to the Native Seeds/SEARCH mission is the reintroduction of these lost treasures to the tribes that once grew them. It's powerful work, but under the current agricultural paradigm of GMOs (genetically modified organisms), Monsanto and climate change, more must be done.

To be sure, these are troubling times for the future of food. As anyone who cares about the quality, resiliency and safety of our food system is well aware, there is a war raging over control of



Hopi yellow-meated watermelon harvest at NS/S Conservation Farm in Patagonia, Arizona

our dinner plates. Brigades of high-yielding, hybrid monocultures have claimed vast swaths of the world's farmland, edging out traditional crop varieties by the thousands. Toxic pesticides and petro-fertilizers are used across the earth. In a profit-driven crusade for global agricultural domination, multinational giants like Monsanto continue to deploy new and increasingly insidious GM (genetically modified) crops into the biosphere. Hemmed in by aisle upon aisle of dubious food, a trip to the grocery store is now akin to a front-line battle.

Sadly, our hopes for government intervention to thwart these offenses are looking dim. According to recent reports from Mother Jones magazine, the USDA appears to have relinquished its (already anemic) authority to regulate new GMOs. The dramatic policy shift centers on a "Roundup Ready" variant of Kentucky bluegrass developed by Scotts Miracle Gro. This novel organism,

the USDA admits, would likely contaminate non-GM (genetically modified) bluegrass operations (and by extension, the organic cattle industry that relies on GM-free grass for feed).

But rather than imposing stiff restrictions on the potentially calamitous crop, the agency's response has been to kindly request the GMO producers consider these concerns while essentially regulating themselves. The reason for this capitulation? The roundabout "regulatory hooks" the USDA has relied on thus far for oversight of GMOs have been strategically sidestepped by the biotech industry with this latest Frankencrop. As a result, the agency no longer has any authority to regulate or assess the safety of GM bluegrass—or any future GMOs that fit through this loophole, for that matter.

On the heels of a decision earlier this year to approve GM alfalfa without restrictions, the free pass given to GM bluegrass formalizes the government's new "hands-off" policy toward novel genetically-engineered crops. In essence, by recognizing the dangers of GMOs while abdicating its power to control them, the USDA has conceded defeat. Worse yet, the slackening in USDA policy prevents food safety watchdog groups from taking the agency to court for lax oversight on potentially dangerous new GMOs. With no regulatory obligations in place, a lawsuit has no footing—and concerned citizens have no legal recourse to object.

It is clear we can no longer rely on government to safeguard our food and defend our disappearing abundance. As global tem-

peratures spike and financial markets plummet, the need for a robust, regionally-adapted network of foodsheds to replace the shaky monolith of industrial agriculture is now an imperative for human survival. Yet though the problems we face are substantial, they are not impossible. These uncertain times require a new perspective—dare I say it, an awakening—that reconnects people with the plants that sustain them. I recently expe-



rienced this shift in my own life, inspiring me to leave my home and career in Atlanta last year in search of a more sustainable path. As luck would have it, such awakenings are on the rise. Across the globe, an emerging tribe of seed savers, “greenhorn” farmers, and earth activists are passionately taking up the call for holistic, resilient local food systems. The writing on the wall is now bolder than ever, and the bricks are shaking loose.

Consequently, this arising consciousness is beginning to make waves in the mainstream. Take, for instance, the New York Times feature in July that introduced the underground eco-design phenomenon of permaculture to the urbanized masses. Or consider June’s National Geographic cover story which deeply explored the biodiversity crisis and the laudable efforts of seed activists to preserve what remains. And of course, a new documentary film or TV special decrying our unsustainable industrial culture seems to pop up at every turn. Alarm bells are ringing, and more and more people are getting the message—just in the nick of time.

At Native Seeds/SEARCH, we recognize this growing movement as the brightest hope for the future. To help accelerate the transition, we’ve developed Seed School, an innovative week-long course into the science, history, and magic of seeds—the foundation of any sustainable food system. A seed-lending library is now available at our Retail Store on Campbell to serve Tucson gardeners. Look out for our soon-to-launch line of garden seeds. All the while, we will continue to conserve and expand our priceless collection of heirloom native seeds, ensuring these time-honored treasures live on for generations to come.

It is astounding to realize how prescient the founders of Native Seeds/SEARCH were all those years ago, and how vitally important their work stands today. In keeping with this vision-

ary spirit—and through the invaluable support of our members and donors—we are setting sights on a course to an abundant and regenerative future. The worldwide movement we are all co-creating has the power to roll back the tide of industrial agriculture, restore our genetic wealth, and heal the planet and ourselves. A tall order indeed. And at the heart of this home-grown revolution is the humble seed. However subtle and understated, these tiny flecks of life may prove to be humankind’s most precious resource. □ ■ □

Flavors of the Desert

April 28, 2012

Where were you in October, 1981?

In Tucson, Arizona, one hundred folks gathered together to discuss critical questions about increasing regional crops and diversity – hence the title of their gathering, *Seed Banks Serving People*. Among the esteemed colleagues present were Cary Fowler (Global Crop Diversity Trust), Gary Paul Nabhan, Mahina Drees, & Barney Burns (co-founders of Native Seeds/SEARCH), Kent Whealy (co-founder of Seed Savers Exchange), Forest Shomer (founder of Abundant Life), and Rob Johnston (founder of Johnny’s).



Seed School Students in the NS/S Seed Bank.

On April 28, 2012, Native Seeds/SEARCH is celebrating the 30th anniversary of this historic event at their yearly gala in Tucson, *Flavors of the Desert*. *Flavors* spotlights Native Seeds/SEARCH and the amazing, sumptuous bounty of the Sonoran Desert.



Under the stars and mesquite bosque and amidst the native vegetation of Tohono Chul Park, the pioneers who helped birth the bioregional seed movement

will be honored. With the stunning desert in April as a backdrop, we will enjoy a feast of place-based, mouth-watering food, and a night to remember as we celebrate a legacy of diversity.

Mark your calendars and join Native Seeds/SEARCH for *Flavors of the Desert*, April 28, 2012.

NEWS AND NOTES

Welcomes and Farewells

Welcome to new Board Members **Martha Burgess and Jim Cook**. Martha, (Muffin to her friends), has been intimately involved with Native Seeds/SEARCH in a number of roles for 25 years. She is an ethnobotanist, artist, interpreter of traditional native foods, gardener and ranch manager. She does business as Flor de Mayo (www.flordemayoarts.com).

Jim has served as the executive director and CEO of Western National Parks Association (WNPA) since January, 2011. He is the former Director of Operations for The Nature Conservancy in Arizona, and General Manager of Arizona Theatre Company.

Evan Sofro is from Ketchum, Idaho and is now assisting Benito at the Native Seeds/SEARCH Conservation Farm in Patagonia. Evan has a certificate in permaculture design and has traveled extensively including a recent trip to Peru where he spent a year studying agriculture and alternative building. He has worked on numerous farms and has been involved in various agricultural programs from farm to table.

Stephen Thomas is an itinerant writer originally from Atlanta, Georgia. He is one of the founding contributing editors for RealitySandwich.com where he covers the environment, culture and consciousness as ST Frequency. Stephen recently joined Native Seeds/SEARCH as Seed Collection assistant but has migrated to other tasks including authoring several articles for this newsletter!

Suzanne Jameson moves on from her position as Membership and Events Coordinator. Suzanne's great graphic eye and press protocols will be missed. We wish her well.

David Kelly, volunteer with the most hours logged ever, is hanging up his files and calling it a day. David was responsible for organizing more Native Seeds/SEARCH material than anyone thought possible. Thank you David.

Sonoran Desert Protection



NS/S has been welcomed into the Coalition for Sonoran Desert Protection, a non-profit alliance of 39 conservation and neighborhood groups, representing nearly 30,000 people. It was formed in

February 1998 and has become the lead environmental advocate and facilitator on Sonoran Desert conservation planning. <http://www.sonorandesert.org>

Electronic Newsletter

Printing and mailing out newsletters costs Native Seeds/SEARCH upwards around \$15,000 a year. We want to redirect some of that funding away from tree cutting to important educational programs and outreach. In an effort to become more environmentally responsible we are moving two of our three newsletters to an electronic format. You will receive notification of this change in our upcoming renewal notices and other mailings. Please opt to "go green" by receiving your newsletter electronically. If, for any reason, you still desire to have a physical copy, it is our pleasure to oblige. Please note that the winter issue which includes our annual report will continue as a hard copy.

VOLUNTEER SALUTE

Meet Stan Stalker



Stan has been a member of Native Seeds/SEARCH for over a decade. Upon retiring, he decided to increase his involvement by becoming a volunteer. When asked what drew him to Native Seeds/SEARCH, Stan said "I have been aware of the decline of our agricultural food stocks. I wanted to contribute to the preservation of the genetic diversity of the crops humankind depends upon for survival. There is no better way to do this than by seeking out and saving local heirloom crops. Native Seeds/SEARCH was the perfect fit to allow me to do my part."

Born in Kansas and raised in Peru and Colombia, Stan has lived in a variety of places throughout the United States. His work experience includes service in the US Army, sales, and most recently, Raytheon, from which he retired five years ago. Stan states that he has worked in many organizations, and says the most important factor in whether he enjoys his job or not, are the people involved. "The interrelationships formed are as important as the mission of the organization. I am very lucky to be working with the people at Native Seeds/SEARCH."

Stan has shown himself to be an amazing resource to the organization. Although he humbly states that his objectives do not include racking up the hours, Stan regularly spends a full afternoon at the Conservation Center, helping out in whatever capacity is needed – from packing and cleaning seeds, setting up germination tests, to offering his skills and services to our administrative team. When not volunteering, Stan enjoys travel, and cooking elaborate and delicious meals for his friends. Thank you Stan!

Are you interested in volunteering with Native Seeds/SEARCH? We are always looking for a few good men and women to help us in our mission to preserve, conserve and share the bounty of the Southwest. Volunteers help in so many ways throughout the organization – at the Seed Bank, the Retail Store, Conservation Farm, and out in the community. Current needs include regular volunteers to help with filing, data entry and administrative work at our Conservation Center. If this is something you'd like to help with, please fill out our Volunteer Application on the website, or email volunteer@nativeseeds.org!

PHOTO DIVERSITY CONTEST

Biodiversity and photo diversity work hand in hand to capture the rich heritage of the Southwest and the seeds that sustain us. Photographers of every persuasion are invited to “capture” the mission and/or vision of the 28 year-old Native Seeds/SEARCH. Prizes include \$150 in cash, gift certificates from the Native Seeds/SEARCH retail store, admission to the yearly gala Flavors of the Desert event and exposure of winning photos at key locations throughout Tucson.



Deadline is October 7. Jurors include:

- » Richard McBain (Chair), Centric Photo Processing
- » Moira Geoffrion, University of Arizona School of Art Professor (Retired)
- » Robin Stancliff, Robin Stancliff Photography
- » Julia Deconcini, Tucson Community Darkroom

Submission forms are available at the Native Seeds/SEARCH website: www.nativeseeds.org or for more information, email Deputy Director Belle Starr: belle@nativeseeds.org or call 520.622.0830, ext. 04.

Welcome to Seed Central!

Native Seeds/SEARCH's store is the place in Tucson to find indigenous heirloom seeds for your gardening and farming needs grown right here in Arizona. You will also find garden variety heirloom seeds as well as a plethora of southwestern food items, books about gardening, seed saving and cooking with foods from the southwest, and select traditional and craft items from tribes and artisans throughout this area. We are in our 28th year as a local not-for-profit agency working to conserve the rich agricultural heritage of the American southwest and northwest Mexico. Take some time to shop at our store and return home with seeds to plant, tastes to savor or a beautiful item to decorate your home and remind you of your time at the Pueblo.



Native Seeds/SEARCH
3061 N. Campbell Avenue
Tucson AZ 85719
520-622-5561
www.nativeseeds.org

HOURS:
Monday - Saturday
10 a.m. - 5 p.m.
Sundays
12 - 4 p.m.

Announcing.... SEED WATCH

Here at Native Seeds/SEARCH we love to promote regional agriculture and encourage our members to purchase seeds from the areas where they live. Interestingly, Native Seeds/SEARCH is one of only a handful of world-wide retail seed companies that actually grows the seed they sell.

Most seed companies are what they call “packers.” They buy seed from wholesalers. Not a bad thing in and of itself unless the seed is coming from thousands of miles away. So what is a discerning seed buyer to do? Pick up a copy of **Seed Watch**.



Seed Watch is a Seed Buyers Guide and will help you make the important decisions necessary to source your seeds. **Seed Watch** offers three categories for selecting seeds; *Best*, *Good Alternatives*, and *Avoid*. For example, among the Best seed options are “Your Own Saved Seeds” and “Locally Grown.” The guide includes a helpful glossary and a primer on the pros and cons of GMO (genetically modified) and organic seeds. It is a gem of a pocket guide and can be purchased for only \$1.00 at: www.nativeseeds.org. These handy guides are also available for your school or nonprofit.

Contact us for bulk orders: belle@nativeseeds.org

GOING LOCAL

Native Seeds/SEARCH Salon: Ideas, Conversation, Food

Every third Monday of the month from 5:30 – 7:30 p.m. at the Native Seeds/SEARCH Retail Store (3061 N. Campbell,) Native Seeds/SEARCH Salons bring together the Tucson community for mind-watering conversations about food (and other related things). Featuring talks from local-food movers and shakers to neighborhood permaculturalists and bakers, these gatherings have a little something for anyone who has ever wielded a fork or pitchfork. Bring your juiciest ideas and an appetite for discussion! **FREE**.

October 17th: NS/S Executive Director Bill McDorman
Seed Saving for Dummies

November 21st: NS/S Board Member Martha “Muffin” Burgess
Southwest Holiday Fare



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WISH LIST

The role of the modern non-profit is to break new ground. Go where business can't go. Education and inspiration plov the way. Modern technology makes this easier. Native Seeds/SEARCH needs new tools to reach its mission, and fulfill its vision in this era of tightening resources. Those individuals that step up quietly during this crucial time will be among the most important in the organizations history.

Help us create a world-class Seed Room in our retail store where gardeners and researchers from around the world will come for access to more than 500 varieties of arid lands adapted seeds and the research data, stories and pictures behind them. We need seed racks, iPads, a projector and screen. When someone thinks about seeds and the Southwest, they will automatically think about this new resource.

NS/S' Seed Room will spotlight the best of the organizations unique offerings and allow access to its deep database and profound history. www.nativeseeds.org

HARVEST DINNER



As the days grow shorter and friends and family return to Tucson, Native Seeds/SEARCH presents one of its best and most enduring traditions, the Janos Harvest Dinner, Tuesday October 25th, located on the grounds of the Westin La Paloma on Sunrise. Slip on some finery. Prepare to be pampered. Find yourself sitting at the table with the important and knowledgeable. The world is changing. We will need a circle of dependable friends, good food and plenty of inspiration and beauty. There is no better place to find all three. Join us. Proceeds benefit Native Seeds/SEARCH. \$150. Please call Janos at 520-615-6100 to make your reservation.

MISSION STATEMENT

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 role these seeds play in cultures of the American Southwest and northwest Mexico.

VISION STATEMENT

We envision the Greater Southwest as a place where farms and gardens, kitchens and tables, stores and restaurants are rimming 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.