



Number 55 &amp; 56

Winter Solstice 1996 &  
Spring Equinox 1997

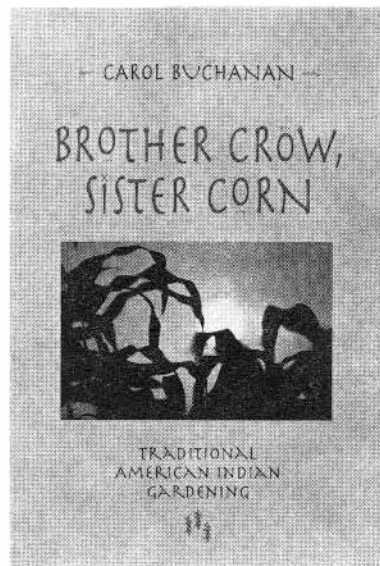
# the Seedhead News

## Brother Corn, Sister Moon: Traditional American Indian Gardening

By Carol Buchanan

### Introduction

The usual image of North American Indians has been formed by succeeding generations of European immigrants and their descendants according to the mood of their times. At one point, with the poem "Hiawatha" to remind them, Europeans thought of the Indians living in the Northeastern forests alternatively as "noble savages" or simply "savages." Prior to 1876 and again by the 1930s, the Sioux were thought of romantically as hard-riding, fierce people who lived by their skill with horses and by killing buffalo. After Custer's defeat, the Sioux were murderers. Once memory had faded, they were romanticized in movies. No movies were ever made of the Indians of California or of the lower Great Basin. They were contemptuously referred to as "digger" Indians because they dug for various kinds of roots, their principal foods. The Apache of the Southwest gained a reputation as being exceptionally cruel to their enemies, a reputation they shared with the Kiowa, who lived near what is now Kansas. Lately, all Indians have been cast in the role of victim.



The truth of any people is impossibly complex for one book. This book has only a modest goal — to shed some light on an important activity that has been relatively neglected in favor of spirituality, myths, and suffering. That activity is gardening.

Very seldom have American Indians been portrayed as people who did simple, basic things in order to live. They hunted, fished, gathered, and gardened. Besides growing more than half their food, some people were so successful at gardening that they had enough left over not only to trade but to give away to visitors and the poor. In many places, this trade for garden produce formed the basis of a thriving economy. And like gardeners everywhere, Indians loved their gardens.

They decorated them, held festivals in them, and socialized in them. They probably brightened dark days in their winter camps by planning next summer's garden.

Unlike gardeners everywhere, however, their gardens were central to their religions. The corn they planted was not only a crop to eat; it was Mother Corn, or Sister Corn, and was fraught with spiritual significance. Some believed that corn had come with the first people; others believed that the first people were descended from it. Either way, gardening connected them with the earth in ways unknown to most non-Indian gardeners. This book hopes to make that connection clear.

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## Brother Crow, Sister Corn, continued

Two major events in the history of American Indians drastically affected their way of life. One was the acquisition of the horse, and the other was the coming of the Europeans. The horse gave people freedom and mobility, and greater access to meat. Instead of driving the buffalo herds in a wholesale slaughter over cliffs, men rode alongside the herds and shot individual animals. With the horse, the people could travel greater distances more quickly in search of game. The horse replaced the dog as primary beast of burden.

The arrival of Europeans was not so beneficial. From the beginning, Europeans owed to the Indians their very survival. Had it not been for Squanto's legendary gift of corn and instructions for planting it in hills with a dead fish, the Pilgrims would not have survived that first winter. As Europeans moved westward, they continued to depend on the Indians' sources of food, including garden produce, for which they traded goods the Indians valued.

Unfortunately, they also brought smallpox and other diseases that the Indians' immune systems could not combat. Epidemics changed life for the Indians as radically as had the coming of the horse. The three related branches of Hidatsa moved into the same village to augment their numbers after the smallpox epidemic of 1782 decimated them. After the epidemic of 1834, they entered into a treaty arrangement with the Mandans, who had been similarly affected. The two groups then formed an alliance against their common enemies, most notably, other branches of the Sioux.

Any description of American Indian gardening must also acknowledge that the American government used agriculture as a weapon against the Indians. Forcing them to live on reservations and exterminating the buffalo, government policy, as enacted in the Dawes Act of 1887, sought to destroy the Plains Indians' nomadic and communal culture and economy, and turn them into sedentary farmers on the European model of single-family farms with an individual allotment of land. Primarily nomadic tribes such as the Cheyenne and the Sioux (who had also been allies at the Battle of the Little Big Horn), were nearly wiped out by starvation. Allotments were especially disastrous for people such as the Assiniboine, whose religion teaches that the earth is their mother; to put a plow in the ground is the same as carving open their human mother's flesh.

Even among those Indians who had already established patterns of life based at least partially on gardening, government policy seriously interfered. The Hidatsa lived in a village from which they daily walked to the gardens. The gardens became sources of community life; young men visited their sweethearts, the women chatted and sang to each other as they worked or watched over the gardens.

After imposing reservation boundaries on them, the government for a time allowed them to continue

living in the village. Then, noting that the village was becoming a haven for disreputable types who were selling white lightning (corn liquor) to the Indians, each family was given an allotment of land to farm for themselves. The village was destroyed; dwellings were leveled. The government provided tools and farm implements, and being gardeners already, with no prejudices or religious taboos against the work, the Hidatsa more or less succeeded as farmers, in contrast to many other tribes. Unfortunately, however, gardening had never been the province of men, who were now robbed of their hunting and protective role in life, and farming European-style was beyond the strength of many women. The Hidatsa, and others, resented the destruction of their community.

Eventually, seeing that the allotment system was a disaster for Indians, the government abandoned the policy. Yet in 1982, forty-seven hundred Indians owned their own farms, and more than 60 percent were employed in agriculture in some capacity.

Today, there has been a resurgence of Indian self-reliance that has been reflected in a number of large gardening associations, particularly the Navajo New Dawn Project. People are becoming more self-sufficient as they learn about their ancient gardening traditions and techniques — techniques that were developed over centuries and that really work. There is still much to be learned, and I hope that this book sparks interest toward further research and understanding.

### Preparing the Soil

Indian gardeners generally did not use manure, or rotate crops to replenish the soil, so the first thing they did before planting seeds was determine whether the plot would sustain a good crop for another year. If so, they proceeded to clean up after the winter's storms. If not, in most areas they moved the gardens, or sometimes the whole tribe, in search of fertile soil. Plains tribes such as the Omaha and the Osage, who lived in a winter camp for the winter bison hunt and in a summer camp for the summer hunt and for the gardens, might shift the location of the summer encampment, or move the garden. Along the Missouri bottomlands, the Mandan and Hidatsa moved gardens to new locations while their towns stayed put. This meant that the gardens were often quite a distance away from the gardener. The Pawnee sometimes had to locate their gardens as much as eight miles from the village. The more settled people of the eastern woodlands, the Creeks, the Cherokee, or the Iroquois, who lived in the same towns all year round for several years, moved the towns every six to twelve years. When William Bartram asked why the Lower Creeks, who lived on the Chatahoochee (Chata Uche) river were breaking up their towns and moving, they told him that they needed fresh land for their plantations, and a new and more extensive hunting ground. Bartram observed that moving the town often brought these Creeks "into

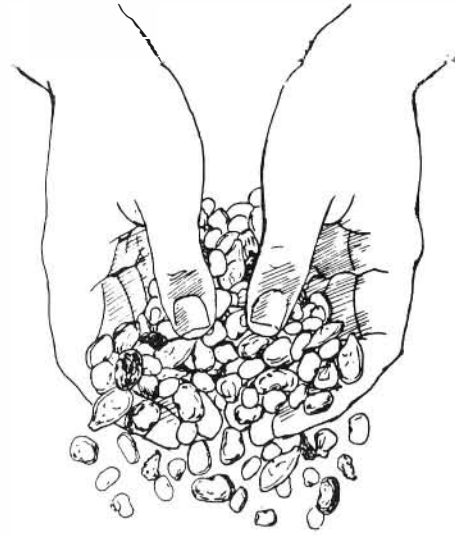
contention” with their neighbors.

Since fertilizers of any sort were seldom, if ever, used, people who gardened along rivers such as the Missouri or the Lower Colorado depended on the rivers to replenish the nutrients in the soil during annual flood cycles. The Missouri replenished the soil nutrients approximately every three years. The Lower Colorado gardens could be replanted about every year, partly because the new silt was rich in nutrients and partly because gardeners didn't necessarily plant in the same locations each time. The Cocopa and the Mohave moved to high ground during the floods; when the flood waters receded in the spring they planted their gardens in new soil. The people fed themselves in this way for hundreds of years until upriver dams and European farming disrupted the natural flood cycle.

Some people used other means to prolong soil fertility. The tobacco-growing Karok burned oak logs the season before they wished to plant, then sowed their seeds in the ashes, which were rich with added nutrients: magnesium, calcium, potash, and phosphorus. Burning also lowered soil acidity, and promoted the activity of nitrogen-forming bacteria. The Seneca, Onondaga, and other tribes of the Iroquois League planted beans among the corn hills. They knew nothing of the nitrogen cycle, or that the roots of the bean plants fix nitrogen, as do all legumes. They did know, however, that the corn plants thrived on this practice. For people who lived in the great forests, such as the Chippewa (northeast of Lake Superior), preparing the soil meant clearing a small space in the undergrowth where they could plant seeds. Woodland people in both the north (such as the Iroquois and the Algonquins) and the south (Creeks and the Choctaws) cleared whole plots by girdling trees and stripping a wide band of bark all around the tree. After the trees died, they burned the larger debris — branches and logs — and hauled out smaller branches and brush. Some people dug out stumps; others planted around them. The Algonquins did not use the ashes, as the Kurok did, but carefully cleared both ashes and any weeds away from the garden plants.

After harvest in autumn, the Hidatsa and Mandan let horses into the gardens to browse on corn stalks, bean vines, and squash leaves. As soon as the big birds began their annual migration the following spring, the gardeners cleaned the ground of accumulated debris. To the surprise of early travelers, they also cleaned up the manure. They knew that manure contained weed seeds that often germinated, and to save themselves extra weeding they thoroughly cleaned the ground before planting. Traditional Indian gardeners did not usually believe in adding manure to the soil; besides not wanting to make more weeding work for themselves, they believed it to be unclean.

Early European observers noted that for the most part tilling the soil was an uncommon practice among



Indian gardeners. There were good practical and spiritual reasons for not tilling the soil. Many people felt ill at ease when disturbing Mother Earth very much. Those who did dig into the earth often had a spiritual visitor show them how to plant. Selu visited the Cherokee and told her sons what to do. These gardeners and others felt tilling was unnecessary labor, when there was already so much labor in growing enough food for everyone's needs. Where soil moisture was precious, tilling would have dried out the soil with no benefit to the garden from loosening it. The Iroquois, the Delaware (who lived along the present Delaware River), the Choctaw, and the Algonquin, on the other hand, regularly tilled the soil every spring in preparation for planting. Other people, such as the Hidatsa and Mandan, simply raked up litter — uneaten cornstalks, manure, and other debris. They (and other people) fashioned rakes from deer antlers and willow shoots.

#### Planting Time

Both corn and tobacco were planted, with appropriate rituals to ensure a good harvest. Every task, from placing the seed to singing the correct songs, had to be done properly if people were to eat well — or at all — during the rest of the year. In traditional Zuni methods of planting, the gardener used a long digging stick (approximately three-and-a-half feet long or longer, and one-and-a-half inches in diameter) with a short branch near the sharp end. Pushing this end into the soil with his foot, he made four deep holes to represent four of the cardinal directions. These he dug equally distant from the middle space, in this prescribed order: north, west, south, and east. To the left of the north hole he dug another to

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## Brother Crow, Sister Corn, continued

represent above. To the right side of the south hole he dug the hole for lower. As he planted he sang a song similar to this:

Off over yonder,  
Toward the North-land,  
Will it prove that my yellow corn grains  
Shall grow and bear fruit, asking which I  
now sing.

In 1880, the Onondaga corn-planting festival lasted seven days. During the festival, the leaders confessed their sins in order to cleanse the situation in which the new corn would grow.

For the Osage, planting was a sacred act, conducted with appropriate rituals. Only women could plant, because the secret of giving life belonged to females. They planted in April, which as a result became known as a female month. The planting ritual required considerable agility on the part of the planters: first they scraped little hills together, then poked a hole in the sunny side of each one. Into each hole the woman dropped four to seven kernels, then covered the hole with one foot while singing sacred songs, keeping the rhythm with her digging stick, and looking at the sky. The Osage planting songs envisioned the crops to come, the seed sprouting, the stalk pushing through the soil, the silk appearing, the ears ripening, the harvest joy, and the happy homes with plenty to eat in the winter. As the Omaha planted, they sang a song to honor the corn plant. It envisioned healthy corn plants at all stages of growth from seed to harvest:

We sing the roots growing  
We sing it clings to the earth  
We sing it shoots from the ground  
We sing it springs from joint to joint  
We sing it puts a cover on the head  
We sing it puts on a feather ornament  
We sing it invites us to feel it  
We sing it invites us to open it  
We sing it invites us to see its fruit  
We sing it invites us to taste its fruit  
We sing it is good.

Bartram described how the Creek people went about planting. When the garden overseer had determined that planting should begin, he summoned the entire town by blowing on a conch shell. Everyone, carrying their garden tools, met at the village square and walked together to their gardens. Although each family had its own separate piece of ground, they began where the overseer told them, and covered the entire field. Gardening among the Creeks appears to have been a mixture of individual ownership and collective labor.

Not everyone, of course, had a prescribed planting ritual, but many tribes mistrusted plants whose seed was not sown according to ritual usage. Sunflowers,

for example, self-sow readily wherever the wind carries the seeds, but the Mandan and Hidatsa people never harvested those plants because they thought wild sunflowers were not so good as those that had been properly sown and taken care of.

Aside from the rituals, planting techniques among the various cultures differed only slightly. Usually, these differences were caused by the environment rather than cultural or religious customs. People everywhere used digging sticks and their hands to make holes for seeds. Differences in methods of planting corn had more to do with available water than with religious attitudes or customs. When people could depend on the water supply, as in the woodlands east of the Mississippi river, they dug shallow holes for corn seeds, then mounded up the soil around the growing stalks to support the plants. But in the arid West, particularly in the desert Southwest and the Great Basin, people dug holes perhaps six inches to a foot or more to reach damp soil under the dry surface. The Western Apache followed the custom of nearly all desert gardeners in using a digging stick to make the hole, then scraping out the dry soil with their hands until they reached moist soil. They then made a smaller hole in the moist soil and put in the seeds. As the seedlings grew and the soil dried, they watered and filled in the holes. Then the levels of the holes reached the surface, they mounded up the dirt around the stalk to support the plants against the constant strong winds.

For the Apache, the planting ritual mandated placing the seed in the order of the directions. They began in the east and continued up and down the garden, working their way westward until they were finished. Occasionally, they put seeds first in the hole at the center of the field, then planted to the east, south, west, and north until the field was done. They prayed and sang sacred songs as they planted corn, asking for a bountiful crop so the people would not starve. For other crops such as beans or squash, however, they had no rituals or prayers, for these plants were not sacred. Anyone could plant, but usually the owner of the garden asked a shaman or someone who knew the planting songs and rituals to place the seed. No menstruating or pregnant women could participate in planting, nor could anyone who had been struck by lightning or bitten by a snake.

Hopi gardeners, who were usually men, made holes with digging sticks about four paces apart and planted a cluster of seeds in each hole. When the plants came up, the gardener pulled up the weaker ones and left three or four of the stronger ones to mature. Some desert gardeners had observed that smoke slowed the evaporation of soil dampness, so they set out smudges among the corn hills to help retain moisture.

Seneca women gardeners soaked their seeds in water first, then gently placed them in hills so as not to break the germs that had nearly burst through. For them, seven was a sacred number, so they sowed squash and bean seeds in every seventh hill.

## Weeding and Cultivating

There was considerable variation among the tribes as to what constituted enough care. The more settled gardening people spent more time weeding and tending their gardens than did some of the buffalo hunters. In the desert, among the Navajo or on the Lower Colorado, it does not appear to have been the custom to thin young corn plants, for gardeners had an equal regard for all of them. In the Algonquin villages of the northeastern woodlands, as seventeenth-century engravings seem to indicate, gardeners staggered crops so as to harvest them at intervals. At the same time, one plot might have corn seedlings, another green corn, and a third ripe corn. There was, consequently, much to do — a woman might be tending seedlings, picking green corn, and harvesting ripe corn in the same week. Omaha gardeners hoed their gardens twice, once when the corn had sprouted, and again when it had grown about a foot. Up to this time, the mounds were carefully weeded by hand and the earth was kept free and loose. The mounds containing the squash, and those in which the melons were planted, were weeded and cared for until the second hoeing of the corn. After the second hoeing, the vegetables were left to grow and ripen without any more care while the people packed up and went on the summer buffalo hunt. They returned in time for harvest, when they hoped to find abundant crops. The Hidatsa also weeded by hand and hoed twice before the buffalo hunt, even though they did not abandon their villages or their gardens to hunt, as the Omaha did.

Straight rows and orderly beds were not important to native gardeners. Rather than laying out gardens along guided straight lines, those who planted in rows at all simply eyeballed them. Late in the nineteenth century, an anthropologist noticed that the Apache planted in regular rows, with even spacing between holes, although the rows were unmarked. Where they met an obstacle such as a tree or large stone, they continued the row beyond it rather than circling it or removing it. Likewise, some gardeners were not particularly concerned about weeding the garden simply for the sake of appearance. As long as the weeds did not deprive the food plants of precious water or choke them out, many considered weeding unnecessary.

When weeding *was* necessary, some gardeners practiced intercropping, the technique of planting squash or pumpkins in the same plots with corn and beans. The big leaves of the squash and pumpkin vines shaded the ground and kept weeds out. Many Zuni gardeners kept the bottom of the waffles free of weeds, but the ridges might have weeds growing on them. The weeds' roots helped keep the ridges intact when the waffles were flooded. Other Zuni gardeners preferred to keep everything weed-free. William Bartram wrote that the Creeks kept their extensive plantations of corn well cultivated and clean of weeds. By May their corn was well along, about eighteen inches in height. The beans, which they

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# Purple Queen Garlic: Fresh From the Field

Beautiful braids of heirloom Purple Queen garlic, grown without pesticides for us by Walter Ugalde near Oracle, Arizona, are now available.

Garlic is a winter crop in southern Arizona, and these eye-popping strands of purple-striped bulbs are fresh from the field.

Enliven your kitchen and cooking with a braid of this fine-tasting garlic now — it will not be available in the fall.

Each braid contains approximately 14 bulbs and is about 15" long.

Stop by Tuesdays and Thursdays to pick up a strand.

To order by mail, send \$18 per strand, postage paid, to Native Seeds/SEARCH, 2509 N. Campbell #325, Tucson, AZ 85719; be sure to enclose your name and address.



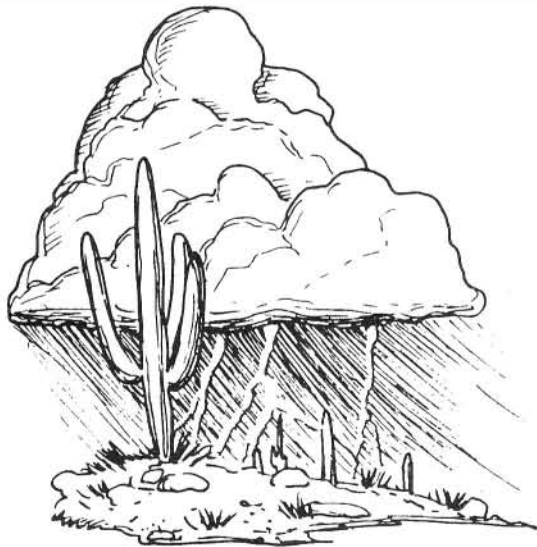
## Brother Crow, Sister Corn, continued

had planted on the cornhills, were also well sprouted.

On the Lower Colorado, the Mohave, Cocopa, and Maricopa people cultivated their gardens by hoeing their corn around the hills to break up the soil (and kill new weeds) in order for the young plants to emerge more easily. Larger weeds were pulled by hand. Often, gardeners hoed their crops just twice. On the Lower Colorado, corn was hoed for the first time when both it and the tepary beans were eight inches tall. The corn was hoed a second time when it was about knee high, and the beans when they began to vine. While the gardeners were at it, they mounded up more soil around the plants, especially the corn, to protect them from being blown by heavy winds. Between hills, they did not hoe, but they did pull out the larger weeds. Less hoeing meant keeping the soil surface intact, which slowed evaporation of soil moisture.

### Harvesting the Crops

The gardeners of each tribe worked hard at bringing their crops to harvest according to their view of



### San Juan's Day Celebration

At dawn on June 24, Native Seeds/SEARCH and the Tucson Botanical Gardens will host our annual pre-monsoon gathering. As usual, there will be a ceremony to bless the gardens and gardeners, and to welcome the summer rains, followed by an offering of seasonal songs and dances. Come to the NS/S Demonstration Garden on the grounds of Tucson Botanical Gardens, 2150 N. Alvernon. There's no admission charged, but donations are appreciated. Following the blessing and dances you can choose between light refreshments, courtesy of NS/S and TBG staff, or a water fight, to help encourage the rains. For details, call Krishna at 327-9123.

the spirits' role and the amount of work their own role entailed. Many of the ceremonial observances throughout the year were held for one purpose — to ensure a good harvest. A good harvest meant enough food for the family, and (in some cultures) for the poor, for trade, and for visitors. With corn at the hub of their cultures, some people, such as the Iroquois or the Zuni, considered the harvest more important than the hunt, and the work of ensuring a good harvest began with religious observations around the time of the winter solstice. For the Iroquois, these ceremonies are the Midwinter Ceremonies; for the Zuni, the Shalako. When the milk rose in the new corn, the Creek people harvested their gardens and held the Feast of the Busk to celebrate the green corn. After that, they waited until it was fully ripe to harvest it. As with the planting, the whole town was called together to harvest the gardens. When they had finished, everyone put some of the crop into a central storage crib, the public granary. Contributions were voluntary, and each family put in as much as they wanted to or felt obligated to contribute. After it was filled, everyone was allotted enough to feed the family. This part they stored in their own granaries. If they ran short before the next harvest, they could help themselves from the public granary, which was also used to feed the poor, help other towns, feed travelers, and provision warriors and hunters. If everyone did his or her part correctly — spiritually and physically — throughout the year, people would eat. If the rains didn't come, though, or if grasshoppers ate the plants, something had gone wrong and the people were hungry until the next harvest.

Some of the harvested green corn was eaten immediately, a practice that struck some early observers as improvident. But sometimes the native people had been hungry for months, and the ripening of the corn meant that they could finally eat well again. Sometimes, harvests were very good, indeed. Observers reported that the Sauk and the Fox raised an estimated seven to eight thousand bushels of corn. Perhaps a thousand bushels of corn were sold to the traders and others. Each family kept about five bushels to take along and eat on the fall hunt. The rest they cached in pits to eat in the spring and summer, before the next harvest. The Huron might harvest a two- to four-year surplus of corn, beans, squash, sunflowers, and tobacco. This surplus both protected them against famine if crops should fail, and gave them an adequate supply for trade. Their yield, too, was often surprisingly good. The Huron annual harvest has been estimated at about 290,000 bushels on nearly 23,300 acres. The average yield was almost seventeen bushels per acre. Although many people commonly ate half the crop as green corn, a Mohave family might have roughly four baskets of unshelled corn to store for winter. (These baskets were about four feet in diameter, and three feet tall.) If the corn ran out, they subsisted on the seeds of grasses and other edible plants that they had stored during the summer.

# Diabetes Project Coordinator Felipe Molina Survives Sabbatical

By Felipe Molina

I am happy to be home. For many of you who didn't know I was away: I was on a leave of absence from NS/S for four months. I left in October 1996 and returned on February 17, 1997. I participated in a fellowship program at the University of California at Davis. Again, I am happy to be back at NS/S to continue working with the Diabetes Project.

I am eternally grateful to the people at the Native American Studies Department at UC Davis for selecting me to participate in their fellowship program. The staff were so friendly and extremely helpful. Some of the staff and students became good friends, and I will always remember the beautiful times I spent with the people in that part of the country.

The reason I took the leave of absence was to take part in the Rockefeller Foundation Fellowship for Indigenous People of the Americas. This fellowship is offered through the Indigenous Research Center of the Americas, which is part of the Native Americans Studies at UC Davis. This program is an interdisciplinary research program committed to the study of and by indigenous people and to the understanding of their identities within the growing process of globalization.

When I was in Davis, many of the interesting people I met were connected to the university as scholars or students. During my stay, I gave many talks about Yoeme culture at the university and other sites around Davis, Sacramento and Santa Cruz. I enjoyed the company of the friendly people I met, and wished we had more time to talk. On my free times I also visited San Francisco and Berkeley.

In the office, my time was devoted to the comprehensive Yoeme-English dictionary that David Shaul, Herminia Valenzuela, and I are compiling. This fellowship gave me the perfect opportunity to continue working on this project. We hope to complete the dictionary project in 1998.

When people ask about the fellowship program, I tell them that it is a wonderful program that allows one to work on or complete a proposed project. The program also allows one to do other studies of interest. In my case, I also did personal research on herbs, Asian studies, Native American cultures, ethnobotany, and health education.

During the last two months of my stay the winter rains came and it practically rained every day, all day. In January I think I saw the sun only twice. It was a welcome sight. At one point I was so grateful to the sun that I offered songs and prayers to the sun to stay out longer so I could take a long walk in the countryside. That day I think I walked about five hours until sunset. Many people

took advantage of the sunlight and were out walking, also.

These rains finally brought the "Flood of '97," which was big news in northern California. Most of the TV stations covered the stories on the flood throughout the hard hit areas of the state. Davis was not too flooded. The only problems were flights that were delayed, trains to certain destinations that were canceled, and roads to other towns that were washed out. Many people had to cancel trips. The last few weeks of my stay I was afraid that I might have to stay longer in Davis than I had planned.

Now that I am back at work, I will concentrate our diabetes outreach on Native American youth in four schools in and around the Tucson area, focusing on Tohono O'odham and Yoeme students. This fall we will expand this outreach into new schools and communities. As many of you know, our people are still suffering from diabetes. With this in mind, and also from comments from tribal elders who suffer from diabetes, I plan to work intensively with this group to help them understand the diabetes problem and help them make healthy food choices for themselves and their families. This task seems to be impossibly big, but I think the technical support and guidance for our children will ultimately be effective. Thank you so much for your kind interest and support.

## The Times They Are A Changin'

Native Seeds/SEARCH has maintained offices at the Tucson Botanical Gardens since 1986 and we have enjoyed our time here in this beautiful setting. In the last few years we have grown by leaps and bounds, as has the Tucson Botanical Gardens. With both organizations needing more room, we will be moving some of our operations to a new location this summer. The Botanical Gardens will then use the space we are vacating for their expansion.

We expect our move to take about two weeks, probably in June. It may take a little longer than normal to process orders and return phone calls during this time; we ask you to bear with us. We'll keep you posted as to where our new location will be, new museum hours, and if there is any way you can help (trucks, strong backs, shelving, etc.). Thank you for your wonderful support!

# Native Soil:

## Lakotas garden for health and independence

By Lisa Jones

PINE RIDGE, S.D. — One morning in May 1988, Leonard Little Finger woke up with a slight pain in his chest. But he went to his job as an administrator at the local hospital, and made only a casual mention of it to a doctor there. A quickly administered electrocardiogram revealed a predictable diagnosis for the 50-year-old, 370-pound diabetic: A heart attack was imminent.

Little Finger took the doctor's advice, got an angioplasty, stopped drinking and started exercising. But he went farther than that. He started gardening — organic gardening.

The Sioux have never been known as the great gardening tribe of the Plains. Although some ancestors of today's Lakotas raised some crops, the tribe gained renown for its buffalo hunting. This came to a crashing halt with the Anglo colonization of what was to become the nation's bread basket. The final nail in the coffin of dietary self-sufficiency came with President Nixon's food stamp program in the 1960s.

But four years ago, Little Finger began a still-thriving gardening program in Oglala Lakota College in Kyle, S.D., before planting a garden on his family's land near Pine Ridge.

Why are Little Finger and others on the Pine Ridge Reservation starting to grow their own vegetables? Some say they are doing it for health: By some estimates, half the adults on the reservation have diabetes, which was unheard of before the 1940s. But Robert Quiver, a student activist at the college, says they're doing it to regain their independence.

"Gardening on the reservation is a statement," says Quiver, founder of the Lakota Student Alliance. "It says people can be self-sufficient... We should be able to provide our own food supply, instead of being dependent on commodities and junk food, which I think is responsible for our diabetes."

Quiver and eight other native students spent last summer cultivating the hillside just below the college. In beds rototilled out of the prairie, they grew squash, corn, beans, tomatoes, chard, broccoli and turnips. They got help from a surprising source: an equal number of students from the University of Bonn in Germany, who

came for a summer of gardening and learning about Lakota culture.

The fruits of their joint labor go to the people living in and around Kyle. The know-how of gardening without irrigation hookups, tractors or fancy tools will stick with students who will have to run their own gardens on very little money. In that, they will be like the program that trained them.

"We operate on a shoestring budget, we really do," says instructor Theresa Contos. "Some of the local merchants have donated a few things, but it's nothing consistent. Nothing you can count on. That's why we have all these grass paths (between the vegetable beds), so the prairie can heal itself and won't turn into a huge weed patch if everything comes to a crashing halt."

Indian colleges are used to existing on the financial margin. They've received federal assistance since 1978, but that averages out to \$2,900 per student, while community colleges off the reservation typically get about \$4,000, and public universities get much more.

"As a result, the tribal colleges need to come up with creative ways to stay in business," says David Courmoyer of the Denver-based American Indian College Fund. "That includes teaching in trailers, in warehouses and converted BIA buildings. It also means the staff at these colleges have to do several different things."

The seven-year-old American Indian College Fund injected about \$50,000 of private money into each of the nation's 29 Indian colleges last year. Another step toward closing the gap was taken in 1994, when Congress made the Indian colleges land-grant institutions. That grouped Indian colleges with 74 other universities and colleges all over the country, which have historically been mandated, and subsidized, to teach agriculture and other rural-oriented subjects. Hopes are high that land-grant status will bring the kinds of benefits to Indian lands that schools like Utah State and the University of Arizona bring to their states: They send graduates home with advanced degrees in agriculture and natural resource management, and extension agents out to offer advice on gardening, ranching and other subjects.

This year, federal land-grant funding for all of the Indian colleges will come to a total of about \$9 million. (By comparison, non-Indian land-grant institutions will receive over \$700 million.) Part of Oglala Lakota's share will go toward extending the organic gardening program to all parts of the reservation.

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One of the many tribal college faculty reacting with cautious optimism to this new federal source of money is Leslie Henry, an Anglo who grew up just outside the reservation and now directs the gardening program. She's seen plenty of outsiders try to help the Lakota rather than encouraging them to help themselves.

"We've had people who want to give everyone on the reservation a greenhouse," she says. "And I say, 'Hey are you going to educate them on how to use them?' The same person just shipped chickens to them without any information on chicken coops or anything. They had them in their living rooms."

The Lakota students' ages average in the late 20s, and many of them have families. Children run between the vegetable beds, and two little boys stumblingly help their father string wire for a new fence. The German students are younger than their Lakota cohorts. Most of them are undergraduates, many of them in horticulture.

This pairing may seem strange, but it seems to work. The program's founder, Leonard Little Finger, brought the groups together after he met Heinrich Welzing, a horticulturalist from the University of Bonn, at a workshop in Maryland.

"They're very work-oriented, like our ancestors," said Little Finger. "We exchange our past with them; they exchange their present with us. And the Germans and Lakota are very compatible." Among Anglo Americans, he points out, there's still a lot of racism. "At 4-H camp the other day, a young instructor told a joke about chiefs and squaws."

Martin Witt, a newly graduated German engineering student, says his group is here for primarily cultural reasons. "There's a new racism in Germany," he says. "What can you do against it? All you can do is set a better example. We're trying to take part in Indian life to the point we're invited. And we're getting invited to the houses and families. We have a lot of discussions on how we're seen here as Germans. We have nothing to do with what happened to the Indians here. We have our own history. A lot of German youth don't identify with our own country. Foreigners know Boris Becker and Adolph Hitler; I am neither."

Jenny Martin, a Lakota taking the summer course with her mother (students can study organic gardening for up to two years at the college), appreciates the helpfulness and technical expertise of the German students.

"Those girls are so strong," she marvels. "One day I want to have my own organic garden to feed my family. A lot of people don't have the money to travel long distances to buy food. I think this is empowering us to be able to take care of ourselves."

For more information, contact:

Leslie Henry, Oglala Organic Gardening Project, Oglala Lakota College, P.O. Box 490, Kyle, SD 57752, or the American Indian College Fund, 1111 Osage St., Bldg. D, Suite 205-A, Denver, CO 80204 (303/892-8312, 800/776-FUND).

The *Tribal College Journal of American Indian Higher Education* published a special issue on agriculture in Fall 1995. It is available by sending \$5 to the *Journal* at P.O. Box 720, Mancos, CO 81328.



# Tohono O'odham elected President of the *North American Folk Music and Dance Alliance*

By NS/S staff

Native Seeds/SEARCH (NS/S) Executive Director, Angelo Joaquin, Jr., was honored in February when he was elected President of the *North American Folk Music & Dance Alliance* at its 9th Annual Confer-

ence held in Toronto. A board member of the Alliance since 1994, he is beginning his second three-year term.

The Folk Alliance, based in Washington, D.C., is a non-profit organization dedicated to promoting the multicultural, contemporary and traditional folk music and dance of Canada, Mexico and the United States. Its interna-



## Desert Gardening Workshops

This summer, at the request of members, NS/S gardeners Henry Soto and Bob Stone will hold a series (3) of in-depth and hands-on Desert Gardening Workshops. These workshops, June 14, 21, and 28, will include soil and bed preparation; planting, transplanting and plant care; and harvesting, seed cleaning and seed-saving. A hands-on approach will be taken. Where our past workshops have focused on beginning gardeners, these workshops are designed for mid-level and advanced gardeners. For more details or to register, call Krishna Raven-Johnson at (520) 327-9123.

tional membership of 1,800 includes performers, presenters, festival organizers, recording companies, agents, folklorists and interested others. Angelo is particularly excited that the annual conference site will return to the Southwest in February 1999 at Albuquerque, New Mexico. For more information on The Folk Alliance, visit its Website at <http://www.hidwater.com/folkalliance/>.

Angelo's election as President builds on his long time commitment to supporting multicultural endeavors and activities. He is also Founder and Director of the annual Waila Festival held in Tucson since 1989. The festival celebrates the social music and dance of the Tohono O'odham Nation. NS/S again sponsored the event, held on April 19 at the Arizona Historical Society.

Since 1990, Angelo has served as a member of "Friends of Canelo," an organization working with The Nature Conservancy to preserve and maintain a 100-year-old adobe farmhouse; he's served as business agent and road manager for Waila Band performances in Virginia, New York, Pennsylvania, Massachusetts, and Toronto, Ontario, Canada; he's served on the Board of Directors for the Traditional Indian Alliance of Greater Tucson; he's served as a member of the Traditional/Ethnic Performing Arts Panel for the Arizona Commission on the Arts; and he has produced and directed Native American programs for both television and radio.

Angelo has worked with Native Seeds/SEARCH since 1990, when he was elected to our Board of Directors. From 1992-95 he served as coordinator for NS/S Native American Outreach activities and director for the *Desert Foods For Diabetes* project.

In 1995 Angelo was the logical choice to follow Native Seeds/SEARCH co-founder Mahina Drees as Executive Director when she stepped down after leading the organization for twelve years. Since then, Angelo has led NS/S through a period of explosive growth and change. He continues to lead us as we work toward purchasing the NS/S Conservation Farm and continue to serve our membership and the Native American community.

All of us at NS/S congratulate Angelo for his recent election as President for The Folk Alliance and his life long commitment to honoring and preserving the many cultural traditions and expressions of North America. Thank you for your hard work.

# Your Garden Reports



## *From Ivan Dozier, Girard, IL:*

The **Teosinte** I grew out really put on a lot of seed. We'll see how viable it is this year. My **Rattle Gourds** were few but large, and again many seeds. My **Tobacco** did the best. The plants grew well, produced large leaves and lots of seeds for next year. The harvest made excellent gifts for the elders and dancers at area powwows.

I'm adding some sweetgrass to my five acres of prairie this year. The big bluestem, Indiangrass, eastern gamagrass, and now teosinte, already offers a stark contrast to the sea of corns and soybeans around here.

## *From Mary Macke, Cove, OR:*

Here in northeast Oregon we had killing frosts on the summer solstice and fall equinox with some unusual cold spells between. The result was that all my beautiful native plants could not produce native fruit. I barely recovered enough shelled beans to plant next year. Last year we had a gallon dry **Hopi Beans** for eating.

The **Hopi Squash** was so immature I have given up on native squashes. By contrast, the proven varieties of winter squash did okay this year.

One surprise was that **Epazote** came up from last year's seed, even though my plants froze early last fall. The smell is so repulsive I wondered why I wanted the plant so I read up on it in "Plantas Curativas de Mexico" by Luis Cabrera. (I bought this book 20 years ago in Mexico and have studied it often.) Dr. Cabrera warns that epazote is very dangerous for pregnant women, as it may provoke miscarriage. Also not wise to use while nursing your baby.

The **Chimayo Melons** produced many large fruits, hopelessly green at harvest. I saved them even though they seemed too hard and green to ripen. After two weeks, they smelled like ripe cantaloupes. My whole family agreed they are the sweetest, juiciest melons we have ever eaten. Thank you to all who worked to save these seeds through the centuries.

## *From Anna Stoll, Baltimore, MD:*

Our unusually cool and wet summer of 1996 wasn't ideal for growing southwestern seeds, but results weren't too bad. The **Corrientes Black-Eyed Peas** didn't start blooming until late, but once they got going, they were prolific into early autumn. I tried **Tarahumara Azufrado**

**Beans**, which were listed as experimental. They bloomed even later so they didn't have time to produce much. I was able to save a few seeds, which I'll plant this summer. Maybe they'll become acclimated to Baltimore.

## *From Karen Thomas, Hailey, ID:*

I have been so happy with my association with your organization over the years. And have ordered your products and always been delighted. Well, surprise, surprise! I order and planted **Hopi Sunflowers** this past summer and look what I got (see photo). I rented my house for two months this summer so I didn't have much hope my plants would be cared for and thrive. Harvested some fine seeds, which I think I'll plant next year. Elevation here at my home is 5,500 feet. Summers are dry, 80 to 90 degrees, with cool nights.



## *From Danny Petrella, Mamou, LA:*

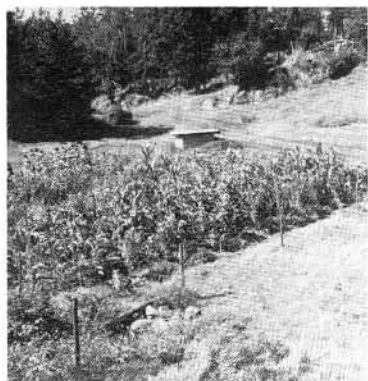
Here's some NS/S seed results from my Louisiana garden. I really pampered a **Tarahumara Chiltepine** plant, and it's nearly 4 feet tall and loaded with super hot and great tasting peppers (makes excellent pickled peppers). The **Mayo Segualca Squash** kept me in suspense with lots of male flowers. It kept climbing in and out of trees until the weather seemed to cool down in the daytime. Then it produced extremely fast growing squashes. My last two **Mano de Obispo Amaranth** plants grew over 4 feet and were really pretty. In the photo my son Josh is holding the first Segualca Squash picked, which weighed right at 12 lbs. Notice the **Indigo** plant in the background that was 12½ feet high when the photo was taken and produced lots of seed pods.

## *From Eilif Aas, north of Arctic Circle, Norway:*

The photo shows a field of **Tohono O'odham 60-Day Corn** intercropped with **Mitla Black Beans** I grew in 1995. After almost 70 days with a minimum of rain, but lots of heat, I saved plenty of seed from this field,

*continued next page*

125-130 days after sowing (silks after 83 days). This year I grew a big plant of **La Madera Squash** that yielded 12 kg. of fruit 150 days after sowing. La Madera Squash kept well through the winter. Last winter I stored one fruit until spring. Mixed with apples it became excellent jam or porridge with milk. I also grew a few **Tarahumara**



*Tohono O'odham corn in Norway!*

able and vigorous seed and excellent literature!

**From A. Hernandez, San Francisco, CA:**

I'm sending back some seed from my 1996 crop. **Hermosillo Select Chiltepin**es grow good here, and reached about three feet tall. **Tohono O'odham Chiltepin** gave me plenty of chiles; I've had the plant for five years. **Epazote** and **Mostaza Rojo** are easy to grow here. **Devil's Claws** and **Wild Beans** started out good but then they died; I think our nights are too cold.

**From Ruth Bowman and Rebecca Teller, Jaroso, CO:**

We had glorious good luck raising the squash and corn seeds you sent us on the Navajo rez, but the gourds didn't pan out using dry-farming techniques. Any advice on this? *[Editor's note: Gourds need both a nice long growing season and plenty of water to grow. If you got healthy plants but no gourds, it was probably because they weren't planted early enough. If the plants languished, it is possible they needed more water than available under your dry-farming conditions.]*

**From Dixie Damrel, Tempe, AZ:**

I moved from Tucson to Tempe this year and the first thing I did was put in a garden in the backyard. I soon found out that in this area whitefly is horrible! However, I had excellent luck with **Mano de Obispo** — nothing touched it! They grew to be huge, about 5 feet tall with exquisite rose-margined leaves and crested flowers that last for months and are as elegant as anything I've ever seen in a florist shop!

Also, I did a comparison between **Wild** and **Domesticated Multi-clawed Devil's Claws**. I notched the seeds and soaked them overnight in water before planting. The domesticated came up after about three days (100% of them) but I had poor germination rates on the wild.

However, since many wild brown seeds have an inhibitory compound on them that has to be leached out, I started over, notched the seeds and then had them in a water-filled jar that I would soak, shake and drain frequently for about three days. The germination rates were much higher and in a much shorter span of time. Whitefly did attack the devil's claws but with their sticky leaves they acted as a catch-fly and they produced a generous amount of claws (from date of planting, produced harvestable claws in about 105 days).

Along with the multi-claws, I grew some **I:hug** from the crop of a year before. They did well here and I had my first claw in 91 days after planting.

Sadly, the **Magdalena Big Cheese** I grew this year didn't fare as well. They were a haven for the whitefly and, although the foliage was lush, only set about three female flowers the entire time. Perhaps the weather is too hot here. The **Zuni Tomatillos** also may have had a heat problem, as their balloon-like husks were entirely empty of fruit.

**From Patrick Pynes, Albuquerque, NM:**

Despite extreme heat, wind, and aridity immediately following planting and germination in June, and two powerful hailstorms (marble-sized) in mid-July and mid-September, the garden produced abundantly this year. I planted two packs of **Hopi Blue Corn** along 200 feet of "Rain Tape," and got 99% germination, and recently harvested an excellent crop. The family should have enough blue corn to fill our needs for two or three years. The ears are absolutely beautiful and remarkably diverse, genetically speaking. Some ears are reddish purple, others navy blue, others light blue, some all colors of the blue spectrum on the same ear. I grew some Hopi Blue from another seed distributor (a commercial one) a few years ago, and while the corn was beautiful, the blue color and round shape of the kernels was somewhat uniform. What continually amazes me about NS/S seed is their remarkable diversity and toughness in arid conditions. Hopi blue corn is blue, but it is blue in nearly all shades of blue and all shapes of kernels.

The other NS/S seed I planted also did quite well, including **Hopi White** and **PinacateTepary Beans**, and **Santo Domingo Tobacco**. I managed to get about a dozen seeds from two Pinacate plants last summer (out of about 20 I planted), but this year they produced very well. Maybe the seed I managed to get are beginning to adapt to this latitude. The tobacco seed was three years old, and I sprinkled 12 over a wildflower bed that was trying to get started. It nearly took over the wildflower bed, so I had to thin many plants and remove many seedheads. I rarely irrigated them, but although they were small plants, even stunted, they survived and flowered, giving me plenty of ceremonial and smoking tobacco. And I've got plenty of seed for the next time I want to grow them (probably next spring).

Brett Bakker continues to do an excellent job here in Albuquerque. He allowed a few of us New Mexican Seedheads to eat some delicious **Yellow-Meated Hopi Watermelons**. Of course, we had to save the seeds and return them to him. He is an invaluable presence here, a source of inspiration, and moral support.

Although I tried and enjoyed your recipe for black-eyed peas, nopalitos, etc., from a few issues back (in *Seedhead News*), the list of ingredients was far too fancy for white trash like myself. In contrast, the recipe for Rosy Corn Muffins was superb, requiring simple, cheap ingredients, and very little work. I used some Bloody Butcher corn a friend had given me, and my family ate the dozen muffins I made in less than an hour. Anyway, I always look forward to trying the recipes you throw at us.

#### *From Gus Brewton, Lometa, TX:*

This has been a most unusual year, but that's what we can expect. We didn't have any ordinary spring rains. May was the hottest on record. My well went dry. Strong south winds, but I finally got up a barrier that protected about one-fourth of my garden. Made no potatoes (first time in 20 years), few onions, **Tohono O'odham Black-Eyed Peas** didn't germinate nor the **Maricopa Corn**. Made a few Tennessee red corn (a heirloom corn given by a neighbor). Made a little broom corn, but not until fall rains. After the late rains, worms of all descriptions came.

Next year (thankful for that hope) I'll make better catch basins and plant my bean and corn as in the last *Seedhead News*. Instead of plowing the middles (heretofore, I've made wide rows and wide middle so I could till them), I'll just mow them to keep down the wind erosion. I'll use fallow rows the next year for planting.

Oh, I forgot to tell you about the **White Tepary Beans**, which I ordered several years ago for eating. I planted some and have saved seed every year. They survived, being the only green thing in half my garden, and are still producing very well in mid-October.

#### *From Wilfried J. Studer, Whitewall, St. Eustatius in the Caribbean:*

Seeds from NS/S were raked into the soil and some placed in starter pots as control and reserve. **Panic Grass** held full heads of seed just before Hurricane Luis struck in September 95. After the passage of a 3-day onslaught some grass plants still held healthy seeds. This plus reserve was immediately sown again. **Tomatillo** had been pressed into a worked area bordering the leeward side of a 30 m. structure and soil surface randomly covered by dead windfall and a few large rocks — these latter for shade and moisture retention, also to discourage and prevent chicken scratchings. Over this was sprinkled desert wildflower seeds. In a prepared pocket some 9 sq. m. **Amaranth** had been planted in rows and loosely covered with topsoil, humus and semi-rotted dry lawnmower cut lawngrass.

Luis (the dry hurricane) was followed within ten days by Marilyn (a very wet hurricane), i.e. sustained high winds plus highwind with heavy flooding. End of December 95, one tomatillo plant rose up with abundant produce well into February 96. Some husks were let to drop for self re-seeding. The fall waist-high grass that had risen over the entire property was eventually cut with no particular attention being made to any other minor growth within the thick seeds. Human energy was directed to the preservation and care of mangled and uprooted trees and shrubs. More energy and perseverance were lavished on areas laid bare to scantily covered rock base by eroding flood sheets. The January to June season was resplendent with renewed greenery and plenty of rain.

Hurricane Bertha spun branches, leaves and seed for two days end of the first week of July 96. September 96 the following located: Panic Grass, several clumps growing down along the sides of the ravine; Amaranth, several plants with full seedheads swaying gently in the tradewind breeze in the opposite corner of the property; Wildflowers, growth scattered throughout; and Tomatillo, all over the property plants of varying sizes, the smallest where seed had grown in a mostly shaded and dry area of the ravine tree windbreak. One tomatillo plant was even found 200 m. up the slope by the side of the road.

Who knows?! Perhaps there is growth further along the west coast of this island out there in the flat areas. Maybe some seeds were thrown by wind into the fertile soils of the island of Saba (located just downwind) or perhaps tossed haphazardly onto St. Barth's. Considering that Africa dust is borne by winds to this side of the Atlantic pond, well! perhaps some seed has been taken up into the clouds for deposit onto St. Croix, St. Thomas.

This island St. Eustatius is only 21 meters square. My property is in the southwest corner, of which one hectare is manually worked with manure and vegetable waste enriched earth. Apart from the few largest and oldest indigenous trees down in the ravine, all trees and shrubs up on the flat of the seacliff have been grown from seed and/or cuttings. The elements of this clime are rough and during hurricane strikes outrightly destructive. Hurricane Hugo in September 89 not only blew off all the low shrubs (there were no trees then) but also removed about 5-7 cm (2-3 inches) of topsoil and humus. One can rightly say that from nothing was this planting area built — six years in the making before Luis and Marilyn.

September 95 much was lost yet much remained. The initial goal to secure the earth and to render it fertile had been achieved. The second phase (to instill self-renewal of plants) was subject to the test of this climate.

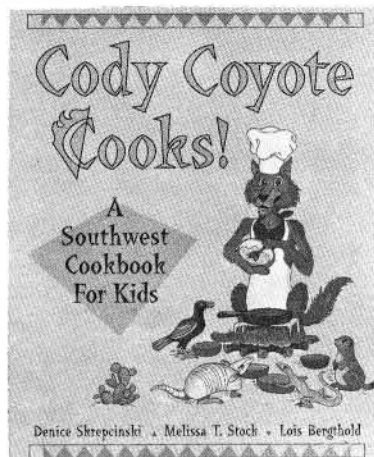
Seed self-propagation and growth is a reality, but it sure takes some very, very tough seed.

# CODY COYOTE COOKS!

## A Southwest Cookbook for Kids

by D. Skrepcinski, M. Stock and L. Bergthold  
Tricycle Press, \$14.95  
paperback, 84 pages

Book Review  
by Lois Friedman



The three Cs — cooking, culture and coyotes! Discovery and adventure wait in the stories and recipes of Cody Coyote. Native American legends, cultural traditions and cowboy tall tales are woven in mythical and magical legends geared for kids seven to eleven. A Texas, New

Mexican and Native American coyote story begins each section with facts, Southwest trivia, answers and notes about each area scattered through the recipes.

A special introduction for adult coyote helpers suggests guidelines, cooking and safety tips and techniques. Recipes are coded by the lizard symbol — one for beginner to three for advanced and a red coyote paw means caution for safety. Fun recipe titles — Sidewinder Sausages, Get Along Little Doggies, Peppy Pepitas, Full Moon Pudding and Powwow Posole — are part of 45 recipes, each serving four. “You Will Need” lists and “What to Do” steps follow a brief introduction. A few craft projects complete coyote’s adventures and your family fun.

Try this recipe with your cowpokes and see some happy smiles!

### Howlin’ Coyote Toast

(Finger food; makes 4 to 6 servings)

This grub is so good you’ll howl at the moon for more!

You will need:

- 1 baking sheet
- Serrated knife or bread knife
- Grater
- Measuring cup

Hot pads

Tongs

1 long loaf French or sourdough bread

1 cup grated cheese, Colby and Monterey Jack combined

What to do:

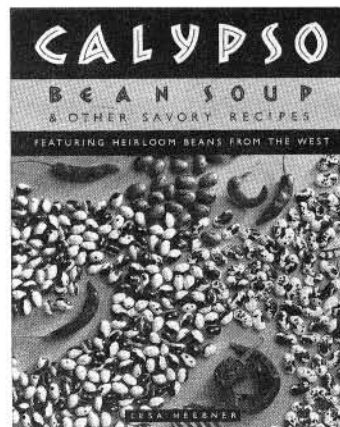
1. Preheat the oven to 400 degrees.
2. Cut the bread into 4-inch slices and then cut each section in half lengthwise.
3. Sprinkle the top of each bread slice with some of the grated cheese.
4. Place the bread slices on the baking sheet and place the baking sheet into the oven. Bake for 10 minutes, or until the cheese melts. Using hot pads, remove the baking sheet from the oven and let the bread cool for a few minutes before serving. Use tongs to remove the bread from the baking sheet.

Coyote caution: Use a special bread knife to cut French bread; it is safer and will be easier to cut with. Cut bread with a sawing motion, and always have an adult coyote help when slicing.

## CALYPSO BEAN SOUP & OTHER SAVORY RECIPES: Featuring Heirloom Beans From the West

by Lesa Heebner  
Collins, \$12.95  
Paperback, 100 pp

Book Review  
By Lois Friedman



to generation.

What’s old is new again. Here is all the helpful information you want on beans, the darling of the 90s. The beans used in the recipes are heritage/heirloom seeds of the past, demonstrating the old-fashioned values of full flavor, tender skins, beauty and texture. They were grown, enjoyed and passed from generation

*continued next page*

A valuable chart of bean substitutions lists beans by color and notes that the more color the more flavor. Beans, by the way, are high in good things and low in bad. Chances are you find many of the heritage beans at speciality stores and ethnic markets. This book also gives mail order sources, including Native Seeds/SEARCH and its treasure trove of native bean varieties.

If beans are new to your daily diet, many user-friendly suggestions are given so you can silently enjoy beans. The basic advice is to eat beans more often and with vegetables (fruit, sugar and meat will greatly increase rumblings) or reach for the Bean-o or epazote.

Helpful, readable techniques explain cooking options. About the only information missing in this complete bean book is the importance of "picking" beans, to sort out rocks and dirt, and rinsing them before cooking. Appaloosa Bean Chili with Chipotle Chiles, Black Turtle Bean Patties with Fresh Squash Salsa, and Hopi Woman Bean Salad are among more than 40 creative bean recipes featuring a new approach to a very old food. The chapters are appetizers, salads, soups and main dishes. Step by step, clear instructions are easy to follow. Every recipe has delicious information or historical insights about the featured bean.

Begin your bean cuisine with the following, which features tepary beans, a staple of native peoples of the Sonoran Desert and available from Native Seeds/SEARCH.

## White Tepary Beans And Rice With Zucchini and Pine Nut Dressing

Like the Anasazi beans, teparies, which are small flat beans, usually white or golden tan, have the wonderful quality of being less troublesome to our digestive systems than other beans. They were a staple of the Hohokam, a group of people who lived near present-day Tucson and Phoenix, Arizona. A thousand years ago, the Hohokam's diverse croplands were watered by a vast river-diversion canal system. But drought and other problems came, and many of their crops vanished. Only a few remained, including the tepary bean. It continued to grow successfully in the arid southwestern United States for many years. What little rain fell was enough for this drought-resistant bean.

Tepary beans hold their shape well and taste very mild. This presentation highlights the fresh taste of the dressing and the textural differences between the beans and rice.

### Beans and Rice

1 cup dried white tepary beans, soaked and drained  
1 strip kombu seaweed (3-inch strip)  
salt, to taste

2 cups water  
1 cup basmati rice, rinsed

### Dressing

¼ cup pine nuts  
2 medium (8 ounces total) zucchini, chopped in 2-inch chunks  
1 large clove of garlic  
1 cup loosely packed basil leaves  
1 tsp. lemon zest  
3 T. apple cider vinegar  
1 T. extra virgin olive oil  
¼ cup water  
½ tsp. salt

### Salad

2 stalks celery, diced  
1 carrot, grated  
½ red onion, diced  
3 tomatoes, diced  
1 head romaine lettuce, washed and spun dry

1. Put the beans in a 3- or 4-quart saucepan. Add the kombu and enough water to cover by 2 inches. Cover, bring to a boil, reduce the heat to low, and simmer for 45 to 60 minutes, until beans are tender yet still hold their shape. Remove and discard the kombu. Taste the beans, salt to taste, and set aside.
2. Meanwhile, in a separate pot, bring 2 cups of water to a boil. Slowly add the rice, cover the pot, bring back to a boil, lower the heat, and simmer until done, about 30 to 35 minutes. Do not pick up the lid or stir the rice until it is done.
3. To make the dressing, preheat the oven to 325 degrees F. Put the pine nuts on a baking sheet or cookie sheet and toast until light golden, about 15 minutes. Let cool.
4. Once cool, put the pine nuts in the dry work bowl of a food processor and process to a powder.
5. Add the zucchini chunks and process until minced. Scrape down the sides and process again until it begins to liquefy.
6. Add the garlic and basil and process until well minced.
7. Add the remaining dressing ingredients and process until creamy. Refrigerate, covered, until needed. (Dressing can be made up to 2 days in advance.)
8. To assemble salad, drain the beans. Toss half the salad vegetables (except lettuce) and half the dressing with the beans, and the other half of the vegetables and dressing with the rice.
9. Arrange whole romaine leaves on 8 salad plates. Place a scoop of beans and a scoop of rice on the romaine. Serve warm or cold.

(Serves 8)



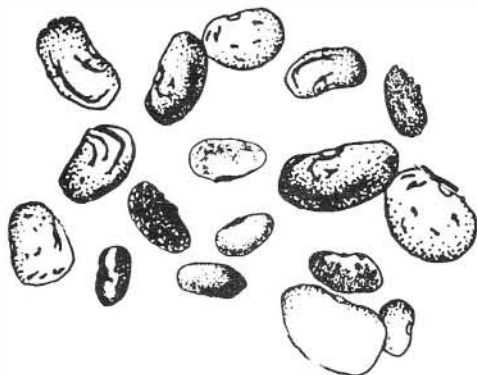
# Letters to NS/S



Dear NS/S:

Once again, we will be giving free seed to Native American gardeners who cannot afford to buy seed. This seed is donated from various seed houses, some last year's seed, some over-run current seed, some donated by gardeners, and some grown by ourselves. Much of this seed is open-pollinated, so people can get a start saving their own seed, as well as providing food for the family. (We feel very strongly that many of the Native varieties are best, and encourage folks to give them a try. Most of the varieties we are now raising had their start with you and others offering Native traditional seeds.) There is no charge for this seed, nor are there any "strings" attached, but if anyone can afford to send postage for their seed package — usually \$3 to \$4 — we'd appreciate it, as it's just Bob and I doing all the mailing, and we're far from wealthy! Anyone who wishes to donate open-pollinated seed (or even cash!) is very welcome to do. Our dis-organization consists of Bob, I, and our six-year-old son, David, with no funding, volunteers, etc.

Thank you for your help in spreading the word. Last year we were able to serve over 200 families, individuals, schools, community and tribal gardens. It is exciting and fun for us to be able to share with others, many who have never had a garden before or have not been able to afford one in years. Thank you, too, for getting us started with seed, and ideas! Much of the seed we are sending people had its origin with you. For instance, we harvested over three pounds of Mayo Blush squash seed, a pound of Peñasco Cheese squash seed, and much New Mexico Muskmelon, San Juan Watermelon, etc. Not only do we have enough for our own large 2-acre garden, but are passing on a lot to others. Your program of giving seed to Native Americans is worthwhile, and is causing great ripples all across the country.



Some of us try a few varieties, to see what we like and will become committed to raising, then get the seed again, to be sure it is pure. Then consider the weather! Last summer, we had baseball sized hail. It pulverized much of our garden, killing nearly all flour corn, tomatoes, watermelon, muskmelon, beans, and even smashed into the ground, tattering our onions! I know others have suffered floods, severe droughts, etc. Thank you for continuing to give seed to Native Americans, and keep up the great work!

—Bob and Jackie Clay  
P.O. Box 477  
Gladstone, NM 88422

Dear NS/S:

In April 1996 you sent me a free pound of white tepary beans and a nice personal letter explaining how you cook these beans after I wrote and complained that I had experienced problems following my usual dry bean preparation methods. I meant to write sooner to thank you and tell you that I tried your methods with success and my husband and I truly enjoyed the nutty, somewhat sweet flavor of these ancient beans. Before receiving your catalogs last year, we had never even heard of tepary beans.

We still like the Bolita beans best, but I like to try new beans all the time. We grow dry beans here in this wet part of the Willamette Valley in Oregon. We have grown Black Coco bush beans for more than five years, and have grown Jacob's Cattle, Trout Black and White, Hutterite, Soldier, and Scarlet Runner beans, also. Anasazi and Ojo de Cabra didn't do too well here. Flor de Mayo didn't flower until August last year, so it failed completely. Montezuma Red did fair a few years ago.

I'm happy to see all the food items that you have added to your catalog, as well as the hand-crafted items. I wish my budget allowed me to purchase more.

Earlier this year I saw the report on the national news featuring your organization and the diabetes research among the indigenous people of the Southwestern U.S. and Northern Mexico. It was great to see that on TV where many more people may have learned of your work. Good job. Save those seeds.

—Lois E. Ray

Dear NS/S:

Just writing to pass on some useful news about tomato varieties I've ordered from you in years past: Wild Chiapis Tomato sure has proved to be hardy and reliable. One seed saver in New Mexico who grew it described it as being resistant to curly top virus, fruit rots, droughts, heat, cold, and even frost. In 1995, I got some seeds of



# Letters to NS/S



Orange Galapagos Currant Tomatoes La317 from E.M. Rick of the University of California at Davis. I had tried unsuccessfully to grow La317 from seeds the USDA sent me in 1994; it rotted off at the ground level. The seeds Rick sent me grew and bloomed and bloomed and bloomed with hundreds of thousands of blossoms, with lots of pollen, but very few of the blooms set. They were tiny, dark green and ripened to a bright neon and orange color with lots of beta carotene. Wild Chiapis had fewer blooms but the blooms set much more reliably.

I emasculated a number of blooms on the Wild Chiapis Tomato plant and pollinated them with pollen from several of the La317 plants. Only 3 of the blooms on the Wild Chiapis set with pollen from La317. I used all of the seeds from one fruit and some from the other two, and germinated six plants that grew to maturity. They went crazing blooming and set thousands of fruits per plant over a long period of time. The tomatoes were dark green ripening to bright orange like La317 with the reliable fruit set and temperature hardiness of the Wild Chiapis plants. The tiny tomatoes average about the size of a pea and dropped off the plants like raindrops. The plants must have 10 times more tomatoes than Sweet 100 or Sweet Million. I never did get all of the tiny tomatoes harvested there were so many of them. Wow!

I also grew some tomatoes from a cross between La317 and Punta Banda. They produced like a Sweet 100 in the number of tomatoes. And they went rather nicely into barbecue and spaghetti sauces. I've also crossbred lines of Punta Banda with cold hardy Russian Paste Tomatoes and High Country Paste Tomatoes. These lines will be brought together with the La317 x Punta Banda lines and some other lines as well. The Wild Chiapis x La.317 lines can be crossed with almost any tomato to produce hardy reliable tomato varieties with rich beta carotene content.

It is my hope that my plant breeding efforts will benefit Native Americans one way or another, among other people as well. I'd be willing to share seed samples from my plants with any Native Americans who would want to use them as parent lines in their breeding efforts.

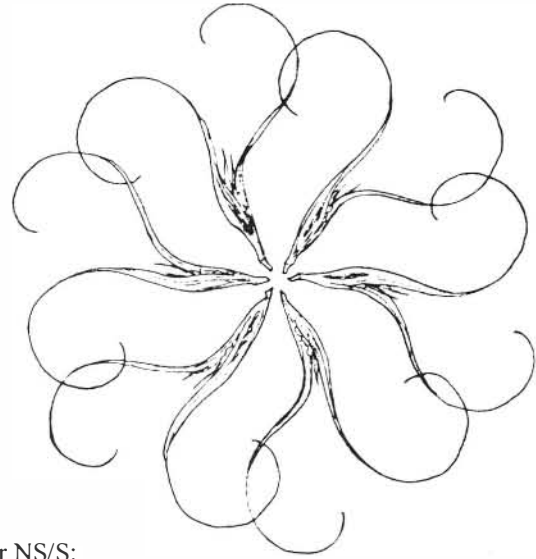
—Randy Parks

2500 St. Hwy. 28, Sp. 21  
East Wenatchee, WA 98802

Dear NS/S:

I want to thank you on behalf of the women of Somoto, Nicaragua, for your generous donation. Already many of the seeds are growing in various gardens around town.

—Jessica Laub, Peace Corps Volunteer



Dear NS/S:

I'm sure I don't truly understand what sort of work it takes to make the Seed/SEARCH go; but I know we all really appreciate the opportunity you give us to plant and care for and enjoy and harvest and eat all these wonderful things.

Thank you.

—J.D. Schafer

*J.D. included a poem with his note:*

February the First Since Forever

they get together here each year,  
birds of a feather refuged  
from the northern  
winter...

A reunion of  
windchimes sparkling  
in the high desert sunshine

Dear NS/S:

I hope that you realize that we've included your Mrs. Burns Lemon Basil in our new book, *Basil: An Herb Lovers' Guide*. I tell people in my classes and lectures that Mrs. Burns is my favorite Lemon Basil.

I also let them know that you are one of the best sources for good quality ground red chile that I know of; it is hard to come by around here. I order it from you twice a year and keep it in my freezer.

Keep up the good work. I'll keep spreading the word. Happy Spring!

—Susan Belsinger

*Editor's Note: Basil: An Herb Lovers' Guide is available from NS/S for \$19.95 plus shipping.*

# Report from the Board Chairman

By Mahina Drees

It has been six months since I took over as your Board Chairman. Certainly I can never fill Gary Nabhan's shoes, so I won't try. Gary played a key role in the founding and growth of NS/S. He brought NS/S to the world and the world to NS/S. We are fortunate that he will continue to share his knowledge and vision as an active board member.

My activity as Board Chairman has so far mostly involved weekly visits to the office to stay in touch with Angelo. I had warned others that two other NS/S projects — collecting seeds in Mexico and growing endangered corn varieties — would keep me from doing much more than this at first. Fall is also a busy time for our import business, Unknown Mexico, which supplies many of the crafts offered in the NS/S catalogs.

My husband Barney Burns and I made two trips into Mexico this fall with support from the Educational Foundation of America. We were able to recollect some seed varieties that are already in our seed bank, but have been losing viability because they are old. We visited

## Remember Native Seeds/SEARCH in Your Will

As you know, Native Seeds/SEARCH is working to conserve the traditional seeds, crops, and farming methods of southwestern U.S. and northern Mexico. We promote the use of these ancient crops by gathering, safeguarding, and distributing their seeds, while sharing benefits with traditional communities.

We also work to preserve knowledge about their uses through research, training, and community education.

You can support this work and these values by planning a gift for Native Seeds/SEARCH's continuing and future needs.

Your bequest will express, in a substantive and lasting way, your commitment to this work.

If you would like more information on how to designate Native Seeds/SEARCH through a will, please write to:

Kevin Gaither-Banchoff, Native Seeds/SEARCH, 2509 N. Campbell Ave. #325 Tucson, AZ 85719.

some parts of the Sierra Madre for the first time, and collected new varieties. We were particularly pleased to collect quantities of beans, especially scarlet runners, as we had not seen many beans for years. Unfortunately, although the rains were more abundant this year, their timing resulted in reduced production in many areas. Food relief is still taking place in the Sierra Tarahumara.

In my own backyard, I grew three types of corn for the endangered seeds growout project. Although these needed to be hand pollinated, the growout was very successful. I became better acquainted with Harinoso de Ocho (which translates as "eight-rowed flour"), a very old race of corn, and Onaveno, a flinty offspring of Chapalote. The pink Conico Norteño ("northern cone-shaped") had a hard time of it in our hot, low desert.

My goal as Chairman is to assist NS/S in obtaining a farm within the next two years. We now have sufficient grow out space in Tucson to increase endangered seeds or seeds for the catalog, but not both. We'd also like to produce more bulk seeds and food products that could be sold in the catalog, and document how these native crops perform under farm rather than garden conditions.

The challenge is finding the right spot for our farm. There is not much farm land left in southern Arizona and New Mexico. We want to keep the seeds in as similar an environment as possible to their original homelands, and hope to find suitable land at an elevation (3200-5000 ft.) that will allow us to grow crops from higher, cooler elevations as well as from the low deserts. We will need a lot of help from you and the rest of our friends to acquire a farm so necessary to the long-term survival of these traditional crop seeds we are stewarding. For starters, if any of you know of a possible farm site that fulfills the above criteria, at least 40 acres probably, please let us know.

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**NS/S joins Senior Sports Classic:** On May 22, NS/S will be honored as one of 10 local participants in a night which highlights Native American culture at the 1997 U.S. Senior Olympics. Our demonstration/sales table will be at the UA Mall — come join in the fun!!

**Welcome Yajaira.** Yajaira Fernández-Gray has been working on our Cultural Memory Bank since November, updating and standardizing the computer database. Originally from Venezuela where she did plant collections in the Amazon, Yajaira has a Master's Degree in Tropical Ecology and has lived in Tucson for 5 years.

**TBG Herb Fair:** Saturday, May 10, 8-2, NS/S will have a selection of seedlings — basil, tomatoes, chiles, and more — and other goodies for sale at the Tucson Botanical Gardens Herb Fair. Our museum will also be open that day from 8 until noon for seeds and other purchases.

# News and Notes

**A foundation of trust.** Foundation and corporate support underwrites a large portion of our conservation work. Since our last newsletter, we've received grants from the **Albuquerque Community Foundation, Desert Diamond Casino, Hilen Foundation, Patagonia, Inc., Pendelton Memorial Fund, Peninsula Community Foundation, Vance Foundation, Ben & Rachel Vaughan Foundation, Wallace Research Foundation, World Hunger Year, Lila Wallace-Readers Digest Community Folklife Program, administered by the Fund for Folk Culture and underwritten by the Lila Wallace-Readers Digest Fund.** We have also received pledges from **Environmental Support Center** and the **Turner Foundation.**

**A Special Thanks** to members Beth and Will Russell, who opened up their home for a NS/S benefit dinner this past fall. Seventeen old and new NS/S members joined us for a dinner of traditional southwestern foods, a slide show, and good conversation and company. Are you interested in learning more? If so, please call Kevin Gaither-Banchoff at (520) 327-9123.

**New Staff: Krishna Raven-Johnson** has been recently hired on as Development Assistant/Events Coordinator and will be assisting with fundraising. Krishna has worked extensively in community-based service organizations and as a massage therapist, and is a recent transplant to the desert. Welcome Krishna!

**Many Thanks** to Vanda Gerhart, Green Grocer, for her thoughtful donation of a lovely seed display rack. We'll put it to good use!

**Almost 400 NS/S Members** responded to our fall general support appeal — bringing in a total of \$23,500 in revenue between September 15 and December 31. Thank you for this extra support of our conservation programs.

**The Incredible Volunteers Award** goes to Ginny Osteen and Don Canavan from Oregon, who spent two weeks of their vacation this winter helping us package seeds and other products, and working in the garden.

**Wish List:** Copier, Laser Printers, Handy Person for Occasional Maintenance, Good New "Real" Computers, Phone Equipment (including multi-line telephones).

**Support Native Seeds/SEARCH by reading!** The Book Mark, a locally owned book store in Tucson, will donate 10% of the purchase price of book bought by NS/S members and friends. Let them know you wish to do this when you make a purchase. Thanks to **The Book Mark**, 5001 E. Speedway, and to owners Larry and Brenda Spohn for their support.

# The Seedhead News

published quarterly by  
Native Seeds/SEARCH  
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**Native Seeds/SEARCH**  
2509 N. Campbell #325  
Tucson, AZ 85719  
Phone: (520) 327-9123  
Fax: (520) 327-5821  
Located at Tucson Botanical  
Gardens, 2150 N. Alvernon.  
Open Tues & Thurs, 10 am-4 pm  
Saturdays 11-3 (Oct-March)  
**New Mexico Office:**  
P.O. Box 4865  
Albuquerque, NM 87196  
(505) 268-9233  
Open Thurs., 9:30 - 3:30, or  
by appt., at 144 Harvard SE

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ISSN 1083-8074

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## Membership Form

Check one:  Renewal  New member  Gift

- Associate (\$20 per year)  
 Low income/student (\$12 per year)  
 Family (\$35 per year - Memberships at this rate and higher receive the *Totally Corn Cookbook*, as well as a 1/4 lb. bag of Four Sisters Farm "Parched Corn")  
 Sustaining (\$100 per year)  
 Patron (\$250 per year)  
 Lifetime (\$500)  
 Native American (free; please provide tribal affiliation: \_\_\_\_\_)  
 Additional Contribution

If you do not want your name exchanged with other groups, check here: \_\_\_\_\_

Name(s) \_\_\_\_\_

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Phone: \_\_\_\_\_

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Signature: \_\_\_\_\_



One of Kevin's early experiences with birds.

## Kevin Dahl Takes Flight

Alright, I admit that I've been using a lot of bad bird puns lately. Here's one: this newsletter represents my swan song. After 11 years, it is hard to express with words the fondness and respect I have for this organization, the people who work and volunteer here, and the many members and supporters I've had the privilege to meet during this time. So with some sadness, but also great confidence in my friends who continue this important work, I leave NS/S to become a bird punster, and also executive director of the Tucson Audubon Society.

Despite my best intentions I've been unable to get very far on my memoirs, tentatively entitled "A Decade of Seediness." Look for a few reminiscences in an upcoming *Seedhead News*. In the meantime, stop by the Audubon Nature Shop at Fifth Street and University if you'd like to see where I've flown the coop!

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Native Seeds/SEARCH  
2509 N. Campbell Ave. #325  
Tucson, Arizona 85719

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