

Seedhead News

A Newsletter for Members of Native Seeds/SEARCH

Number 100

Spring Equinox 2008

NATIVE SEEDS/SEARCH ANNUAL FUNDRAISER

Flavors of the Desert

Sunday, April 6, 2008 in the University of Arizona Grand Ballroom



Please join Native Seeds/SEARCH in celebration of 25 years promoting and protecting the agricultural diversity of the southwest at our annual Flavors of the Desert.

Bryn Jones,
Executive Director

Remembering Bob and Tom

Mycorrhizal fungi

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Regional food buffet includes dishes focusing on some of the original seeds in our early collection:

Southwest (aesar Salad with (ornbread (routons Gratin of the Three Sisters — corn, beans, squash Pueblo Red (hile Stew

Spicy Tepary Bean Ravioli with (orn and (hile (ream Sauce (hile-Rubbed Brisket of Bison braised in Mole Dulce Blue (ornneal dusted Grilled Trout with Red (hiles and Garlic Mesquite Grilled (hicken Breasts in Poblano Sauce Savory Amaranth (akes with Wild Mushroom Sauce Assorted breads including (hipotle (ornbread (hocolate, Ancho (hile and Almond Tart

This year's event showcases Native Seeds/SEARCH's accomplishments and goals. Travel through the past 25 years with memorabilia, photos, and a video honoring the four founders of Native Seeds/SEARCH and get a glimpse of our future.

A live performance will feature the musical talents of two-time Grammy-nominated flutist Vince Redhouse, joined by classical guitarist Matt Mitchell and percussionist Will Clipman. 5-6pm Registration & Social Hour

6-8pm Dinner & Performance

Don't miss a special book signing by co-founder Gary Paul Nabhan following dinner

Cost: \$100.00 per person Reservations required

For details & registration: Visit our website www.nativeseeds.org or call 520.622.0830

If you would like to be a sponsor for this event, contact Carolyn Owens at cowens@nativeseeds.org or 520.622.0840.

From our director



Greetings! I am honored and excited to join Native Seeds/SEARCH (NS/S) as its new Executive Director. Since coming on board in January, I have been energized and humbled as I witness on a daily basis the incredible knowledge, skill and dedication of everyone involved in and supportive of the organization.

I bring to NS/S great enthusiasm for its mission and purpose and a well-rounded understanding of how non-profits operate and grow. After receiving a bachelor's degree in Environmental Studies, I completed a concurrent masters and law program in

American Indian Studies at the University of Arizona. I have experienced nonprofits and community organizations at various stages in their development — from forming to longstanding — and from various perspectives — from volunteer, to office manager, program director, and board chair.

Because I have long been passionate about the interaction of peoples and cultures with natural resources and land, NS/S is a unique fit for me. I first learned of the organization around thirteen years ago while working as a volunteer in Nevada to protect Western Shoshone traditional lands and cultural resources. I was immediately drawn to its dual focus to conserve agricultural seeds and the roles the seeds play in cultural traditions. Upon moving to Tucson nearly ten years ago, I planted my first garden with seeds from NS/S.

When NS/S formed in 1983, it was ahead of its time. With great foresight and vision, our four founders recognized the importance of saving ancient seeds adapted over millennia to the harsh conditions of the southwest — corn able to grow with scant rainfall, beans with superior nutrition, sunflowers resistant to rust — saving local food and traditions before they were lost forever.

As Native Seeds/SEARCH celebrates its 25th Anniversary, we reflect on all that we have accomplished: from storing 300 varieties in a fridge secured with a chain and lock, to a cutting-edge conservation organization professionally stewarding nearly 2,000 seeds.

I embrace the opportunity to lead this visionary organization, with all its amazing members, supporters, and partners, toward our ultimate goal of protecting and promoting the use of traditional local and regional seeds.

Bryn E. Jones, Executive Director

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.



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Remembering...



Tom Swain 1948 -2006

Tom's Swain's life touched countless Native Seeds/SEARCH members and introduced many new folks to their conservation work. Quiet and reserved though he was, Tom enabled an amazing amount of outreach on behalf of NS/S. Over the 8 years between 1998 and his untimely death in August 2006, he championed the mission of NS/S to farmers and market-goers across southern

Arizona (Bisbee, Sierra Vista, and Tubac) and in Tucson at the Farmers' Markets at Santa Cruz River; St Phillips Plaza; Community Food Bank; and OroValley.

He also traveled to the Colorado/Utah borderlands from Telluride and Ridgway markets to Moab and Blanding. He handed out hundreds of NS/S catalogs, sharing hard-learned gardening advice, giving out tastes of his heirlooms, and enlisting new members. He assisted me on a USDA Sustainable Agricultural Research and Education (S.A.R.E.) grant garden project for NS/S, and provided indefatigable support with the labor of plowing, insect damage control, irrigation, frost protection etc. in growing-out the precious (and delectable) endangered heirlooms in my gardens as well as in his own every summer in Paradox Valley, Colorado, and winter gardens in Tucson.

He was passionate about growing vegetables and devoted to the "practice." At the end of an exhausting season's harvest he'd swear he'd "never do THAT again." But then, when the seed catalogs started arriving in January, there he was pouring over them and envisioning the next garden...

Canning was a must in his big farming and ranching family — and he carried out the tradition in spades, using a woodstove in his summer kitchen. One year, when he had a bumper crop of tomatoes, including the copious branching Punta Banda, a NS/S heirloom, and bushels of jalapenos, he put up 44 gallons of "Badrock Chipotle Salsa," smoking the reddened pungent peppers first on peachwood for an unmatched flavor.

He volunteered during several NS/S education and sales events over several years at Steele Park Indian Market; Pueblo Grande Museum Native American Farmers Market; the Heard Museum Native Basketry Show; the Desert Botanical Gardens *Chiles and Chocolate* and *Flower Power* events; Phoenix' *Taste of Arizona*; and *Patagonia Fall Festival*.

Tom's presence is deeply missed at all the markets where he was a regular and by the Native Seeds/SEARCH staff and volunteers who worked with him. Knowing his dedication, Tom's family requests that memorials be sent to Native Seeds/SEARCH.

— Martha ['Muffin'] Ames Burgess, ethnobotanist, artist, ranch manager, environmental educator and long-time supporter of NS/S.

Bob Zahner 1923 –2007



Last September, Native Seeds/ SEARCH and the whole conservation community lost a true friend, volunteer and advocate. Bob and his wife Glenda have been active and fully involved in many environmental and conservation causes both in Tucson and the southern Appalachian community of Highlands, North Carolina.

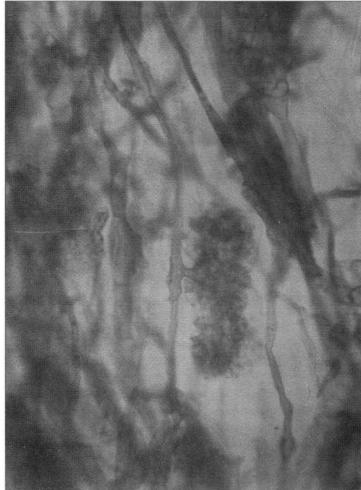
Here in Tucson, Bob (and Glenda) have for many years been faithful members of the "rowdy" Thursday NS/S store volunteer group. Much bean soup mix and other good things have come to pass during this time. Bob was also in charge for a time, of the Heritage Registree Project, a program to identify and conserve heirloom fruit and nut trees. Another major activity was serving as the state coordinator for the Arizona Register of Big Trees. Bob really loved his trees and took much pleasure in locating and certifying the champion individual of each species in Arizona for the National Register of Big Trees, a program of American Forests in Washington, DC. Other interests were the Arizona Native Plant Society and the Sky Island Alliance, both of which received his time and attention.

Trained as a forest ecologist, Bob taught forestry and natural resourses at both the Univesity of Michigan and Clemson University. His many graduate students and colleagues considered him to be a superior and inspirational teacher and mentor — an icon in his field. He was instrumental in protecting Eastern old-growth forest and was credited with developing the definitive management plan for what is left of the southern Appalachian forest. Bob was passionate about the beauty and wildness of the landscape around his home in Highlands. He wrote a highly acclaimed book "The Mountain at the End of the Trail" about his beloved Whiteside Mountain, a local landmark. In appreciation and gratitude for their many contributions to the community, Bob and Glenda were recognized by the Highlands Biological Foundation and the Highlands-Cashiers Land Trust by designating a lecture series in their honor, the Zahner Conservation Lecture Series.

Bob made an immediate and lasting impression on everyone he met. We who have counted him as our friend will miss his quiet and gentle manner, his sly wit and humor. He was also a person of integrity, a fighter and champion for all that he valued including an intense feeling for the natural world and all it contains. Thanks, Bob.

— Ken Porter, friend and Native Seeds/SEARCH member.





LEFT Spores on the surface of a root x100. RIGHT The "tree" is arbuscule within a corn root. Photos courtesy of the author.

Mycorrhizae by Edward Hacskaylo, Ph.D.

Microorganisms that live in soils adjacent to roots of most terrestrial plants, the rhizosphere, are an integral part of numerous physiological interactions that range from saprophytism to various degrees of parasitism including symbiosis. Mycorrhizal fungi play a dominant role in the rhizosphere.

Mycorrhizae (my-kor-ry-zee) are symbiotic associations in which the smallest actively growing roots of terrestrial plants are invaded by specific symbiotic fungi. The fungus and root together develop a morphologically distinct "organ" — the mycorrhiza (fungus-root). Hyphae, the fine thread-like filaments of mycorrhizal fungi, invade the outermost living tissues of young roots. Certain ones actually grow into the individual root cells, yet the cells retain their vital characteristics and develop no pathological symptoms. These fungi cannot convert complex carbohydrates such as cellulose into simple compounds that they can readily metabolize. Their primary source of carbohydrates are sugars produced during host plant photosynthesis.

The sugars are transported down to the root system into the root cells and are available to the fungi. In return, the fungi absorb mineral nutrients such as nitrogen, phosphorus and potassium

from the soil and transport them into the roots. The mineral nutrients are then distributed and utilized in metabolism of the entire host plant. Without the fungal association, most terrestrial plants would be incapable of absorbing sufficient nutrients from the soil to survive. Vegetative plant growth and reproduction are dependent upon the mineral nutrients supplied by mycorrhizal fungi. Conversely, without the symbiotic association, mycorrhizal fungi cannot grow and reproduce. Mycorrhizae are so prevalent in most soils that a nonmycorrhizal plant is more the exception than the rule.

Mycorrhizae are generally classified according to the arrangement of hyphae in the invaded root tissue. In ectomycorrhizae, hyphae are restricted to growth between cells; however, in endomycorrhizae, the hyphae grow into the cells. Ectomycorrhizal hosts are primarily tree species while endomycorrhizal hosts are other tree species and most herbaceous plants. There are many species of mycorrhizal fungi.

Reproduction ranges from microscopic subterranean spores of endomycorrhizal fungi to mushrooms, the fruiting bodies of ectomycorrhizal fungi. Among herbaceous plants, endomycorrhizal fungi penetrate the root cells, and form

continued next page

On the Road with Alex

Mycorrhizae continued

microscopic, finely branched, tree-like structures within the cells (arbuscules). These root-fungus associations are arbuscular mycorrhizae (AM). Hyphae that radiate from arbuscules can colonize large volumes of soil, and thus greatly enhance absorption of the nutrients compared to uninfected roots where mineral absorption is through root hairs.

Mycorrhizal fungi cannot fix nitrogen as can symbiotic bacteria associated with root nodules of legumes. Incorporation of organic matter into mineral soils improves soil structure and moisture retention, and enhances root growth and survival; also enhanced are AM fungal growth and formation of reproductive spores. Mycorrhizae of cover crops, such as legumes and grasses, can serve as very important suppliers of AM fungal spores and hyphae that may be available to establish AM with crops that are planted after cover crops are incorporated into the soil. Legumes as cover crops provide the added benefit of increasing available nitrogen in the soil. However, supplying inorganic fertilizers to soils, especially phosphorus, can suppress development of mycorrhizae.

Evolutionary development of mycorrhizal fungi and their hosts has created an interdependency that requires an uninterrupted exchange of certain essential metabolites. Those who grow plants should understand that interruption or imbalance in this relationship can impair and eventually destroy the symbiotic associations. Without adequate compensation in the environment, the demise of the associated organisms follows.

Ed Hacskaylo, former Chair of Native Seeds/SEARCH's Board of Directors, has volunteered with us for about 17 years. Ed loves to cook and he has provided many dishes for volunteer days and events.

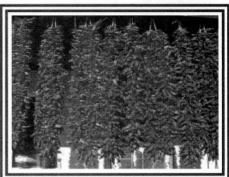
Native American Agriculture Fall 2007

During my visits to New Mexico, I met many local farmers and discovered fall 2007 was a good season for harvesting many varieties of apples in the Rio Grande valley in New Mexico; Michael Correa of Mesita village at Laguna Pueblo had an ample harvest of apricot and peaches; ristras of chile hung beautifully at the homes in Jemez, San Felipe, and other pueblos and Eric Polingyouma of Kykotsmovi at Hopi harvested a nice crop of corn although ravens and grasshoppers pestered his crops.

In October, I went to the Ahakhav Tribal Preserve, Colorado River Indian Tribes (CRIT) at Parker, Arizona. They are growing 30,000 mesquite seedlings in a 90-foot greenhouse and an additional 40,000 one year old mesquite trees were placed outside the greenhouse in preparation for planting this spring. Traditionally, mesquite is consumed for food and for ceremonial purposes. The tribe is growing the trees mainly for their own use.

The Yavapai-Apache Nation Diabetes Program, Upper Verde Valley had a bountiful harvest of corn, chile, squash and watermelon. Coordinator Cindy Nahee, with the help of staff and students, cultivated the "Diabetes Garden" and distributed fresh food to the community. NS/S contributed seeds for their garden.







Rio Yaqui farmers of Potam Pueblo, Sonora, Mexico plan to restore and sustain traditional plants with assistance by Yoeme Tekia, a cultural conservation program directed by Cati Carmen of Pascua Yaqui. The farmers will be trained for planting, seed saving, management and budgeting. Ed Mendoza of Casa Grande and I will help Yoeme Tekia in this worthy effort.

Alex Sando, NS/S Native American Program Coordinator, travels primarily in Arizona and New Mexico and occasionally to Mexico visiting farmers with small family gardens, community gardens, and larger scale farms. On the Road with Alex will be a regular feature in Seedhead News. Native Seeds/SEARCH has a free seed policy for Native Americans and details can be found on our website and in our Seedlisting.





The Flavors of the Desert Know No Borders: Mission-era Agricultural Legacy of Baja California

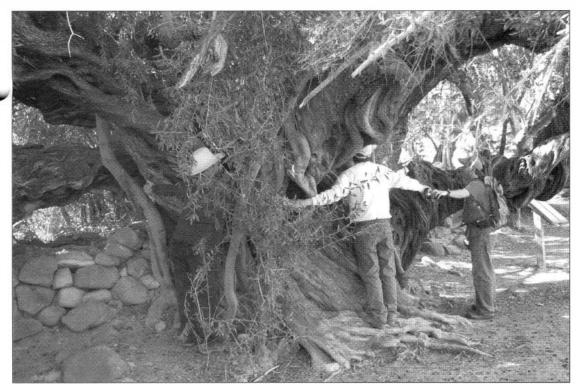
by Jesus Garcia, Suzanne Nelson, Gary Nabhan and Ben Wilder

Before Padre Eusebio Francisco Kino introduced heirloom fruit varieties to Arizona and Sonora, he and other Jesuit priests were already busy introducing useful fruits to the peninsula of Baja California. Recently, participants in the Kino Fruit Project and the Southwest Regis-Tree joined together for an expedition to the desert oases of central Baja California in the Sierra de la Giganta. Kino first visited these sites some 325 years ago, when Guayacura and Cochimi natives inhabited these palm canyons. We inventoried the orchards, fields and dooryard gardens of San Javier, Comondú and Mulegé over a week's time, and planned for future propagation of selected fruits in Magdalena, Sonora, or Patagonia and Tucson, Arizona. The heirloom fruits and foodways that we encountered reminded us that remote oases of the Sonoran Desert still serve as sanctuaries for some of the most ancient fruit varieties remaining in the bi-national Southwest. Some of these fruits offer altogether unique flavors little known in other regions of the Americas.

Padres Kino and Ugarte began introducing seeds, fruits and livestock into Baja California as early as 1684, when they first arrived at the now-abandoned port of San Bruno near present-day Loreto. Among their most significant introductions were the Spanish *criollo* cattle that evolved into the heat-tolerant, water-thrifty *chinampo* breed related to the *corriente* cattle of Arizona, New Mexico, Sonora and Chihuahua. And yet, their fruit

introductions may have been even more beneficial (as well as less damaging) to subsistence in fragile desert environments. Seeing wild figs (*Ficus palmeri*) and fan palms (*Washingtonia robusta*) in the canyons of the Sierra de la Giganta, they no doubt surmised that these gorgeous, well-watered microhabitats would be ideal for producing fruits long-adapted to oases in the Mediterranean, such as figs, dates and olives. They also introduced pomegranates, grapes, and citrus, which have developed into distinctive varieties in the Californias. Today these same oases harbor regionally-rare crops such as taro, sugar cane and *ciruela* (*Spondias purpurea*) whose antiquity in the region is not well understood. In addition, field crops such as fava beans, onions and garlic were sown by Jesuits around the first Jesuit missions, where they persist even today.

The first day of our explorations, we paid homage to one of the oldest surviving Mission olives in the New World, which spirals up over the terraced orchard gardens at Mission San Javier. Unbelievably, its seven twisted trunks rising from a shared rootstock could not be circumscribed by the four of us with our arms fully outstretched—-it would take six double-armed "hugs" around the base of this tree to equal its girth! Local folklore suggests that the tree dates back to 1699, being planted around the time of first mission construction, but there is no way to confirm this. Nevertheless, the tree is indeed ancient, belonging



PHOTOS, LEFT TO RIGHT

Large-fruited pomegranate at Mission San Javier.

Palm oasis at San Jose de Comondu alive with both native fan palms and figs.

With arms outstretched, Gary, Jesus and Ben reach around half of the circumference of a large Mission olive.

Photos by Suzanne Nelson.

perhaps to the first or second generation of Old World fruit trees planted in the New World. It continues to bear small but flavorful olives that are locally harvested when green or black, then cracked but not fully pitted. While the Mission olives of San Javier are typically smaller than those of (Alta) California, they have the same shape, being slightly asymmetric with a beaked apex. The rugose elliptic pits of these olives are slightly asymmetric as well. Their leaves are identical in size and shape to those in Alta California, being elliptic-lanceolate and curving slightly inward. They offer some of the best oil yields of any olives grown in the Americas, and their olive oil continues to be pressed by artisanal methods in the Sierra de la Giganta. When we came across another olive tree in the oasis bottomlands of San Miguel de Comondú, our hostess Martina Meza de Murillo gestured toward it and declared, "Te presento a un anciano! (I present you to an Elder.) We bowed. Martina and other local orchard-keepers also claimed that this old spiral-trunked olive tree was approaching three centuries in age.

Mission olives were not the only culinary treasures to be had in the central peninsular region. We also surveyed white- and black-fleshed Mission figs, Mission grapes, red as well as pink-fleshed pomegranates, the pleasant-smelling *lima chichona*, kumquat, pomelo, lime, *limon real, naranjo-lima*, sour orange, avocado, mango, early white and smaller peaches, and two "ciruela" plums of the American tropical species, *Spondias purpurea*. Although some of these varieties may be of recent or non-Mediterranean origin, others could potentially go back to the Jesuit era (1680-1767). Just as exciting was the persistence of taro, favas and sugar cane, all of which may have been introduced by the Moors to Spain, before traveling to the Americas with Jesuits and Franciscans. The *segualca* or "big cheese pumpkin" was common in dooryard gardens just as it is in Sonora and Sinaloa.

The traditional foodways we learned of also had considerable antiquity. From the black Mission grape, the vintners of San Javier and Comondú produce a pleasantly fruity wine that they call generoso, because "it generates even more flavor as it ages." They also add the zest-like shavings of pomelo and sour orange rinds to the thick brown sugar cane juice that is thickened into a sweet called panocha de gajo, the Californio(a) equivalent of the piloncillos of Sonora and Chihuahua. Their capirotada, a bread pudding whose origins reach back to the Arabs and Persians, includes minced dates and figs, as well as goat cheese; it is the perfect recipe by which to integrate the bounty peculiar to deserts in both the Arabian and American desert oases.

Of course, the native flora was just as interesting in these canyons as the plant introductions. The agaves known as *lechuguilla* on the peninsula (*Agave aurea*) continue to be used for mescal-making in isolated ranchos, and herbs such as *damiana* are still used to flavor liqueurs. Many species of cacti offer their fruit as *pitahayas* and *chilitos* for eating fresh, and wolfberries as well as hackberries abound.

Some of the palm oases in central Baja California literally stretch for miles, harboring a diversity of wild and cultivated plants as an understory below California fan palms, olives, cottonwoods and mangos. Their image from a distance is much like the date palm oases of the Arabian peninsula and the Sahara. In fact, their flavors are much the same as those found in Arab, Berber and Persian kitchens and campsites. The participants in the Kino Fruit Tree Project and the Southwest Regis-Tree Project, returning to Native Seeds/SEARCH later this year, are now preparing to help with public celebrations of these desert flavors through a new alliance called *Sabores sin Fronteras/Flavors without Borders* that will be launched in the autumn of 2008. Stay tuned for this new collaboration to highlight both the unique and the enduring food and farming folkways of our bi-national region.

Cooking with Carolyn

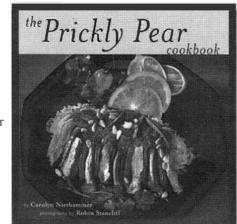
Cheri's Arizona Sunrise Muffins

Cheri Romanowski is the owner of Cheri's Desert Harvest and produces jelly, syrup and candies from prickly pear fruit. This is her recipe using the Desert Harvest prickly pear jelly — the recipe is reprinted from The Prickly Pear

Cookbook written by local author, Carolyn Niethammer with permission by Rio Nuevo Publishers.

Ingredients:

2 cups all-purpose flour
1/4 cup sugar
3 teaspoons baking powder
1/2 teaspoon salt
1/4 cup vegetable oil
1 egg, slightly beaten
1 cup milk
1/4 cup prickly pear jelly



Preheat oven to 400 degrees.

Sift flour, sugar, baking powder and salt together and set aside. Mix oil, egg and milk and add to dry ingredients. Stir until moistened. Batter will be lumpy. Fill greased muffin tins half full. Place 1 teaspoon of jelly in the exact center of each muffin, with jelly not touching edges. Add remaining batter, covering jelly, so that tins are two-thirds full. Bake for 20 to 25 minutes or until golden brown.

Carolyn's comments: The batter went together in minutes and was quite thick. The recipe says it will make 12 large or 18 small muffins but I only managed ten. I filled my muffin cups a bit more than half then gently pushed the scoop of jelly into the batter. I didn't measure the jelly; used about 2/3 of a 5-ounce jar. I topped with more batter and had to smooth it over to cover — next time I will push the jelly down a bit more, some leaked out a little. The muffins rose beautifully and had a lovely texture. My two tasters were split — one said less jelly, one said more. Either way, the prickly pear jelly creates a brilliant magenta center that's a wonderful surprise. This is a quick and easy way to make breakfast special! I suppose you could substitute other types of jelly, but what's the fun of that?

Both *The Prickly Pear Cookbook* and Cheri's Desert Harvest Prickly Pear Jelly are available from the Native Seeds/SEARCH retail store at 526 N. 4th Avenue and from our website, **www.nativeseeds.org**. The cookbook sells for \$14.95 and the prickly pear jelly (5-ounce jar) is \$3.50.

Do you work for a large company?

Many companies have a giving program but an employee must put forward the name of a non-profit in order for them to support the organization.

Please consider sponsoring Native Seeds/SEARCH with your company. Contact Carolyn Owens at 520.622.0830 for more information.

Calendar Highlights

Local

Book signing with Scott Calhoun

Saturday, March 22, 1—3pm, 526 N. Fourth Avenue Meet Tucson professional garden writer, gardener, and landscape designer, Scott Calhoun. We will have both of Scott's books available: *Chasing Wild Flowers: A Mad Search for Wild Gardens* and *Yard Full of Sun*.

10th Annual Flavors of the Desert Fundraiser

Sunday, April 6, 5—8pm, University of Arizona Grand Ballroom Join in celebration of our 25th anniversary! See the front page or our website for details

4th Avenue Spring Street Fair

April 4–6, 10am–5pm Stop by the store for street fair specials and spring gardening supplies!

Book signing with Brad Lancaster

Sunday, May 4, 11:30—1:30pm, 526 N. Fourth Avenue

Meet permaculture consultant and author, Brad Lancaster. Volumes I & II of *Rainwater Harvesting* will be available.

Cooking Demonstration with Janos

August 2008: date and time to be announced later!

Out of town

West of Western Culinary Festival

March 15–16, Noon–5pm, Phoenix Art Museum, 1625 N. Central Avenue (McDowell Road & Central Avenue) Be sure to stop by the Native Seeds/SEARCH booth at this very special festival! We are one of many non-profit food heritage organizations, Arizona growers and specialty food companies and chefs that are participating in the festival. For full details visit: www.westofwestern.com

Mark Your Calendars!

San Juan's Day Celebration at the NS/S Conservation Farm

Sunday, June 22, 10am — 1pm

Celebrate the coming rains of the summer monsoon with a traditional blessing of the fields, planting projects and a potluck lunch.

Native Seeds/SEARCH has many wonderful events taking place during 2008 to celebrate our 25th anniversary. Please visit our website for current information: www.nativeseeds.org



Explorers in southern Mexico support Native Seeds/SEARCH

Native Seeds/SEARCH, in partnership with Traditions Mexico, organized a biodiversity tour in Oaxaca, Mexico in October 2007. This trip featured meetings with specialists in native corn, a visit to a seed bank, tours of local markets and the ethno botanical gardens in Oaxaca, to name a few. The group raised \$2,000 for Native Seeds/SEARCH and had a wonderful time exploring the culture and plants in southern Mexico. We plan to repeat this trip next year, so watch for details in future issues of Seedhead News or contact Traditions Mexico at www.traditionsmexico.com.

"Seeds of Culture" tour talking with Boone Hallberg about his research on native corn at his farm in Ixtlan, Oaxaca.

Fourth Avenue Store

526 N. Fourth Avenue Tucson, Arizona 85705 520.622.5561 Toll-free 1.866.622.5561

Hours

Monday-Wednesday 10:00am-5:00pm

Thursday-Saturday 10:00am-6:00pm

> Sunday Noon-5:00

info@nativeseeds.org

www.nativeseeds.org

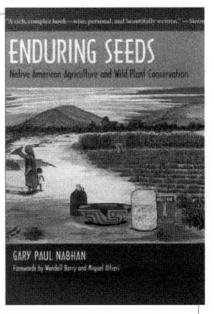
Shop at our store or online for our seeds, books on southwest gardening, cookbooks, indigenous arts & crafts, baking mixes, chiles, and more!

Book Review

Enduring Seeds

Native American Agriculture and Wild Plant Conservation

In a collection of unique and informative essays, Gary Paul Nabhan presents the history and practice of Native American agriculture as well as some of the important principles of plant conservation. This book examines traditional farming techniques that are still common in parts of Latin America and by Native American communities, that are quickly dying out in conventional American farming.



Nabhan, an ethnobotanist and co-founder of Native Seeds/SEARCH, provides valuable information in an interesting and accessible way. Although early farming methods and disappearing plant species are generally overlooked by society, Nabhan makes a compelling and scientific case for the conservation of these principals and practices. This book provides a detailed warning about the consequences of the loss of native plant species as well as the loss of important native farming practices.

In this edition from University of Arizona Press, Miguel Altieri, a spokesman for sustainable agriculture and the preservation of indigenous farming methods, writes a rich introduction that complements Nabhan's case for preserving native seeds and traditional farming practices. This book is a must-read, not just for agriculture or plant enthusiasts, but for anyone who is interested or concerned about one of the most important environmental issues of the century.

This book review was written by Sanjeev Pandey, Conservation Technician at Native Seeds/ SEARCH. Enduring Seeds is available online and at our store for \$19.95 along with other books by writer, lecturer, and world-renown conservation scientist, Gary Paul Nabhan, PhD.

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Director of Conservation Suzanne Nelson; Collection Assistant Chris Bertrand; Conservation Technician Sanjeev Pandey; Farm Supervisor Crecencio Elenes; Farm Operations Technician Benito Gutierrez; Field Coordinator Chris Lowen

News & Notes

¡Muchas Gracias!

A special thank you to Sue Scheff of Sous Chef Catering for the delicious breakfast that was prepared for our annual volunteer recognition event on January 11, 2008, at Ward 6 offices.

Memorial Gifts

In memory of Tom Swain

Mary Ann Clark

Many thanks to Mary Ann Clark who made a donation for our new donor software in memory of Tom Swain

Honorariums

In honor of Bryn E. Jones

Employees from Arizona Court of Appeals, Division 2

Comings and Goings...

Our new Executive Director, **Bryn E. Jones**, started January 2, 2008. Welcome, Bryn!

Conservation Intern, **Gabriel Vega**, moved on and is now teaching. Thank you for all your hard work and enthusiasm, Gabe!

Distribution & Retail Assistant, **Marilyn Klepinger**, retired after ten years at NS/S. We will miss her knowledge of our seed collection, gardening, and cooking tips for customers and staff.

Green to Greener

Native Seeds/SEARCH has always recycled and reused mailing boxes, packing materials, paper, donated furniture, etc. This year we are moving toward being even 'greener' and you can help us. We began sending monthly electronic announcements called E-lerts to keep members current on events, especially this 25th anniversary year! The more email addresses we can gather, the more paper and postage we will be able to save. This in turn puts more dollars toward our conservation work.

As a member, you have many options on what you would like to receive from us. We will notify all members when we are able to electronically send such correspondence as renewal notices and appeals. Our new database will provide more options for us and better service for our members.

Any questions you have or changes you would like us to make to your membership records, please contact us at 520.622.0830.

Support Native Seeds/SEARCH with a tour of Mexico

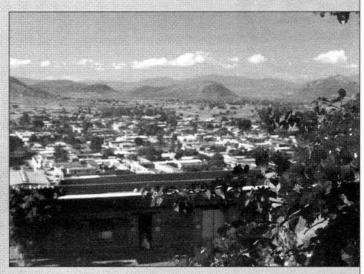
Oaxaca Folk Art & Dias de Los Muertos

October 26 - November 2, 2008

Experience historic Oaxaca City and its nearby artisan villages: the heart of Mexico's arts, culture & history

The colorful and elaborate celebration of El Dia de Los Muertos (Day of The Dead) is a centuries-old tradition deep in Southern Mexico. Nowhere is it more alive than in the culturally-rich valley around historic Oaxaca City, south of Mexico City.

Markets burst with bright marigolds, sugar skulls and skeleton folk art! This is a colorful time of respect, remembrance, and celebration. We'll visit cemeteries, altars, markets and many magnificently baroque 16th Century churches, plus artisan villages offering arts of the season. Five-star hotel, tours, many meals, abundant folk art shopping, and daily dining at fabulous restaurants, plus time to experience historic Oaxaca City are all included. Mary & Piet Van de Mark will help you make the most of your trip — helping you to make Oaxaca City your own!



\$2695 per person double occupancy / Private room is \$590 additional

Mexico's Copper Canyon: Land of the Tarahumara April 17-25, 2010

Join Baja's Frontier Tours and Native Seeds/SEARCH founders Barney T. Burns, Ph.D., and Mahina Drees for a truly unique learning vacation!

Copper Canyon in Mexico's northern Sierra Madre is known for its vast breathtaking beauty, rugged canyons, and impressive railroad and for the people who call it home, the Tarahumara. You may have been to Copper Canyon before, but you don't know the place and its people until you've traveled there with Dr. Barney T. Burns, who has worked and traded with the Tarahumara for nearly 40 years. Barney will discuss the Tarahumara culture in detail, plus the Yaqui, Mayo, Mennonite and Mormon people and Casas Grandes archaeology as we pass through Sonora, Sinaloa and Chihuahua. You will be amazed by Barney's knowledge of Apache history in Mexico! Short walks on uneven ground; no hiking required. What sets this program apart is the quality of your learning experience and the knowledge and affability of our leaders and interpreters, not to mention our guests! Reserve now; this trip fills in advance.



Call Mary & Piet at Baja's Frontier Tours in Tucson (520.887.2340) for your brochure today or visit the Baja's Frontier Tours website for more information at: www.bajasfrontiertours.com.

Native Seeds/SEARCH receives a portion of the cost of these two trips as a donation.

Thank you to Piet and Mary for their many years of support.

Volunteer Opportunities



We have a variety of volunteer opportunities at Native Seeds/SEARCH at all four of our locations. Weekday and weekend opportunities are available.

Conservation Center Seed Bank 2130 N. Alvernon Way, Tucson

Seed cleaning, record-keeping, germination tests, data entry, administrative assistance, and cataloging

Conservation Farm in Patagonia, Arizona *Weeding, seed-cleaning, and general maintenance.*

Fourth Avenue Store & Distribution Center 526 N. Fourth Avenue, Tucson *Package seeds; bag beans, chiles, and other native foods; store clerks; and public outreach*

Administrative Offices 220 E. Sixth Street, Tucson Office assistance such as filing; cataloging small library collection; special events support

Volunteer applications are online at **www.nativeseeds.org** or contact Diana Peel, Community Relations Coordinator at dpeel@nativeseeds.org or 622.0830.



Native Seeds/SEARCH 526 N. 4th Avenue Tucson, Arizona 85705



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