



Winter Solstice

No. 31 1990

the Seedhead News

Garden Reports

These reports came to us attached to the survey form included in the 1990 Fall Harvest Catalog. We encourage everyone gardening with native crops to share their observations; we have much to learn from each other! We have more than could fit in this newsletter, so expect to see more in the future. [*Answers to questions — and unsolicited comments, too — are shown in bold, italic type.*]

The best plants were those of the Scarlet Runner (Tarahumara Tecomari). They were very attractive plants (a few flowers were white, by the way) which cascaded over a retaining wall. We used about 100-150 as green beans (sharing with a neighbor — very tender & tasty). The rest I am letting dry on the vines — some of the pods are **huge!** When dry, I'll save some for seeds (my neighbor also wants some) and use the rest in bean soup. —Mrs. Larry A. Wright, Prescott, Arizona

Teparies and corn were raised together this season. The corn is planted equal distance apart (Twenty-four inches) in rows that are twenty-four inches apart and fertilized by sprinkling one quart of oyster shells (Used for Poultry) on each twenty-five foot of row, at planting time. The plot is hand cultivated until the corn is twelve to sixteen inches tall, then a shovelful of good compost is place around each stalk. The Teparies are planted between each stalk, and between the rows, at twelve inches apart.

The reason that I raise Teparies, is "taste" and their ability to produce in drought conditions, of which my



Illustration by Roxanne Swentzell.

area has had plenty for the past five years. This summer we had no rain the last week of May, none in June and the first week of July, but the Teparies made it just fine without any watering, and I like their resistance to larva, which infests some other beans.

You may wish to pass on to others a method that I use to thrash small quantities of dry beans by converting a six gallon plastic bucket into a 'churn-type' thrasher.

A 'thrasher-stick' to fit inside the bucket is made by attaching a 3/4 by one inch scrap of lumber, cut eight inches long secured loosely by one inch scrap of lumber to the end of a handle (an old broken hoe handle, dowel one inch in diameter, cut about as long as a milk churn dasher), with a screw and washer.

A five gallon plastic bucket lid, with a one and one/ half inch hole cut in the center, becomes the cover to

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Garden Reports, continued

confine the beans when the handle is inserted through the hole.

A few "brittle-dry" beans at a time are placed in the bucket and hit a few licks (my grand children love to help me thrash beans) before adding a few more to repeat the process, while stirring the hulls by hand and letting the beans fall to the bottom. The hulls are worked and removed, a small amount at a time, and placed back into the brown paper bag, to be used next spring for mulch.

In the desert southwest, getting beans 'brittle-dry' is no sweat but here in the humid southeast it is a problem, but I pull all kinds of dry beans and take them to the shade and pick into brown paper bags and hang them up until the beans are 'brittle-dry' and will thrash easily. One bag (the size supermarkets use) of Teparies or Soybeans, thrashes out about one quart of dry beans for me.

—Ray Dycus, Oakman, Georgia

The most prolific plant in our garden, and one that reseeds itself each year more than the previous year, is Mrs. Burns' Famous Lemon Basil. Nearly as prolific is the Piedras Verdes Mayo watermelon. We planted a new bed this year from last year's seed, but some "volunteers" came up on their own in first year's bed and became the favorite gathering place for Junebugs (which our chickens really appreciated!). Another easy-to-grow favorite is the sunflowers...

We grow nearly everything in long raised beds that are narrow enough to allow access from either side without treading on the soil.

We have begun a new technique this year — one of the beds each year is dug deeply and serves as our compost pile throughout the year (we do have the advantage of a chipper/shredder, so all material placed in the "compost bed" is first ground fine).

Our chickens are periodically given the run of the garden; they serve as modest pruners, insect/weed controllers, grub finders, and their scratching helps turn up the soil to a small degree. Our rabbit also roams the garden one or two days a week; he contributes on-the-spot fertilizer and also helps in the pruning/weeding process.

We use no chemicals or commercial fertilizers in our garden. Pest control is typically accomplished by the "hand pick" (or chicken pick) method. In extreme cases, such as an incredible infestation of aphids, we may resort to a *fels naptha* soap spray. Many years ago, we once had to use a tobacco solution spray, which we accidentally discovered even kills black widows.

—Kathie A. Sholly, Phoenix, Arizona

Yesterday I harvested my last of the Hopi Red Lima Beans. As a matter of fact, I just finished a bowl of soup made with them — yum! We had a light frosting earlier this week and about half of the vines wilted. But they grew strong and healthy climbing up the garden 1/4 inch mesh, inside and out. Beautiful vine, even lovelier beans. The biggest and best pods were saved, shelled and fat red beans are drying on a tray for next year's planting. Some beans are so huge we named them Howie Long and Lyle Alzado beans after the Raider's football behemoths. Of the many NS/S seeds grown and consumed, these gave us an innate satisfaction, akin to making one's own bread.

—Sandra Cruse, Cave Creek, Arizona

Here pictured [see photo next page] is this summer's plantings of U'us Mu:n, Tohono O'odham Cow Peas, on their way out at the end of their run in early October. In the foreground (between plantings of Eggplant and Chinese Green Amaranth), an unsupported ground planting of the Cow Peas; midground, a four foot high fenceline of Cow Peas; and background (beneath the Silk Oak branches) an eight foot high planting of Cow Peas. They were prolific, as always, but more so on the ground sprawl and the eight foot fence line. These stands of peas produced two to three pounds of "green beans" per day and large quantities of "dry beans" from pods missed in earlier pickings. The drawing, as you see, is one of Kyoko's sketches of Cow Pea details [see back cover].

—George M. Landon & Kyoko Saegusa, Tempe, Arizona

The NS/S varieties I have personally tried over the past two seasons and had good luck with are the following, in order of performance:

1. Tarahumara Tomatillo. Grew them one season and have not been able to get rid of them since. Rather small size, though.
2. Yaqui June Corn. Grows fine here in my area. Needs little water. Susceptible to aphids and earworms. More so than the Silverqueen Sweet corn hybrid I also grow. Worth growing, though for the excellent Uchepos (Michoacan Green Corn Tamales) I make from them.
3. Frijole Azufrado. My favorite bean, so far. easy to grow, springs up by itself every year. Minimal care. Plant between the tall Yaqui June and if timed right they grow together. Would have had a huge crop this year but extreme heat ruined the crop. Came back later in the year, but not too well.
4. Apache Red Sugarcane did well. Don't care for the taste, though.
5. Calico Lima and Hopi Yellows did real well. Again, heat was a problem to some extent but otherwise in a normal year I am sure they would have been a great performer.

Garden Reports, continued

6. Chapalote. Well, just about all the corn does well here. This was no exception. Not as good as the Yaqui June, though.

7. Bisbee Red Blackeyed Pea is still growing and seems to be doing well. It is right now producing. Took a long time to reach maturity, and the frost is coming soon. Do not expect to get much of this crop this year.

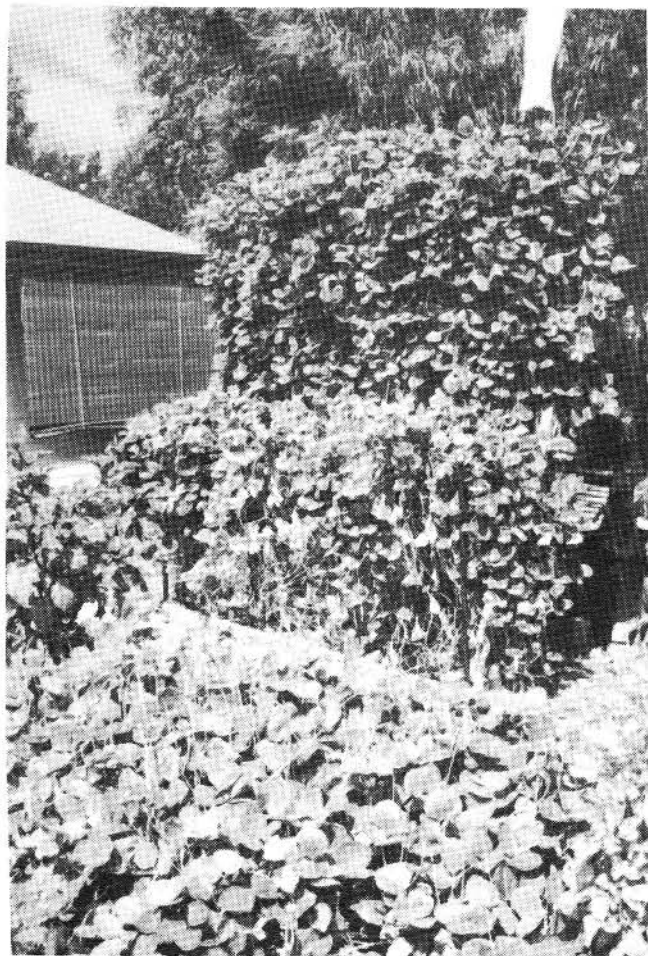
Mirasol chili, Coban Chili both were extremely hard to get going, but they seem to be doing well now that they are in the ground. Again, seem to be late season producers here. The frost may end my hopes of a decent crop.

The losers in my garden were the following:

1. The Tarahumara Bilobal. Grew about 4 inches high and has not changed in two months. Don't know why, as other squash (pumpkin, hubbard, butternut) does quite well here.

2. Dolores de Hidalgo Garbanzo. We had quite a problem with worms and getting the seed to germinate. Sensitive to diseases and any slight damage to the plant by birds and rabbits, of which we have many.

I have a few tricks I have used with the corn and



chiles. I plant in a "V" formation into the wind. Corn in front. I then run a row at a right angle to the "V". In this wedge I plant my chiles and heirloom tomatoes. We get a strong coastal breeze up through Malibu Canyon. This formation takes advantage of this for pollination of corn. Of course I also hand-pollinate the front row.

I guess my best trick, which really is not my own, is to plant common beans with the Yaqui June corn so I do not have to stake it. Must be a tall corn like Yaqui (18-20 ft) [*Wow!*] as the azufrado bean grows like crazy.

—Damon Graddy, Calabasas, California

First of all I want to say that your seed offerings, books and growing tips have been extremely helpful in solving some of my gardening problems.

I garden in the Mesilla Valley on 20 acres of flood land that the Rio Grande left, before it was tamed, in the South Central high desert of New Mexico.

I have grown the following vegetables from seed purchased from NS/S:

1. Paiute Sweet Corn — had small yield-smut.
2. Hopi Early — small yield-less smut problem.
3. Texas Shoepeg — good yield, except for smut due to rainy season.
4. San Juan melon — could not get any hand pollinated fruits to grow out.
5. Papago pumpkin — excellent yield, very large plants. All hand pollinated fruits aborted. I think I waited too late in the season.
6. Chiapas Wild Tomato — very easily grown and prolific. Easy to save seeds. Reoffer in Seed Savers Exchange.
7. Tarahumara Tomatillo — does well, small fruits.
8. Perennial Teosinte — all died for different reasons such as drought, wind & sunburn.
9. Annual Teosinte — has done very well.
10. Panic Grass — did not transplant well. All died.
11. Devil's Claw — could not get any to sprout. How do you get them to sprout? [*Try removing the seed coat completely.*]

—Paula Johnson, Las Cruces, New Mexico

I first read about your organization this June while traveling home from touring the West. I got your address from an article in a magazine on the airplane. I have always been interested in gardening since my father always had a large (by suburban standards) garden, and I am interested in native crops as I am descended from the Lenapes (Delawares) of New Jersey.

Although it was late for planting, I decided to order a few things from your catalog to see how they would grow out East. I ordered Scarlet Runners (Tarahumara Tecomari), Limas (Calico and Hopi "Yellow"), Devil's

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Garden Reports, continued

Claw (Chihuahua Wild) and Huazontle. We were having several days of rain, so I planted the Devil's Claw without soaking. For whatever reason, it didn't germinate. As soon as the Huazontle sprouted, I recognized it as a plant we always weeded out of our garden (without realizing its edible qualities). It seems that our eastern variety is slightly more productive and larger than the variety you sent me. Needless to say, it won't be weeded out of our garden any longer.

I planted the beans on June 15. The Calicos were the quickest to germinate and grow (about 7 days). About 5 of the Scarlet Runners bore white flowers, so I uprooted them so that they wouldn't cross-pollinate with the rest. Although the Scarlet Runners were the first to bear flowers (about August 15), they wouldn't set pods until about the middle of September. The Calicos, however, immediately set pods. It took forever for the Hopi Yellows to do much of anything (grow, flower or set pods).

The cooler weather here in the middle of October seems to have effected the foliage of the Calicos, but not the Hopi Yellows or the Scarlet Runners. In fact, the Hopi Yellows, which up until this time have stayed at about 2-3 feet tall, have experienced a spurt of growth and are now 5-6 feet tall with flower buds. I harvested the Runner pods on October 17 (for fear of frost), and the Calicos on October 24. The 25 Calicos yielded about 100 mature beans, and the 20 Runners yielded about 80 mature beans (4 per original seed). Both had a number of immature pods. The Hopi Yellows were harvested on October 24th, and yielded no mature beans (just ½ cup of immature beans). Had all these beans been planted in early May, which is our normal planting time, I'm sure the harvest of mature beans would have been at least doubled.

—Dominic M. Iradi, New Jersey, "The Garden State"

Tarahumara Carpinteros beans do well in my garden. I purchased one packet in 1988 and raised 3 plants to maturity in 1989. From the seeds harvested in 1989, I gave away at least 4 samples. I myself grew about 20 more plants in 1990 and harvested about a quart of beans. One of my friends grew out his sample and also harvested about a quart of beans. He wants to cook up a batch of them for a tasting but I think we ought to wait until we have more!

I didn't notice many pest or disease problems on these plants either year. Sowbugs nibbled at the bases of many plants, but most stalks survived. The seeds were somewhat infested by bean weevils, but to a much smaller degree than the Scarlet Runner beans I raised in the same garden (about 1 weevil larva per 15-20 Tarahumara Carpinteros versus 1 weevil larva per 2-4 Scarlet

Runner beans).

In order to prevent the weevils from ruining my harvest, I dry the beans using silica gel beads, then freeze the beans for 3 days.

I start the beans in 4" pots and set out the plants when they have 4 or 5 leaves. This helps me avoid snail, slug, and hungry bird problems.

I noticed that this year's beans have a higher ratio of black to white coloring than my 1989 crop. I didn't rogue out any plants either year because I had so few plants and wanted to maximize my harvest of seeds. They couldn't have crossed with another variety because I didn't grow any other. Do you have any ideas as to why the beans are getting darker?

—Amy David, Palo Alto, California

Did well in garden: cotton, amaranth, devil's claw-mountain variety. Indigo is still struggling.

For cotton, the soil is mixed 50% sand. For devil's claws, place tomato brackets around plants. Amaranth certainly needs no help! Delicious in salads and sandwiches when seedlings are thinned.

—Bernard & Jane Baily, West Chester, Pennsylvania

I'toi's onions are now an introduced crop in a friend's yard here in Massachusetts. Their little green heads poked up through the snow nearly all winter, finally gave in and died back but returned heartily come spring and held their own in a wild heirloom flower quilt.

Chiltepin seems happy 1½ years after leaving Arizona. Bore fruit last year, potted, outdoors. I frost-killed the top and it leapt back come spring. We moved to an apartment, it's been inside and flowered profusely but bore no fruit (due possibly to lack of water at crucial period that coincided with a needed vacation).

...best of luck with Chiltepin Preserve (Yow!) and Nut RegisTREE programs — great ideas, reasonably great puns. I am, after all, a New Englander with standards for such things.

—Anonymous, Boston, Massachusetts

I've been very pleased with seed purchased from your company.

The Hopi Red Lima: prolific in our area. Plant in late May and it bears by August. I trellised only 3½ ft. high and I truly believe it would do much better if trellised 6' high. It did well even the last couple of years — two years very dry, one year wetter than usual.

Tepary Beans, O'odham Brown, 1989: Good production. Didn't plant enough, good as a green bean before it dries.

Paute White Tepary, 1988: Perhaps I should have trellised. Mold set in because of dampness. Planted 3-100 ft rows. Very hard to harvest because of mold.

Garden Reports, continued

[Teparies just don't do well in wet climates.]

Tomatillo: prolific. Some plants were 3 1/2-4' tall with large Tomato Cherry size tomatillos on raised beds. The Children enjoy collecting them as much as eating them, especially when they turn purple. They self sow (sometimes from compost).

Chiltepinas, Tarahumara: Excellent producer, very hot, dries well.

Mt. Pima Oregano: slow growing until July-August productive and over winters. Hard frost doesn't seem to bother it.

Sorghum, Apache Red Sugarcane: Excellent producer and the children and neighboring children truly enjoyed it. Harvested in October.

—Shirley Burgess, Ft. Washington, Maryland

P8. Tarahumara Tecomari (Scarlet Runner Beans). These beans seemed to come on very slow and didn't produce very well. The flowers were beautiful yet lasted weeks and I grew impatient and felt like eating them. They were trellised. Heavy straw mulch.

P72. Hopi "Yellow" (Lima Beans). These produced better than the Runner Beans in quantity. Again, patience was a virtue. These were trellised. Straw mulch.

P18. Hopi White String (Common Beans). These beans seemed to produce in spurts. Their productivity was the best as far as quantity and quickness. They were interplanted with sorghum. These suffered from Chlorosis as I planted them at the far edge of the garden which is gradually sloped down hill. Straw mulch. *[Overwatering (down hill collection) causes chlorosis in legumes.]*

Z104. Paiute (Corn). Clump planted outside of garden, about half germinated, some dying when still seedlings. I planted near an ant hole and wondered if they may have collected some seeds. Very few ears were produced, all of which had worms. They ate well. This whole crop was fairly neglected. I wanted to see how far I could push them ... not very far. Ears 5-8 inches. Weak mulch. *[Sounds pretty far to me. This is not a wild plant.]*

R5. Paiute (Devils Claw). Only three plants survived out of the packet. I clump planted near the corn outside of garden. About ten plants germinated. The plants that lived "kicked a—" *[Note: this is a family newsletter]*. Weak mulch. I've never seen Devils Claw so big. Produced many claws. Ate a bunch, yummy when young, bitter when old. Saving some dried claws for dye. Will attempt to use young claw as fishhook.

FV1. Tarahumara Habas (Fava Beans). Holy smoke! Long time in waiting but these guys produced up until November. Young beans very sweet, haven't tried dried ones yet. Used a few pieces of string as support for stalks. 100% germination. Loved water.

Heavily mulched.

M3. Mayo Giant Bule (Gourd). Bunches of vines. Fence trellised. Good to fair germination. Lots of nice sweethearts! Pollination noticeably dropped after #\$\$%^&! *[censored]* neighbor purchased bug zapper, killed big, beautiful moths. Heavy mulch.

M8. Santa Domingo Dipper (Gourd). Bunches of vines. Poor pollination compared to number of plants growing. The gourds that came were great. How do you keep green gourds from molding after being taken prematurely from vine? *[Mold won't hurt, but it can be wiped off with a mild bleach-water solution. Good air circulation helps prevent mold formation.]* Sun doesn't seem to help a lot. Fenced trellised. Heavy mulch.

F6. San Juan (Melon). Poor producer and not very sweet.

S1. Apache Red Sugarcane (sorghum). Wow! Stalks got 9-10 ft. tall. Very, very sweet stalks with massive seed heads. Long time to grow but worth it. Definitely one of the top successes of garden. Straw mulch.

E31. Magdalena Big Cheese (Squash). Biggest bushes I've ever seen. Three plants produced 8 squashes volleyball sized. Had bad squash bugs this year. Fence trellised. Straw mulch.

TM4. Chiapas Wild Tomato. Poor germination but the ones that did were wonderful! Lots of sweet fruit. Took a long time to grow.

G5. Las Capomas Mayo (watermelon). Very poor germination and production of fruit.

All these plants were grown in Chino Valley, Arizona. Chino is the bottom of a river bed. The soil is alkaline, very heavy and clay like. We've worked our garden for three years with compost and horse manure and it's coming along nicely. All plants were (except for corn & devils claw) grown with a drip system waterer. We watered for 1 hour daily down to 2-3 hours every two or three days. All plants were planted according to recommendations in seedlisting.

Great catalog. The information works for me. How 'bout some seeds for colder climates?
—Anonymous, Chino Valley, Arizona

I would like to thank you for offering native heirloom seeds as your crops taste good. Especially Mt. Pima Vavuli Squash. I've also had success with: Tarahumara Tomatillo, Mt. Pima Oregano, Tohono O'odham onions, Chiapas Wild Tomato, Warihio Tobacco, and Chapalote Corn.

And my failures:

1. Indigo Blue Dye (Heavy white fly infestation. Safer's soap caused more damage)

2. Devil's Claw (Earwigs ate them)

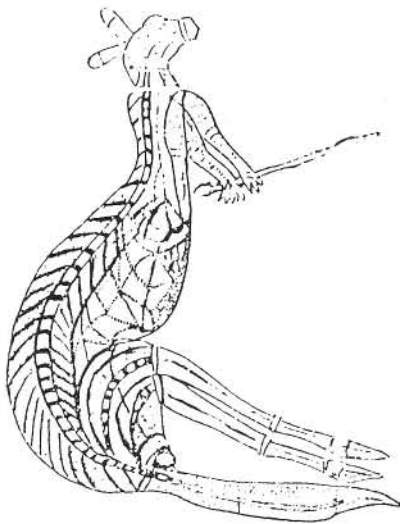
—A. Hernandez, California

Bush Food: Australia's Revival of Wild Edibles

By Gary Nabhan

Most of Australia, like the Greater Southwest, falls within arid or semi-arid zones. And as in our Sonoran Desert landscapes, unacquainted visitors to Australian deserts soon find that the apparent lack of obvious food production is a “deceptive barrenness.” The Australian continent as a whole has more than 1,500 native wild food species — twice the number that all Europeans have ever imported and grown there from exotic sources. Many of the endemic food plants continue to be used by Australian aborigines in the Northern Territory and Western Australia in climate very similar to ours: a hot desert climate with two brief rainy seasons providing 8-15 inches of moisture per year. In November 1990, Caroline Wilson and I travelled to the Red Centre of Australia, and to centers of botanical research and nutrition education elsewhere, to learn of the status of desert foods among both aboriginal peoples and European descendants.

Everywhere, we encountered vital field-oriented ethnobotanical research efforts quite concerned with returning the benefits of their studies to aboriginal communities. In the desert, these communities have had Western contact for 120 years at most, and often, no regular contact from Australian Europeans until the last 20-50 years. During the last quarter century, however, some of these communities have all but abandoned their hunter-gatherer diets. The consequences of greater access to stores, bars and fast food restaurants have been a doubling of deaths due to alcoholism and diabetes. Other aboriginal communities still obtain 5-40 percent of



Kakadu bark painting in X-ray style: a black kangaroo speared by a hunter.

their diet from bush foods; nevertheless, white flour “damper” and store-bought bread have replaced wild grasses and annual herb seeds altogether. Hunting, insect-and-honey-gathering and tuber use persist to varying degrees. Some food plants have decreased in abundance since the cessation of regular gathering, fire-stick farming or digging-stick tillage. Ethnobotanists such as Peter Latz, Fiona Walsh and Jeannie Deavitt have been salvaging both threatened plants and disappearing knowledge about them over the last decades, as traditions have atrophied.

In the face of rapidly rising Western lifestyle diseases, several aboriginal communities have initiated health promotion programs that include “bush tucker” foraging excursions, “better tucker” education programs for schoolchildren, “healthy heart” food-buying guidelines in local stores, and banning of easy-to-abuse sugar products and addictive substances. At Ernabella, 350 miles south of Alice Springs, health worker Colin Endean has organized weekly bush foods foraging trips through the Pukatja Diabetic Women’s Project as “a chance for change.” The most inspiring model project during the last decade was the Mowanjum community effort [near Derby] where ten full-blood diabetic aborigines volunteered to eat nothing but bush foods (including feral animals) for seven weeks, while having their health status monitored. Their blood glucose levels dropped by more than 40 percent, their insulin sensitivity improved, physical activity increased, and all lost weight steadily, reducing their tendency toward obesity.

On a national scale, Australia has become more enthusiastic about its indigenous foods within the last five years than it has been in its modern history. Much of the momentum for this renaissance developed following the discoveries made by Jennie Brand and Vic Cherikoff during their collaboration at the University of Sydney. Analyzing more than 450 food samples for their nutritive composition, and 30 staples for their effects on diabetic diets, this project triggered a quantum jump in detailed knowledge about bush nutrition. The discovery of the world’s richest fruit source of vitamin C in the Kakadu Plum — 30-50 times that of the average orange — catapulted Australian bush foods into international attention. The first comprehensive book surveying the nutritional composition of bush foods, compiled by Jennie Brand, will soon be published by the Australian Institute of Aboriginal Studies. In the meantime, the general public can learn about the highlights of this research, and savor the loveliness of these foods via three gorgeous coffee table books: *The Bush Foods Handbook* by Jennifer Isaacs and Vic Cherikoff, *Bush Foods* by Jennifer Isaacs, and *Bush Tucker* by Tim Low.

Media attention to bush foods has now resulted in a

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critical mass of consumers eager to sample these wild edibles in stores, delis and gourmet restaurants. Thousands have tasted bush foods in field workshops, catered events and survival courses, and are anxious for more. To meet this demand, Cherikoff recently formed the Bush Tucker Supply, which currently offers 14 products in bulk quantities, ranging from wattleseed (acacia) flour, to macadamia nut oil, to bush tomatoes and warrigal (New Zealand spinach) greens. Several of these products are gathered by aboriginal communities in the desert areas, who gain approximately 20 percent the retail price for their skills and work, with transportation, storage and marketing costs making up the rest. This is a considerable economic return to bush food harvesters, who have few other sources of cash income in their particular communities.

More recently, Vic and colleagues have opened the Wattle Seed Deli, a Sydney-based native foods store and delicatessen. The gourmet but modestly-priced prepared foods offered range from witchetty (grub) and bunya (nut) soup, to clove lillipilli Chutney and prosciutto-like smoked kangaroo. Other restaurants and their chefs are taking notice. One elite restaurant, the Rowntrees Australian, has offered native cuisine for five years, with great success. And just this year, a team of Australian gourmet chefs took the gold medal in the international Culinary Olympics held in Luxembourg, for dishes which featured the bold tastes and exotic textures of bush foods.

It remains unclear whether these developments will ultimately succeed in helping aboriginals control their devastating diabetes to improve well-being or in aiding all Australians in converting to a food production system better adapted to their ecological conditions. Whatever the results, native foods enthusiasts in North America have a lot to learn by comparison from their mates down under. To learn more of Aussie ethnobotany and nutrition, see the journals *Australian Aboriginal Studies* (AIAS, GPO Box 553, Canberra ACT 2601, \$12.50/yr.) and the *Aboriginal Health Worker*, Princy Henry Hospital, Little Bay, NSW 2036.

Southwest Seed Summit Convenes

By Kevin Lee López

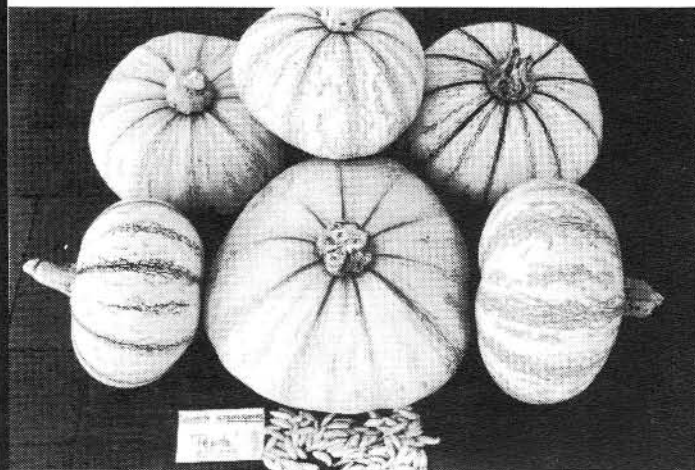
Breaking new ground, Native Seeds/SEARCH sponsored a Southwest Seed Summit on Nov. 6, 1990, at the Tucson Botanical Garden. Seedbank organizations, farms, Native American organizations, and agricultural institutions with interest in seeds were invited to the all day session. The participants included Kent Whealy of Seed Savers Exchange and representatives from World Resources Institute, the Center for People, Food, and Environment, the USDA's Agricultural Research Service, the Gila Eco-Agricultural Center, Navajo Family Farms, the High Desert Research Farm, former members of the now defunct Talavaya Seed bank of New Mexico, as well as many staff and board members of Native Seeds/SEARCH.

The Southwest Seed Summit was held largely to share ideas between the seed organizations, to discuss common problems and to explore the ways in which these groups could cooperate to exchange information and to ensure the ethics and prosperity of seed collecting/preserving at the grass roots level.

The morning opened up to discussion on the "Cultural, Legal, and Political Issues Relating to *In Situ* Conservation and Development of Native Crop Genetic Resources (CGR)." This discussion was moderated by Daniela Soleri and David Cleveland of the Center for People, Food and the Environment. We went around the table to discuss how Native farmers should be provided with benefits for sharing their seed legacy with others. The idea of formally describing native seeds to prevent others from patenting them was suggested, but it was agreed that the patenting process is too expensive for the grassroots levels. Actually, compensation is probably impossible to give to the generative gift of priceless seeds, but it was agreed that the best way to ensure respect was to work as close to the original farmers as possible, to learn of their needs and concerns, and address them at the grassroots level.

The afternoon's session was on "Managing Seed Collection, Storage, Controlled Growout and Documentation by Grassroots Organizations," moderated by NS/S President Gary P. Nabhan and cucurbit expert Laura Merrick. They led the participants through a discussion on what seeds need to be collected, and the necessity to prepare for backups, wills and dissolutions of seedbanks. Kent Whealy of Seed Savers Exchange shared how his organization is able to exchange and grow-out seeds successfully at different levels of operation.

At the close of the Southwest Summit, it was agreed by all that an alliance of seedbanks in the Southwest exists, and that they ought to meet annually. Meanwhile, a five member steering committee was formed, drawn from the Southwest Seed Summit. Linda Parker was selected to represent Native Seeds/SEARCH.



E20. Veracruz Pepita, offered for the first time in 1991.

Indian Food is Healthy Food

By Kevin Lee López

As part of the outreach component of our Diabetes Program, Native Seeds/SEARCH helped organize a native foods event in November for Pima Indian students at the Casa Blanca elementary school.

The school is located on the Gila River Indian Reservation, and has 210 students (grades K-4). On Nov. 14, these children sat down to a "Harvest Meal" consisting of turkey and squash soup, tepary beans, corn tortillas, spinach salad, prickly pear dressing and watermelon, and prepared by the school's regular kitchen staff. Cafeteria chef Chris Morago said, "It was a challenge. It was partly positive. Some of the younger kids had mixed reactions. But the older kids — the second through fourth graders — said it was good food, especially when some of them could recognize the prickly pear and the tepary beans."

Advance preparation for the harvest event had been helped by NS/S intern Adrian Hendricks and Jo Ann Hurley, a health educator with the Indian Health Service.

The day after the meal, NS/S Education Director Martha Burgess, along with interns Cati Carmen and Kevin Lee López, arrived to share samples of mesquite pods, tepary beans, native squash, colorful popcorn, acorns and chia seed — staples of the children's grandparents' time.

Cati Carmen, Yaqui, opened the doorway to the old ways by demonstrating the simple techniques of desert harvesting and food preparation to the children, hoping to show them how easily they could later imitate her. Following her instructions, they could chew mesquite bean pods or grind them with a stone mortar and pestle, sift the meal through a hand-made beargrass sifting basket, and taste the sweet flour. They could try desert chia seed, pop it into their mouths and marvel at the explosion of the seed's jello-like texture. The children especially enjoyed the desert jello made from wild chia seed mixed with fruit and bright purple prickly pear juice.

NS/S addressed each class separately throughout the day. First graders giggled when their arms wrapped around squash plants as big as themselves. Children took turns grinding the mesquite pods. Many of the third and fourth graders reported that they had seen mesquite trees and eaten the beans before. One child exclaimed when seeing the mesquite pods, "It's kúí — that's what my aunt said."

Martha Burgess said, "Once the children were 'hooked' on the good tastes from these interesting 'new' foods, our message of good energy and good health like a cherished seed could be planted with the hope of germination. Cati's guidance — one caring Native American to other Native Americans — planted the message into nurtured soil, and their request for our



prompt return lets us know it can bear fruit. Indian food is healthy food."

Freelance writer John Willoughby covered the event for *Eating Well* magazine and his article will appear this spring.

We hope a turnabout from fast food eating habits into traditional harvesting will result in a more enriched life style and culture for the desert Indians. Health is certainly a required condition for cultural restoration. It's better now to reintroduce the positive appeal of a traditional diet, than it is to later treat the negative effects of poor eating habits. Erik Shapiro, NS/S liaison to the Havasupai, relates a story of when he once asked a group of O'odham children, "Does anyone know what happens when you eat too much sugar?" An eight-year-old O'odham boy said, "They cut your legs off!" The child was referring to one treatment for advanced gangrene, one of the many ill consequences of diabetes.

Diabetes Project Update

By Martha Burgess

Energy is high on our diabetes prevention-through-traditional-foods project. There is such a hopeful and positive message to be given to Native Americans, Hispanics, or anyone whose family history makes them at risk for diabetes. The clear, important message is that by eating foods high in soluble fiber from traditional crops (legumes and cultivated prickly pear) and wild collected plants, especially those with the magic of mucilage (cholla buds, acorns, chia seed), and by avoiding fats and sugary foods, one can control diabetes entirely without medication. The gift of ancient foods is coming full circle in a surprising, life-giving way. With the help of several talented health workers, among them Mary Hoskin, Susan Kunz and Joanne Hurley, we are putting together an exciting curriculum package for reservation awareness and good nutrition habits. It will include videos, a slide/tape program, show-and-tells, brochures full of good recipes ideas and non-sugar drink alternatives, activity plans for teachers, and seeds for teaching the full food sequence from tilling the soil to tasting the goodness. The educational packages should be ready for loan by late spring.

Spring Planting Workshop

By Daniela Soleri

As the new year begins, so too should plans for a summer garden full of squash, beans, corn, chiles, and other warm season crops. Early March is the time to put those plans into action and get your low desert early summer gardens underway. A two-hour spring planting workshop will be held from 8 a.m. to 10 a.m. on Saturday, March 2, covering simple, inexpensive methods for preparing and planting your early summer gardening, including:

1. Preparation of soil and beds
2. Choosing long and short season Native Seeds/SEARCH crops
3. Planting techniques for starting seeds in containers, transplanting and direct sowing
4. Low desert garden maintenance, especially water conservation.

The workshop will be held in the NS/S research and demonstration garden at the Tucson Botanical Gardens (2150 N. Alvernon Way) and led by garden manager Daniela Soleri. After the workshop gardeners will be able to purchase seeds at the NS/S Spring Open House, being held from 10 a.m. to 3 p.m. at the NS/S office. The workshop fee is \$8 for NS/S members and \$10 for non-members and includes a handout summarizing the topics covered. Space is limited, so please register as soon as possible.

Mail completed form or equivalent information on a separate sheet of paper to: Workshop, Native Seeds/SEARCH, 2509 N. Campbell Ave. #325, Tucson, AZ 85719, or drop off your registration at our office on Tuesdays or Thursdays (other days call ahead — 327-9123).

NS/S Spring Planting Workshop
March 2, 1991, 8 - 10 a.m.

Name: _____

Address: _____

City, state, zip: _____

Phone number: _____

Make check payable to Native Seeds/SEARCH (\$8 for members, \$10 for non-members). Mail form to Native Seeds/SEARCH, 2509 N. Campbell Ave. #325, Tucson, AZ 85719.

Endangered Varieties Grow Out

By Esther Moore

Native Seeds/SEARCH's focus has always been on the conservation of native seeds. Recently we have become more concerned about the viability of many of our smaller collections, some made more than a decade ago and fast losing their viability. The original Growers Network didn't work, and the small number of staff members and volunteer master gardeners can not deal with the number of varieties in need of growout. The idea of having a specialized growout on rented property with a half-time gardener has come to fruition. The project at 102 W. Delano in Tucson officially began when I moved in on January 15, 1991. It's great to be back on staff at NS/S. If you have interest in donating time on this project, please call me at 884-8752.

Development Director Hired

Andy Robinson recently joined NS/S staff as Development Director. Andy has a broad background in non-profit management, having worked for ten years as a grantwriter, fundraiser, researcher, publicist and community organizer. He'll be in charge of expanding NS/S membership, bringing in new grant support, and securing funding for the NS/S Conservation Farm.

NS/S Conservation Farm: The Search Heats Up

Wanted: Good soil, adequate water, beautiful location, reasonable price. Will grow endangered native crops, distribute seeds, educate the world.

Our three-year search for farm land is beginning to yield results. We met with community representatives in Patagonia and Tubac, two towns south of Tucson, to discuss our needs and get their recommendations. The entire staff recently travelled to Patagonia and made an enthusiastic visit to a working farm now on the market. Research and negotiations continue. With luck, we could make an offer within the next six months.

We appreciate the strong support we have received from the membership for this project. We will keep you informed of our progress.

Navajos Train With NS/S

The week of January 7-11, the Navajo Family Farms sent two staff members, Cecil Phelps and Justin Willie, to Tucson for a week long intensive internship taught by Gary Nabhan and other NS/S staff. The Navajo Family Farms is a cooperative native crop effort with three 100 acre farms dispersed on the Navajo reservation. The interns learned about planting and harvesting techniques, math, seed processing and storage, and visited local sites that represent eco-diversity, such as the Arizona-Sonora Desert Museum. They learned the whole spectrum of Seed Management: collecting, cleaning, storing and germinating. According to the President of the Navajo Family Farms, Ben Jones, they felt that what was successful about the Internship was the people involved and the exchange of information. Intern Cecil Phelps has already implemented the knowledge gained at NS/S to teach his 10-20 Navajo students at the Leupp School's agricultural program, Ben said. Navajo Family Farms would like to participate in another Internship program, but want to bring more Navajo students next time.



RegisTREE Update

A number of groups have joined with NS/S to co-sponsor the Arizona RegisTREE program, including Boyce-Thompson Arboretum, Desert Botanical Garden, Desert Survivors, Navajo Family Farms, Permaculture Drylands, Tucson Botanical Gardens and Tucson Organic Gardening Club. In addition, the project has been endorsed by the Arizona-Sonora Desert Museum, Seed Savers Exchange and Trees for Tucson. The Arizona RegisTREE Coalition is hoping publicity will generate support and more nominations of deserving heirloom useful trees and other perennials to be honored and recognized for preservation by this project. Selections for 1991 will be announced on Earth Day in April. More information and nomination forms can be obtained by writing or calling our office.

Letters to the Editor

Dear Editor:

I read with great interest the reprinted article on *Haematoxylin brasiletto* which appeared in the latest issue of *Seedhead News* [No. 30, pp. 4-5]. However, I would like to call an error to your attention.

In an editorial insert, it is stated that there are no longer any *H. brasiletto* in the collection or on display at the Desert Botanical Garden. This is not true. There is one individual which was accessioned in 1973, and is fully 15 feet tall. It is on display near the main path and is glorious when in full bloom. There is another smaller individual near the entrance to the Garden which is a shrub about 4 feet tall. In addition, this is a plant which is being actively grown and researched in connection with our plant introduction program.

Although the work is still underway, I am deeply suspicious of the contention in the article that the plant is so cold tender that it cannot be grown in the Valley, or even in selected locations in Tucson. This is one of the features of the plant which is being tested. Certainly our oldest individual demonstrates more cold tolerance than is indicated in the article.

—Mary F. Irish, Desert Botanical Garden

Dear Editor:

I'm writing from Zendik Farm, an ecology arts foundation living cooperatively on a 75-acre organic farm/ranch about 70 miles east of San Diego, California, near the Mexican border. We've successfully grown quite a few native seed crops, and also have shown your slide show to local agriculture groups, the County extension office, the local dairy goat club, and many of our friends. We have an apprenticeship program, 6 weeks for \$300, in which we teach skills of organic farming/gardening, carpentry, homeschooling, music, graphics, animal husbandry, dance, pottery, mechanics, and cooperative living. We publish a quarterly environmental arts magazine, circulation 50,000 per issue, sold everywhere in the U.S., Europe, and Australia. Copies available upon request for \$3.

We are currently in the process of relocating to a 300-acre farm just outside Austin, Texas. This move is unavoidable because a founding member of our group is unable to live on our farm due to the elevation (4,000 ft.). Therefore, we are looking for a buyer. The farm is ideal for a family or group for use as a camp or retreat, etc. It's a multi-purpose property with a four-bedroom house, workshop/garage, barn with a hayloft, corrals, studios, many outbuildings, three wells, seasonal creek, and fantastic views. We have well-established local markets for our organic produce in San Diego and Los Angeles. Anyone interested can call me at (619)766-4095 or 766-4174, or write: Zendik Farm, P.O. Box 1146, Boulevard, CA 92005.

—Shey Wulf

there are millions of suns left
- Walt Whitman

waken like the Hopi
run your fingers through your own hair
bless the sun
take a breath of the new dawn
make it a part of you
it is pure and full of strength

plant your desert like the Hopi
chart the course of the sun on your own horizons
take out your planting stick
sing
sing to the green
shoots waving on the arid earth
hope

hope the clouds you pray for
are your own ancestors
that they will drop rain upon the fields of your desire

pray for rain
pray for rain
because it is the sun
it is the sun that is reliable

rachel zepp
pgh.

Forestry Threatens Tarahumara

Treasures of the Sierra Madre, a symposium on ethnicity, ecology and development in the Sierra Madre Occidental, Chihuahua and Durango, Mexico, evoked by a new, World Bank supported Forestry Project was held at the University of Arizona Student Union on January 24 and 25. The conference was attended by World Bank and Mexican government officials, as well as scientists, tourism and other business people, conservationists and others with an interest in this road improvement and logging project in the Sierra Tarahumara and was sponsored by the University of Arizona Southwest Center and Udall Center, in addition to NS/S and other conservation organizations. NS/S funded the participation of several Tarahumara and Mexican activists. The next *Seedhead News* issue will cover in detail the issues raised at this exciting and important conference.



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Board of Directors: Gary Paul Nabhan, chairman; Barney T. Bums, vice-chairman and secretary; Mahina Drees, treasurer; Martha Burgess, Diana W. Hadley, Susan Kunz/Angelo Joaquin, Jr., Michael Kuntzman, Danny Lopez, Linda Parker, Emory Sekaquaptewa, Mardith Schuetz/Richard Miller, Anita Alvarez de Williams.

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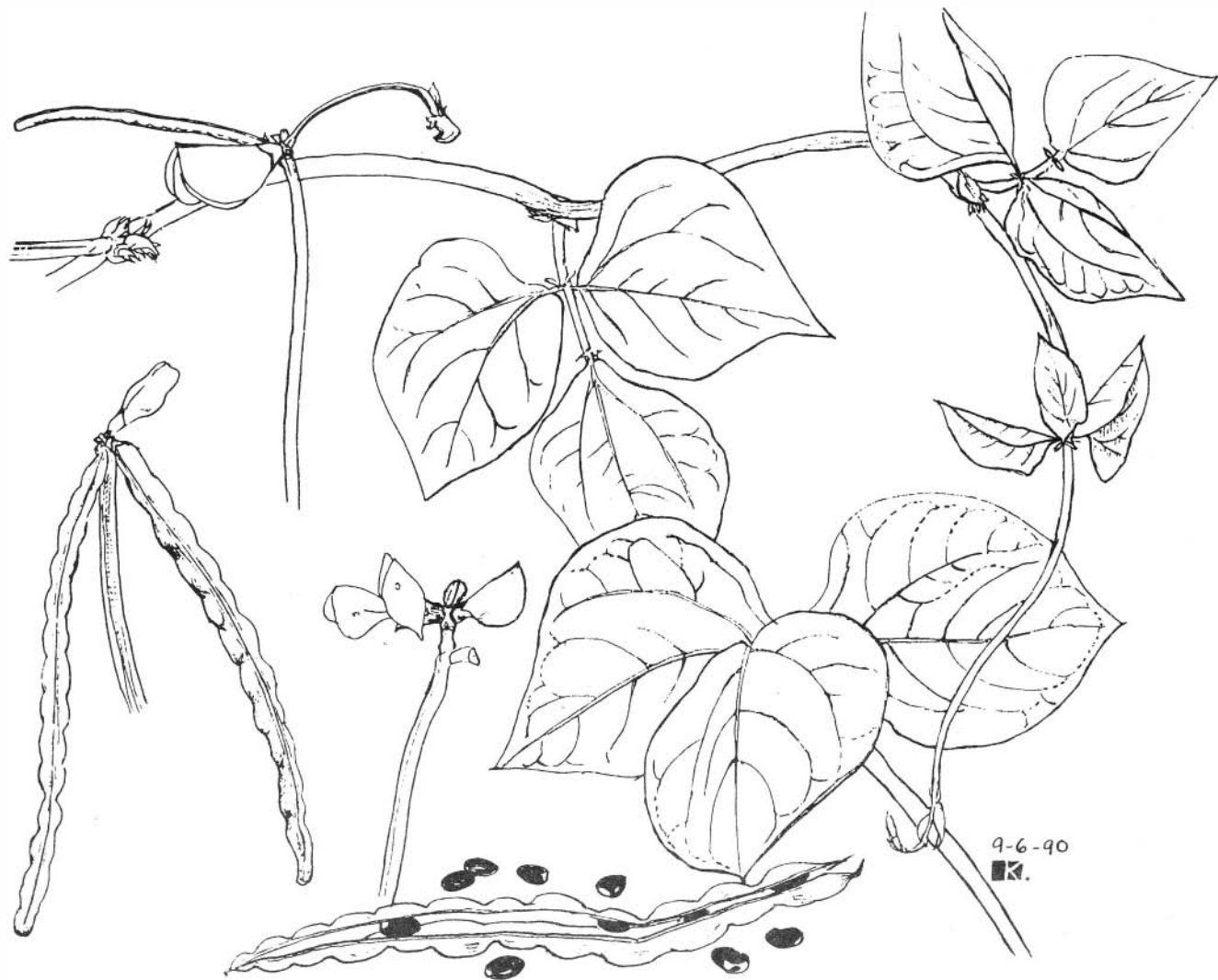
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“U'us mu:n” — Tohono O'odham Cowpea.
 Illustrated by Kyoko Saegusa.

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