

## **Welcome Back!**

...to these seed varieties from the NS/S collection that are freshly available to the public. All the varieties in the collection have been around for a very long time and are well adapted to their unique place and culture in the southwestern region. But there are so many that we can't keep all of them available all the time. Remember to SAVE YOUR SEED to be sure you can always grow your favorites, and you'll also help them better adapt to your own farm or garden! Seed Saving info on pages 48-50.

Artwork credits: Cover, Sheryl Joy and YOU (color as you wish!); page 20, Noah Schlager; page 33, Sheryl Joy

## Kids in the Garden

Gardens are learning laboratories. There is nothing quite like a garden to nurture a child's natural curiosity about the world, our intimate connection to the cycles of nature, and the knowledge of planting a seed that will grow and become a plant. I can still remember running around in my mother's garden in North Dakota when I was small, picking cool pea pods from vines as tall as me and hoarding them in my apron pockets. I'll never forget the rich mineral smell of the soil, and the bright sugary crunch of peas. Even as grown-ups, we retreat to our garden spaces for moments of surprise and wonder — what's that bug on my bean shoots? I wonder why that pea flower is pinker than the others?

With this edition of the Seedlisting we hope you will celebrate with us the wonder and delight of children in the garden. We encourage you to enlist the young compatriots in your life to muck around in the dirt together, and sow together some grand sunflowers. And if you can't, you can pause at least once and look anew at your own garden through the eyes of a child. The future of healthy farming depends on the next generation of vibrant young people, who will carry these memories with them and grow up to keep gardens, to be farmers, to be lovers of real food, and humans with a lasting connection to our earth. Happy planting!

Joy Hought **Executive Director** 



Kids enjoying harvest at Naco Wellness Center, 2019 Seed Grant Recipient, Naco, Arizona, and Naco, Sonora.



### **Table of Contents**

Tubic of Conter	
Many Ways to Get Seeds	4
About the Seeds	5
Native American Seed Request	6–8
Seedlisting Key	9
Growing & Seedsaving	49-50
Becoming a Member	51
Placing an Order	52-53
The Seed Collection	
Amaranth	9
Bean	10-15
Beet	15
Broccoli	16
Cabbage	16
Carrot	16
Chile/Pepper	17–18
Chiltepin	19
Corn/Maize	20-24
Cotton	25
Cowpea	25-26
Cucumber	26
Devil's Claw	27
Gourd	27–28
Greens	28-29
Herbs	29–30
Lettuce	31
Luffa	31
Melon	32
Okra	33
Onion	34
Panic Grass	34
Pea	35
Radish	35
Sorghum	36
Squash	37–38
Sunflower	39
Tobacco	39–40
Tomatillo	40
Tomato	41-42
Watermelon	42-43
Wheat	43
Desert Wildflower	44-45
Food and Gifts	46-47
Seed Collections	48

Seed Saving Supplies

48

# **Many Ways to Get Seeds**

Agricultural biodiversity is most valuable when it is used to strengthen local food and farming systems. Native Seeds/SEARCH strives to provide public access to seeds of regionally appropriate crop varieties through our various seed distribution programs.

In addition to retail sales, individuals and organizations can receive access to seeds via:

#### **Community Seed Grants**

We provide free seeds for organizations (including schools, food banks, senior centers, and seed libraries) working to promote nutrition, food security, education, and/or community resilience. Projects that will clearly benefit underprivileged groups are especially encouraged. Applications are reviewed in December, May, and August. More information and application online at https://www.nativeseeds.org/pages/community-seed-grants.

#### **Native American Seed Request**

We provide a limited number of seed packets at no or reduced cost to Native American individuals. See pages 6–8 for more information and order form.

### **Bulk Seed Exchange**

To encourage small-scale farmers to grow, save, and promote arid-adapted varieties, we provide available start-up bulk seed quantities in exchange for a return of a portion of the seeds after a successful harvest.

Visit www.nativeseeds.org, Email getseeds@nativeseeds.org, or call 520.622.0830 for more information.



Naco Wellness Center, 2019 Seed Grant Recipient, Naco Sonora and Naco AZ



Dobson Montessori School, 2019 Seed Grant Recipient, Mesa AZ

## **About the Seeds**

NS/S is committed to conserving agricultural biodiversity and to providing the highest quality seed available. With these values in mind:

**Open Pollinated Varieties** NS/S provides only OP varieties. Seed saved from the parent plant will grow with the same characteristics if care is taken to prevent cross pollination.

Southwestern and Native American Heirlooms
Seeds from the NS/S Seed Bank Collection (shown with the symbol S) are adapted and culturally significant to what's currently the southwestern United States and Northwestern Mexico. The majority of the heirlooms in the collection are the cultural property and relatives of Indigenous nations. These seeds are not only uniquely adapted to the environments they come from, but have been shaped by the Indigenous people who have cared for them since time immemorial. NS/S is committed to stewarding them in partnership with Tribal authorities and seed keepers so that they remain viable well into the future.

**Cultural Varieties** Some of our squash, melons, and other crops exhibit a diversity of fruit types within a population. Although it may appear that a grower has allowed varieties to cross-pollinate, and did not maintain the purity of the strain, this generally represents a different approach to growing. Traditional gardeners and farmers sometimes intentionally grow a mix of fruit types to add variety to their harvest and diet. When saving seeds from a diverse planting, gardeners can continue to select for desirable fruit types. Save seeds from the best-tasting squash, the healthiest plants, fruits that stored well, and other plants with the characteristics you want.

Organic Growing Practices Seeds in our Seed Bank Collection are grown out at our Conservation Center in Tucson or by partner farmers in the region. While we are not USDA-certified organic, our current growing practices meet and often exceed the standards for organic certification. Please contact us if you have questions about the specific growing conditions of any seed offered by NS/S. All of our seeds are untreated and allowable for use in certified organic programs.



**Safe Seeds and GMOs** NS/S is a member of the Safe Seed Initiative. We do not buy, sell, or use genetically modified seeds. Our seeds can be considered GMO-free and we work to ensure that they are not cross-pollinated by GMO or hybrid seed stock. For more information, contact the Council for Responsible Genetics, sponsor of the Safe Seed Initiative.

**No Patents on Seed** We support free access to crop diversity and support the rights of indigenous communities (and all farmers) to benefit fairly from the crops and associated knowledge they developed. Seeds obtained from NS/S are not to be used for commercial breeding purposes with a patent outcome unless there are written agreements with the originators of the seeds in the NS/S collection.

### **Seed Bank Collection**

Native Seeds/SEARCH maintains a regional seed bank with approximately 1,900 accessions from over 100 species of wild crop ancestors and domesticated crops used as food, fiber, and dye. These accessions represent part of the rich agricultural heritage of the region. NS/S works to ensure that these resources remain viable and available to farmers for generations to come. Varieties with declining germination rates are regrown in isolation to maintain genetic purity. We make this diversity available to farmers and gardeners when new crops of healthy seeds result in more than we need to maintain viable samples in the seed bank.

## **About Our Farm**

This season we will continue to allow our Patagonia farm to rest and be restored with occasional visits from sheep, while we turn our attention to developing the landscape around our Tucson Conservation Center (situated on Tohono O'odham land) to grow more of our seeds. We are also continuing to expand our network of partner farmers around the southwest in order to support our community's capacity for seed production.

# **Native American Seed Request**

Roughly two-thirds of the seed varieties in the Native Seeds/SEARCH collection originate with Native American communities in the southwestern U.S. and Mexico. NS/S works to ensure that indigenous people continue to have access to these traditional seeds, and one way we do this is through the Native American Seed Request Program.

- \*\* For Native American individuals and families living in the Greater Southwest Region, or belonging to tribes from the Southwest Region regardless of residential location: you may request 10 free seed packets per household per year (Jan–Dec). You may purchase at half price up to 20 additional seed packets.
- \*For Native Americans living outside of the Greater Southwest Region that belong to tribes from outside the Southwest region: you are eligible to purchase up to 30 packets per household at half price in a calendar year.
- \* Native American identity for this program is self-reported and no tribal identification card is required.
- No more than 3 packets of any one seed variety per request.
- \* Seed Collections (p.55) are not included in the program.
- \* Seed Saver Size packets (p.48) may be requested, but each counts as 5 packets. If you are interested in larger quantities of corn, please consider our Bulk Seed Exchange Program.
- \* Recipients are eligible for varieties designated as "Member's Only," marked with a red M in this catalog.

Given that a goal of this organization is to promote and conserve traditional arid-adapted crop seed, we encourage recipients to order seeds from the Seed Bank Collection (marked with an S in this catalog). These are the seeds with most cultural relevance to Native communities. However, any crop seeds available from NS/S may be requested through this program. If you want to request wildflower seeds, please contact NS/S, as not all are available through the program.

We also strongly encourage recipients to save seeds from the plants they grow to continue the cycle of giving and improve food security. Save the seeds, share them, keep them alive in the community. For more information on saving your own seeds, please see page 49–50.



#### **How to Order Seeds**

There are several ways to place your Native American Seed Request order—please, only one order form per household. Shipping charges requested are \$3.95 per 10-packet request, \$5.95 for more than 10 packets.

- Visit the NS/S Retail Shop at 3061 N. Campbell Avenue in Tucson, AZ
- \* Call 520.622.0830 x113 or toll-free at 866.622.5561 x113 — 10am to 5pm, Monday through Friday
- \* Mail the order form on the opposite page to 3584 E. River Road, Tucson, AZ 85718
- \* Email your request to barmstrong@nativeseeds.org

# **Native American Seed Request Form**

Shipping Address (if different):

Full Name	
Street Address	Full Name
City/State/Zip	Street Address
Daytime Phone	City
Email	State/Zip
 Tribal Affiliation *	Today's date
member we will send a catalog, newslet O Yes, please sign me up for a free NS/S	memberhip.
<ul><li>O No, I am not interested in a membersl</li><li>O I would like to receive biweekly E-new any time.</li></ul>	hip with NS/S. Is at the email provided above. I realize I can cancel at
where will you plant?  Home Garden What is your level of gardening experience Are you familiar with seed saving techniq Will you share your crops and/or pass on How often do you incorporate foods from Rarely/Never On special events What most interests you in growing Native Eating healthy food On Connection Making crafts On Medicine or ceremoters.	/holidays
* Native American identity for this progran	n is self-reported and no tribal identification card is

continued next page

the US government, as well as those residing in northwestern Mexico.

required. This is part of an effort to be inclusive to the indigenous nations not federally recognized by

## Native American Seed Request Form continued

Please mail, fax, or email completed form to: 3584 E River Rd, Tucson, AZ, 85718
Fax number: 520.622.0829 Email: barmstrong@nativeseeds.org

Phone inquiries: 1.866.622.5561 ext 113

To find seeds that are culturally important to your tribe, or seeds adapted to your location and climate conditions, please check this *Seedlisting*, our online store at **nativeseeds.org**, search ADAPTS at **nativeseeds.org/get-seeds/adapts**, or call the NS/S Conservation Center at 520.622.0830 ext 113.

Seed Variety*	Catalog Number	<b>Quantity</b> <i>Limit 3 per variety</i>	<b>Price**</b> 10 pkts free; add'l		
Example: Chacari	C010		pkts half price		
	i 				
	!	 	i		
		i !			
	i	!			
			į į		
	!	<del>-</del>			
	i				
	!				
	<u> </u>	!			
	İ		i		
		! ! !			
		i	į į		
	<u>i</u>	<del>-</del>			
		 	I		
	İ	<u> </u>	j		
* Substitutions may be necessary depe	nding on supply.	SLIRTA	ΣΤΔΙ		
** Check page 6 for eligibility		SUBTOTAL Shipping & Handling***			
*** We ask that recipients pay the co		Total enclosed:			
\$3.95 for up to 10 packets; \$5.95 for o		iotal effcic			
,	F				

#### **Payment method**



O Check	O Money order	○ Visa	○ MasterCard	O Discover	• American Express
Card no.: _					_ Exp.: /
Print name	as shown on card: _				Security Code:
Billing addı	ress (if different fron	n above):			

## Amaranth Amaranthus spp.

\$3.25

**Plant:** Plant in spring after soil warms or with summer rains. Broadcast and rake in, or plant 1/4" deep in basins or rows. Thin the edible seedlings to 10–15" apart. Amaranth grows taller if soil is enriched with compost. Likes full sun. Approx. 0.3g/300 seeds per packet. **Eat:** Eat the young leaves raw in salads or sandwiches, or cooked. Grain can be milled into a fine flour, eaten whole, or popped. Grown by Native Americans for millennia, both leaves and grain are highly nutritious, rich in lysine, calcium, and iron. **Save Seed:** As wind or insect-pollinated annuals, amaranth species will readily cross. To prevent this, put paper or cloth bags over flower heads. When ripe, cut off dried heads and lightly beat in a bag to remove seed. Screen or winnow off chaff. Recommended minimum population for seedsaving: 1–20 plants.

**Chacari** *Celosia cristata*. Mayo Mano de Obispo or Bishop's Hand. This ornamental cockscomb decorates graves for *Dia de los Muertos* (Day of the Dead). Flowers are magenta, some golden. The black seed is edible. **C010 H L S** 

**Guegui** A. cruentus. Mayo Grain. Another gorgeous amaranth from Alamos, Sonora, with bright fuschia or scarlet inflorescences and dark reddish-green leaves which are used as *quelites* (greens). The black seeds are used for *esquite* (parched), pinole and atole. **C003 L S** 

**Huatl** *A. cruentus*. Alegria.From Cuatla Market in Tulyehualco, a Nahua area outside Mexico City. Produces mostly blond inflorescences sometimes tipped with pink. Seed used for the traditional central Mexican confection. Greens are edible. Grows to 9 ft. with multiple flower heads. **C008** H L S

**Komo** *A. cruentus.* Hopi Red Dye. The beautiful plant can grow 6' tall with a 1–2' long inflorescence and dark reddish-green leaves. Young tender leaves are excellent in salads and the black seeds are also edible. Originally collected in Lower Moenkopi. **C002** 

**New Mexico** *A. hypochondriachus.* From a dooryard garden near Rinconada, its beautiful tan inflorescence with pink tips yields edible golden seeds. Eat the tasty greens before the flowers form. **C006 H L S B** 





# Seedlisting Key

# HIGH Desert: >3,500 ft and LOW Desert <3,500 ft

Refer to the origin of the seed varieties and what is suitable based on our experiences in Tucson and Patagonia, AZ. Often plants can be grown beyond these ranges and if you experiment we encourage you to report back to us!

#### SEED Bank

Varieties that are formally conserved in the NS/S seed bank. They are considered open pollinated heirlooms or crop wild relatives with a long historical connection to the Greater Southwest.

#### NON Collection Seed

Open pollinated varieties that are not from our Seed Bank collection. These are included to broaden NS/S offerings to meet the needs of those wishing to grow additional species and varieties that will perform well in our region. Unlike our Seed Bank offerings, these varieties do not have a specific history to the Greater Southwest (more info page 16).

#### **FAVORITES**

The most essential seed varieties in our gardens.

### **M**EMBERS Only

Indicates varieties that are in low supply and only available to NS/S members, including the Native American Seed Program. Details on pg. 6 & 51.

#### **B**ULK Seeds Available

Indicates varieties where bulk quantities are available. Sizes vary by variety, and now you can order bulk seed online! Visit **nativeseeds.org**. Or call 520.622.0830 ext 102 or email **getseeds@nativeseeds.org**.

### Bean — Common Bean Phaseolus vulgaris

\$3.25

**Plant:** Beans need warm soil for best germination. Plant seeds after soil warms in spring or with summer rains about 1" deep and 6" apart. If beans need a trellis, try intercropping with corn or sorghum. Approx. 15g/50 seeds per packet. **Eat:** Native to the Americas, beans are a traditional protein complement to corn, and are rich in minerals. Beans also contain soluble fiber helpful in controlling cholesterol and diabetes. Harvest when pods are young and tender for green beans, or let dry on the plant for dry beans. **Save Seed:** An annual that is generally self-pollinating, but can cross with other plants. Dried pods can be harvested throughout the growing season, or harvest whole plants. Separate varieties by 10 feet (3 meters). Recommended minimum population for seedsaving: 5–10 plants.

**Amarillo del Norte** Large golden-seeded pole bean from Vadito, New Mexico at 8000'. Early maturing. Green beans taste very good. **PC012 H S** 

**Cunti Muni de los Yaquis** Yoeme Purple String. A prolific pole bean that can be eaten green when very young or shelled. Plants are heat tolerant. Very productive and popular! **PC071 H L S B** 

**Estacas** Tepehuan Red Kidney. Large, dark red kidney type from Nabogame, Chihuahua. Late-maturing pole bean. Day-length sensitive, may not produce well in Northern latitudes. **PC112 H S** 

Frijol en Seco New Mexican brown and beige pinto collected in Bernalillo. Early-maturing, high-yielding bushy-pole bean when grown at the Conservation Farm. PC090 H S M

**Frijol Gringo** Late-maturing pole bean with good tasting green beans. Originally collected from within the Barranca del Cobre (Copper Canyon). **PC098 H S** 

**Garcia** Light tan-brown beans from Garcia, Colorado at 7000' elevation. Bolita means "little ball" in Spanish, referring to the shape of the bean. **PC030 H S** 

**Kokoma** Mountain Pima Ojo de Cabra. Productive pole bean from near Mayocoba, Sonora. Day-length

sensitive, not for northern latitudes. Dark brown stripes on lighter ground inspires the name goat's eye. **PC021 H S** 

**Mawivuna** Hopi Black Pinto. Striking black and white/beige pinto, dry-farmed in Hopi fields of northeastern Arizona. Early-maturing bushy-pole beans with colorful mottled pods. High-yielding. **PC018 H S M** 

**Mawiwjwam** Also known as Baabu. Hopi Purple String. A beautiful purple bean with black stripes. Very good flavor when picked as a green bean. Performed well at our Patagonia farm. Traditionally dry farmed. **PC102 H S** 

**Muniki Sitakami** Tarahumara Bakámina. Rare. Semipole plants produce tiny, burgundy, kidney-shaped beans. Pods are quite long and make excellent green beans. **PC034 H S** 

**New Mexico Bolitas** Pinkish-beige rounded beans grown for centuries by traditional Hispanics of northern New Mexico in irrigated plots. Faster cooking and richer tasting than pintos, and early-maturing too. High protein content. High-yielding pole bean with white flowers. **PC024 H S B** 



#### More Common Bean

\$3.25

O'odham Vayos Mixed gold and light-tan beans with a sweet, mild flavor and creamy texture. Early-yielding for a climbing pole vayo type. Good as a green bean. PC062 H L S M

Rattlesnake A drought-tolerant pole bean. 7–8" pods are dark green with purple streaks. Harvest early for very sweet snap beans. TS305 H L N

Rio Bavispe Pinto Early-maturing bean from the Rio Bavispe Watershed in Sonora. Bushy plants with a late tendency to vine, but do not require support. Greattasting as a green bean, and can cope with the heat... it grows great in Phoenix! PC091 H L S B

Sikya Mori Hopi Yellow. Large bronze seeds, common in Hopi country, may be dry-farmed or irrigated. Highyielding pole type, delicious as a green bean. White flowers. PC019 H S M

S-wegi mu:n O'odham Pink. A pink bean from the desert borderlands of Sonora and Arizona. Fast-growing, the plants will sprawl and produce in early spring or late fall in the low desert. Delicious and creamy-textured. White flowers. PC063 H L S F B

**Taos Brown** A chocolate-colored bean from Taos Pueblo. Excellent green bean. Indeterminate climber with white flowers. PC127 H S

Tarahumara Burro y Caballito Beautiful Jacob's Cattle/Ojo de Cabra patterning. High-yielding pole bean collected in Cerocahui, Chihuahua. PC037 H S M

**Tarahumara Canario** Elongated yellow/cream beans collected throughout Tarahumara country. Bush beans, a tasty staple of the mountains. Plant in early spring or late summer in the low desert. PC038 **HLSB** 

Tarahumara Mantequilla Also called Frijol Burrito. Brown and beige pinto from the Sierra Tarahumara of Chihuahua. Day-length sensitive, not for northern latitudes. PC051 H S

**Tekómi** Mayo Frijol de Sinaloa. A fast-maturing pole bean from eastern and southern Sonora. Very productive, but day-length sensitive, so may not have time to mature in northern climates. Plant with monsoon rain in low desert. PC069 H L S

Witabuchali Tarahumara Frijol Negro. Distinctive pole bean with very small leaves and pods and small, black, quick-cooking seeds. Dark lilac flowers. Originally collected from Kirare, Chihuahua. PC128 H S



P	Q	C	u	C	и	M	В	E	R	L	5	0	1	L
R	C	H	1	C	Н	1	Q	u	E	L	1	Τ	E	В
A	M	T	W	0	5	0	R	G	H	u	M	0	P	u
Y	E	L	0	R	В	E	E	Т	L	E	1	M	A	T
1	5	Т	R	N	В	T	M	E	L	0	Ν	A	Z	T
N	u	E	M	R	A	4	N	P	5	K	T	T	0	E
G	N	P	C	0	W	P	E	A	H	R	X	1	T	R
M	F	1	Z	E	R	A	W	R	A	A	5	L	E	F
A	L	N	C	G	E	F	L	Y	D	Z	Q	L	J	L
N	0	1	H	0	N	E	Y	В	E	E	u	0	L	Y
Т	W	Н	1	u	Y	0	u	E	1	В	A	5	1.	L
1	E	u	L	R	K	L	E	A	V	E	5	P	M	E
S	R	G	E	D	G	5	u	N	D	В	H	H	A	Т

## WORD SEARCH

What you might find in your summer garden

word list on page 19

#### Garbanzo Bean Cicer arietinum

\$3.25

**Plant:** Plant seed directly in the ground in January through mid-February in the low desert, early spring in cooler climates. Dose seed with legume innoculant for best yield. Plant 1 inch deep and 6 inches apart. Plants prefer well-drained, phosphorus-rich soil and dislike humidity. Approx. 10g/25 seeds per packet. **Eat:** Can be eaten fresh when beans have filled the pods but are still green - boil or sauté briefly. Or let dry on the plant, then shell and cook ... countless uses! **Save Seed:** Mainly self-pollinating, separate varieties by 20'. Handpick pods once they've turned tan and dry; or when 90% are dry, pull whole plants and crush to shell out beans. Recommended minimum population for seedsaving: 5–10 plants.

**Mayo Winter Bean** This plump beige Chickpea is a staple food of the Mayo and Yoeme in Sonora. Used to

make Wakabaki, a savory stew. Grown in the winter in low desert climates. **U001 H L S** 

#### Jack Bean Canavalia ensiformis

\$4.25

**Plant:** Soak seed overnight before planting into warm ground in spring and water young plants deeply and regularly. Once established, their deep roots allow them to be quite drought resistant. Long vines will not twine, so need to be twisted or tied to supports if you want them to climb. Require a long growing season, not suitable for northern climates or high elevations. Approx. 13.5 g/10 seeds per packet. **Eat:** Young pods can be harvested, boiled and eaten like green beans; very mild flavor and buttery texture. Mature dried beans are mildly toxic and should not be eaten raw or in large quantities. Rinse repeatedly and boil in lots of water. **Save Seed:** Let the huge pods dry on plants and shell out beans. Plants can winter over in mild climates and will produce fruit and seed much earlier in the second year. Recommended minimum population: 10-25 plants.

**Jack Bean** Ancient jack beans have been recovered at archeological sites throughout central and southern Arizona, and were evidently part of southwestern diets as long ago as 700 AD. The plants produce large white beans in huge pods up to a foot long, and long vines of lush tropical foliage and flowers surprising in a desert

environment. Wonderful .... also edible! Extremely Rare. The plants produce long vines of lush tropical foliage and flowers in a desert environment. Wonderful as a landscape plant and a piece of southwestern history that is also edible! PJ001 L S M

**Lentil** Lens esculenta \$3.25

Plant: Plant seed directly in the ground in January through mid-February in the low desert, early spring in cooler climates, as early as 2-3 weeks before last frost. Plant 1/2 to 1" deep and 1" apart, thin to 5-6 inches apart. Approx 1.5g/25 seeds per packet. Eat: The seeds are tiny so plant 4-8 plants per person in the household to get a practical harvest for eating. Nutritious and quick cooking, lentils are great for soups, stews, dips and spreads. Save Seed: Stop watering once pods have begun to dry. Harvest pods as they dry. Or when most pods are dry, pull whole plants and let dry on a tarp to catch seed when pods shatter. Pick off pods and shell, or gently tread on harvested plants to crush vegetable matter and winnow to separate chaff from seed. Recommended minimum population for seedsaving: 5–10 plants.

**Vadito Lentil** Small, flat, tan to brown seeds. Collected from a couple who were growing them in Vadito, NM, at about 8,000 feet elevation. Our early January planting in Tucson was ready to harvest in mid May. **LE003 HLS** 

#### Lima Bean Phaseolus lunatus

\$3.25

Plant: Plant in spring or with summer rains, 1" deep and 6" apart or in basins. These long season plants will produce until frost (production slows in the hot dry months). Trellis vines, or allow room to sprawl. Plants are tolerant of alkaline soil. Approx. 20g/25 seeds per packet. Eat: Shell young beans from the pods and simmer till tender for great fresh flavor. Whether fresh or dried, always cook uncovered to release the cyanide compounds in the beans. Save Seed: Mainly self-pollinating. Separate varieties by 40 feet (12 meters). Dried pods can be harvested throughout the growing season, or harvest whole plants. Recommended minimum population for seedsaving: 10-25 plants.

Hawol Pima Orange. Wonderfully orange-colored beans with black mottling. A gem from the Gila River Indian Community in Arizona. Very drought- and heattolerant. PL011 H L S F M

**Howur** Pima Beige. Originally collected from the Gila River Indian Community in Arizona. The light beige beans can be plain or mottled with black. PL010 H L S

Maasi Hatiko Hopi Gray. The light beige beans can be plain or mottled with black. May have good resistance to Mexican Bean Beetle, PL080 H L S M

Pala Hatiko Hopi Red. Selected by the late Hopi artist Fred Kabotie, these limas are prolific in the low desert. Tasty and meaty, the beans are solid red, or may be streaked with black. PL009 H L S M



#### **Tepary Bean** Phaseolus acutifolius

\$3.25 Unless otherwise indicated

#### **Bean Common Mosaic Virus**

Bean-Common Mosaic Virus (BCMV) is a plant disease that can affect all New World beans (*Phaseolus* spp.), including common beans, teparies, limas, and scarlet runners. It is not harmful to humans or other animals, but can cause decreased yield or death in beans.

Tepary beans may be "carriers" of BCMV, as they tolerate the disease with only minor symptoms if grown in arid regions. Because teparies may carry BCMV, do not grow teparies near other species of beans that are more susceptible to the virus — especially those to be saved for seed. Signs of the virus include stunted plants, downward curling and puckering of leaves, and yellow-green mottling of leaves.

BCMV is a seed-borne disease, and seeds saved from infected plants can pass the virus on to future crops. Healthy plants can be infected by aphids spreading the virus from diseased to healthy plants, by infected leaves touching healthy ones, or by gardeners handling healthy plants after working with diseased plants. Diseased plants should be carefully rogued (removed) and discarded.

**Plant:** Plant seeds 1/2" deep and 4" apart with the summer rains. If rains are sparse, irrigate when the plants look stressed. Teparies do not tolerate overwatering. Teparies may carry bean mosaic virus; do not plant near other types of beans. Approx. 7g/50 seeds per packet. **Eat:** Tepary Beans are high in protein and contain soluble fiber helpful in controlling cholesterol and diabetes. Pods are not edible... shell out dry beans and cook; great on their own or in stews, soups, and salads. White tepary beans have a slightly sweet flavor and brown ones have an earthier flavor. **Save Seed:** A self-pollinating annual. Harvest pods as they dry. Be careful: mature pods will pop open and drop seeds if left on the plant. An alternative is to harvest the whole plant when pods are turning brown, allow them to dry on a sheet, then thresh and winnow seeds. Recommended minimum population for seedsaving: 5–10 plants.

**Bauf** Pima Beige & Brown. Originally collected in the mid 1970s from Santan, AZ, on the Gila River Indian Reservation. A lovely mix of shades of beige, gold, tan and speckled. **PT086 L S** 

**Black** A rare black tepary selected from white teparies purchased many years ago in a Tucson Mexican market. Similar to a historic Tohono O'odham and Yuma variety. **PT082 L S B** 



### Find more varieties at **nativeseeds.org**

#### **More Teparies**

\$3.25 Unless otherwise indicated

**Blue Speckled** Unique and beautiful tan beans with navy blue speckles. From highland areas of southern Mexico, this variety is a Mayan folkrace. Does not tolerate low desert heat, but is otherwise prolific. Delicious. **PT079 H S F B** 

**Paiute Yellow** Ochre-colored traditional favorite. From the Kaibab Indian Reservation in northern Arizona, and also grown on the Paiute Reservation near Shivwits in southern Utah. **PT085 H L S** 

**Pinacate** Originally obtained from the most arid runoff farm in Mexico, in the Sierra El Pinacate Protected Zone. Tan beans with slight mottling. **PT074** L S B

Rock Corral Canyon Wild *P. acutifolius* var. *tenuifolius*. Originally collected in the Wild Chile Botanical Area in southern Arizona on Tohono O'odham land, home to other crop wild relatives including chiles, cotton, devil's claws, and squash. Readily reseeds, pods will pop open when dry. A fun exploration of agricultural history and wild plant conservation. **PW103 L S \$4.95** 

**San Ignacio White** Collected in the early 80s from a farmer who was maintaining traditional crops in secluded orchard fields. This tepary came from a floodplain field on the Rio Magdalena in northern Sonora. **PT113 H L S** 

**Soam Baw** Santa Rosa Brown. Originally collected in the Tohono O'odham Village of Santa Rosa, west of Tucson. Drought-hardy plant with brown seeds. **PT120 H L S** 

**W'pegi Bawi** Menager's Dam Brown. A red-brown bean from Menager's Dam, a Tohono O'odham community near the Mexican Border. **PT119 H L S B** 

**Yellow** Small yellow/tan-colored beans. USDA-selected and grown out in Tucson. Can be grown on trellis or sprawling on the ground. **PT077 L S** 

**Yoeme Brown** Colorful mixture of medium-sized beans. Early-maturing, with both white and lilac flowers. Originally from a Yoeme village on southern Sonora's coastal plain. **PT078 H L S** 

### **Beet** Beta vulgaris

**Plant:** Beets prefer deep, rich, well-composted soil with trace minerals and plenty of sun. Plant 1/4–1/2" deep. For larger, more uniform roots, thin to 1 plant every 4". Tolerates moderate frosts. Expect slow growth until temperatures rise above 60°F. A cool season plant in the low desert. Approx. 2.5g/200 seeds per packet. **Eat:** Native to Europe, beets are tremendously nutritious. Their earthy sweetness is enhanced by slow roasting. **Save Seed:** Flowers contain both male and female parts, but do not self-pollinate before flowers open. As pollen is carried long distances by wind, grow seeds for only one variety at a time. Note: beets will cross with Swiss chard. Recommended minimum population for seedsaving: 20–50 plants.

**Early Wonder** Selected about 100 years ago from Crosby Egyptian for earliness and vigorous, lush top growth, making it a great choice for early beet greens. Produces deep-red 3–4", exceptionally sweet globes. 45–50 days from planting. **TS020 H L N \$3.25** 

**Golden** An orange skinned, golden-yellow fleshed root with pleasantly sweet flavor that is milder than most red beets. Best eaten when roots are 2" in diameter. 55-60 days from planting. **TSO21 H L N \$4.95** 

### Have you noticed some changes in this Seedlisting?

NS/S is belatedly working to call seed varieties by their Indigenous names when those are available to us. These are the seeds' true names, the names they were called by those who developed them and handed them down over generations. It seems most right that the seeds should keep these names, which are familiar to the nations and communities to whom the seeds belong.

### Broccoli Brassica spp.

\$3.25

**Plant:** Produces better in higher elevations and cooler climes than in the warmer lowlands. Approx. 0.5g/70 seeds per packet. **Eat:** Garden-fresh, has a far richer taste than store-bought. After you harvest the head, plants will continue to produce tasty side-shoots. **Save Seed:** Provide at least two or more flowering plants to assure seed formation. Bees can cause cross-pollination with other *Brassica*, so isolate varieties by 1,600 feet (488 meters) or more. Recommended minimum population for seedsaving: 20–50 plants.

**Sorrento Broccoli Raab** *B. rapa (Ruvo Group).* Much faster to grow than broccoli, harvest in as early as 40 days! Harvest tender leaves and stems as well as unopened flower buds. **TS034 H L N** 

**Waltham 29** *B. oleracea.* Delicious and dependable broccoli bred to withstand especially cold weather. Short 20" plants produce medium-large heads and lots of side shoots. **TS033 H L N** 

#### **Non-Collection Seeds**

Many vegetables, like lettuce, carrots, and broccoli, don't have botanical origins or deep cultural roots in the Greater Southwest and thus are not a part of our collection. To accommodate interest in growing them, NS/S offers selected heirloom seed varieties from outside of our region. These seeds are marked in the catalog with an N for "Non-collection seeds". Since all are open-pollinated varieties, if grown to avoid crossing, you can save seeds that will grow true to type the next year. We have chosen N varieties that are relatively heatand drought-tolerant or that have a shorter growing season, so they are more adaptable to growing in the Southwest. As much as possible, we purchase from sources that produce seed organically and/or using sustainable agricultural practices. When you purchase from Native Seeds/SEARCH, you financially support our work of conserving the NS/S treasure of regional heirloom seeds.

## Cabbage Brassica oleracea

\$3.25

**Plant:** Demands soil high in nitrogen and phosphorus. A cool season plant and requires a long season, so plant in fall in the low desert. Approx. 0.5g/150 seeds per packet. **Eat:** A versatile vegetable, used fresh, cooked, or fermented. Garden-fresh cabbage has a sweetness and tenderness not found in store-bought. **Save Seed:** Provide two or more flowering plants to assure seed formation. Since bees can cross-pollinate cabbage with other *Brassica*, isolate varieties by 1,600 feet (488 meters) or more. Recommended minimum population for seedsaving: 20–50 plants.

**Golden Acre** One of our favorite cabbages for winter desert gardens. Solid, round, 3–4 lb. grey-green heads on short-stemmed, erect plants. White interior with tightly folded leaves. High yields. **TS058 H L N** 

**Red Acre** Beautiful, red version of the famous Golden Acre with larger, 2–3 lb. heads. Red Acre takes 2 weeks more to mature, but stores better and longer in root cellars or refrigerators. **TS059 H L N** 

### Carrot Daucus carota

\$3.25

**Plant:** Carrots do best in rich, uncompacted soil. Plant seeds very shallowly. Keep seeds moist while germinating. A cool season plant in the low desert. Approx. 1g/600 seeds per packet. **Eat:** Sweetness is enhanced by frost, so plant in fall in the low desert. **Save Seed:** Carrots are biennial with perfect flowers. As insects are a major pollinating agent, separate different varieties by 1600 (488 meters) feet. Recommended minimum population for seedsaving: 20–50 plants.

**Red Cored Chantenay** Our farm crew all rated it at or near the top for eating quality, whether fresh or cooked. An excellent performer in heavy and loamy soils; broad (1.5–2") shoulders, 4–6" long roots that have a a blunt tip. Strong, bushy tops are effective for

competing with weeds and make for easy pulling. TS068 H L N

**Scarlet Nantes** A timeless heirloom favorite. Brightorange, very sweet, slightly tapered, 6–7" roots with characteristic nantes rounded tip. A good keeper. Excellent for juice. **TS061 H L N** 

## Chile/Pepper Capsicum annuum

\$3.25

Plant: Start seeds inside, 1/4" deep in sandy soil, 8–10 weeks before last frost. Seeds are slow to germinate and need warmth. Transplant seedlings 12–16" apart. Partial shade is best in low desert; full sun in cooler climates. Provide support. Approx. 0.1-0.3q/25 seeds per packet. Eat: Chiles are one of the great Native American contributions to the cuisines of the world, valued for their flavor ranging from sweet and fruity through all levels of heat. On these pages, mild, medium and hot are relative heat ratings, while sweet refers to a sugary taste. Even chiles listed as mild may contain some heat. Bell peppers are heat-free. **Save Seed:** The insect-visited flowers can self-pollinate or cross. Grow only one variety at a time or isolate flowers. Allow fruit to ripen and mature on the plant. Chiles turn red or dark brown when mature. Take care not to touch your eyes when removing seeds from hot chiles. Recommended minimum population for seedsaving: 5-20 plants.

California Wonder Bell An exceptional strain of this treasured heirloom bell pepper from the 1920s. Vigorous, 24-48" plants produce thick-walled, blocky 4" green fruits which turn red if allowed to mature fully. **TS325 H L N** 

Caribe From southern Chihuahua. Medium-hot, sometimes increasing after a few seconds to hot. 2-3" long. (a) D055 H S B

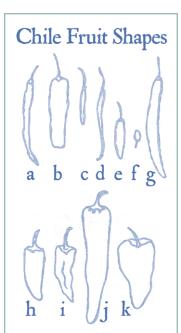
**Chilaca** This fresh chile is dark green, thin-walled, sweet, and medium hot. It is called "pasilla" when dried, possibly because of its brown raisin color. This chile from Mexico requires a long growing season. Plants can grow over 4' tall, with chiles 7" long. Dried pods are used in moles, adobados, and other sauces. (a) D016 L S

**Chile Dulce** This long-season sweet bell pepper has a lovely flavor with a hint of fruitiness. 2.5-3.5" blocky shape, but thinner walls than modern bell peppers. Collected in Mérida, Yucatán. D061 H S M

**Chimayo** From the farming town in northern New Mexico at 5,900' famous for its local chile. Relatively early-maturing. Mild. 3.5-5" long. (i) D018 H S F

Del Arbol de Baja California Sur From an ejido (communal farm) south of Guerrero Negro. Narrow, round, bright red chiles with medium heat. 4" long. (d) D056 HLSM

**Isleta** From Isleta Pueblo at 4900'. Exceptionally tasty native chile. Traditionally strung into ristras, then ground. (j) **D015 H S** 







Chimayo

### **More Chile/Pepper**

**Jalapeño** Produces 3", fleshy peppers that are generally medium-hot. Usually picked when dark green, but will ripen to red if left on the plant. Earlier than most jalapeño varieties, with a prolific and continuous harvest. (h) **TS327 H L N** 

Jemez From Jemez Pueblo in northern New Mexico at 6,000! Among the earliest-maturing of New Mexico land-race chiles. Mild to medium-hot. 4–4.5" long (i) D019 H S

**Nambe Supreme** From Nambe Pueblo in New Mexico, at about 6,000'. A farmer in the Pueblo selected this cross between heritage and commercial varieties. Smooth-skinned and slightly triangular. Medium heat with a slight sweetness when red. 5.5" long. (j) **D058 H S** 

**Ordoño** A stunning ornamental chile from Batopilas Canyon, Chihuahua. The small upright fruit mature from purple through yellow, orange, and finally red. Heat and drought tolerant and extremely productive. Good for container gardening. Hot and edible. 0.5" long. (f) **D009 H L S F** 

**Pequin** A northern New Mexico chile, 3–4" long. Medium heat, increasing to hot after a few seconds. Some plants are fuzzy with long, hanging chiles, other plants are smooth with shorter chiles that stand up. (a,d,e) **D010 H S M** 

**Quatro Milpas** Large, fleshy chiles grown in the mountain village of Quatro Milpas, Sonora. Ripe fruits are dark brownish red and mild flavored. 5" long. (j) **D031 H L S B** 

**San Felipe** Planted in mid-May by many farmers at San Felipe Pueblo. Popular for making ristras. Medium to medium-hot. 3–4" long. (j) **D007 H L S B** 

**Sandia** From Albuquerque, New Mexico, where it is used for rellenos, enchilada sauces, and stews. Medium to hot. 6–9" long. (j) **D004 H L S** 

**Sinahuisa** From a Mayo *ejido* (communal farm) in Sonora. The fruit are very fleshy, hot, and similar to serranos. They are excellent *en escabeche* (pickled). Plants can grow to about 3.5'. Good for container gardening and extremely high-yielding. (e) **D006 H L S** 

**Tarahumara Chile Colorado** A poblano-like chile from southern Chihuahua, wide shouldered and very shiny when green. Mild heat. (k) **D053 H S** 

**Tsile** A native New Mexico type chile grown by elder farmers in San Juan Pueblo. Early Maturing. Mild to medium heat. 3.–5" long. (j,b) **D024 H S** 

Wenk's Yellow Hots From Albuquerque's South Valley; fleshy and tasty, early maturing and prolific. Waxy yellow fruit turn orange and then red. Exceptional flavor, medium hot to very hot. 3" long. (h) D030 H L S F M



## Word list for word search (see page 12)

Basil	Cucumber	Me	Sun
Beetle	Epazote	Melon	Sunflower
Butterfly	Fly	Praying Mantis	Tepary Bean
Chichiquelite	Gourd	Rain	Tomatillo
Chile	Honeybee	Shade	Worm
Chiltepin	lhug	Soil	Wren
Corn	Leaves	Sorghum	You
Cowpea	Lima	Sauash	

## Chiltepin Capsicum annuum var. glabriusculum

\$4.95

Plant: Start seeds inside, 1/4" deep in sandy soil, 8–10 weeks before last frost. Growing chiltepines from seed is challenging. Seeds are very slow to germinate and need warmth. Scarifying before planting may help. Transplant seedlings 12–16" apart. Chiltepines require partial shade in the low desert, full sun in cooler climates. Chiltepines are attractive perennial landscape plants for shady to filtered light areas in the low desert. They will freeze back in the winter. Approx. 0.1g/25 seeds per packet. Eat: Tiny but mighty, these wild relatives of cultivated chiles pack a fruity, hot, and spicy punch. Dry them and crush when needed to add heat to any dish (even ice cream). They are traditionally served pickled in Sonora. Save Seed: The insect-visited flowers can self-pollinate or cross. Grow only one variety at a time, or isolate flowers. Allow fruit to ripen and mature on the plant. You may need to protect fruit from birds. For best seed result, fruit should be almost dry at harvest. Wear gloves to harvest and process seed! Recommended minimum population for seedsaving: 5-20 plants.

**Phoenix** This seed was given to a Phoenix, AZ, man by a friend. One plant grew under an orange tree and up through the branches to the top, reaching a height of 23 feet! The oblong fruits are hot. DC031 L S M

Pima Bajo Collected from the Pima Bajo near the Rio Yaqui in Sonora, Mexico. DC025 L S

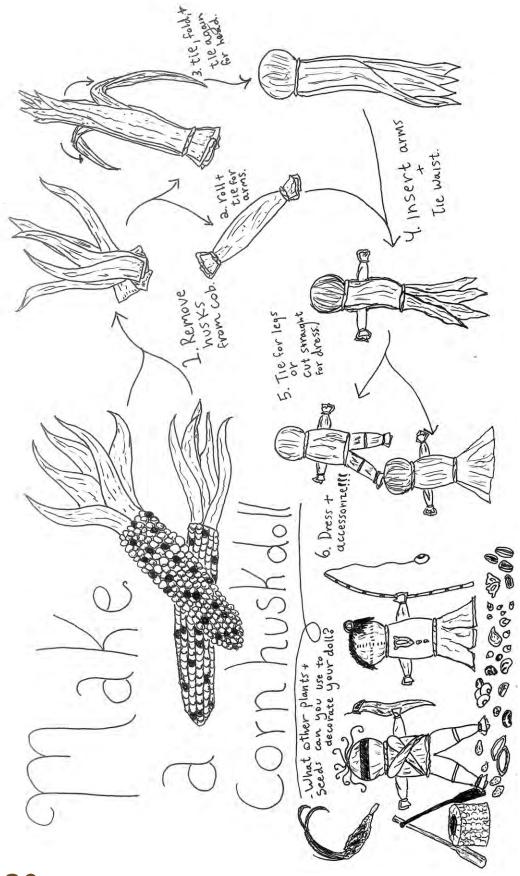
**Sonoran** Wild-harvested from central Sonora, Mexico. Small fruit that packs a punch. Try them sprinkled over vanilla ice cream. Immature green fruits are traditionally pickled. DC080 H L S





**B**ulk Seed Available





20

**H**igh Desert

Low Desert

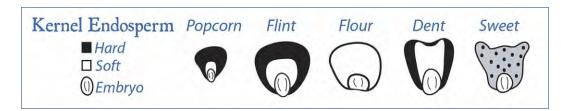
Seed Bank

Non-Collection

## Corn/Maize Zea mays

\$3.25 Unless otherwise indicated

**Plant:** In early spring or with summer rains, plant seeds 1" deep. It is best to plant numerous plants (20 or more) to promote pollination and kernel development. Needs rich soil and moisture. Heat, aridity, and high winds can all reduce pollination. Approx. 10–18g/50 seeds per packet. Seed Saver Size contains approx. 250 seeds. **Eat:** Corn is classified into different types based on the composition of hard and soft tissues of the kernels. Indigenous seed savers have made selections leading to thousands of different corn varieties, and there are countless ways to eat corn. Find suggestions for preparation under each corn type. **Save Seed:** An annual, corn is wind-pollinated, and all varieties will cross. Hand-pollination (with bagging) or staggered planting times is necessary to keep seeds pure if multiple varieties are grown. Allow ears to mature and dry on the plant. However, do not let sweet corn varieties dry on the stalk during high temperatures because they can ferment, ruining the seed. Recommended minimum population for seedsaving: 100–250 plants.



**Sweet Corn** High sugar content in sweet corn types are due to genes that control conversion of sugar to starch. The sugars are distributed throughout the kernels rather than in a layer. Dry, mature kernels have a wrinkled appearance. Kernel color develops as the ears ripen past the milk stage. Typically sweet corns are harvested and eaten in the milk stage.

**Golden Bantam Improved** Genuine old-fashioned corn flavor. The original strain of this legendary variety was introduced in 1902, and this improved strain produces even larger, more tender ears on tall plants. Vigorous, early growth, approx 80 days to maturity. 100 seeds/packet. **TS360 H L N \$4.95** 

**Stowell's Evergreen** Popular across the country for more than 160 years. "King of All White Sweet Corn Varieties". Sweet, 10' ears on 7' stalks. 90+ days. 100 seeds/packet. **TS361 H L N \$4.95** 

**Yuman Yellow** Originally grown by the Yuman (Quechan) Indians along the lower Colorado River, and collected by early prospectors. Delicious roasted, a staff favorite. Makes a great green corn tamale. **Z5112 L S \$4.95** 



# Seed Saver Size Packets

Corn is a unique plant and requires special attention from those wanting to save seeds, including growing many more plants than an ordinary seed packet provides. These special foil packets contain 250 seeds for a genetically healthy population, as well as growing and saving info. (This size counts as 5 packets in the Native American Seed Request Program.) Currently available for 7 varieties, \$12.95 per packet:

Chapalote ZP090.SS
Dia de San Juan ZD084.SS
Glass Gem ZP103.SS
Onaveno ZT111.SS
Ki:kam Huun (Pima 60-day) ZL152.SS
Reventador ZP092.SS
Tarahumara Gordo ZF020.SS

#### More Corn/Maize

**\$3.25** Unless otherwise indicated

**Dent Corn** Hard endosperm surrounds soft sugary layer in dent corn types. The soft starch shrinks as it dries, creating a 'dent' in the top of the kernel. Ears are typically hefty and plants tall and strong. Dent varieties can be ground for a fine cornmeal, roasted in the milk stage, or nixtamalized for tortillas and tamales. Dent corns are also used in many industrial corn products and for animal feed.

**Dia de San Juan** An all-purpose white corn used for everything by the Mayo. From north of Alamos, Sonora. Planted on the Dia de San Juan (June 24) when the summer rains are celebrated. Grows 10'+ tall. Great for green corn tamales and roasting corn. ZD084 H L F S Seed Saver Size: ZD084.SS \$12.95

Tarahumara Tuxpeño Medium to large ears with white, orange, and yellow dented kernels. Like many landrace maize varieties, occasional striped kernel ears

present. Stalks can reach 10' tall. More commonly grown at slightly lower elevations within the canyons of the Sierra Tarahumara. A general purpose corn used for elotes, tamales, and tortillas. A high number of rows and kernels per row, making it very productive. **ZD090 H L S** 

**Yoeme Vatchi** A Mexican-June type corn grown with irrigation near Potam and Vicam, Sonora. Grows 8-9 feet tall. Used to make hominy/posole and masa. **ZD088 H L S** 

**Flour Corn** Kernels are composed largely of soft starch, white in color. Color is found in thin outer layer that has a slightly dull opaque appearance. Flour corn can be easily ground into a fine meal for bread, piki, or atole. Flour varieties harvested in the milk stage are used for chicos and elotes. Flour types are the best for parching as they are not too hard. Dried kernels can be nixtamalized for posole.

**Sakwapu** Hopi Blue. Blue kernels are ground to make ceremonial piki bread. Dry-farmed below the Hopi mesas. Plants tend to be short (less than 5' tall with tassels) and early-maturing. 62 days to pollination, 106 days to dried ears from planting at the Conservation Farm in Patagonia, Arizona (4,000'). ZF029 H L S M

San Felipe Pueblo White From the pueblo in northern New Mexico, Used for meal, whole kernels in stews, and chicos. Traditionally irrigated. ZF053 H S M

Santo Domingo Rainbow Gorgeous, multicolored corn with red, yellow, pink, blue, purple, orange, pearl, speckled, and striped kernels. A very soft corn that is wonderful for parching and easy to grind. **ZF032 H S** 

Smoik Huñ Tohono O'odham 60-Day. Extremely fastmaturing, desert-adapted corn traditionally grown with the summer rains in the 'ak chin' floodwater fields of the Tohono O'odham. Produces short (6-10") ears with white kernels on short plant stalks. Usually roasted and dried before being ground into flour. The plants are remarkably tough — in our 2012 growout in Tucson, this variety produced on rainwater alone. ZF016 H L S F M

Tarahumara Gordo An all-purpose corn, used primarily for grinding into flour. Fat round kernels, predominately white with a few yellow-, purple-, or blue-speckled kernels. From high in Tarahumara country, above 7000'. **ZF020 H S Seed Saver Size:** ZF020.SS \$12.95



### Find more varieties at **nativeseeds.org**

**Flour/Flint Corn** Diversity present in these varieties can prevent them from fitting into distinct categories. These varieties have kernels with a majority soft endosperm like flour types but still retain some flint endosperm characteristics within some kernels. These types can be used just like flour and flint/popcorn types. With careful selection, seed savers can promote desirable traits within the future generations.

Guarijío Maiz Amarillo Collected from a Guarijío farmer in Sonora, Mexico. A dry-farmed, semi-flint corn with yellow and some white kernels. Used for tamales, atole, pinole, and as elote. Plants were over 8' tall and very productive when grown at the Conservation Farm. ZT045 H L S

Ki:kam Huun Pima 60-Day. A traditional corn grown by Ramona Farms on the Gila River Reservation. Very fast maturing and similar to Tohono O'odham 60-day. About 20% flinty kernels and 80% flour kernels, the perfect texture for making the Pima corn dish Ga'ivsa. ZL152 L S B Seed Saver Size: ZL152.SS \$12.95

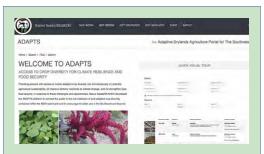
Nambe White Collected from a traditional farmer in the mid 1990s from Nambe Pueblo in New Mexico above 6,000' elevation. Long slender ears (6-10") with white to pearly kernels. **ZL079 H S** 

Onaveño An ancient grinding corn used for pinole, cornmeal, and tortillas. From along the Rio Mayo in Sonora. Flinty, cream-colored kernels, with occasional pink and purple on tall plants, ca. 8-10'. Pollination process can withstand high temperatures. Late maturing. ZT111 H L S F B Seed Saver Size: ZT111.SS \$12.95

Rehissuchi Also known as Setakame, Tarahumara Serape. This gorgeous Cristalino de Chihuahua variety has beautiful, long slender ears with pearly white, red, or striped kernels, Plants 4-5' tall, **ZT044 H S** 

**Rio Lucio Concho** Pearl-white kernels are used for chicos, posole, or flour. Grown at 8,000' in the Spanish village of Rio Lucio, NM. Ears about 8" long. ZL074 H S

Tarahumara Maiz Caliente Called caliente because it is planted by the Tarahumara at the hottest time of the year. Grown in the lower canyons, the tall plants bear long ears of small apricot/copper-colored kernels. **ZT039 H L S** 



#### Try out ADAPTS!

Have you ever wanted to learn more about a particular variety before you plant it? Did you ever wonder which NS/S variety or accession is best suited to the climate where YOU are growing? If you want to dig deeper, ADAPTS is the tool for you! This online platform can tell you more about any accession in our seed bank collection. It provides details including information about when and where it was collected and the climate conditions of the collection site. Search tools also allow you to identify seed accessions originating from a climate similar to your own among other features. Visit nativeseeds.org/ get-seeds/adapts for more information.



**B**ulk Seed Available

#### More Corn/Maize

**\$3.25** Unless otherwise indicated

**Popcorn** The slightly translucent kernels are hard and have a soft endosperm that expands and turns the kernel inside out when heated. Popcorn is a subtype of flint corn. They usually have much smaller kernels and ears. Popcorns are most often consumed as popcorn but are also used as polenta and pinole.

Chapalote Pinole Maiz A stunning corn variety that once was grown from southern Arizona to Sinaloa, Mexico. One of the four most ancient corns. A gorgeous deep brown ranging to a light tan color. Small-kerneled, with slender ears. Plants are very tall and late-maturing. Makes a sweet meal excellent for pinole. Can also be popped. ZP090 L S F Seed Saver Size: ZP090.SS \$12.95

**Cochiti** Beautiful colorful kernels on small ears (4–6"). Includes lots of brown chapalote-type ears, as well as deep red, yellow, blue speckled, and striped kernels. Originally from Cochiti Pueblo in northern New Mexico. Early maturing. **ZP091 H L S** 

Flor del Rio A mix of multi-colored and chinmark kernels on small ears (2–6"). Some plants will have deep burgundy stalks and cobs. High concentrations of health-promoting carotenoids and anthocyanin pigments. Collected in Velarde, New Mexico, along the Rio Grande. ZP093 H L S M

**Glass Gem** A stunning variety selected by Carl Barnes, a Cherokee farmer, in Oklahoma. It was developed by crossing many native varieties of varying colors. Produces a diversity of gorgeous, translucent, jewel-colored ears, each one unique. The kernels may be ground into cornmeal or popped. **ZP103 H L S Seed Saver Size: ZP103.SS \$12.95** 

**Navajo Copper** Short plants, 2.5–3', with small, beautiful, copper-toned ears. Colors are reminiscent of Southwestern sunsets. Early maturing. Originally collected from a Navajo farmer in New Mexico. A great option for children's gardens! **ZP098 H S** 

**Reventador** Old-fashioned pinole corn with translucent white kernels once grown in Arizona with irrigation. Originally from central Sonora, Mexico. It makes a very flavorful, hardy, crunchy popcorn when popped. Requires a long growing season, so it is not recommended for northern climates. Plants grow 6–8' tall. **ZP092 H L S B Seed Saver Size: ZP092.SS \$12.95** 

**Tarahumara Epachi** A fast-maturing Tarahumara popcorn variety. Pearly white kernels with occasional lavender and purple kernels. Slender 6" ears from 5–6' tall plants. **ZP102 H S M** 

**Tarahumara Palomitas** Yellow and white kernels on slender cobs. Collected in the Sierra Madre near Panalachi at 7,800'. **ZP100 H S** 

## EXPRESS YOURSELF!

Color the cover of this Seedlisting and send a photo to us at info@nativeseeds.org. We'll be posting our favorites on social media throughout 2020.



## Cotton Gossypium spp.

\$4.25

#### Cotton seeds can only be shipped to AZ, NM, TX and OK addresses.

**Plant:** Plant in spring after last frost, 1/2" deep, 12" apart. Plants need a long season for bolls to mature. Approx. 2g/20 seeds per packet. **Save Seed:** An annual, mainly self-pollinating, but with large showy flowers that attract insects which will cross varieties. Harvest dried pods as they mature. Remove bad seeds and cotton fiber before storing. Recommended minimum population for seedsaving: 5–10 plants.

**Davis Green** *G. hirsutum* x *G. barbadense.* An intentional cross between Pima cotton and a Louisiana green cotton, selected by P. Davis in Albuquerque to create richer color and longer fiber. Lint color is variable, pale green, olive, blue-green, or brown. Said to produce a longer fiber than most green cottons. Warmer weather and more mature plants produce a darker green fiber, color deepens with washing. **HO05 H L S M** 

**Hopi Short Staple** *G. hirsutum.* Originating in Central America and traded north, this variety was grown by the Hopi since time immemorial. It has a relatively short

growing season, about 100 days. Showy flowers, very soft fibers. **H001 H L S M** 

**Sacaton Aboriginal** *G. hirsutum* var. *punctatum*. Grown by the Akimel O'odham for food and fiber until 1900. Padre Kino noted its use for weaving into clothing and blankets. This variety, related to Hopi cotton, was maintained by the Field Station in Sacaton, Arizona, for many years under the name "Sacaton Aboriginal." The cotton was planted when the mesquite began to leaf out. A stunningly beautiful plant. **H002 H L S** 

### Cowpea Vigna unguiculata

\$3.25

**Plant:** This plant introduced from Africa loves the heat and deep roots help it tolerate drought, so it produces very well in the low desert. Plant 1" deep and 6" apart, or in basins, into warm soil in spring or with summer rains. Plants will sprawl, trellising can be helpful for some varieties and can produce higher yield. Likes well-drained soil, excessive nitrogen will reduce yield. Approx. 5g/25 seeds per packet. **Eat:** Many ways to enjoy: pick pods when very small (2-4") for "green beans". When larger, shell out the green peas and cook fresh, or let them dry on the vine for dried peas. The young leaves can also be cooked as greens and have a good flavor. **Save Seed:** An annual that is mainly self-pollinating. Large, showy flowers attract pollinators and can cross varieties. Harvest dry pods throughout the season. Mature pods will split open if left on the plant. Recommended minimum population for seed- saving: 10–25 plants.

**Bisbee Black** Original seeds came from a Native American in Bisbee, Arizona, who gave them to a truck driver, who passed them on to an NS/S member in Missouri. Solid black seeds, a good producer in the low desert. **V001 H L S** 

**Bisbee Gray** A Bisbee gardener and seed saver selected and stabilized this speckled cowpea out of the

Bisbee Black variety. Both she and our partner farmer at Ransom Ranch near Bisbee say it's very productive! **V021 H S** 

**Guarijío Muni Café** A small beautiful bean with a dark eye. From the Rio Mayo watershed in Sonora, Mexico. **V007 L S B** 







More Cowpea \$3.25

**Mayo Colima** From Sinaloa, Mexico, the seeds are shades of beige to orange with a dark ring around a white eye. **V003 H L S B** 

Mayo Speckled The pinto bean of cowpeas! A colima variety with pinto bean mottling over light chocolate-colored seeds. From Los Capomos, Sinaloa. V015 H L S B

**Tarahumara** From a remote village in Batopilas Canyon in the Sierra Madre. The seeds are predominantly cream to beige with occasional brick- or black-colored seeds. Later maturing. **V019 H L S** 

**Tetapeche Gray Mottled** These speckled seeds look like wild beans. They are pea size with white eyes. From a market in Sonora, Mexico. **V005 H L S** 

**Texas** The color of red sandstone, this cowpea is from the Eagle Pass area of Texas. A heat-tolerant "pole bean" with superior flavor. **V020 H L S** 

**Tukwupoikam** (Black eyes it has) Originally from the Pima Bajo living near the Rio Yaqui in Onavas, Sonora. The small white beans have black and brown eyes. **V009 H L S B** 

**U'us Mu:n** Tohono O'odham. A gorgeous black and white bean with variable mottling, may be all black (occasionally brown) or splotched on white. Excellent for green beans in the low desert. Fast maturing. **V006 H L S F B** 

**Yori Cahui** Collected from the village of Ahome, near Los Mochis in Sinaloa. Our demonstration garden growout produced lots of "yard long" beans that thrived in our record-breaking heat. Great low desert green bean. **V014 H L S** 

## **Cucumber** Cucumis sativus

\$3.25

**Plant:** Cucumbers prefer direct sun and warmth. Plant in rich soil 1" deep and 6" apart. Give the long vines a trellis to climb or space to sprawl. Approx. 0.8 g/30 seeds per packet. **Eat:** A cooling and crunchy summer favorite. Pick when young (1.5–2 inches diameter) for best eating. **Save Seed:** Cucumbers produce separate male and female flowers. Females can be recognized by their ovaries at the base of the blossoms. Bees are the primary pollinating agents. Provide at least 1,600 feet (488 meters) between varieties. Recommended minimum population for seedsaving: 5–10 plants.

**Armenian Long** Botanically actually a melon (*Cucumis melo*), this unusual, 12–18" long "cuke" has pale green, thin ribbed skin, and a mildly sweet flavor and good crunch. Thrives in hot weather. **TS318 H L N** 

**Beit Alpha** A crisp, delicious, thin-skinned cucumber, great for both salads and pickling. Middle Eastern heritage makes this a heat tolerant and productive plant. Pick fruit when small, 6–8". **TS319 H L N F** 



### Find more varieties at **nativeseeds.org**

## **Devil's Claw** Proboscidea parviflora var. hohokamiana

\$4.95

**Plant:** Peel back seed tips and presoak overnight for better germination. Plant with summer rains, 1/2" deep, and allow 2–4' between plants. Plants respond to hot, humid conditions of summer monsoons. Approx. 1.5g/25 seeds per packet. **Eat:** Cultivated by many southwest tribes, mostly for their use in basketry. However, the seeds are rich in oil and protein and dried seeds can be peeled and eaten. The young green claws are also edible and can be prepared much like okra. **Save Seed:** Varieties of this insect-pollinated annual will cross. Allow pods to dry and mature on the plant; harvest when they begin to open. Seeds can be removed with ice picks or pliers; be careful not to get poked by the razor-sharp claws. Recommended minimum population for seedsaving: 25–40 plants.

**Colorado River** White-seeded variety with long, 12" claws. Collected from Needles, California, west of the Colorado River. **R019** L S

**Domesticated Multiclaw** Treasured by weavers as many of the pods split into 3 or 4 claws, instead of just two. Claw length around 8 inches. **R006 H L S M** 

**I:hug** Tohono O'odham Domesticated. Selected by basketmakers for the extremely long claws (up to 15"). White seeds. **R004 H L S M** 

**Po'onomp** A white-seeded domesticated variety collected from a Chemehuevi basket maker who originally obtained the seed from the Supai. Claws 18–14" in length. This lot of seed grown at the Native Health Community Gardens in Phoenix. **R015** L S

## Gourd Lagenaria siceraria

\$3.25

**Plant:** Scarify and soak seeds for better germination. Sow 1" deep after soil warms in spring. The long, climbing vines require plenty of room. Plant next to a fence or trellis, or in basins under a tree. Requires plenty of water throughout the long growing season. Approx. 1.5–3.5g/15 seeds per packet. **Save Seed:** Annual. Varieties will cross-pollinate. The night-blooming white flowers are moth-pollinated. Fruits should mature on the plant until the stems are brown and the fruit lightweight, or until frost. Dry until the gourds are beige and the seed can be loosened by shaking. Interior of fruits are toxic, so gloves and masks are recommended when processing gourds. Recommended minimum population for seedsaving: 5–10 plants.

**Apache Dipper** Originally collected in Peridot, AZ, on the San Carlos Reservation. The neck handle can be up to 12" long, and bowls around 5–7" diameter. (g) **M023 L S** 

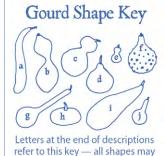
**Buchon** Quart-sized, tall pear-shaped gourds. Used as water containers by the Tarahumara of Copper Canyon

in Chihuahua, Mexico. A shoulder strap of hemp or iztle (agave fiber) is knotted into a sling around the bulb for carrying. (d) M004 H L S

**Mayo Warty Bule** Unique gourds have small pebble-like knobs scattered on surface. Pear-shaped, used for canteens. (d,c) **M028 L S** 







not be currently available.

#### **More Gourd**

**Mayo/Yoeme Deer Dance Rattle** Fruit shapes vary slightly from tear-drop to short-handled dipper. Used to make rattles for the Deer Dance. (d,h) M031 L S

O'odham Small Bilobal Smallish gourd (6–10" long) with small upper and larger lower chamber. Good for rattles, birdhouses. Originally collected from New Fields, near the US/Mexican border on the Tohono O'odham Nation. (c) M021 L S

Peyote Ceremonial A very small (2–4") bilobal or dipper gourd shape used for crafts and as rattles by the Native American Church. Plants are incredibly prolific. Smaller vines and faster maturing than most gourd varieties. (e) M029 H L S F M

**Santo Domingo Dipper** Short-handled gourds have a medium to large bulb. A few long-handled types may

be present. From Santo Domingo Pueblo, New Mexico.
(j) M008 H L S

**Tarahumara Small Bule** Small, 6–10" round gourds with short necks. Used for small hand rattles, tobacco containers, or small canteens. (d) **M047 H L S** 

**Wapko** O'odham Dipper, from Topawa on the Tohono O'odham Nation. Long-necked with a bulb at the base, these gourds range from 8" to 18" long. (g) **M020** L S **M** 

**Zia Pueblo Canteen** Small canteen gourds from Zia Pueblo in New Mexico. Produces gourds about 4 to 6" in diameter, with short tapering tops. (d) M075 H S

**Zia Pueblo Rattle** Round rattle gourd from Zia Pueblo in New Mexico. Produces a mix of flattened and pearshaped fruit. Most are 4–6" across. (h,d) **M068 H S** 

Greens \$3.25

**Plant:** Except for Malabar Spinach, these do best as cool season plants in the low desert. Other planting details vary, see instructions on seed packets. Packet sizes vary, see info under each entry. **Eat:** Greens are excellent sources of vitamins, calcium, and iron. All can be used fresh or cooked. **Save Seed:** Varies by species; see information and instructions on seed packets.

Chamisal Quelites Verdes Atriplex hortensis. An orach or "mountain spinach" collected at Chamisal, near Taos, New Mexico, at 7,500'. Grow in the cool season in the low desert. Orach has a flavor milder than spinach and can be used like spinach, fresh or cooked. Approx 2g/120 seeds per packet. GR017 H L S

**DiMeglio Arugula** *Eruca sativa*. Grown in Tucson for 35+ years by an Italian family who brought the family seed with them to the US in the 1920s. A variable strain with both deeply lobed "salad" leaves and simpler "pizza-type" leaves. Flavorful and very heat tolerant; can be grown all year long in the low desert,

though flavor is stronger in hot weather. Approx. 0.5g/250 seeds per packet. **GR018 H L S** 

**Georgia Collard** Brassica oleracea. An heirloom favorite with great big, tender, mild-flavored leaves. Plants can grow up to 36" tall and are quite productive. Loves the cool season in the low desert but can last well into the warm season too. Organically grown. Approx 0.5g/125 seeds per packet. **TS099 HLN** 

**Lacinato Kale** *Brassica oleracea*. Ready 50–60 days from transplanting. Dark blue-green savoyed leaves.







### All seeds are open-pollinated and non-GMO

#### More Greens

Winter and summer hardy. Highly adaptable and can be grown almost year-round in many locations. Tender, succulent, and sweet as steamed greens. Approx 0.5g/150 seeds per packet. TS107 H L N

Magdalena Acelgas Beta vulgaris. Acelgas is Spanish for chard. A family heirloom from Magdalena, Sonora, donated by Jesús Garcia and grown out at the Mission Garden Project of Tucson. Shorter stems than modern chard varieties, it grows well through winter and into the summer in the low desert. Approx. 4g/200 seeds per packet. GR016 H L S F

Mequasare Brassica sp. Mostaza Roja. A wild mustard with tender, simultaneously sweet and spicy. Use in salads or as cooked greens. Plant with summer rains or in the fall in the low desert. Very productive. Approx. 0.2g/100 seeds per packet. GR008 H L S

Purple Orach Atriplex hortensis. Beautiful deep purple to maroon leaves are great fresh in salads, as a microgreen, or a cooking green. Use like spinach. Slightly salty, nutty taste. Approx. 1g/100 seeds per packet. TS201 H L N

Rainbow Mix Swiss Chard Beta vulgaris. Beautiful mix of colors. Dark green, savoyed leaves. Enlarged stems with crisp and delicate flavor. Plant early and often. Approx. 4g/200 seeds per packet. TS211 H L N

**Red Malabar Spinach** *Basella rubra*. Not a true spinach. Thrives in hot weather, unlike regular spinach. Beautiful vining plant with dark red stems and deep green leaves rich in vitamins. Plant in the warm season. Approx. 1g/50 seeds per packet. TS202 H L N

Red Russian Kale Brassica oleracea. Dark green oakleafcut leaves with pretty purple/pink stems. Red and purple hues intensify after cool season frosts, giving way to tender and sweet rich dark green kale when cooked. Also good raw. Very disease resistant. Organically grown. Approx. 0.5g/150 seeds per packet. TS105 H L N

Stir Fry Mix A hearty mix of flavors and textures perfect for saute and stir fry. Also great for salads when harvested as young greens. Includes equal proportions of Mizuna, Arugula, Tatsoi, Red Russian Kale, and Pak Choi. Approx. 1g/400 seeds per packet. TS139 H L N

**Tarahumara Mostaza/Mocoasali** *Brassica campestris.* Old World introduction: this wild mustard is often found in fields in Tarahumara country. Tender, slightly spicy leaves are harvested when young to be used in a salad or cooked. The flowers also have a wonderful light spiciness. Plant in the fall in the low desert. Approx. 0.2g/100 seeds per packet. GR005 H L S

Herbs \$3.25

Plant: Most herbs are easy to grow and are quite happy in poor, gravelly soils. They are valuable in the garden for drawing pollinators and repelling pests. See each entry for specific growing information and packet sizes. **Eat:** Herbs add dimension to food with their rich and varied flavors. Our gardens and plates would be lacking without them! Save Seed: Herbs are insect-pollinated so members of the same species will cross. Harvest dried seed stalks, and hang upside down for complete drying. Crush to remove seeds, and winnow off chaff.

**Alvaaka** Ocimum basilicum. Basil collected at the New Pascua Yaqui Reservation in Tucson. The leaves make a tea that is "good for the stomach and as a general tonic." The plants have a strong licorice aroma. Plant in spring and summer. HB013 H L S







More Herbs \$3.25

**Calypso Cilantro** *Coriandrum sativum.* This tasty variety is slow to bolt. Leafy, full plants give you lots of leaves to harvest for your salsa, salads, and myriad other recipe. Approx. 2g/200 seeds per packet. **TS508 H L N** 

Corrales Azafrán Carthamus tinctorius. This red/orange thistle-like flower is used in cooking as a saffron substitute. A sunflower relative, azafrán can be grown as an annual flower and keeps well as a dry flower (though very prickly). Collected in Corrales, New Mexico. Plant seeds with the summer rain about 1/4" deep. Plants grow 3–4' tall. Approx. 1g/25 seeds per packet. HB014 H L S

**Genovese Basil** Ocimum basilicum. Genovese basil's strong flavor and aroma make it the favorite of many for making pesto. This variety is relatively slow to bolt. Approx. 1g/200 seeds per packet. **TS536 H L N** 

**German Thyme** Thymus vulgaris. Aromatic leaves and small, pink flower spikes on a short, creeping plant. A long history of medicinal use: thyme oil is antiseptic, tea is mineral-rich, anti-spasmodic. Tolerates relatively poor soil and prefers full sun. Approx. 0.1g/100+ seeds per packet. **TS522 H L N** 

**Guarijío Conivari** Hyptis suaveolens. A cooling drink is made from the jelled, chia-like seed which has highfiber mucilage. Mayo Indians use it for an eye remedy and to control diarrhea. For summer gardens. Plant seed with the summer rains about 1/4" deep. Approx. 0.5g/50 seeds per packet. **HB008 H L S** 

Hinojo (Dill) Anethum graveolens. From a Mayo garden in Piedras Verdes, Sonora, Mexico. Used medicinally for stomach aches. Leaves have a mild flavor, seeds are stronger and would be good for pickling. Great for bringing beneficial insects into the garden. Approx. 0.2g/100 seeds per packet. HB010 H L S

**Italian Large Leaf Basil** Ocimum basilicum. Larger leaves mean more pesto in a hurry! Sweet and spicy leaves grow to 3–4 inches and are great for salads, including Caprese. Plant in the summer. Approx. 1g/200 seeds per packet. **TS537 H L N** 

**Italian Parsley** *Petroselinum crispum.* Flat leaves. The preferred parsley for cooking. Prefers full sun or partial shade, and rich soil. Approx. 0.5g/80 seeds per packet. **TS160 H L N** 

**Mammoth Dill** Anethum graveolens. Garnish salads, soups, fish and more with the lacy leaves of this popular herb! Easy to grow for foliage or seeds. 2–3' tall. Approx. 1g/200 seeds per packet. **TS510 H L N** 

Mrs. Burns' Famous Lemon Basil Ocimum basilicum. This famous basil variety was grown for 60 years in southeastern New Mexico by the mother of NS/S cofounder Barney Burns. Readily self-seeds. Amazing lemon flavor. Heat and drought tolerant. Plant seed in spring or with the summer rains about 1/4" deep. Approx. 0.2g/50 seeds per packet. HB003 H L S F

**Sweet Marjoram** *Origanum majorana*. This herb has a wonderful, delicate flavor. Related to oregano, and can be substituted for it, but has a sweeter, more floral taste. Marjoram does not tolerate subfreezing temperatures. Approx. 0.2g/600 seeds per packet. **TS540 H L N** 

**Tarahumara Chia** *Salvia tiliafolia*. A plant native from southeastern Arizona to South America. The cute flowers and foliage make it an attractive landscape plant, unexpectedly lush for summer desert gardens. Gathered and used medicinally by the Tarahumara. Plant seed with the summer rains about 1/4" deep. Approx. 0.2g/50 seeds per packet. **HB007 H L S** 

**True Greek Oregano** *Origanum vulgare hirtum.* Deep, genuine, oregano flavor! Soft gray-green leaves. 12–18" tall. Plant in fall through early spring in the low desert, spring through summer in colder climates. Approx. 0.1q/200 seeds per packet. **TS516 H L N** 







### Lettuce Lactuca sativa

\$3.25

**Plant:** Water lettuce at base to avoid rot. To assure a steady supply, stagger plantings every 10 days, planting smaller amounts more often as weather becomes hot. Plant seeds 1/8" deep and 1" apart. For full heads, thin to 8". A cool season plant in the low desert. Approx. 1g/700 seeds per packet. **Eat:** Cool and crisp or soft and buttery, there are many wonderful colors and textures to choose from. Garden fresh is the best! **Save Seed:** Lettuce produces perfect yellow flowers on tall, bushy seed stalks. Since flowers self-pollinate, there is less chance of cross-pollination between varieties. For purity, separate at least 10 feet (3 meters). Recommended minimum population for seedsaving: 5–10 plants.

**Black-Seeded Simpson Looseleaf** Sets the standard by which to measure all looseleafs. Large, light-green, broad, frilled leaves with exceptionally crisp, fresh flavor. **TS120 H L N** 

**Cimarron Romaine** Adds color to salads along with the unmistakable texture of a delicious romaine. Broad, flat, crisp, sweet, and juicy leaves range from dark red to bronze. Very attractive. **TS124 H L N** 

**Jericho Romaine** Large heads of bright green romaine have excellent flavor and keep their sweet crispness well into early summer. **TS126 H L N F** 

**Lettuce Mix** This diverse mix of lettuce varieties contains equal proportions of 5 varieties. A beautiful blend of colors, tastes, and textures for your salad. **TS255 H L N** 

**Oakleaf Looseleaf** This timeless heirloom is very popular because of its tender, thin, delicious leaves that are similar to oak leaves in shape. **TS122 H L N** 

**Red Saladbowl Looseleaf** The beauty, flavor, and tenderness of Saladbowl with solid red color, fuller head, and slightly more compact shape. Delicious. Withstands hot weather as well as the green saladbowl. Excellent flavor! **TS127 H L N F** 

**Summer Bibb** Beautiful and mild-flavored, wide green leaves with wonderful bibb tenderness. Summer Bibb grows quickly in cool weather. When the heat comes on it resists bolting longer than buttercrunch bibb. Organically Grown. **TS123 H L N** 

**Summertime Crisphead** Iceberg lettuce. A reliable offering for crisp, tender heads even as summer temperatures begin to rise. **TS233 H L N** 

## Luffa Luffa operculata

\$4.25

**Plant:** Scarify and presoak seeds for 24 hours. Sow 1" deep in the spring when temperatures are warm. May take several weeks for germination. Plant next to a fence or trellis so vines can climb. Requires plenty of water throughout the long growing season. Approx. 1g/25 seeds per packet. **Save Seed:** This annual is insect pollinated. Allow fruits to dry on the plant before harvesting the seeds, which can often be shaken directly out of the fruits. Recommended minimum population for seedsaving: 5–10 plants.

**Wild Luffa** From dooryard gardens along the Rio Mayo. Produces copious quantities of 2–3" fruit. Removing the thin skin from dried fruits reveals the small scrubber.

"sponge." In the low desert, plant with summer rains.

M012 H L S







31

Melon Cucumis melo \$3.25

**Plant:** In the spring after soil warms or with summer rains, plant 3–5 seeds 1/2" deep directly in basins, 24" apart with plenty of room for sprawling vines. Melons like soil rich in compost. Overwatering can dilute flavor of fruit. Approx. 1g/25 seeds per packet. **Eat:** Melon fruits are highly varied, with orange, green or white flesh. Flavor varies greatly too, depending on variety and growing conditions, from sugary sweet to crisp, light and refreshing. **Save Seed:** Annual plants are insect pollinated. Male and female flowers form on each plant. Hand pollinate and bag flowers, or separate varieties by 1600 feet (488 meters). Remove seeds from ripe cut fruit, wash off fibers, and spread seeds out to dry. Recommended minimum population for seedsaving: 5–10 plants.

**Chimayo** Spanish heirloom cantaloupe from northern New Mexico. Oval fruits have netted skins and sweet, orange flesh. **F003 H S B** 

**Cochiti Mix** A mix of native and honeydew types collected from Cochiti Pueblo. Fruit vary from round, smooth honeydews with pale green flesh to elongated, oval fruit with ribs and orange flesh. **F020 H S** 

**Dineh Bi Danescone** Navajo. Fruit have green to yellow skin. Shape ranges from banana to football to round. The flesh color is mostly white. Collected at a market in Shiprock, New Mexico. **F026 H S** 

**Esperanza de Oro** A "native" melon, interbred for years with Crenshaw melons and selected for size and sweetness in Corrales, New Mexico. **F017 H L S** 

**Hopi Casaba** Two distinct fruit types within this collection: (1) wrinkled, round, yellow-green fruits; and (2) smoothly elongated, yellow-green fruits. Both have pale green to orange flesh. Juicy with a mild flavor. Tasty with chile, salt, and lime. Good keeper if unbruised. **F011 H L S B** 

**Isleta Pueblo** Very diverse ribbed fruit shapes, some orange- and some green-fleshed; from Isleta Pueblo, New Mexico. Tolerates heat. **F004 H L S** 

**Mayo Minol** A sweet, yellow-fleshed melon dry-farmed in El Saneal, Sonora. From the Mayo or Yoreme people of southern Sonora. Very tasty! **F001 H L S F** 

**Melon de Castilla** A deliciously sweet melon with pale yellow, smooth skin. From the Sierra Madre Mountains. **F016 H L S F** 

**Melón Mexicano** A small, very sweet cantaloupe-type melon originally collected in Redford, Texas. It is associated with the Jumano people. The farmer who gave the seed said "old timers used to plant it." Fruits 4–6" in diameter. **F027 L S M** 

**Navajo Mix** Obtained from a melon entered in the Navajo Nation Fair in Shiprock, New Mexico. Produces three fruit types: ribbed, smooth ovals, and elongated. Mild flavored flesh is pale green to light orange. **F009 H L S** 

O'odham Ke:li Ba:so "Old man's chest," referring to the wrinkly appearance of the fruit. A favorite of Tohono O'odham and Akimel O'odham low-desert farmers. Fruits are casaba type with light green flesh. Very tasty. F005 H L S F

**Ojo Caliente** From northern New Mexico. The oval fruits are smooth-skinned and can weigh 5–7 lbs. Pale green flesh with a tinge of orange is sweet and juicy with excellent flavor. Harvest ripe fruits when bright yellow and aromatic. **F008 H L S** 

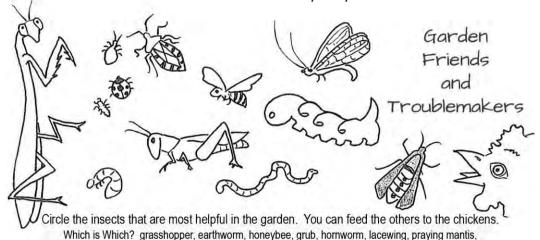
**Santo Domingo Native** Typical of melons grown for centuries in New Mexico pueblos. Fruit are oblong, ribbed, and mostly smooth, with some netting or "cracking." The flesh is orange and tasty. **F018 H S** 







### All seeds are open-pollinated and non-GMO



Okra Abelmoschus esculentus

\$3.25

### Okra seeds can only be shipped to AZ, NM, OK, and TX addresses.

squash vine borer, ladybug with larva, squash bug with larva

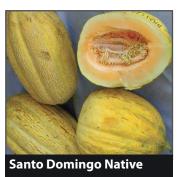
**Plant:** Scarify and soak seed overnight before planting for best germination. After soil warms to at least 65° in spring or early summer, plant 1/2" deep in rich soil. Allow 12-18" between plants. Drought-resistant once established. Approx. 2g/25 seeds per packet. **Eat:** All parts of this introduced African plant are edible. The leaves may be eaten raw or cooked. Fruit are versatile in the kitchen: try them fresh, pickled, fried, or in gumbo. Pick frequently—young pods (2-3") have best flavor and tenderness. **Save Seed:** This annual is insect-pollinated, so varieties will cross. For purity, separate varieties by 800 feet (244 meters). Allow the pods to dry and mature on the plant. Harvest before pods split open. Remove seeds carefully. Recommended minimum population for seedsaving: 5–10 plants.

Beck's Gardenville An heirloom from San Antonio, Texas. A vigorous, very productive, and drought-tolerant plant with green, short, stocky ribbed pods that are tender up to 3" long. Indeterminate producer that can be harvested over several months. OK002 H L S

**Eagle Pass** From the Carrizo Springs/Eagle Pass area in Texas. Good in gumbo or cut and fried. Not slimy or stringy when cooked. Perfect for those who claim they don't like okra! Plants bear large pods beginning near ground level, up to 5'. OK004 H L S

Texas Hill Country Red Attractive plant with beautiful, colorful, bronze-red fruit. Produces well in summer heat. Plants are 5-6' tall with dark purple stems. Slender pods can be slivered and eaten raw in salads or cooked. OK003 H L S

Yuma Red Grown in Yuma Arizona for many years, this beautiful variety has also grown well at several different locations and elevations around Tucson and beyond. Productive plants grow to 7' tall with lovely red stems and pods. Pods are tender and tasty with a low mucilage factor! OK006 L S







Onion Allium cepa \$3.25

**Plant:** Onions prefer well-drained, rich soil, high in organic matter. Water frequently, especially during dry spells. See each entry for packet sizes. **Eat:** Whether in the lead or as a supporting player, onions are one of the most necessary and versatile foods in the kitchen. Onions can be baked, boiled, braised, grilled, fried, pickled, roasted, sauteed, or eaten raw. **Save Seed:** Onions produce perfect flowers, yet require cross pollination. Stigmas in each flower become receptive only after its own pollen is shed. Crosses can and do occur between flowers on the same plant, mostly by bees. Separate from other flowering *Allium* of the same species by at least 1,600 feet for satisfactory results. Recommended minimum population for seedsaving: 20–50 plants.

**Chives** A. schoenoprasum. Experience the delicious, fresh, delicate-onion flavor of chives on baked potatoes. Handsome, edible, pink flower globes provide a source of long-lasting cut flowers. 12" tall. Approx. 0.5g/300 seeds per packet. **TS507 H L N** 

**Evergreen Hardy Perennial** Perennial. A delicious bunching onion. Leave some in the garden. Evergreen is a true multiplier onion and will divide itself perennially. Resistance to thrips, smut, and pink root rot. Approx. 1g/425 seeds per packet. **TS140 H L N** 

**l'itoi Sivol** Tohono O'odham Onion. These wildly popular and prolific multiplier onions were an early introduction to southern Arizona by the Spanish.

Today they are eagerly sought out by chefs for their mild shallot-like bulbs and slightly spicy greens. They are very easy to cultivate and in the low desert will grow in response to both winter and summer rains. In cooler regions their growth is in the summer. Rarely flowers; propagate by division of the bulbs. The name l'Itoi signifies the Elder Brother, who is the creator deity in Tohono O'odham cosmology. Approx. 10 bulbs per packet. Seasonal availability only, beginning mid to late summer; substitution is TS140. B001 H L S F B

**Texas Early Grano** The mother of modern super sweet onions like Vidalia. Large globe, white flesh, nice flavor. Resistant to pink root rot. Approx. 1g/250 seeds per packet. **TS143 H L N** 

## Panic Grass Panicum sonorum

\$3.25

**Plant:** Plant with summer rains by broadcasting. Rake in. Protect germinating seeds from birds. Approx. 0.5g/500 seeds per packet. **Eat:** If you can get to it before the birds do, harvest the tiny seed for grain. Try replacing a quarter to a half of the flour in recipes with finely ground seed. Panic Grass is a native domesticate of arid America. **Save Seed:** A wind-pollinated annual. Birds love the seed, which is borne in loose heads. Protect with paper or cloth bags. Harvest when dry, strip seeds, and winnow off chaff. Recommended minimum population for seedsaving: 25–40 plants.

**Sagui** A rare grass from Guarijio villages in Sonora Mexico, collected by NS/S co-founders Gary Nabhan and Barney Burns during a 2-day burro trek. The small

golden seed is rich in lysine. Attractive plants are fastgrowing and heat-tolerant. Birds love it! **O001 HLSFB** 







34

High Desert

Low Desert

Seed Bank

Non-Collection

Pea Pisum sativum \$3.25

**Plant:** This cool season crop should be planted in the fall or winter in the low desert, or very early spring in cooler climates. Plant 1/2" deep and 6" apart. Plants will sprawl, or climb if supported, and can produce until days get too hot. Approx. 10g/50 seeds per packet. **Eat:** The peas in the seed bank collection were traditionally harvested as dried peas, but they are sweet and tender as fresh shelled peas if picked young, before they fill the pod. Pea greens are wonderful in salads. **Save Seed:** Peas produce perfect, self-pollinating flowers. Cross-pollination by insects is possible but rare because pollination occurs before the flower opens. To be safe, separate by 50 feet if growing multiple varieties. Dried pods can be harvested as they mature or entire plants dried and threshed near the end of the season. Recommended minimum population for seedsaving: 5–10 plants.

**O'odham** A tan-seeded variety grown for over 300 years by O'odham farmers. A fresh shelling pea when young, soup pea when mature. Has been planted in commercial fields in rotation with cotton to reduce Texas root rot. Alkali tolerant and very hardy. Tall vines need support. **Q001** H L S

**O'odham Green** From Santa Rosa Village on the Tohono O'odham Nation. Smooth, green seeds. Very hardy in low desert winters, doesn't mind a light frost. **Q020 H L S M** 

**Oregon Sugar Pod II** Snow pea (edible pods). Famous for its sweet, mild flavor. Delicious raw, in stirfries or steamed "al dente." Tall, 24–30" vines bear

smooth, 4" pea pods. Resistant to both pea enation virus and powdery mildew. **TS186 H L N** 

**Salt River Pima** The young peas are nice and sweet when picked early. The dried peas are good in soups and stews. Hardy in the desert, but also does very well at the Conservation Farm (4,000'). **Q009 H L S B** 

**Sugar Ann Snap** The earliest snap pea. Short 2' vines need no support. Both pods and peas develop well and are exceptionally sweet. Eat fresh in the garden! **TS182 H L N** 

**Yoquivo del Sur** From a remote region in the sierra in southern Chihuahua. A beige, smooth seed. **Q021 HLS B** 

## Radish Raphanus sativus

\$3.25

**Plant:** In the low desert, provide shade in summer or plant only in cool season. Plant often for continuous supply, 1/4–1/2" deep and 1" apart. Approx. 4g/475 seeds per packet. **Eat:** Great crunch and flavor raw. The seed pods are also tasty fresh or pickled, and leaves are edible too. **Save Seed:** Radishes produce annual flowers which require pollination by insects, primarily bees. 250' separation between varieties is sufficient for home gardeners. Recommended minimum population for seedsaving: 20–50 plants.

**Easter Egg** What colors will you find when you harvest these fast-growing radishes? Tasty pink, purple, white, and red roots make for an underground treasure hunt, great for the kid in everyone! **TS191 H L N** 

French Breakfast The best home garden variety for fresh eating. Crisp, red roots are 3" long with tidy white tips. Flesh is white, crisp and only mildly pungent. Plant early and often. TS194 H L N







### Sorghum Sorghum bicolor

\$3.25

**Plant:** In the spring or with summer rains, broadcast seed and rake in, or plant 1/2" deep and 10" apart. Thin to allow space, as plants will tiller (sprout stalks from base). An excellent cover crop to renew tired soils in arid regions. Approx. 2g/75 seeds per packet. **Eat:** Stalks are chewed for their sweet juice, or press out the juice and boil to make syrup. Seeds can be popped like popcorn or ground to a gluten-free flour. **Save Seed:** A wind-pollinated annual, so varieties will cross. Bag seedheads with paper or cloth bags to protect them from birds. Strip dry seeds from stem and winnow. Recommended minimum population for seed-saving: 10–25 plants.

**Apache Red Sugarcane** The pretty red seedheads attract birds, and the canes can be chewed or pressed for sweet juice when the seedheads are ripe. From San Carlos Reservation in Arizona. **S001 L S M** 

**Gila River Kaña** Collected from Sweetwater on the Gila River Indian Reservation. Grown for the sweet cane. Cut stalks into small pieces, split open and suck the juices out. **S014 L S B** 

**Ka:na** Tohono O'odham. Produces a mix of red and black seedheads. Crosses with *S. halapense*, Johnson grass. **S002 H L S** 

**Maizeña** Tarahumara Popping Sorghum. The white seeds are traditionally popped and ground into flour. Popped seeds can be eaten as a nutty, tasty snack. Originally collected from Batopilas Canyon of Mexico. Flour is nutritious and gluten-free. **S005 H L S** 

**Mayo Broomcorn** Caña de Escoba. Tassel spikes are used to make brooms. Collected near Alamos, Sonora. **S003 H L S** 

**Mountain Pima** A red-seeded sugar cane grown by the Mt. Pima for eating. **S018** H L S

**Onavas Red** The stalks produce many tillers and are sweet and juicy, with burgundy red seeds. From the Pima Bajo village of Onavas, Mexico. **S004 H L S B** 

**San Felipe Pueblo** Grown as "sugar cane", these stalks are chewed as a sweet treat. Dark black seeds, and plants up to 5' tall. **SO11 H S** 

**Santa Fe Red** From Santo Domingo Pueblo, the seeds are brick red on loose, slender heads. Chew the cut stalks for sweet treat. **S009 H S B** 

**Tasagui** Collected from a remote Guarijio rancho in the foothills of the Sierra Madre. This is a tall, sweet, sugartype sorghum. The stalks are eaten like sugar cane. The seed is "black" (very dark red). **S017 H L S** 

**Texas Black Amber Molasses** An heirloom from Waco, Texas. Plump black seeds. Used for molasses and silage. **S006 H L S** 

White Mountain Apache A red-seeded sorghum from Cibeque, Arizona. S010 H S



36

**H**igh Desert

Low Desert

Seed Bank

Non-Collection

# Squash Cucurbita spp.

\$3.25

Plant: In spring after soil warms, or with summer rains, sow a few seeds 1" deep in basins 3-6' apart, allowing room for abundant vine growth. Squash likes soil rich in compost. Approx. 4.5q/15 seeds per packet unless noted otherwise. **Eat:** These landrace squash fruits (especially *C. argyrosperma* and *C. pepo*) can be eaten when small and immature as summer squash, or mature as winter squash. Flowers, seeds, and growing tips of vines are all edible. Save Seed: An insect-pollinated annual, varieties of the same species will cross. Allow fruits to ripen and mature on the vine until skin is hard and stem brown. After harvesting, fruit needs to after-ripen for 30 days in cool location. Remove seeds, wash, and dry before storage. Recommended minimum population for seeds aving: 5–25 plants.

Apache Giant C. argyrosperma. Pear-shaped fruits with firm orange flesh from San Carlos Apache reservation. Fruits can grow up to 40 lbs. EA010 H S

Calabaza de la Aguas C. argyrosperma. Planted with the rains, or "aguas" by the Tarahumara peoples. From the bottom of Copper Canyon in Mexico. Small to medium-sized fruits have light orange, very sweet flesh. EA004 H L S B

**Chihuahuan Pumpkin** *C. pepo.* A beautiful mix of colors, solid and striped skins with orange flesh. Collected from San Ignacio outside Creel, Chihuahua around 7500' elevation. **EP050 H S** 

**Gila Pima Ha: I** *C. argyrosperma*. One of our first squash collections. The light-skinned, pear-shaped squash was originally collected in Bapchule, Arizona. Tasty with a bit of sweetness to the flavor. The fruits are large when mature, averaging around 15" long by 8" wide. Can also be eaten when young like summer squash. EA003 **HLSB** 

**Grey Zucchini** *C. pepo.* A great summer squash for western regions. Stores well and has an excellent flavor. Approx. 2g/20 seeds per packet. TS332 H L N

**Halawe Chipu** *C. argyrosperma* var. sororia. Guarijio Wild Cushaw. Also called Coyote Breasts or Trickster Breasts. Produces a small, 5"-round, green-striped fruits. Will cross with domesticated cushaw squash (C. argyrosperma). EA040 L S

Magdalena Big Cheese C. moschata. One of the oldest types of cultivated squash. Excellent producer of large, light orange, ribbed fruits with a flattened pumpkin shape (like a wheel of cheese), and sweet, bright orange flesh. EM031 H L S F

**Mayo Balsamina** *C. maxima*. The white or pale green fruits are round to elongated in shape and blush pink when fully ripe. The apricot colored flesh is firm and slightly sweet. Good keepers. EX001 L S M



**B**ulk Seed Available

# Seeds

#### More Squash

Mayo Kama C. moschata. Butternut-shaped fruit with orange- to salmon-colored flesh, good squash flavor, but not sweet. Productive even in the Phoenix heat. From Sonora, Mexico. EM032 H L S B

Mt. Pima Calabaza Mayera C. pepo. Collected near El Seis in Chihuahua, Mexico. Similar to an enlarged spaghetti squash in shape, with occasional green striping of the skin. EP052 H S

Navajo Hubbard C. maxima. Large fruits with greenblue, gray, green, light pink, or orange skin and tasty orange flesh. Shapes are round with pointed ends and occasional elongated fruits. A common Hubbard across the Navajo Nation. EX005 H S M

Navajo Pumpkin C. pepo. Orange pumpkins dryfarmed in the Big Mountain area of the Navajo Reservation in northeast AZ. Produces medium sized fruits about 6-12 pounds. EP048 H S M

Rancho Marques C. moschata. A beautiful and varied accession from Sonora, Mexico, at around 3,200'. A good keeper with good flavor that gets sweeter with storage. EM025 H L S B

Rio Lucio C. maxima. Medium to large hubbard-type fruits with extremely variable shapes and colors, orange flesh. From Rio Lucio, New Mexico at about 7500'. **EX009 H S** 

**Silver Edged** *C. argyrosperma*. Grown for the tasty seeds, which are large and white with a silver edge. Seeds are roasted for pepitas or used in pipian sauce. The beautiful round, flattened fruits are white with prominent green mottled stripes. Flesh is unpalatable. **EA015 H L S** 

**Southern New Mexico Calabaza** *C. argyrosperma.* From a market near Hatch, New Mexico, this largefruited vine requires lots of growing room. Late flowering but fruits are fast growing. Good resistance to squash bugs. EA049 H S M

Tohono O'odham "Ha:I" C. argyrosperma. A very heat tolerant and rapidly maturing squash from the Tohono O'odham Nation. Prized for the immature fruits, "Ha:al mamat" ("children"), which resemble zucchini. Mature fruits have light orange flesh, mild flavor, starchy texture, and store well. EA014 L S F M

C. argyrosperma. Typical pear-shaped Velarde cushaw with green and white stripes, and some yellow coloring. From Velarde, New Mexico at about 6300'. Taos seed type. Makes great-tasting soup. **EA025 H S** 

Yoeme (Yaqui) Kama C. argyrosperma. Round and pear-shaped medium sized fruits, some with warting on the skin. Flavorful yellow flesh. From Ures, Sonora, at about 1400' elevation. EA008 L S



Navajo Pumpkin



Rancho Marques



Rio Lucio







Yoeme-Yaqui Kama

# Sunflower Helianthus spp.

\$3.25

Plant: Plant seeds in the spring or with the summer rains, 1" deep and 12" apart. Plants can grow 6–9' tall. Approx. 2–3g/25 seeds per packet. Eat: A Native American domesticate, the seeds can be eaten raw or roasted, or pressed for oil. Birds love to eat them too. Save Seed: Sunflowers are insect-pollinated annuals, and all varieties will cross. Protect maturing seed heads from the birds with paper sacks or cloth bags (pillow cases work great). Allow seeds to dry in the flower heads. Rub out seeds and winnow off chaff. Recommended minimum population for seedsaving: 5-25 plants.

Conservation Farm Mix An open-pollinated mix of NS/S varieties planted at the Conservation Farm to attract pollinators and beneficial insects as well as for windbreaks and shade. Heads reach up to 12" in diameter and 8' tall. Includes single flower heads as well as branched diversity with multiple small- to mediumsized heads. Grow for the wonderful, edible seeds! A mix of seed sizes will be black, white, or striped. 1050 H L S B

Fort Apache From the White Mountain Fort Apache Reservation in east-central AZ. 5-9" flower heads borne singly on 5-7' plants. Plump striped seeds with heavy hulls. 1016 H L

Havasupai Small-Seeded Collected at Havasupai, this sunflower has black seeds that are much smaller than any of our other sunflowers. It is a branch variety that has numerous small heads per plant. It was originally collected in the mid-80s and sent to the USDA. We obtained a sample in 1983. IO14 H L S

Hopi Black-Seeded Mix A mix of medium (ca. 8") and smaller (4-6") flower heads with long yellow petals. A majority of plants are branched with a few producing a single medium-sized heads. Black seeds can also be used for a purple dye. IO15 H L S M

**Tarahumara White** This rare variety with solid gold flowers has all-white hulls. Medium to large heads, ca. 8" across. Plants 6–10'. Canadian Mennonite in origin but grown by the Tarahumara in Chihuahua for over 40 vears after some Mennonites there shared seeds. Verv beautiful. 1005 H L S M

## Tobacco Nicotiana rustica

\$4.95

**Plant:** Plant the tiny seeds in the spring, cover very lightly with sandy soil. Requires warm moist soil to germinate. Can be started indoors and transplanted. Plant seedlings 1' apart. Approx. 0.1g/125 seeds per packet. **Smoke:** Tobacco is highly valued and sacred in many Native American communities, and has spiritual, cultural and medicinal uses. Save Seed: An insect-pollinated annual, varieties will cross. Remove mature seedheads and crush capsules in a bag or on a tray. Use a fan or light breeze to remove chaff. Recommended minimum population for seedsaving: 5–10 plants.

Punche Mexicano From northern New Mexico, this tobacco was used by early Spanish settlers until the 1930s. N001 H L S





**B**ulk Seed Available



# Seeds

#### **Indigenous Tobacco Varieties**

The tribally affiliated and ceremonial tobacco seed in the NS/S collection is now only available to Native Americans through our Free Native American Seed Program, Community Seed Grants, or bulk seed exchange. Native Seeds/SEARCH has made the decision as an organization to remove these varieties from public distribution. Tobacco is found in Indigenous communities across the continent, many growing tobacco specific to their community and ceremonies, and which is not to be sold or used commercially or recreationally. Punche Mexicano, a New Mexican tobacco grown for smoking will remain available to the public (see page 39).

**Isleta Pueblo** From the pueblo south of Albuquerque, New Mexico. Plants grow to 4.5', including flowers. **N006 H S** 

**Papante** Tall plants (over 5') with large deer-ear-shaped leaves and large seed capsules. From Piedras Verdes, Sonora. **N008 H L S** 

**San Juan Pueblo** Traditionally grown by elders in small secluded patches. Leaves are used ceremoni-

ally. Plants have small, tubular yellow flowers. N005

**Santo Domingo Ceremonial** A cultivated annual grown in irrigated gardens by various Puebloans. Used in rain ceremonies. **N003** H L S F

**Tarahumara El Cuervo** From a very isolated area of Batopilas Canyon, Chihuahua. Smoked traditionally by older Tarahumarans. **N004 H L S B** 

# Tomatillo Physalis philadelphica

\$3.25

**Plant:** In the spring after all danger of frost, plant seeds directly in the garden 1/4" deep, or start indoors and transplant. Allow 15" between plants. Approx. 0.1g/25 seeds per packet. **Eat:** Tomatillos, "husk tomatoes," are used to make traditional and savory green salsas and stews. Related to ground cherries and Cape gooseberries. **Save Seed:** Flowers are both insect- and self-pollinated, and varieties can cross. Tomatillos begin to ripen when they turn from green to light yellow. When the husk is dry and begins to split open at the bottom, the fruit can be harvested for seed. To remove seeds, puree ripe fruit with a little water in blender on slow speed. Pulp will rise and seeds will sink. Recommended minimum population for seedsaving: 2–10 plants.

**De Milpa** From a strain that grows wild in Mexican farm fields on big sprawling plants. The 3/4" husked fruits blush purple near or after harvest time. Stronger in flavor than store-bought, these are great for salsa. **TS351 H L N** 

**Mexicali** Originally collected in 1986 at a truck stop in Mexicali, Mexico by an NS/S board member. The largest tomatillos in our collection. Fruits are husked. Good for salsa. **TM010 H L S** 

**Tepehuan** Small fruits on weedy plants. Collected in Nabogame, Chihuahua, a remote mountainous region. Our collectors were served these tasty fruits with their beans for breakfast. **TM002 H L S B** 

**Zuni** The small sweet fruit has been semi-cultivated by the Zuni for more than a century. Can be roasted in an oven, then blended with garlic, onion, chile, and cilantro as a hot sauce delicacy. **TM003** H L S F







# Tomato Solanum lycopersicum

\$3.25

**Plant:** In the spring after danger of frost is past, plant seeds in rich garden soil, 1/4" deep; or, start 6–8 weeks earlier indoors and transplant. Allow 15" between plants. In the low desert, they could also be started indoors in June and transplanted out in mid-late July. Approx. 0.1g/125 seeds per packet. **Eat:** Originally domesticated in Central America and the Andean region of South America, the modern cultural and nutritional importance of tomatoes worldwide is difficult to exaggerate. **Save Seed:** Flowers are both insectand self-pollinated, and varieties can cross. Bag flowers or separate by 10 feet (3 meters) to prevent crossing. Squeeze seeds from fully ripe fruit, add a little water, and allow to ferment 3–5 days. Rinse repeatedly, clean seed will sink and pulp will float. Recommended minimum population for seedsaving: 1–10 plants.

Chichiquelite *S. melanocerasum*. Not actually a tomato but a solanum cousin. Collected from a Mayo community in Sonora, Mexico. Commonly called the garden huckleberry, the leaves are cooked and the shiny black berries are edible and delicious. Delicious for pies, jellies, and jams but do require more sweeteners than other berries. Do not eat unripe green berries or raw leaves. Originated in western Africa. Approx. 100 seeds per packet. **GR012 H L B** 

**Ciudad Victoria** *S. lycopersicum* var. *cerasiforme*. A weedy, semi-cultivated tomato from dooryard gardens in Ciudad Victoria, Tamaulipas. Tiny sweet fruit are latematuring and very prolific. **TM005 H L S B** 

**Flamenco** A cross between Silvery Fir Tree for earliness and feathery foliage and Floridade for heat and disease resistance. The result is a semi-determinate 4' bush loaded with highly flavored, red, 2"-round fruits. Nice

acid/sweet balance and great flavor. Continues to produce in hot weather when others stop. Performed very well in our 2012 trials in both Tucson and Patagonia, Arizona. **TS340 H L N F** 

**Nichols Heirloom** These seeds were sent to us by the Nichols family in Tucson. Volunteer seeds that just kept coming up, they had been maintained by the family patriarch for about 50 years. It is well-adapted to the desert: heat-tolerant and prefers full sunlight. These "pink cherry" tomatoes are prolific producers. **TM014 H L S F** 

**Prescott Heirloom** Given to us by a member of a family that had lived for many generations in Prescott, Arizona. The fruit are large, red, oval, and quite fleshy. The thick flesh suggests that they may be good for canning. **TM013 H S M** 



# Seeds

More Tomato \$3.25

Punta Banda Collected on the Punta Banda Peninsula in Baja California. Plants produce hundreds of red, meaty, thick-skinned fruits despite heat, water stress, and poor soil. Great paste tomato. Incredibly productive in a 2018 growout at Mission Garden of Tucson. Renowned for its early maturity. TM007 H L S F

Texas Wild Cherry All that we really know is that seed of this tomato was collected from a patch of apparantly "wild" tomatoes in southern Texas. Sprawling plants produce tons of small, tasty, cherry-type tomatoes. Early-maturing and very productive! One of the stars of our 2012 tomato trials in Patagonia, Arizona (4,000'). TM012 H L S F

## Watermelon Citrullus Ianatus

\$3.25

Plant: In spring after soil warms or with summer rains, plant seeds 1/2-1" deep, 3 seeds per basin, allowing ample room for vines. Plants need a long growing season and rich soil with more compost added as they grow. Approx. 1.5g/15 seeds per packet. Eat: The sweet and refreshing taste of summer! Seeds can also be eaten or used for their oil, and the rind can be pickled. Save Seed: An insect-pollinated annual. Varieties will cross. Male and female flowers develop on each plant, Ripe fruits have a hollow sound when tapped and a yellowing patch on the bottom. Also look for dried tendrils next to the stem. Scoop out seeds of fully ripe fruit, wash thoroughly and dry. Recommended minimum population for seedsaving: 5-25 plants.

**Crimson Sweet** Bright red color, fewer and smaller seeds, and an above-average sugar content. An oblong member of the "picnic" family of watermelons. Commonly weighs 20–30 lbs. Resistant to anthracnose and fusarium wilt. Highly adaptable. TS263 H L N

**Jemez** Striped green fruit may vary from pale to dark green. Red flesh. Considered a native watermelon, but introduced 400 years ago. G014 H S

Kawayvatnga Hopi Red. From New Oraibi on Third Mesa. A varied accession, round to oblong fruit with solid or striped green skins and red to pink (and rarely yellow) flesh. G001 H L S M

Manzano Sandia Dry-farmed in the Manzano mountains southeast of Albuquerque. Likely a type of the popular Charleston Grey watermelon released in the 1950s. 10-20" elongated fruits with sweet red flesh. G018 H S

**Mayo** Originally collected from Mayo farmers in Los Capomos, Sinaloa, Mexico. Prolific vines produce round and oblong melons of various rind colors all summer. Red flesh is sweet. G005 H L S B

Navajo Red Seeded A good-tasting watermelon, sweet but not too sweet. Round fruits, light red to pink flesh, and red seeds. Produced well in Phoenix under the care of one of our partner farmers. G009 H L S M

Sandia Tuliza Rare, collected from Redford, Texas. Round, smallish, "native-type" fruit, flesh is red or occasionally pale yellow. Known as "sandia tuliza" just over the border in Chihuahua. G013 H L S M

Santo Domingo Dark Green A dark green-skinned watermelon with sweet red to pink flesh. The rind is very thick making this variety a good keeper throughout the winter months. Also a good choice if you like







**H**igh Desert

Low Desert

Seed Bank

Non-Collection

#### Find more varieties at **nativeseeds.org**

#### More Watermelon

watermelon rind pickles! Fruits are between 7–12 lbs. A favorite at Pueblo feast days. G019 H S

**Sikyatko** Hopi Yellow. The green-striped fruits have pale yellow/orange flesh (occasional plants produce red-fleshed fruit). Large fruit with crisp, sweet taste. G002 H L S F

T' Uwi' In Collected from an elder in San Juan Pueblo. The fruits are sweet and productive. Fruits are guite variable: skin may be light to dark green, and solid or striped. Flesh may be red or yellow, with white or black seeds. G008 H S

Tohono O'odham Yellow-Meated A high yielder of green oval fruit with sweet and crisp yellow to orange flesh. Fruit can be up to 35 lbs. Originally collected at Queenswell, Arizona. Stunningly delicious. The best watermelon we've tasted, period. G003 LSF M

#### Wheat Triticum aestivum

\$3.25

Plant: In the low desert, plant in December through January for harvest in dry months of May and June. Broadcast and rake in seed, then lightly pat soil. If birds are a problem, cover very thinly with straw and sticks. Keep moist until sprouted. Approx. 28q/700 seeds per packet. Eat: Traditionally, wheat was roasted and ground to make pinole or stretched to make thin wheat flour tortillas (chemait). Wheat berries are also cooked with teparies to make poshol. Whole grain flours from both Sonora and Pima wheats are very well suited to baked goods like tortillas, empañadas, scones, cakes, pancakes, crackers, and piecrusts. Save **Seed:** A self-pollinating annual. Birds love the ripe seeds, so protection may be necessary. Harvest when dry; strip stems or walk on seedheads to remove seeds and winnow off chaff. Recommended minimum population for seedsaving: 5-10 plants.

**Pima Club** At one time grown by the Akimel O'odham on the Gila River Reservation. Seed heads are short. beardless, and club-shaped (flattened). White kernels are soft and produce flour used for cookies and pastry. WH003 **HLSB** 

White Sonora A beardless soft spring wheat. Brought to the U.S. from Magdalena in northern Sonora, where it has been grown since around 1770. Common among the Pima and Yuma after 1820. Highly adaptable, nutritious, delicious, and versatile in the kitchen. WH001 **HLSB** 

Arizona-grown wheat and flour products from BKW Farms, Hayden Flour Mills, Ramona Farms, and San Xavier Coop Farms, are available at the Native Seeds/SEARCH retail store and nativeseeds.org









Wildflowers are a wonderful addition to any garden. They provide splashes of color and are a food source for bees, butterflies, and other beneficial insects. Two sizes are available — the small size (A) is 1–1.5g and covers approximately 30 square feet; the large size (B) is 0.5oz and covers approximately 100–200 square feet. Note: Wildflowers are not part of the NS/S seedbank collection.

**Culture:** Most desert wildflowers are planted in fall/winter in the desert, early spring in cooler climates. Planting instructions are included on the packets of these lovely native Southwestern desert wildflowers.

**Seedsaving:** Allow flowers to fully mature, dry and drop their seeds in place. Or collect the dried pods by hand, crush the pods and winnow away chaff before storing.

**California Buckwheat** *Eriogonum fasciculatum.* aka: Eastern flat-top buckwheat, Mojave buckwheat, flattop buckwheat, yellow buckwheat, maderista, valeriana, gordo lobo. Shrubby plants grow up to 3'. Lovely justpink globes of florets above curvy foliage. Dry rocky slopes from 1,000-4,500 ft. Flowers March-June. \$3/pkt **WF048** 

**Colored Globemallow** *Sphaeralcea ambigua.* This multi-stemmed mallow is a good source of pollen and nectar for honey bees. Plants are usually 2–4' tall with blooms in shades of pink and lavender. Plant fall to early spring. \$2/pkt **WRA052** or \$12/oz **WRB052** 

**Desert Bluebells** *Phacelia campanularia*. Low growing, blue-violet flowers with yellow stamens look like little bells. Plant fall to early spring. \$3/pkt **WF019A** 

**Desert Lupine** *Lupinus sparsiflorus*. This is a showy purple lupine native to Nevada, Arizona, California, Sonora, and Baja California. The multiple purple blossoms on a tall spike contrast nicely with pale green palmate leaves. This desert wildflower prefers deep, well-draining sandy soils and lots of sun. Plant fall to early spring. \$3/pkt **WF004A** or \$12 (0.5oz) **WF004B** 

**Desert Marigold** *Baileya multiradiata*. Lemon-yellow flowers on long stems with gray-green foliage. Blooms

mainly in the spring and after summer rains. Plant fall to early spring. \$3/pkt WF016A or \$12/oz WF016B

**Firewheel** Gaillardia pulchella. Fire-wheel has 2" diameter daisy-like flowers that are deep red with yellow tips. Blooms March through September. Plant in fall. \$3/pkt **WF014A** or \$12/oz **WF014B** 

**Golden Dyssodia** Thymophylla pentachaeta. aka: Dahlberg daisy, dogweed, golden fleece. 6–10" plants with small daisy-like yellow flowers and darkish-green, very thin leaves. Can make a bright beautiful carpet. Readily reseeds. Likes dry slopes and flats, especially on limestone soils, from 3,500–5,500 ft. Flowers May-August. \$3/pkt **WF043** 

**Mexican Evening Primrose** *Oenothera speciosa.* Low growing perennial with bright pink, cup-shaped flowers. Plant anytime. \$3/pkt **WF018A** or \$12/oz **WF018B** 

**Mexican Gold Poppy** *Eschscholtzia mexicana.* The most popular, most photographed, golden desert wildflower. Plant fall to early spring. An annual, this flower will readily reseed. \$3/pkt **WF035A** or \$12/oz **WF035B** 

**Mexican Hats** Ratibida columnifera forma pulcherrima. The colorful 1.5" sombrero-shaped flowers generally appear April to November. Easily grown from seed. Plant fall to early spring. \$3/pkt **WF036A** 







44

Palmer's Penstemon Penstemon palmeri. Beautiful white flowers tinged with pink or lilac. Has a delicate, inviting fragrance. Grows in washes and along roadsides at 3,500-6,000'. Plant fall to early spring. \$3/pkt WF013A

Parry's Penstemon Penstemon parryi. A favorite of hummingbirds, this tall perennial has rose-colored, bellshaped flowers. Plant fall to early spring. \$3/pkt WF012A or \$12/oz WF012B

**Sand Verbena** Abronia villosa. A spreading plant with bright pink-purple flowers. A spring bloomer that is pollinated by butterflies. Likes sandy soil; once established it will reseed and return. \$3/pkt WF040A

Summer Poppy Kallstroemia grandiflora. This handsome summer wildflowers superficially resembles poppies but is not related. In Arizona it is most commonly found in desert grasslands below 5,000'. It is a handsome sprawling plant (up to 3' across) with showy, orange, five-petal flowers that sport a bright red center. Plant before humidity begins to rise in the summer. \$3/pkt WF003A or \$12 (0.5oz) WF003B

**Tahoka Daisy** *Machaeranthera tanacetifolia.* aka: Tanseyleaf tansyaster, Prairie Aster. A purple, thinpetaled flower with a brilliant yellow center. Open spreading plants to 40". We see them bloom yearround with rain or a sprinkle ever now and then. Very readily reseeds. Likes open places and along streams, washes, and roadsides, below 8,000 ft. Flowers March-October. \$3/pkt WF041

## **Desert Wildflower Blends**

Butterfly Garden Mix A mix of colorful and fragrant flowers that will attract butterflies to your garden. This blend of spring and summer blooms contains 13 varieties including Desert Lupine, Marigold, Showy Penstemon, California Poppy, Cornflower, Coreopsis, Firewheel, and Maximillian Sunflower. \$3/pkt WF029A or \$12 (0.5oz) WF029B

Desert Colors Wildflower Mix A blend of 23 varieties, some desert natives and some non-invasive garden favorites. Natives include Dyssodia, Owl's clover, Silverbells, Paperflower, and more. Non-natives include Coreopsis, Cosmos, Shirley Poppy, and others. \$2/pkt WRA034 or \$12 (0.5oz) WRB034

**Desert Native Bee Monsoon Wildflower Mix** This mix of arid adapted annuals addresses the special needs of late season desert native bees and will attract other pollinators in a period of often limited desert blooms. Plants included provide continued flowering through late Fall with a mix of colors and heights. At least 12 wildflower types, including Tansyleaf Aster, Arizona Poppy, and Yellow Mexican Hat, are included. The Fall wildflowers produced by this mix are also important as a food source for migrating monarch butterflies. \$5/pkt (1.5g) BN002

**Desert Native Bee Spring Wildflower Mix** Spring is high season for desert native bees. This mix of adapted annuals is chosen for its early blooms and then continued Spring flowering, plus diverse colors and alternate heights. At least 12 wildflower types, including Goodings Verbena, Wild Buckwheat, and Yellow Bee Plant, are included. While observing the many desert native bees attracted, also watch for hummingbirds and butterflies. \$5/pkt (1.5q) BN001

Desert Tortoise Mix A mix of Southwest native wildflowers favored as food by desert tortoises. Includes 10 species including Summer Poppy, Desert Marigold, Evening Primrose, and Globemallow. \$3/pkt WF009A or \$12 (0.5oz) WF009B

Happy Hummingbirds Designed to draw hummingbirds to your garden. Includes 5 different colorful desert Penstemons, as well as Lemon Beebalm and Gooding's Verbena. \$2/pkt WRA008 or \$12 (0.5oz) **WRB008** 

Summertime Mix A blend of southwest wildflowers that bloom in the late summer months. 6 blooms in hot colors, including Desert Marigold, Arizona Poppy, Yellow Mexican Hat, and Firewheel. \$3/pkt WF010A or \$12 (0.5oz) WF010B

Southwest Native Mix This colorful annual and perennial mix contains 13 summer and spring blooming wildflowers native to the Southwest, including Desert Bluebells, Arroyo Lupine, Firewheel, Yellow Mexican Hat, California Poppy, and two Penstemons. \$3/pkt WF011A or \$12 (0.5oz) WF011B









NS/S supports local businesses who grow and or process foods from the southwest region by offering their products for sale. Check these out and many more at our retail store in Tucson and online at **nativeseeds.org**.

#### Mini-Canvas Art

A member of the Hopi tribe, artist Gerald Dawavendewa grew up in the Hopi village of Munqapi and in the Cherokee woods of Oklahoma. His art reflects the rich traditions of his Hopi & Cherokee culture. This is but a small sampling of Gerald's work.

#### MINICAN \$20 each

Canvases are pictured below in order, left to right. Please specify your choice.

OR to see more, please visit our store in Tucson or online at nativeseeds.org.

#### **Earth Bundle**

From an original painting that was sent aboard the Space Shuttle Endeavor in 1994. In the center is the Sun, *Taawa*. Above the sun are the symbols of the Earth, the Fourth World to the Hopi, and below, the Moon.

#### "Tootsa" Hummingbird

Tootsa, or Hummingbird, gathers nectar among blossoms.

#### **Bean Maiden**

Bean Maiden holds a bowl with germination symbols filled with bean sprouts as two bean plants stand beside her. Rain clouds gather behind her.

#### **Squash Maiden**

Squash Maiden reaches with vines outward to the fertile soil as rain clouds gather in the horizon below dragonflies announcing their coming.

#### **Corn Maiden**

Corn Maiden stands next to two plants offering prayers to the gathering rain clouds on the horizon. She symbolizes the blue corn.









#### **Bake Mixes**

**Golden Mesquite Cookie Mix**Makes about 4 dozen cookies. **JM013 \$10** 

#### **Golden Mesquite Pancake Mix**

Makes 6–10 pancakes. Directions for Golden Mesquite Crepes are included in the package. **JM016 \$10** 

Mesquite Poppy Seed Scone Mix Makes 12–16 scones. JM006 \$10

#### Chile Chocolate Brownie Mix

These enticing brownies are sweet with a light touch of chile and spice. Makes an 8" x 8" baking pan of brownies. **JM004 \$10** 

#### **More Traditional Foods**

Ciolim (Chee-or-lim) Dry Cholla Buds

From San Xavier Co-op Farm.

1.6oz. jar **SXC005 \$12.50** 4oz bag **SXC008 \$30** 

**Tepary Beans** From Ramona Farms.

White 16oz. pkg FD261 \$7.50 Brown 16oz. pkg FD061 \$7.50 Black 16oz. pkg FD161 \$7.50

**Teas** From Desert Decadence.

Desert Mint White Sage FD311 \$5
Pomegranate Cranberry FD312 \$5
Prickly Pear Cactus FD320 \$5
Saguaro Blossom FD310 \$5



#### Chiles

**Pasilla de Oaxaca Whole Chiles** This is a smoky, dark red chile that has a wonderful aroma and pungent fruit flavor. Excellent when cooked with beans and posole. Staff favorite!

1.5oz. pkg FD088 \$7

**Negro Pasilla Whole Chiles** These chiles have a mild heat with pungent, tangy and long lasting deep rich flavor. Excellent addition to salsas, adobo sauces, and enchiladas.

1.5oz. pkg FD110 \$4

**Ancho Whole Chiles** This dark rich mahogany chile has a mild, fruity flavor with notes of plum, raisin, tobacco and a slight woodiness.

1.5oz. pkg FD092 \$4

**Chipotle Flakes** Move over old pedestrian chile flakes! This smoky mellow heat is wonderful in both sweet & savory dishes.

4oz. pkg **BSP130 \$6** 8oz. pkg **BSP130.8oz \$10** 

#### **Chiltepines and Molinitos**

Chiltepines are dried and ready to use to add a kick to any dish. These chiltepines come from our local supplier, Chiltepica, which is a combination of two words in Spanish: *Chiltepin*, which is one of the hottest chiles in the world, and the word *Pica*, which translates into English as hot, the kind of "hot" that instantly jump-starts your taste buds the way a flame ignites dry paper.

1/8oz. pkg **CS008 \$4.50** 1/4oz. pkg **CS009 \$7** 1oz. bottle **CS012 \$18** 

Don't forget your molinito! Handmade from Ironwood, perfect for crushing this fiery little chile before adding to any dish (see page 54 for image).

Saguaro-shaped Chiltepin Grinder (Molinito) CS0042 \$20

## **Seed Collections**

Overwhelmed by choices? Let us select for you! Each collection contains individually packaged varieties along with extra info and growing tips. Substitutions may occasionally be necessary. See below for Seed Saving Supplies and Seed Saving in the Southwest booklet.

#### **Low Desert New Gardener Collections**

Whether you are new to the low desert, new to gardening, or both, these collections are your head start. Each includes easy to grow, well adapted varieties for low desert gardens, plus instructions.

**Cool Season** 5 pkts **SC011 \$15.95 Warm Season** 5 pkts **SC010 \$15.95** 

Chile Garden 9 pkts SC001 \$29.95

Container Garden 9 pkts SC006 \$29.95

Herb Garden 9 pkts SC007 \$29.95

**Heritage Garden** (all seed bank collection varieties). 9 pkts **\$C008 \$29.95** 

Low Desert Wildflower Garden 8 pkts SC009 \$19.95

Monsoon Garden 9 pkts SC004 \$29.95

Southwest Warm Season Garden 12 pkts TS600 \$38.95

Southwest Cool Season Garden 12 pkts TS601



# **Complete Garden Collection**

A diverse and tasty collection of **30 seed packets** in a waterproof metal can good for long-term storage. Includes vegetables, herbs, and wildflowers for warm and cool season growing in both low and high deserts of the Southwest. Suitable for other climates as well. **Includes a copy of Saving Seeds in the Southwest.** Seed packages are sized for an average-sized family garden. **TS604 \$98.95** 

# **Seed Saving Supplies**

Gardeners and farmers play an important role in conserving agricultural biodiversity by growing and saving seeds. These supplies provide the tools needed to save and store your seeds.

Seed Saver Packet Size see page 21

**Seed Envelopes** A key to successful seed saving is proper labeling and storage. Our preprinted self-sealing envelopes make it easy! 20 envelopes **\$3.50 SSS001** or 50 envelopes **\$8 SSS002** 

**Foil Packets** Great for long-term storage. Zipper closure and puncture resistant material will protect your seeds. These 6.5 x 5" envelopes will easily hold ½ lb of beans or corn or 10 packet envelopes. 5 envelopes \$3 SSS003 or 10 envelopes \$5 SSS004

**Blossom Bags** 3"x4" organza bags with drawstring ties, perfect for protecting your tomato and chile flowers from cross-pollination. Or, use to capture milkweed or other easily dispersed wildflower seeds. 10 bags \$5 \$5006



**Seed Saving Guide for the Southwest Book** 96 pages packed with seed saving techniques and detailed information on 32 popular crops that grow well in Southwestern gardens. A great introduction for beginners and a useful reference book for experienced seed savers. English (2nd edition) \$14.95 PB2017 Spanish (1st edition) \$9.95 PB2019

Corn Pollination Supplies Shoot bags for protecting silks and weather-resistant paper bags for covering tassels and pollinated ears. Tassel bags are also useful for protecting sorghum and amaranth from birds. Handpollination instructions (see nativeseeds.org) are included with your order. 100 Ear Shoot Bags \$6 SSS007 or 50 Tassel Bags \$12 SSS008

# **Growing & Seedsaving Information**

When you save seeds from your garden or farm, you make a vital contribution to crop biodiversity and seed security. Following the basic guidelines below will help maintain distinct varieties and produce good quality seed. Visit **nativeseeds.org** for more information on seed saving and seed saving workshops. See page 55 for seed saving supplies and page 35 for *Saving Seeds in the Southwest* 

## **Plant**

#### Growing healthy seed

Plant healthy, non-diseased seed. Thin plants to a recommended distance within and between rows — most plants simply do better with a little breathing room and good air circulation can help prevent disease (see individual crops for recommended planting distances). Rogue out (remove) plants that are diseased or otherwise unhealthy looking. If you're trying to keep pure seed lines, also rogue out plants that don't appear true-to-type (what you know the plant to look like) before they flower.

#### Days to maturity

We do not list days to maturity for seed varieties because we often don't have reliable information. Number of growing days can vary greatly based on where seeds are grown. Moreover, many of these crops reach maturity in different lengths of time depending on when they are planted — e.g., in the spring or with the summer rains.

### **Population Size**

The reproductive strategy of different crops determines how many plants are needed to produce seed with the genetic diversity to remain healthy. With each crop type, we list a suggested minimum population size for saving seed. The lower number is the recommended minimum. (Though you may save viable seed from a smaller number of plants, the seed may not retain enough genetic diversity to remain healthy for more than a couple seasons of re-planting.) The high number is the preferred size for those who want to

share seed with others and maintain the traits of the variety. If you want to save a rare variety over the long term, or do crop improvement, population size should be even larger.

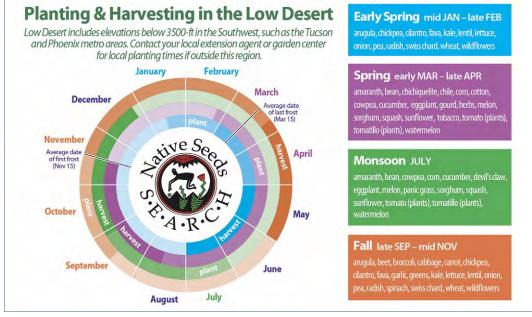
### Save Seed

#### **Preventing Cross Pollination**

Growing more than one variety of the same species at a time may result in crossing. Planting the seeds from crosses may produce something entirely different than you're expecting — which is how we got all this wonderful diversity to begin with! However, if you want to get the same crop you did last year yet maintain a healthy amount of genetic diversity, then you may need to prevent crosspollination from occurring and learn the optimum number of plants to save seeds from. For this it is important to know whether the crop is self-pollinating or cross-pollinating.

Self-pollinating crops (such as tomatoes, peppers, and beans) are generally the easiest to save seed from; they require less isolation from other varieties, no hand-pollination, and seeds may be saved from just a few plants. Cross-pollinating species (such as corn, squash, and melons) thrive with greater diversity, and their seeds must be saved from many more plants for the population to remain healthy. Also, because they depend on the activity of insects and wind for pollination, exposure to pollinators needs to be controlled or they must be hand-pollinated to ensure parentage. There are several ways to do this:

**Spacing** Plant different varieties at a suitable distance to ensure insects or wind cannot effectively carry pollen from one variety to another; see individual crop descriptions in this listing for recommended distances. In general, wind-pollinated crops (e.g., corn) and crops visited by insect pollinators capable of traveling some distance (e.g., carpenter bees, honeybees) should be grown a mile or more apart from each other. Self-pollinated crops (e.g., beans) may require as little as 20', depending on what's grown in-between or the abundance of insect pollinators present—the more



This chart is intended as a rough guideline ... climate change is creating more extreme weather variations, and differences in local microclimates make precise instructions for planting impossible. Gardening means being willing to experiment: fail or succeed, learn, and try again. Take into account important conditions in your own garden, like shade, soil temperature and composition, etc.

insects, the more likely pollen may find its way from one plant to another. But don't be afraid of pollinators, they are part of a healthy agricultural system.

**Timing** The simplest way to prevent crossing is to only plant one variety within a species in each season (for example, only blue flour corn one year, only sweet corn the next year.) Or, plant different varieties of the same species at different times so that they are not flowering at the same time. This may involve an early and late planting. Be sure there is enough time at the end of the season for the late planting to mature before the first frost.

**Isolation cages** Physically prevent insects from visiting one variety or another by constructing screen cages and placing them over one or more varieties. This is best used for non-sprawling crops, such as tomatoes, beans, okra, cotton, and chiles.

**Hand-pollinating** Manually transfer pollen from one flower to another. Hand pollination will differ depending on the crop but essentially you

want to be sure that neither the flower being pollinated nor the one used as the pollen source have been previously pollinated.

#### Harvesting

Remember to mark the specimens you're saving seed from, and allow them to reach their full maturity before harvesting. For most crops, this means leaving them in the field to dry — corn, beans, gourds, okra, devil's claw, peas, chiles, etc. Some crops require after-ripening (e.g., squash) or fermentation (tomatoes).

#### Cleaning & storing seeds

Remove all plant material, including chaff, stems, or flesh from seeds and allow to dry thoroughly. Use sealable plastic bags, paper envelopes, jars with good lids or any airtight container to store seed from one year to the next. Spread wet seeds from squash, melons, tomatoes, etc. on clean dish towels. We do not recommend paper towels (they stick) or newspaper (toxic print). Once seed is dry use sealable plastic bags, paper envelopes, lidded jars or any airtight container to store seed. Store seed containers in a cool, dry place, such as your hall closet or freezer.

# It takes many hands to seed the planet: Join the work, become a member today!

By supporting Native Seeds/SEARCH you are helping to conserve a diversity of crops that are uniquely adapted to the challenging growing conditions of the Greater Southwest. These crops represent an irreplaceable genetic resource for global food security concerns as well as a priceless collection of cultural heritage. Your membership supports regional small farmers working to grow and share arid-adapted crop diversity.

#### Your Membership Benefits:

- \* Access to members-only seed varieties designated with M throughout the catalog
- \* A 10% discount on all seed purchases
- ★ Early access to NS/S plant sales
- Discounted tuition to educational workshops and courses
- Invitations to special events
- \* Our annual Seedlisting catalog
- \* The Seedhead News, our annual newsletter

#### Join, renew, or donate online at nativeseeds.org

or fill out this form and mail with payment to: NS/S, 3584 E. River Road, Tucson, AZ 85718

Name(s)	Membership Level (check one):
Address	○ Gourd \$60
	○ <b>Bean</b> \$100
City/State/Zip	O Chile \$250
	O Corn \$500
Email	O Sunflower \$1,000
	O Native American Free within Greater SW
Phone	O Native American (Non-SW) \$20

Your privacy is important to us. We will not sell or trade your name, email, or other information with anybody. Some portion of your membership may be tax-deductible. Please consult with your tax adviser.

## **Payment method**

O Check	O Money order	○ Visa	○ MasterCard	O Discover	• American Express				
Card no.: _					_ Exp.: /				
Print name	as shown on card	Security Code:							
Billing address (if different from above):									

# **Catalog Order Form**

toll-free: 1.866.622.5561 x113 fax: 520.622.0829 online at our secure website: shop.nativeseeds.org

Full Name Street Address		Shipping Address (if different):						
		Full Name						
City/State/Zip	Street Address							
Daytime Phone		City						
Email		State/Zip						
Catalog # Item Description		Quantity Unit Price Total						
C010 (example)	Chacari		2	\$ 3.25	\$ 6.50			
			i 					
			! !					
	L							
			:					
			ļ					
			i !					
			i 					
			ļ					
! ! !			İ					
			i   					
			i +					
			ļ	ļ				
			ļ ļ					
Please read Impo	rtant Ordering Information		is	UBTOTAL				
	tails about shipping as well Are you							
as membership in	formation on page 51.			ee page 52)				
		Not yet a member? Jo		ee page 54) ıl enclosed:				
	Payment method		1018	ii chelosed				
tive Se	○ Check ○ Money order ○ V	○ Check ○ Money order ○ Visa ○ MasterCard ○ Discover ○ American Express						
2	<u> </u>	Card no.: Exp.: /						
S	Print name as shown on card:	Print name as shown on card: Security Code:						
A.R.C	Billing address (if different from above	Billing address (if different from above):						
4 3 4								

# **Important Ordering Information**

Please put item number, item name, and quantity on your order form. Keep a copy of your order. If you have missing items or problems, it helps if you can identify your order. Please retain your *Seedlisting* for reference.

We accept checks or money orders drawn on U.S. Banks. For your own safety, please do not send cash. We accept credit cards (Visa, MasterCard, Discover, American Express) by mail, phone, our website, and in our store. Our toll-free number is 1.866.622.5561 x 113. Please note we are closed on weekends and major holidays. PayPal payments can be made on our website only.

We are a nonprofit organization promoting seed conservation. Your dollars support our mission. We do not charge tax on any orders.

We have limited quantities of some seeds and it may be necessary to substitute seed varieties.

We typically ship via the United States Postal Service (USPS).

OKRA and COTTON seeds can ONLY be shipped to AZ, NM, OK, and TX addresses due to a quarantine by the USDA.

# **Shipping & Handling Charges**

We ship nationwide and to Canada — please call 1-866-622-5561 x 113 for shipping rates to Canada OR if you are unsure about your shipping charges.

## **Domestic Shipping Rates**

Shipping & handling charge for seed-only orders:

10 pkts or less \$3.95 10–30 pkts \$6.95

### Shipping & handling charge for food, books, or other items:

We will always choose the least expensive shipping option. Here are two common sizes and their prices:

Medium Flat Rate Box 11" x 8.5" x 5.5" **\$15** Large Flat Rate Box 12" x 12" x 5.5" **\$19** 

As USPS says, "If it fits, it ships!"

Are you sending a gift? Please feel free to write a short note and we will include it in your package.







Family Name Oenothera

Scientific Name Onagraceae Primiveris

Common Name Desert Evening Primrose

Habitat North of Tucson, Oro Valley, Arizona

Date March 15th, 2019

Collector Supporter of Native Seeds/SEARCH

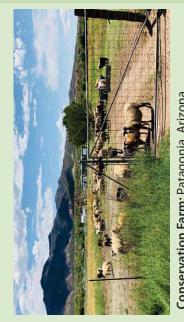


Tucson, Arizona 85718 Native Seeds/SEARCH 3584 E. River Road

# Non Profit Org **Permit** #2157 **US Postage** Tucson, AZ PAID

# Come visit us, join our mission, and learn more!

Visit nativeseeds.org for information about special events, classes and tours.



Conservation Farm: Patagonia, Arizona



Tucson. Administrative Offices, Mail and Web Conservation Center: 3584 E. River Rd. in Orders, & Seed Bank. 520.622.0830 Retail Store: 3061 N Campbell Ave. in Tucson. Call us at 520.622.5561 for hours.