

Seedhead News

A Newsletter for Members of Native Seeds/SEARCH

Number 104

Fall/Winter 2009

From Our Director

From Our Friends
Our Future Home

4

Meet our 2009 Seed SEARCHers of the Month!

5

Conservation Update
Adopt a Crop Update

6
Mother Chiltepin

8

Mexico's Copper Canyon with Barney & Mahina

9

Volunteer Highlight
On the Road with Alex

Celebrating the Harvest

1 1
News & Notes

12
Fall Harvest Celebration!

CHEF JANOS WILDER PRESENTS THE THIRTEENTH ANNUAL

Arizona Harvest Dinner

A UNIQUE BENEFIT DINNER TO SUPPORT NATIVE SEEDS/SEARCH

When:

TUESDAY, OCTOBER 27TH AT 6 PM

Where:

Janos Restaurant 3770 E. Sunrise Drive in Tucson

Gost:

\$150 PER PERSON INCLUDES WINE, TAX & GRATUITY

SEATING IS LIMITED AND RESERVATIONS ARE REQUIRED.

CALL JANOS RESTAURANT AT 520.615.6100

TO RESERVE YOUR SPACE TODAY.

A Note from Janos

Fall harvest brings with it a change of seasons and, for a chef, new ingredients to work with along with a shift of sensibilities as the cooling dishes we make in the summer give way to the richer, heartier foods of autumn. Our annual Native Seeds/SEARCH Harvest Dinner is a time for us to showcase the variety of ingredients we grow on our Conservation Farm in Patagonia as well as the ones we get from our network of local growers in Southern Arizona. It's a celebration of the flavors of the region and of the Native Seeds/SEARCH mission to preserve and share the diversity of our agricultural heritage. For this special dinner, I look to the past for inspiration from the crops that have historically grown here and cast an optimistic eye to the future. Through a modern menu you will taste the possibilities of flavor inherent in the food crops we steward.

—JANOS WILDER, Chef and Owner of Janos Restaurant and J BAR, AND NS/S Board of Directors member



Bocaditos

Pima Durum Wheat Biscuit with Panela, Tomatoes and Basil from our Conservation Farm

Griddled Green Corn Tamalitos with Chevre and Mesquite Honey

Golden Watermelon Soup, with its Pickled Rind, Agave Nectar Poached Serrano Chiles

Hamachi Ceviche with Mangos, Cilantro, Candied Jalapeños, Fermented Fish Sauce, Lime, Chihuacle Negro Salsa and Crunchy Tortilla Shards

Foraged Wild Mushrooms, Canela Roasted NS/S Big Cheese Squash, Ajo Rojo, Mrs. Burns' Lemon Basil and Mt. Alta Wild Anise Scented Prickly Pear Syrup

Pan-Seared Halibut on Potato Puree with Succotash of Tepary Beans, Corn and Green Beans with Sage-Butternut Squash, Spicy Red Beet, Reduction and Salad of Briggs and Eggers Apples, Watercress and San Xavier Watermelon

Dark Chocolate Jalapeño Black Bottom Tartlet with Cajeta and Ibarra Chocolate Sauces

From our director



Celebrating the Bounty of Our Harvest

Harvest time is upon us again, which means it is time to celebrate the bounty of our harvest and to celebrate YOU who have made our harvest possible. In this issue, you will read about exciting things happening at Native Seeds/SEARCH. My hope is that you will savor your role in them. I also hope that you will celebrate with us at one of our upcoming events.

When you read this newsletter, please remember that it is because of you that we succeed. It is because of you that we persevere through challenging times. It is because of you that we find opportunity in those challenges. And, it is because of you that we charge forward into our future!

Because of you...

- Pima County fully invested in their partnership with us to build an agricultural conservation education center at Brandi Fenton Memorial Park in Tucson by approving a 25-year lease, with an automatic 25-year renewal, for \$1 a year.
- More people are growing traditional Southwestern crops in their backyards and fields. This year, we provided thousands and thousands of seed packets to meet record demands for the unique seeds we offer. And, approximately 25 percent of the seeds that went out our door were to Native Americans through our Free Seed Program.
- At the Conservation Farm, we successfully grew a wild sunflower that had failed to germinate in previous years. We also learned and documented valuable seed saving information to share with you about the tomato varieties in the NS/S seed bank.
- The *Flavors of the Desert* reached new friends' taste buds and stomachs. You helped grow the size of our community by sharing the purpose and fruits of our work in your homes.
- We will soon be able to show you on Google Earth maps where we collected the more than 1,800 crop varieties in our seed bank. We are still fine-tuning the maps and when they are ready, we will post them to the Collections page of our website.

The work that you support has great impact and implications for the future. As Janet Haskie, a 75 year-old farmer in the Gila River Indian Community says, the seeds that NS/S conserves vary from mainstream seed catalogues in that, "they survive." We agree wholeheartedly with her when she says, "We need to start taking care of our seeds and really handling them like they're gold. They're precious." And, if it weren't for you, we would not be able to do so. Thank you for making a difference!

Bry Eme

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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Seedhead News
(ISSN 1083-8074)
is published three times a
year — Fall, Winter &
Spring/Summer — by
Native Seeds/SEARCH as a
benefit to members.

All photos by NS/S staff and volunteers, unless otherwise noted. Contents © 2009. Design: Julie St. John

From our friends...

NS/S friends are widespread around the globe. Our website has tracked log-ins from visitors from such countries as the Czech Republic, Vietnam, Liberia, Mexico, Greece, Singapore, Dominican Republic, India, Argentina, Ireland, and Taiwan. Thank you for sharing the following with us:

Dear Native Seeds/SEARCH,

I had decided (for budgetary reasons) not to renew. However, your newsletter just arrived and motivates me to continue. Thanks for all you do.

Henry Mellon, Cornville AZ

Hi

This is Jessica Quinlan from the Pueblo of Zuni WIC Program and I am writing on behalf of all the Zuni staff here to thank you for sending us our Native order of free seeds. We received them just in time, and now we have a little staff garden. We, and all of our families, appreciate it, as extra seeds were taken home to share with family members for home gardens.

Jessica Quinlan, RD, Pueblo of Zuni WIC Program Nutrition and Breastfeeding Coordinator, Zuni NM

Keep up the great work! *Christine Livengood, Hereford AZ*

Thank you for the prompt attention to my situation. It's nice to know that there is a non-profit organization that pays attention to its membership. My husband and I will love raising these chiles in our garden in Egypt.

Best.

Mary Ann Marazzi-Hassan, Tucson AZ

To be a bean is the apex of my aspirations. *Robert Hopkins, Tolland CT*

Share Your Experience!

Have you had fun and success growing NS/S seeds? We love hearing your stories and would like to highlight them in our newsletter. Please email your stories and photos to membership@nativeseeds.org



Our Future Home: NS/S Conservation Center at Brandi Fenton Memorial Park

On September 1, the Pima County Board of Supervisors unanimously approved a lease at Brandi Fenton Memorial Park for our new Conservation Center, which will house our state-of-the-art seed bank as well as NS/S conservation and administrative offices. Due to our success growing out our collections, we are now in need of better storage facilities. When completed, our new 5,700-square-foot conservation center will house a 600-square-foot walk-in, temperature and humidity controlled cold room, and a 150-square-foot walk-in, temperature and humidity controlled freezer. A large lab will allow for centralizing all the tasks associated with acquisition, documentation, germination testing, photographing, and otherwise processing collections. Safety of the seeds will be ensured by a back-up generator and fire alarm and extinguishing system. Future plans at the two-and-a-half-acre site call for classrooms, a commercial kitchen, and a courtyard for farmers markets, as well as demonstration gardens and heirloom orchards, all designed to preserve the region's agricultural history.

The Conservation Center, designed by The Architecture Company as a sustainable, energy-efficient structure, will be consistent with the history of the site, originally part of an agricultural community known as Binghampton developed by Mormon settlers around the turn of the twentieth century.

Solar panels, as well as passive design, will be incorporated into the building in addition to water harvesting features and recycled building materials to make the new Center a true "green" facility. Our new home is the next step in educating schoolchildren, residents, and tourists about the rich agricultural legacy of the Greater Southwest and it is just the tip of the iceberg in unlocking the potential of future partnerships with Pima County.

You have made this happen!
So, please join us Saturday, November 7, 2009, from 10am to 12pm to celebrate this momentous groundbreaking:

Brandi Fenton Memorial Park, 3572 E. River Road
(Northeast corner of River Road and Alvernon Way)

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. — VISION STATEMENT, ADOPTED APRIL 2008

NS/S Staff Highlights

Meet our 2009 Seed SEARCHers of the Month!

Each month, NS/S employees select one of their peers as the Seed SEARCHer of the Month. This award is presented in recognition of their achievements and accomplishments for the organization. Meet our Seed SEARCHers for the second quarter of 2009.

NS/S staff overwhelmingly voted **Suzanne Nelson** as our May 2009 Seed SEARCHer. Suzanne has served as Director of Conservation since 1995 and, as several NS/S staff wrote in their nominations, "embodies our mission on a daily basis." Born in New England, Suzanne moved to the Southwest at age five and grew up among the cacti and desert surrounding Phoenix. After earning an undergraduate degree in botany from Arizona State University, Suzanne joined the Peace Corps and spent several years wandering the highlands of Guatemala while working as an agricultural extensionist. She holds a master's and doctorate in agronomy and plant genetics from the University of Arizona and has an affinity for plants, backpacking, sunrises and sunsets, traveling, and foods from south of the border.





June's Seed SEARCHer was **Benito Gutierrez**, Farm Operations Technician. Benito is a long-time farmer in southeastern Arizona having grown chiles, squash, corn, watermelons, and many other regional crops on his own farm in the Elfrida area. Benito joined NS/S in 2003 and is quick to offer insightful recommendations that ensure equipment at our Conservation Farm in Patagonia remains in top condition. His usual good cheer and perpetual grin keep staff in high spirits around NS/S. Benito's co-workers awarded him Seed SEARCHer of the Month after he proved instrumental in repairing the farm's aging irrigation system during a major leak. Without his superior engineering skills and his ability to improvise the necessary parts, many of this year's crops could have been lost. Benito is unchanged by his recent thrust into fame, however, and when asked what he likes most about working at NS/S he smiles broadly and says, "Driving the tractor is the best part of my job."

Retail Associate **Vivian MacKinnon** was the July Seed SEARCHer. Originally from Tallahassee, Florida, Vivian earned a B.S. in anthropology and environmental sciences from Florida State University. After fifteen years in the

Sonoran Desert, she considers herself a semi-native and loves the flora and fauna of this region. Vivian, or Vivi as her co-workers call her, is a certified health and safety inspector for the American Red Cross and spent several years managing Tucson Audubon Society's Agua Caliente Nature Shop. She and her husband Aleck, are active urban homesteaders in mid-town Tucson, raising well-adjusted chickens, growing lush gardens, and creating a welcoming environment for their dogs, cats, desert tortoise, and fish. In her spare time, Vivian is an avid birder who enjoys hiking, reading, playing music on her penny whistle, and laughing.



NS/S named Collections Curator **Chris Schmidt** as August's Seed SEARCHer because of his outstanding work producing Google Earth maps showing NS/S collections, which eventually will be included as part of our Collections webpage and also will be a valuable research tool. Chris holds a doctorate in evolutionary biology and entomology from the University of Arizona where he taught courses in plant systematics, nutrition, and general biology. He

recently was a National Science Foundation BioME Graduate Teaching Fellow. Chris spent his first week at NS/S touring our Sierra Madre projects with Suzanne Nelson. In the past, he has been involved with Desert Harvesters, a local organization that promotes the use of native Sonoran Desert plant foods. When he's not working at Sylvester House, you can find him playing with his one-year-old daughter, Casey.

Conservation Update by Suzanne Nelson, Director of Conservation

When I stepped outside early one morning in late August, I could almost smell the change in the air that signifies 'fall' is coming to the desert. It was faint, but the hint was there. Or perhaps it was just envy for cooler days and less intense sun. Regardless, it registered as a shift from planning, planting, and growing to harvesting, drying, and processing. No less work, just of a different type.

The progress we've achieved at safeguarding the 1800+ accessions housed in the seed bank by growing them out and placing duplicate samples of healthy seed under frozen storage conditions has been astonishing. Since the first systematic, 'large-scale' grow out in 2001, we've successfully placed newly grown seed samples of 1577 accessions (83 percent of the total) in our freezers and filled to overflowing all remaining space in the seed bank with the seed available for distribution purposes (e.g., the Native American Free Seed program and sales through our store, website and catalog).

As in every summer since 2001, this summer's grow out included the most at-risk collections, identified as such due to their age, low germination rates, or both. As seed ages, it tends to lose viability — the ability to germinate. Thus, it needs to be grown out before it loses viability in so that seed is available for future use. A number of varieties had previously been attempted, but had never germinated; a wild sunflower collected by Gary Nabhan in 1986 that had not germinated in several previous attempts finally germinated this year! Who could have guessed?

All together, we planted a total of 111 varieties, including twenty-three chiles, six tomatoes (essentially all tomatoes in the collection), two tomatillos, two herbs, nine amaranth, eight sunflowers, five cotton, one sorghum, five cowpea, two devil's claws and forty-eight accessions of corn, squash, watermelon, melon, tepary and common beans, lima bean, scarlet runner bean, cowpea, gourd, and tobacco planted among three 'garden plots.' Unfortunately, with declining revenues in a down economy, we were unable to hire temporary workers to pollinate the sixty varieties of squash that we had planned to grow. However, as challenging times call for creativity, Conservation staff responded with a creative solution to enable us to grow out some of the squash varieties in the three 'garden plots.' The plots were spaced across the farm landscape at distances that effectively minimized the possibility of crossing, and thus enabled us to grow more than we may have otherwise thought. It was an active year in terms of insects, though no major damage was sustained — lots of early season activity by cucumber beetles and some major leaf-chewing on the wild sunflower by Colorado potato beetles, along with several releases of bean beetle parasites (parasitic wasps) and ladybugs.

Our grow outs, or regenerations, provide the opportunity to collect information about each accession and to describe and characterize important agronomic traits of importance to gardeners, breeders, and researchers. For example, all of our tomatoes have been photo-documented, with particular attention paid to the flowers. Some tomato varieties are self-pollinators and others out-cross, thus preventing cross-pollination is only an issue for the out-crossers. This has implications for whether an accession needs to be grown in an isolation cage or not. According to the information gathered, all our tomato collections are considered potential out-crossing candidates due to their 'exerted styles,' i.e., the style protrudes beyond the anthers (tomatoes produce pollen inside the anther tubes, not on the outside as for most plants), thus allowing for cross-pollination, which means they must be grown in isolation from other tomato varieties when grown at the same time. This confirms we have been using the right approach in growing out tomato varieties.

In June, Chris Schmidt filled our new curatorial position (see Seedhead News Issue # 103) and is already providing strong leadership for the organization regarding the cataloging, curation, documentation, and research of the NS/S collection of agro-biodiversity and associated paper, photographic, and digital data on the collections, helping to facilitate better exchange of collections information between NS/S and other institutions and improved access to our collections and information by a diversity of user groups. To date, we've been reviewing existing policies and guidelines that govern how the collections are organized and managed, and developing new ones. Taken together, all of these activities growing, storing under appropriate environmental conditions, and managing information — will greatly enhance our efforts to improve and enhance access to and availability of the Greater Southwest's agrobiodiversity and its associated information by farmers, breeders, indigenous communities, and others around the globe.

The work of managing and conserving these crops happens at full-speed all year — there is no down time to catch up on neglected tasks; if we're not working in the fields themselves, we're working with the seeds or their information. But fall offers a chance to reflect and celebrate — bringing in the fruits of a year's work is a great feeling, something to relish. Perhaps the smell of fall in the desert is as much about anticipation and accomplishment as anything else — anticipation of freshly harvested crops (not to mention freshly baked goodies!) and the accomplishment of producing seeds from seeds. Mmm, can you smell it?

Come celebrate our year's work at the Harvest Festival on October 24! *See back cover for details.*

Adopt a Crop Update

Dátil Chile

The plants look healthy and are flowering, but have not begun to set much fruit yet. These chiles require a long growing season and we'll have to wait to see whether fruit will be produced before the first frosts.

Nichols' Heirloom Tomato

The plants are robust and overflowing their isolation cage. Fruit production has been high and we've already processed some seed.

Mano de Gato

These plants are beautiful and have been flowering for some time. We will harvest them soon as the seed matures and dries.

Wild Cowpea

The small explosive pods are beginning to be produced and the plants are growing well and flowering profusely.

Navajo Robin's Egg Corn

Sadly, this corn did not do well. Low germination rates meant fewer plants than what's required for good pollen production and seed set. Unfortunately, most of what was produced was later eaten by gophers and squirrels.

Mother Chiltepin

by Linda McKittrick

Heirloom seeds are miniature time capsules, connecting people and plants through millennia. For at least 8,000 years, humans have spiced their food with chiles. After discovering traces of chiles on ancient milling stones and cooking pots, archeobotanists at the Smithsonian National Museum of Natural History concluded that people in the Americas began cultivating chiles approximately 6,000 years ago (Brendan Borrell, "What's So Hot About Chili Peppers?" *Smithsonian*, [April 2009]). The tiny wild chiles we call Chiltepin, remarkably, are believed to be the closest living relative of the earliest form of domesticated chiles and are often referred to as the "mother of all chiles." When we hold this round chile between a thumb and forefinger and feel its smooth skin, smell its rich chile fragrance, we join with ancient people who also picked and ate wild chiles.

Capsicum annuum glabriusculum is a perennial chile that grows quite bushy with single white flowers that bears fruit. The fruit is green when unripe and changes to orange then bright red in its mature state, although some varieties mature to other colors including brown and purple. Chiltepin fruit grows upright on delicate looking, but sturdy stems.

Cultivating Chiltepin at Home: Learning to Mimic the Wisdom of Wild Ways

If you observe Chiltepin plants growing in the wild, you'll never see one growing in isolation or in full sun. Instead, you will notice that most live and thrive in 'guilds.' Plants in the wild flourish when relationships with other plants create microhabitats, fix nitrogen, and provide protection from the extremes of desert heat and cold. From a human perspective, this interdependence, this interrelatedness, this interconnectedness, might seem ironic. The imagery many of us have of things wild is that of loners. In reality, wildness in nature depends on relationships. The Chiltepin has been successful through time because it thrives in guilds and is always found growing under a mother plant.

Chiltepins appear to prefer legume trees such as mesquite, but they also grow under oaks, columnar cacti such as Pitalla (Organ Pipe) and large thorny bushes. The legume trees fix nitrogen in the soil, create mottled light in the summer and offer shelter from frost in the winter. The protection of the nurse tree helps create such robust chile plants. The Chiltepin has adapted best to transition zones between mountains and desert regions. In winter, its leaves die and the woody stems appear lifeless. Healthy plants sport bright green leaves in spring as they prepare for another cycle of flowering in late summer and fruiting in fall.

On our ranch in the foothills of the Sierra Madre in Sonora, Mexico, many old Chiltepin plants grow tall. Although the average height of a Chiltepin plant is approximately four feet, plants that are well established often reach ten or more feet tall and can live for decades. When picking the wild chiles in the fall, we are amazed at those plants that are so tall we can't reach the top fruit; the plant climbs high into its nurse tree and becomes entwined with it.



It's important to understand how the Chiltepin grows in the wild so that you can be successful at home. Chiltepin seeds should not be sown directly in the ground under full sun like other domesticated chiles. Plant your Chiltepin seed or seedling under a nurse plant. Another option is to plant them in pots, which allows you to move the plant as needed to adjust conditions. Keep the chiles moist, but don't overwater. Chiltepins are not domesticated plants and have not evolved with regular irrigation.

We have nurtured Chiltepin plants in our Tucson yard for years and they thrive both in the ground and in pots, all of them living under mesquite trees. Plants in pots require more water, but are protected from rodents that can kill beautifully established plants by gnawing their roots. Chiltepins will attract birds and, as they share the fruit, the birds provide natural fertilizer. We don't fertilize our Chiltepins plants—the mesquite leaves and bird droppings do that for us naturally. We have not had any major insect or disease problems. Grasshoppers and birds will want to partake in the harvest, so keep a close eye on the fruits, remembering that the other creatures also watch carefully. I believe in sharing the wild fruit with the spectrum of animals and insects that enjoy them. It is birds, after all, that are this chile's greatest spreader of seed. At the same time, however, be vigilant and harvest those particularly beautiful chiles for eating or seed saving.

Chiltepin is not the easiest plant to cultivate from seed. Skilled botanists and growers have different techniques, but the enthusiastic gardener can mimic how nature does it. Cast relatively fresh seed under a mesquite or other nurse plant and watch for seedlings to emerge. Once you have an established plant, keep a close watch for new seedlings, which you can leave in the ground or plant in pots. You can also throw out seeds (still in their pods) and let the birds plant them for you.

If you have, as we did, a gorgeous plant fall to the ground because of rodents, make certain to leave it in place. As in life, blessings are often disguised as misfortunes. By leaving our collapsed plant in place, we gained almost eighty tiny seedlings! They grew where they dropped, and once their secondary leaves were formed, we carefully transplanted them into pots and clumped them under the mesquites around our yard. This experience dispelled the common lore that

SAVE THE DATE and WARM UP YOUR WINTER!

COOKING WITH CHILTEPIN CLASS ~ SATURDAY, JANUARY 23, 2010

SEE PAGE 10 FOR DETAILS!

Chiltepin seeds must pass through the digestive tract of a bird, or that they need to be soaked or scored.

If you live in a zone that differs dramatically from the wild Chiltepin's natural habitat, try growing them outdoors in pots. Put them out after the first frost in the spring, replicating to the best of your abilities, the preferred conditions. Keep the seedlings outside throughout the summer and early fall, then bring them inside for winter.

Remember, whether you live in the Chiltepin's native zones or in another environment, the plant is a perennial and will lose its leaves, appearing lifeless during the late fall and winter months. Do not misinterpret this and pull up your plant. Wait until spring when life blooms out in beautiful green leaves.

Harvesting and Preparing

In rural communities of the western watershed of the Sierra Madres where we ranch, as well as in much of Sonora, the wild Chiltepin harvest is a seasonal ritual. Families set up chile-harvesting camps in the mountains during September and October. Our neighbors take a burro and three generations of family members into the mountains for one-week intervals to pick the wild fruit. People use different styles of picking. There is a one-handed method where the person picks with one hand and puts the small wild fruits into a used feed sack, which is held in the other hand. The two-handed technique, a true marvel to watch, allows people to harvest swiftly by skillfully picking with both hands before dropping the chilies into an apron or sack tied around the waist. Many people are more casual day pickers, intent on picking chiles for their own use rather than for

A recipe to tempt you— Spicy Peanut Sauce

In a food processor combine:

5 oz Chunky peanut butter (organic)

4-6 Cloves of garlic, peeled (add to taste)

2 Chiltepins (taste and add more if desired)

2 Tbsp Soy sauce

½ c Plain yogurt (or soy substitute)

1 Tbsp Sesame oil

1 ½ Tbsp Rice wine vinegar

1/3 c Chopped l'itoi onion or spring onions

This recipe is amazingly versatile. It is excellent with tofu, chicken, and a variety of vegetables. Try it over your favorite pasta, quinoa, or sautéed greens. Its consistency can be thinned by adding water and reblending. If you are a vegan, substitute soy product for yogurt and enjoy.

You can always find Chiltepin for sale at the Native Seeds/SEARCH store or online at **www.nativeseeds.org**

sale. Freshly picked chiles will mold in plastic bags and require drying time. In Mexico the chiles are dried spread out in a single layer on screens, feedbags, or burlap cots for approximately a week—either outside sheltered from direct sunlight, or secured away inside where they won't be bothered by children or pets.

Whether you harvest in the wild or in your own yard, it's best to pick the chiles in their green, unripe stage or wait until the fruit is fully mature and bright red. If you harvest them during the "in between" period when the fruit is orange or slightly black, they will spoil. The fruit should want to separate from the plant. If it resists, wait a day or two before trying again. The green fruit is best prepared in their pickled form or as a green salsa. Just like our friends in Mexico, you can dry the fruit on a screen, or cloth out of direct sunlight. Check the drying fruit daily and gently move the chiles around each day to ensure that each one gets air. Do not store them in jars until they are completely dry or the chiles will mold.

When you harvest, do so with a sense of reverence and respect for the plant. Thank the nurse plant above it. Be present. Feel the chiles. Smell them. Taste them right off the plant. Savor the connection you have to all the wild chile plants and harvesters before you.

Gustatory Pleasures

This tiny chile will teach you that size doesn't matter. The Chiltepin registers a score of 70,000 Scoville Heat Units, just slightly less than the searing heat of the habanero. The Chiltepin's heat is strong initially, but fades relatively quickly in comparison to other chiles. My love affair with this chile began more than a decade ago and has never waned throughout the years. It is the one chile that I use every day. It is extremely versatile—try it in a wide variety of foods that you love. There are only two rules to follow:

Do not rub your eyes or sensitive areas after touching the seeds (crush the dried red chiles in a *Molino* or with a spoon). Begin slowly by adding one chile, then taste, then add more as you like. Everyone's heat tolerance is different and chiles can be painful if you ingest too much at once.

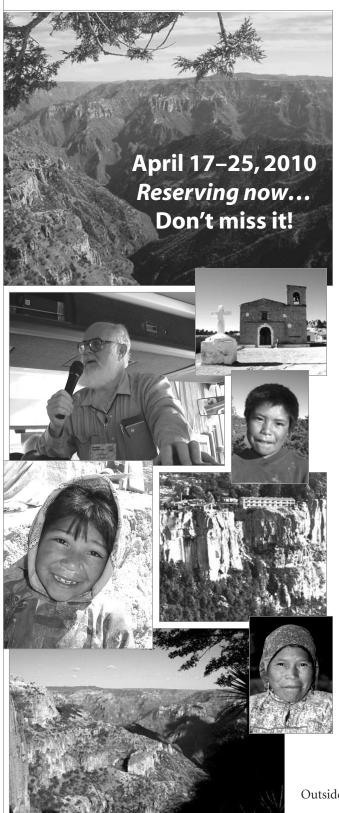
It's fun to experiment with Chiltepins by adding them to eggs, beans, salad dressings, soups, and salsas.

Chiltepin taste wonderful, but they also have many health benefits. Contrary to popular belief, this chile helps reduce acid in the stomach. One Tucson ethnobotanist teaches that one tiny red Chiltepin contains the same amount of Vitamin-C as an entire orange. In Sonora, Chiltepins have been used to treat earaches and as a hangover remedy. Some people take one at the first sign of a cold. Its size allows you to easily carry them when traveling.

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Avid gardener Linda McKittrick is a longtime NS/S member, volunteer, and former board member. She and her husband Charles DeConcini own a ranch in the Sierra Madre foothills in Sonora, Mexico. The Chiltepins NS/S sells come from their ranch. Linda and Charles stress sustainable harvesting practices.

Tour the famous Copper Canyon with NS/S founders: Cultural anthropologist Dr. Barney T. Burns and Mahina Drees



Copper Canyon: Land of the Tarahumara

Copper Canyon in Mexico's northern Sierra Madre is known for its vast breathtaking beauty, rugged canyons, 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, with Mahina Drees, has worked and traded with the Tarahumara for more than three decades.

This unique learning vacation begins in Tucson as we board our rolling classroom, a luxury U.S. motorcoach, to travel the scenic route between Tucson and El Fuerte, Sinaloa. En route, we'll overnight on the Sea of Cortez at San Carlos, Sonora. That worldclass train ride will take us up into the Sierra Madre, where we'll overnight *right at* canvon's edge! Then enjoy three nights at Creel, where we'll venture out to Tarahumara villages and discuss NS/S projects. Our coach will meet us again at Creel and return us to Tucson along the east side of the Sierra Madre, via Casas Grandes. Barney will discuss the Tarahumara culture in detail, plus the Yaqui, Mayo, Mennonite and Mormon people as we pass through Sonora, Sinaloa, and Chihuahua. You will be amazed by Barney's knowledge of Apache history in Mexico! What sets this program apart is the quality of your learning experience, Barney and Mahina's personal connection with this land and its people, and the professionalism and affability of our leaders and interpreters. Don't miss this once*in-a-lifetime opportunity!*

Features:

Eight nights of comfortable hotel accommodations Roundtrip from Tucson in luxury U.S. motor coach rolling classroom

Train and local transportation in Copper Canyon Many enjoyable meals included Tarahumara, Yaqui and Mayo cultural anthropology Apache, Mormon, and Mennonite history in Chihuahua Archaeological tour of Paquime ruins and museum *Outstanding* shopping for quality folk arts and crafts Support for Native Seeds/SEARCH

The cost of \$3395 per person, double occupancy, includes your \$500 donation to NS/S.

Reserve Now!

Send your \$300 per person deposit, with name, address and phone of each participant to: Baja's Frontier Tours, 6060 E. Calle Ojos Verde, Tucson AZ 85750

Questions and/or Brochure:

Call Mary & Piet Van de Mark in Tucson: 520.887.2340.

Outside Arizona, call 800.726.7231 or email piet@bajasfrontiertours.com

For more information, visit www.bajasfrontiertours.com



Meet Bob Small, NS/S Volunteer with the Right Chemistry

by Jules Richelson, Volunteer Coordinator

Five years ago, the *Arizona Daily Star* published an article that concluded with a call for people to get involved with Native Seeds/SEARCH. Bob Small, a chemist by trade, read the story and was intrigued. The more he thought about it the more he liked the idea and six months later he attended the annual Volunteer Appreciation Brunch. Since then, Bob has devoted two afternoons a week working at our Fourth Avenue store, packaging beans and seeds, stocking shelves, and labeling products for sale. His volunteerism doesn't stop there, however. Bob readily shares his carpentry and handyman skills, having built numerous screen frames used for cleaning beans and painted the colorful bookshelves in the store. There isn't anything Bob won't do to help NS/S.

When Bob and his wife Helga moved to Tucson in 2004, they drove around the city searching for just the right habitat. They were delighted to discover Civano, a community-based neighborhood designed to be ecologically sound and sustainable. Bob and Helga found their niche and now enjoy using solar energy and water harvesting in their southeast side home.

Bob is a life-long gardener, but admits he didn't realize the extensive benefits to planting with seeds intended for the Greater Southwest until he learned about Native Seeds/SEARCH. This year's garden boasts a diverse selection of tomatoes, strawberries, okra, beans, peppers, cilantro, mint, and eggplant. Bob loves the annual Adopt a Crop campaign and is cultivating Jumanos melons with seeds from the 2008 harvest.

Each NS/S volunteer brings a unique background to our organization. Bob's commitment is evident both in his actions and his words. Thank you, Bob, for generously sharing your skills, knowledge, and love of the Southwest with others. You are a volunteer with the right chemistry!

On the Road with Alex:

Indigenous Farmers Markets of the Great Southwest

Traditionally, Native American farmers planted for subsistence, sowing heirloom seeds for food, ceremony, medicine, and for celebratory purposes. Farmers planted native crops to meet their family's food needs and also to be used ritually for sacred practices throughout the year. Some farmers could not always meet the needs of their family or community, though, and thus bartered.



Bartering is a system that has

been observed by Indigenous people for countless centuries. In times past, there was no currency or monetary system. Native cultures were based on the philosophy that humans are stewards of the natural world and not consumers of the world's resources. It is believed that culture is not measured by net worth, but by spirituality. A farmer may exchange blue corn for a wagonload of melons or oven-roasted corn. Perhaps a family that harvested a good crop of Saguaro fruit will trade for a gunnysack of mesquite pods. I remember seeing a Pueblo man barter a pick-up load of alfalfa hay bails for a 30-30 Winchester rifle from a *Diné* friend. Both parties ended up happy.

Today, farmers markets are gradually becoming popular among Indigenous communities throughout the Greater Southwest as an extension of this centuries-old bartering practice. San Felipe Pueblo, for example, has had a successful farmers market for the past five years where roasted corn is a regional specialty. The corn is roasted in an outdoor adobe oven called a *horno* overnight and retrieved at dawn the next morning. As a new development in Southwestern Native American communities, it will be interesting to watch the development of this form of commerce in the years to come.



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 is a regular feature in Seedhead News.

Leave Your Legacy: Remember NS/S in Your Will

You can support Native Seeds/SEARCH by including us in your estate planning. A planned gift will continue your legacy and further NS/S's efforts to conserve the agricultural heritage of this region. If you want to know more about how to designate NS/S in your will, please contact Julie Evans at jevans@nativeseeds.org or 520.622.0830.

SAVE THE DATE and WARM UP YOUR WINTER!

COOKING WITH CHILTEPIN CLASS

Saturday, January 23, 2010, 11am -1pm 5076 E. Ft. Lowell Rd. \$50 per person Registration limited to 20 participants

Want to learn more about cooking with this wild chile? Join Linda McKittrick and Sally Erroa as we turn up the heat in our new Cooking with Chiltepin Class. Part demo-part participatory cooking class, participants will cook creative new recipes and sit down together to feast on the flavors of this heirloom chile.

Class includes:

- Chiltepin culinary starter supply
- Handouts of recipes
- Q&A period with lively discussion about these remarkable chiles

Chiles and molinos will be available for sale

For more information or to register, please visit www.nativeseeds.org or call 520.622.0830.

Celebrating the Harvest of Native Seeds/SEARCH

We have a great deal to celebrate this year as crops near harvest and the days change to usher in fall. 2009 was a difficult year economically for individuals, organizations, and the nation as a whole. It was a year that required creative solutions to challenging situations Native Seeds/SEARCH's members and friends delivered. You responded enthusiastically to our call to hold parties in your home to strengthen connections among our longtime supporters and cultivate new relationships with others. One such dinner, hosted by chef Janos Wilder and Linda McKittrick, truly was a Midsummer's Night Feast. Both the fare and the more than sixty friends reflected NS/S' emblematic diversity with ethnobotanists, artists, mothers, business owners, food aficionados, and gardeners ranging in age from twentythree to ninety coming together for the



Midsummer's Night Feast hosts Janos Wilder and Linda McKittrick.

fete. The menu featured the desert-adapted foods that NS/S has stewarded for more than twenty-five years. Much of the food was lovingly harvested from Linda's garden including Punta Banda and Chiapas tomatoes blended with Mrs. Burns' Lemon Basil and squash blossoms. Janos has graciously shared his recipe for spicy tepary bean spread, which was a popular treat.

Fourth Avenue Store

526 N. Fourth Ave., Tucson, AZ 85705 520.622.5561

Toll-free: 1.866.622.5561

Hours

Mon.-Wed., 10am-5pm Thu.-Sat.,10am-6pm Sun., 12-4pm

info@nativeseeds.org

www.nativeseeds.org

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

SPICY TEPARY BEAN SPREAD

Ingredients

1 ½ gt Cooked tepary beans at room temperature

½ c Tomato paste

1½ Jalapeño chilies

1 Chipotle

1 ½ Smoked poblano chilies

2 ½ Tbsp Crushed garlic

4 oz Red wine vinegar

6 oz Olive oil

Salt and pepper to taste

Procedure

In a food processor puree jalapeños, chipotle, and smoked poblano chiles. Add the tomato paste, black beans, and crushed garlic to the paste. With the motor running, slowly add the olive oil and red wine vinegar. Adjust the seasoning with salt and pepper.

To Contact NS/S Staff

Conservation 520.881.4804

Director of Conservation Suzanne Nelson
Curator of Collections Chris Schmidt
Collections Manager Lindsay Werth
Farm Operations Technician Benito Gutierrez
Field Coordinator Chris Lowen
Conservation Assistant Ashlie West
Native American Program Coordinator
Alex Sando

Distribution 520.622.5561

Director of Distribution J.P.Wilhite
Distribution Coordinator Betsy Armstrong
Retail Assistants Vivian MacKinnon, Kieran
Connor, Jerry Morgan

Administration 520.622.0830

Executive Director Bryn Jones
Director of Finance & Operations
Tracey Martineau
Director of Development Julie Evans
Membership & Events Coordinator
Suzanne Jameson
Volunteer Coordinator Jules Richelson
Administrative Assistant Maureen Moynihan

Accounting Intern Kadeon Thomas

How You Can Help!

We have a variety of volunteer opportunities at Native Seeds/SEARCH

At our Seed Bank at 2130 N. Alvernon in Tucson:

- Germination testing two days a week (no experience necessary)
- ⇔ Seed packing on Wednesdays
- ⇔ Chile processing (flexible schedule)
- Devil's claw cleaning (flexible schedule)
- 🖘 Bean cleaning (flexible schedule)
- ⇔ Data entry
- Scanning slides and newsletters
- Indexing newsletters
- Research for outreach efforts

At the Conservation Farm in Patagonia:

- Harvest for Community Food Bank (Wednesdays)
- Tomato harvesting and weeding (any day)

News & Notes

Farewells and Welcomes

We say goodbye to Retail Associate **Lissa Hastings**, Bookeeper **Inga Simmonds**, Development Director **Robert Traub**, and Administrative Assistant **Sharon McKenzie** and wish them all the best in their new endeavors.

New staff members also mean changes in several key administrative positions. Recent Rhode Island transplant **Tracey Martineau** has joined NS/S as our new Director of Finance and Operations and brings more than twenty years of accounting experience to NS/S. Tracey has run her own non-profit booking consultation business and has a wealth of knowledge about non-profit accounting practices.

Julie Evans has readily stepped into her new role as Director of Development and is using her many years with NS/S to help move our organization forward into new arenas.

We are pleased to welcome **Jerry Morgan** as our new weekend Retail Associate and **Maureen Moynihan** as our new Administrative Assistant.

Wishlist Call 866.622.5561 for details

Digital camera with a minimum of 6 megapixels

We Were Recognized!

Native Seeds/SEARCH was featured on American Public Media's Marketplace Morning Report on August 25. Director of Conservation Suzanne Nelson and co-founder Gary Paul Nabhan were interviewed at the Conservation Farm in Patagonia for this national report. You can view the story at marketplace.publicradio.org/display/web/2009/08/25/pm-seed-savers/

The *Arizona Daily Star* also ran a story on August 13, 2009, entitled "Preserving a Way of Life," about our new Conservation Center at Brandi Fenton Memorial Park highlighting many of the green features of our 5,700-square-foot facility.

Donate Your Gardening Books to NS/S

Are your bookshelves overflowing with gently used gardening books that you no longer need? Now you can donate them to Native Seeds/SEARCH for resale in the store. Bring your books in and receive an in-kind gift donation receipt for your tax records.

Going Greener

Would you like to join our efforts to minimize our impact on natural resources? Now you can receive your tri-annual *Seedhead News* by email. Send your email address with "newsletter request" in the subject line to **membership@ nativeseeds.org** and go green!

You can also sign up to receive our once-a-month Seed News electronic newsletter informing you of our latest events and news.

Donate Online

Visit our website at **www.nativeseeds.org** and donate online. Now it's even easier to support Native Seeds/SEARCH on our secure website. Go to *Support* and select how you'd like to make a donation. We count on your ongoing support to ensure the precious agrobiodiversity of the Southwestern U.S. and northwest Mexico given to us by past generations remains available to current and future generations. If you need assistance, please email **development@nativeseeds.org**

Give a Gift They'll Love

This year, you can give the perfect gift that will please everyone on your holiday list —a Native Seeds/SEARCH gift membership! Memberships begin at \$30 and provide your friend or family member with an entire year's worth of newsletters, product discounts, and, most importantly, the satisfaction that you're taking a proactive role to preserve seeds that have sustained generations of Southwestern farmers and backyard growers. As a NS/S member, your gift recipient will receive:

- A special card announcing your gift
- A new member packet, including information about NS/S, membership card and more
- Seedhead News, our newsletter, published three times a year
- ⇔ Our annual Seedlisting catalog
- Our Holiday Gifts brochure
- Invitations to special events such as San Juan's Day, Flavors of the Desert, and others
- A ten percent discount on all purchases in our store or online

Ever mindful of the "culture" in agriculture, Native Seeds/SEARCH is dedicated to nourishing vital relationships between people and seeds. Give the gift of conservation and help preserve our future.

Fall Harvest Celebration!

Saturday, October 24, 2009 10am-2pm at the Conservation Farm

It's time for the annual NS/S Harvest Celebration at our Conservation Farm in Patagonia! Join us for a day of demonstrations, tours, music, and food and help harvest this year's crops of corn, beans, melons, and tomatoes before relaxing with a potluck luncheon. Bring a few old friends and make new ones at the harvest gala.

WHAT TO BRING:

If you plan to work in the fields, be sure to bring a hat, gloves, sunscreen, and water bottle. Don't forget your favorite dish for the native foods potluck lunch. Drinks, plates, and utensils will be provided.

How to get there:

Directions to the NS/S Conservation Farm from Tucson: Take I-10 east for 25 miles, exit at Highway 83, the Sonoita/Patagonia exit. Continue south for 25 miles. In the town of Sonoita, turn west toward Patagonia onto Highway 82. After 12 miles, look for the green "Patagonia" sign. Take the next left on to San Antonio Road. The sign above the entrance reads Red Mountain Ranch. Drive across the wash. The large, green barn will be on the right.



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