

**2018** Seedlisting



# **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 January, May, and September. See page 5 for more information.

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

We provide a limited number of seed packets at no or reduced cost to Native American individuals. See page 9 for more information and details on how to order.

#### **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.

## Seed Library

If you are in Tucson, Arizona, we encourage you to visit our seed library located in our Retail Store. The library is open to all to facilitate the free distribution of locally adapted seeds and increase regional seed sovereignty. Donations of seed to the library are welcome!

Visit www.nativeseeds.org, email us at getseeds@nativeseeds.org, or call us at 520.622.0830 for more information.



Community Seed Grant Recipient: Pollinator Garden at Raul M. Grijalva Elementary, Tucson, where children are learning research methods in the garden, along with gardening skills.



Bulk Seed Exchange Partner Jon Naranjo is growing this Hopi Blue Corn at San Juan Pueblo.

# Celebrating 35 Years: The Corn Issue

In this issue of the *Seedlisting* we are honoring corn: Ubiquitous in many forms in our food today, this ancient crop remains central to the Southwest's cultural, gastronomic, and agricultural traditions. It is also makes up nearly a third of the biodiversity in the NS/S seedbank collection. Look inside for details about growing and saving the seeds for this unrivaled global treasure, along with recipes, food products, and more.

The very first *Seedlisting* published by Native Seeds/SEARCH hit the mimeograph machine in 1983, so the catalog you are holding now marks the 35th year we've offered seeds to the public. What started with small jars of seed and homespun backyard grow-outs, has today matured to a state-of-the-art, climate-controlled seed bank to house a collection nearing 1,900 unique accessions. Regenerating and sharing seeds keeps these delicious and nutritious foods alive beyond the walls of the seed bank, out where they belong — grown, harvested, eaten with friends and family.

But we're still not a seed company — all product sales directly underwrite our work as a nonprofit conservation organization. You may notice that most of our seed-packet prices are increasing this year. It's been 7 years since we've raised our prices, while the costs of maintaining the collection and making seeds available continue to rise. The 10% increase per packet will help fund a mission that is just as vital today as ever, with a renewed focus on conserving the cultural and genetic heritage of the seeds by growing them as close as possible to the places and people they come from. Our network of trusted bulk seed exchange growers broadens each year, and for the upcoming season we are excited to partner with regional farmers like Crooked Sky Farms, Las Milpitas, and others, to achieve our growouts. We've also expanded our Conservation Center Gardens, making it possible for us to grow more rare crops in isolation on-site in Tucson.

Today your seed purchase, membership, or donation continues to support both crop biodiversity and food security in the desert Southwest and northern Mexico, particularly in Native American communities from which many of our seeds originate. This includes providing free seed to over 500 Native households each year, and to more than 120 community and school gardens. It also makes it possible for us to share our world-class educational programs with students who learn how to save seeds for themselves and their communities. Together we are creating a rich, biodiverse future.

We thank you for 35 great years, and here's to the next 35!



# Table of Contents

Our Seeds	4–5
Growing & Seedsaving	6–7
The Tradition of Seedsaving	8
Native American Seed Reques	t 9
Placing an Order	52–53
Becoming a Member	54
The Seed Collection	
Amaranth	10
Bean	11–15
Beet	15
Broccoli	15
Cabbage	16
Carrot	16
Chile/Pepper	17–18
Chiltepin	19
Corn/Maize	20–26
Cotton	27
Cowpea	27–28
Cucumber	28
Devil's Claw	29
Eggplant	29
Fava	30
Gourd	30–31
Greens	31
Herbs	32-33
Kale	34
Lettuce	34–35
Luffa	35
Melon	35-36
Okra	37
Onion	38
Panic Grass	38
Pea	39
Radish	39
Sesame	40
Sorghum	40
Squash	41–43
Sunflower	43
Tobacco	44
Tomatillo	44
Tomato	45–46
Watermelon	46–47
Wheat	47
Desert Wildflower	48–49
Seed Collections	55
Food and Gifts	50–51
Seed Saving Supplies	55

3

# Our Seeds

We are 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.

Landraces & Heirlooms Seeds from the NS/S Seed Bank Collection (shown with the S symbol) are landrace or heirloom varieties with a long historical connection to the Greater Southwest. Landraces are farmer-developed varieties of crops that are adapted to local environmental conditions. Heirlooms are similar in that they are grown and shared over generations.

**Non-Collection Seed** We also include OP species and varieties from outside our collection to broaden our offerings. These Non-Collection varieties (shown with the  $\mathbb{N}$  symbol) perform well in the Greater Southwest even though they do not have a deep historical connection to the region (see page 168 for more information).

**Organic Growing Practices** Most seeds in our Seed Bank Collection are grown out at our Conservation Farm in Patagonia, AZ. 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 take efforts 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. Each accession is genetically distinct, having adapted to specific ecological and cultural niches. These accessions represent 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. Distribution of the seeds and education in seed saving techniques also help to ensure their maintenance. NS/S uses both approaches, a regional seed bank and promotion of local seed saving, to preserve biodiversity.

# **Conservation Farm**

After the fall harvest of 2017, the Native Seeds/SEARCH Conservation Farm in Patagonia, AZ, will be taking a short break from production. Fallowing of land is a critical component of sustainable, low-input, regional agricultural strategies; during the year we will be actively restoring soils with cover cropping and pasturing animals, who will also manage weeds and insect pests. At the same time we will be partnering with small farmers in the Southwest to continue regenerating our seeds to ensure they're available for distribution.

# Community Seed Grants

# With your support in 2017, we donated over 3,916 seed packets to 157 organizations!

Native Seeds/SEARCH is pleased to offer small donations of seeds to eligible organizations in the Greater Southwest region. These grants are designed to support the work of educators and those working to enhance the nutritional, social, economic, or environmental health of underprivileged groups. They also keep locally adapted crop varieties alive and in active use in farms and gardens.

Donations are open to organizations working on educational, food security, or community development projects. Strong preference is given to organizations working in the Greater Southwest region. Applications are reviewed three times each year in January, May and September. Please visit our website for more information and to apply:

www.nativeseeds.org/get-seeds/communityseedgrants



Community Seed Grant Recipient: Osborne School District, Phoenix, AZ.



From Community Seed Grant Recipient Quail Run Elementary, Marana, AZ:

"Most of our students have never planted a garden, and through the experiences they are having at school, they and their parents are learning that this is a wonderful family building experience that can also be a needed food source."

Community Seed Grant Recipient: San Ildefonso Pueblo, New Mexico, where vegetables harvested from the garden are feeding children in the afterschool program.

# How to Read this Seedlisting

#### 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 landraces, heirloom, 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).

#### **F**AVORITES

The most essential seed varieties in our gardens.

#### **MEMBERS** Only

Indicates varieties that are in low supply and only available to NS/S members, including the Native American Seed Program. Details on pg. 9 & 54.

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

Indicates varieties where bulk quantities are available. Sizes from ¼ oz to 1 lb, depending on variety. For pricing, please call 520.622.0830 ext. 102 or email getseeds@nativeseeds.org.

# 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 instruction on seed saving as well as information on upcoming seed saving workshops. See page 55 for seed saving supplies and page 33 for *Saving Seeds in the Southwest*.

## **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 (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.

## **Keeping lines pure**

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 cross-pollination 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 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

# **Educational Opportunities**

At NS/S we seek to give our supporters the knowledge and skills needed to contribute to regional food security. We provide workshops, educational presentations, and resources covering:

\* Seed saving

- \* Growing practices in aridlands
- \* Southwestern regional foods and culinary traditions

Our programs are tailored for specific audiences including Native Americans, Spanish speakers, K-12 educators, small farmers, and advanced to newer home gardeners.



Visit nativeseeds.org/learn for current opportunities and our digital collection of educational resources!

## Planting & Harvesting in the Low Desert

Low Desert includes elevations below 3500-ft in the Southwest, such as the Tucson and Phoenix metro areas. Contact your local extension agent or garden center for local planting times if outside this region.



Early Spring mid JAN - late FEB

arugula, chickpea, cilantro, fava, kale, lentil, lettuce, onion, pea, radish, swiss chard, wheat, wildflowers



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 (they can cross-pollinate if insects are abundant), 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.

## **Population Size**

The reproductive strategy of different crops determines how many plants are needed to produce seed with the genetic diversity to remain healthy. For each crop type, we list a suggested minimum population size. 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 are attempting to save a rare variety over the long term, or to do crop improvement, the population size should be even larger.

## 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 quite a lot based on where seeds are grown. We have not grown them often enough or in different locations to provide a reliable average. 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.

## 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 & saving 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). Store seeds in a cool, dry place, such as your hall closet or freezer.

# Spotlight on Seed Savers

The Greater Southwest has an extremely long and rich agricultural history. The people of this region developed and conserved an incredible diversity of crop resources that have sustained their communities through many generations. In many communities there are individuals and organizations continuing that work today, and we are excited to share these two examples to honor these efforts to conserve traditional crops and ensure food security for local communities. NS/S is proud to work as a partner in supporting these efforts.

La Plazita Institute is a grassroots non-profit in Albuquerque, NM, which engages youth and adults primarily of Native American and Latino descent in a variety of programs based on the phi-

losophy of "La Cultura Cura" or culture heals. Its programs operate with the intention of transcending the historical traumas caused by oppression, drug abuse, violence, poverty, colonization, inequity, and gang affiliation.

La Plazita Gardens (LPG) teaches future farmers to grow food from the perspective of creating economic justice, self sustainability, and remembering their own cultures' land-based ways of living and knowing. They train participants in organic farming, using both traditional seeds and modern crops; participants learn the whole range of skills required in running a full-time farming operation, including seed saving. LPG runs year-round

Jacob Butler resides in the Salt River Pima-Maricopa Indian Community east of Phoenix, and works as the Cultural Resources Community Garden Coordinator. As a lifelong student of his community's history, language, life ways, and arts, Jacob shares what he has learned with his community. As the Garden Coordinator, he promotes, assists, and introduces tribal members to gardening. Mr. Butler's efforts reinforce the great Agricultural tradition and heritage of the people,

reminding them that the core of Akimel O'odham culture is agriculture. Complimentary to the garden, he initiated and manages the community's seed bank. The seed bank was originally Mr. Butler's own personal collection of traditional seeds. food production on its three urban and semirural farms. The food produced is featured in restaurants, local grocery stores, and part of the Albuquerque Public School menu.

> The farms also produce food for a community supported agricultural (CSA) program which serves the south valley's most underserved families. They distribute certified organic produce along with culturally competent recipes and community news every week to low income families, people facing health issues such as cancer and

diabetes, and members referred by La Plazita's affiliate organizations and partners.

LPG is a powerful healing place where traditional culture, spiritualit, and horticulture come together to meet social entrepreneurship for the improvement of community.

The collection carries a long history with his people and were collected from his elders and other traditional food growers. The SRPMIC/CRD Garden and Seed Bank supports the efforts of his community by providing the seeds, advice, and even initial labor, to encourage community members to start their own home garden and seed bank. Jacob's work inspires us to be mindful of the connections vital to sustainability. His work shows us that, if we hope to save from

extinction these seeds that have developed unique traits and qualities vital to sustainability, we must also practice a way of life that promotes healthy communities, land, water, and air quality, in unison with responsible stewardship of the seeds.

# 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.

NS/S is able to provide up to 10 free seed packets per calendar year (limit 3 packets per seed variety) for Native Americans\* residing in the Greater Southwest region (see map), or belonging to tribes from the Southwest region regardless of residence; up to 20 additional packets can be purchased at half price.

Members of southwestern tribes living outside of southwest can request up to 10 seed packets at half price per calendar year (limit 3 packets per seed



variety), and additional packets may be purchased at regular price. Group exceptions may be considered, so please contact us and we will do our best

to meet your needs

Given that the goal of this program is to promote and conserve traditional arid-adapted crop seeds, please note that only seeds from the NS/S Seed Bank Collection (indicated with an n **S** symbol) are available through this program. We strongly encourage recipients to save seeds from the plants they grow to continue the cycle of giving... save the seeds, share them, keep them alive in the community. For more information on saving your own seeds, please see page 6.

\*Native American identity for this program is selfreported and no tribal identification card is required.



2016 Farm Intern Robyn with Squash blossoms.

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

There are several ways to place your order please, only one order form per household.

Shipping charges are \$3.95 per 10-packet request.

#### 1. Visit

the NS/S Retail Shop in Tucson, AZ at 3061 N. Campbell Avenue

#### 2. Call

**520.622.0830** x113, or toll-free at **866.622.5561** x113, Monday–Friday from 10–5

#### 3. Mail

your order form to 3584 E. River Road, Tucson, AZ 85718

#### 4. Email

your request to barmstrong@nativeseeds.org

#### More information at nativeseeds.org

# Amaranth Amaranthus spp.

Grown by Native Americans for millennia, the small grain is rich in lysine and young leaves are high in calcium and iron. Eat leaves raw or cooked. Grain can be milled into a fine flour, eaten whole, or popped. Approx. 0.3g/300 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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.

**Hopi Red Dye** *A. cruentus.* "Komo." 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. In Hopi land, this readily crosses with wild *A. powelli*. Originally collected in Lower Moenkopi. **C002 H L S F** 

**Mano de Obispo** *Celosia cristata.* "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** 

**Marbled** *A. cruentus.* A varied accession with inflorescences ranging from yellow-white to light pink to fuschia, and some marbled with pink and white together. Collected in Morelos, Mexico. **C016 H S B** 

**Mayo Grain** *A. cruentus.* 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** 

**Mountain Pima Greens** *A. cruentus.* From the Sonora/Chihuahua border in Mexico. The abundant red-tinged leaves are used for greens and the black seeds are ground for pinole. Produces beautiful, bright fuchsia inflorescences. **C004 H L S B** 

**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** 



High Desert Low Desert Seed Bank Non-Collection

# Find more varieties at nativeseeds.org

# Bean Phaseolus spp.

Native to the New World, beans are a traditional protein complement to corn, rich in minerals, with a variety of tastes and colors. Members of the legume family, beans fix nitrogen from the air if certain nitrogen-fixing bacteria are present in the soil. Beans also contain soluble fiber helpful in controlling cholesterol and diabetes.

#### **Common** Phaseolus vulgaris

\$3.25

Common beans are a diverse and important crop to Native American farmers throughout the Southwest. They are eaten young as green beans or dried and shelled. Approx. 15g/50 seeds per packet.

**Culture:** Beans need warm soil for best germination. Plant seeds in spring or with summer rains about 1" deep and 6" apart. If beans need a trellis, try intercropping with corn or sorghum.

**Seedsaving:** 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.

Frijol Chivita "Little Goat." A bushy pole bean from the arid piñon, oak, and juniper area of the eastern Tarahumara in Chihuahua. Also known as "Golondrina" or "Cinco Minutos." Color may vary from white with gold mottling to gold with white mottling. PC125 H L S M

**Frijol de Sinaloa** A fast-maturing pole bean grown out from collections in eastern and southern Sonora. Light tan to sulfur-colored beans with visible veins. 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 B** 

**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** 

**Frijol Gringo** Late-maturing pole bean with good tasting green beans. Originally collected from within the Barranca del Cobre (Copper Canyon). **PC098 H S**  **Hopi Black** Small, rounded, black pole bean, dry/runoff-farmed by Hopi farmers. Used for dye. Dark lilac flowers, purple mature pods. Early-maturing, prefers monsoon rains. **PC068 H S M** 

**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** 

**Hopi Yellow** "Sikya mori." Large bronze seeds, common in Hopi country, may be dry-farmed or irrigated. High-yielding pole type, delicious as a green bean. White flowers. **PC019 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

O'odham Pink "S-wegi mu:n." 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 B

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 northeastern Sonora. Bushy plants with a late tendency to vine, but do not require support. Great-tasting as a green bean, and can cope with the heat... it grows great in Phoenix! PC091 HLSB

Sonoran Canario From Hermosillo. Traditionally grown with irrigation during the winter in frost-free desert regions. Early-maturing with an open bushypole architecture. PC082 H L S B

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

Taos Red Grown under irrigation in Taos Pueblo at 7,500' elevation. Rare in the Pueblos, but similar to Hopi Red. Low pole, almost bushy, with outstanding dark red mature pods. High-yielding. PC100 H S B Tarahumara Bakámina Rare. Semi-pole plants produce tiny, burgundy, kidney-shaped beans. Pods are quite long and make excellent green beans. PC034 H S B

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 H L S B

Tarahumara Friiol Negro Distinctive pole bean with very small leaves and pods and small, black, quickcooking seeds. Dark lilac flowers. Originally collected from Kirare, Chihuahua, PC128 H S B

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

Walter Brandis Pinto High desert pinto bean saved and grown by Walter Brandis at his family farm outside of Flagstaff since 1945. A semi-vining bean, it will send out runners but can be grown in field settings with nothing to climb. PC206 H S B

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



# All seeds are open-pollinated and non-GMO

#### Lima Bean Phaseolus lunatus

\$3.25

\$4.25

Growing as perennial vines in their native tropical environment, lima beans are broad, flat beans eaten green or dried. Plants are tolerant of salt and alkaline soils. Approx. 20g/25 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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 seed-saving: 10–25 plants.

**Hopi Gray** "Maasi hatiko." The light beige beans can be plain or mottled with black. The seeds are sometimes sprouted and used in ceremonies. May have good resistance to Mexican Bean Beetle. **PL080 H L S B** 

**Hopi Red** "Pala hatiko." 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**  **Hopi Yellow** "Sikya hatiko." Seeds vary from deep yellow to dark orange with black mottling. During spring ceremonies, the seeds are sprouted, attached to katsina dolls, rattles, and bows, and given to children. Sprouts are then chopped, boiled, and cooked in soup for feasting. **PL072 H L S M** 

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

#### Runner Bean Phaseolus coccineus

Large, showy flowers make this an attractive garden plant. Can be eaten as green beans or dried. Heat sensitive; not recommended for low desert. Approx. 28g/20 seeds per packet.

**Culture:** Plant 1" deep and 6" apart in the spring after danger of frost is past. Flowers may drop with no pod set if daytime temperatures are too high. Runner Beans have tuberous roots that can produce for several years if roots are protected from frost.

**Seedsaving:** Insect-pollinated, so varieties will cross. Harvest dried pods throughout the growing season. Separate varieties by 800 feet (243 meters). Recommended minimum population: 10–25 plants.

**Four Corners Scarlet** A beautiful bean from the Navajo Reservation. Bright red flowers attract hummingbirds. Won't bear fruit in the intense heat of the low desert, but prolific at the Conservation Farm at 4,000'. **PS001 H S M** 

**Tarahumara Bordal** Large white beans from the remote Tarahumara community of Otachique in Chihuahua. Pole beans with white flowers. Beans will grow larger when cooked so you only need a few for a hearty meal. Meaty taste. **PS007 H S** 



## Tepary Bean Phaseolus acutifolius

\$3.25 Unless otherwise indicated

Cultivated in the Southwest for millennia, teparies mature quickly and are tolerant of the low desert heat, drought, and alkaline soils. Tepary beans are high in protein and contain soluble fiber helpful in controlling cholesterol and diabetes. Generally, white tepary beans have a slightly sweet flavor and brown tepary beans have an earthy flavor. Approx. 7g/50 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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 seed-saving: 5–10 plants.

**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** 

**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** 

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

Paiute White From the Kaibab Indian Reservation in southern Utah. Grown near the Santa Clara River. Paiute teparies are our most northerly collection of tepary beans. PT084 H L S B

**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, 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 B \$4.95**  **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.



# Find more varieties at nativeseeds.org

## **More Tepary Bean**

Santa Rosa White An old collection from the Tohono O'odham village of Santa Rosa. O'odham legend says the Milky Way is made up of white tepary beans scattered across the sky. Smooth, rich flavor. Droughthardy. PT111 H L S Yellow Small yellow/tan-colored beans. USDAselected and grown out in Tucson. Can be grown on trellis or sprawling on the ground. PT077 L S B

**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

#### \$3.25

#### Native to Europe, beets are tremendously nutritious. Approx. 2g/200 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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** 

# Broccoli Brassica oleracea

A wonderful vegetable that actually grows better in cooler climes and higher altitudes than in warmer lowlands. Approx. 0.5g/70 seeds per packet.

**Culture:** Demands soil high in nitrogen and phosphorus. Companion plants include: dill, chamomile, sage, peppermint, beets, and onions. A cool season plant in the low desert.

**Seedsaving:** Individual plants do not self-fertilize. Provide at least two or more flowering plants to assure seed formation. Plant seed 1/4–1/2" deep. Thin to 18–24" between plants. 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.

**Waltham 29** 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** 



#### \$3.25

# **Non-Collection Seeds**

Many vegetables, like lettuce, carrots, and broccoli, don't have botanical origins or 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 heat- and 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

#### A versatile vegetable, used fresh, cooked, or fermented. Approx. 0.5g/150 seeds per packet.

**Culture:** Demands soil high in nitrogen and phosphorus. Plant seed 1/4–1/2" deep. Thin to 18–24" between plants. A cool season plant and requires a long season, so plant in fall in the low desert.

**Seedsaving:** Individual plants do not self-fertilize. 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

# Smell the seeds and anticipate the sweetness of homegrown carrots. Approx. 2g/1200 seeds per packet.

**Culture:** Carrots do best in rich (high in phosphorus and potassium with only moderate levels of nitrogen), uncompacted soil. Plant seeds very shallowly, less than 1/4" deep. Keep seeds moist while germinating. Thin to 1" apart. A cool season plant in the low desert.

**Seedsaving:** Carrots are biennial with perfect flowers (each flower has both male and female parts). 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** 



High Desert Low Desert Seed Bank Non-Collection

# All seeds are open-pollinated and non-GMO

# Chile/Pepper Capsicum annuum

One of the great Native American contributions to the cuisines of the world. A widely used fruit high in Vitamin C. Domesticated chiles vary profoundly in shape, size, color, pungency, and flavor. Fruit are red when mature unless otherwise noted. Average length and a letter corresponding to their general shape follow each description. All shapes in the key may not be currently available. Approx. 0.1–0.3g/25 seeds per packet.

In the following descriptions, "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.

**Culture:** 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.

**Seedsaving:** 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 F** 

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

**Chilaca** "Chilaca" is the fresh chile, dark green, thinwalled, 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. (g) **D016 H S B** 

\$3.25

**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** 



## **More Chile**

**Isleta Long** Collected from Isleta Pueblo at 4,900'. Smooth-skinned and fleshy when green. Flavorful, sweet, and fruity when red. Mild-medium to medium. 7" long. (j) **D057 H S M** 

Jalepeño 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 Grown in Jemez Pueblo in northern New Mexico along the Rio Jemez, a tributary of the Rio Grande. Relatively early-maturing. Medium heat. 3–4.5" long. (i) D019 H S

**Mirasol** Called "Look at the sun," yet these chiles from southern Chihuahua hang down on the branches. This chile is called *guajillo* when dry. Used in soups, stews, and chicken dishes. One of the most productive varieties in our chile trial in Patagonia, Arizona. Mild to medium. 1" wide and 5" long. (g) **D005 H L 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

**Negro de Valle** First collected in 2000 north of Buenaventura on the plains of Chihuahua. Similar to Vallero, but contains only the darker "native, old type" chiles. Some cooks select only these dark brown chiles to make the best chile colorado. Very productive. Mild to medium heat. 6" long. (j) **D052 H L 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 B**  **Patagonia** An Hispanic heirloom grown in Patagonia, Arizona. The cone-shaped chiles stand up on the plants, and are yellow with some purple mottling, ripening to orange then red. Used to make a thin hot sauce by blending with vinegar. Medium-hot. 1" long. (f) **D059 H L S** 

**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 B** 

**Poblano** Called an Ancho when dried, a Poblano when fresh. Pick when green for a mild flavor or wait until red for increased medium-hot heat level. Extremely versatile in the kitchen. (k) **TS323 H L N** 

**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** Collected in 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** 

**Tabasco** *C. frutescens.* Hot, prolific, and hardy, this is the famous ingredient in Tabasco sauce. Narrow 1" fruits are yellow or orange maturing to red. Good for container gardening. (c) **DF001 L S** 



# Chiltepin Capsicum annuum var. glabriusculum

The wild relative of most cultivated chiles. Native to North America, chiltepines are attractive perennial landscape plants for shady to filtered-light areas in the low desert. They will freeze back in the winter. The pea-sized fruits are very hot. Approx. 0.1g/25 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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.

**Bacadehuachi** Originally harvested by Gary Nabhan in Bacadehuachi, Sonora, a small agricultural village within the Opata homelands, at about 1,600'. Small round bright red fruits. **DC008 L S** 

**Devil's River** Original plants were wild-harvested in 1952 along the Devil's River near Del Rio, Texas. The place where they were collected is now under the water of the Amistad Reservoir. Small, hot, strawberry-shaped fruits. **DC032 L S M** 

**Fort Worth** This chiltepin seems very comfortable growing at low elevation. It was sent to us by a Fort Worth, TX, couple who found it volunteering in their yard. Small, round, bright red fruits. **DC030 L S M** 

La Tasajera Ranch Collected east of Sahuaripa, Sonora, at about 1,600'. Small, round, bright red fruits. DC009 L S

**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** 

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

**Sinaloa** Southern Mayos sell these wild fruits at the railroad crossing between San Blas and El Fuerte in Sinaloa, Mexico. **DC022 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** 

#### Chad's Chiltepin Cheese

32 oz full fat plain yogurt 1Tbs coarse sea salt 1 tsp ground chiltepin ¼-½ tsp cumin A sprig or two of cilantro, finely diced

In a bowl mix yogurt, chiltepin, cumin, and cilantro until well blended. Add salt last, once added, stir a few times then pour mixture into a colander lined with cheese cloth or a clean towel. Let this mixture sit for at least 24 hours refrigerated, and make sure to have another bowl for the liquid to drip into. After 24 hours, you can ball it up in the cloth and squeeze more moisture out. Then I like to store it in a shallow glass container or jar for another 24 hours to let the flavors blend.

This VERY tasty recipe comes from Chad Borseth, NS/S staff member.



\$4.95

# Versatile Corn

Corn, also known as maize, is one of the most important crops in the Southwest. The Native Seeds/SEARCH collection stewards over 610 accessions of corn which is only a portion of the overall maize diversity that has existed. Archaeological evidence supports that maize was first grown in our region 4,000 years ago and was one of the first farmed seeds. Growing, saving, cooking, and storing corn has permeated every aspect of indigenous lifeways in the

Food from Corn

Atole A warm porridge-style drink made with toasted corn (or wheat) flour, sugar, cinnamon, and vanilla. Pinole is a similar term but usually refers to the ingredient, whereas traditionally, atole is the drink itself.

**Chicos** Whole ears are harvested in the milk stage and then steamed in their husks. Once cooked, the ears are then dried and shucked for later use with beans, soups, and stews. In

northern New Mexico the techniques for preparing chicos include steaming inside adobe *hornos* (ovens) and then the husks peeled and tied into ristras to dry. The O'odham use a similar technique with 60-day flour corn but usually roast the corn over mesquite. The preparation locks in the sweetness and also gives a slightly smoky flavor. White and yellow flour corns are typically used for making chicos, but dent varieties are also used.

**Elotes** Fresh, whole-roasted corn. In Mexico it is common for elotes to be served with a coating of mayonnaise, cojita cheese, and sprinkled with chile and salt. Mostly commonly made from dent corn picked in the milk stage, but flour or sweet corn can also be used. Dent and flour types are sweeter if picked in the milk stage, but not as sweet as sweet corn.

**Huitlacoche** A fungal infection causes the corn kernels to swell up into tumor-like growths. The tissues, texture and taste are similar to mushrooms. It is considered a delicacy in Mexico. Also called corn smut or corn truffles.



Southwest and Northwest Mexico. Corn is at the

heart of many origin stories, ceremonial cycles,

songs, and cuisines for those who call these arid

lands their home. These pages celebrate the

different types of corn and some of their

traditional culinary uses. Even if you don't grow

corn, we encourage you to try different preparations in your kitchen. Numerous corn

based food products can be found at Native

Seeds/SEARCH store and online (see page 50).

Making tortillas from fresh masa.

**Masa** Corn that has been nixtamalized and ground to make a dough. The basis of tortillas and tamales. Masa is often made from dent and flint varieties, but flour corn can also be used.

**Milk Stage** Occurs about 2–3 weeks after silking and pollination. Kernels are soft and release a white liquid "milk" when pressed. Ideal time to pick for roasting, and occurs in all types. Also referred to as green stage.

**Nixtamalization** The process of soaking and cooking corn kernels in an alkaline solution, usually limewater. The process removes the outer pericarp (hull), making it easier to grind, with more nutrition accessible. See page 26 for instructions.

**Posole** Whole kernels that have been nixtamalized. Also called hominy. Term also refers to the stew that combines the treated corn with chile, meat, and spices.

continued

# Food from Corn continued

**Parched Corn** Kernels have been toasted without the use of oil for a snack food. Typically an indirect method of heat is used by adding kernels to a pot of sand heated by a fire or a basket with heated stones. Best with flour corn.

**Pinole** Whole corn kernels, typically from flint or popcorn types, are toasted or parched and then ground. The ground corn can be mixed with cocoa, sugar, cinnamon, chia seeds, vanilla, or other spices. The resulting powder is then used as a nutrient-dense ingredient for baked goods, tor-tillas, beverages, or trail food. The toasting gives the cornmeal a sweet, slightly smoky flavor.

**Polenta** Boiled cornmeal. Coarse grinds from harder kernels make a firm, coarse polenta; finer grinds make a creamy, soft polenta. More commonly called grits in the United States. Hominy grits refers to kernels that have been nixtamalized prior to grinding. Polenta is typically not nixtamalized.

**Tamale** A traditional dish made of masa or dough, which is steamed in a corn husk or banana leaf.

Typically made from dent or flour corns that have been nixtamalized. Green corn tamales are made from corn harvested just past the milk stage when starches have just started to harden, giving it some firmness for grinding but still a fresh, sweet taste.

#### **Green Chile Corn Bread**

If you want to be a hit at your next potluck, try this...

2 eggs, beat well Add 1/3 c oil 1 16 oz. can cream corn **Combine:** 1 c cornmeal 1 tsp salt ½ tsp baking soda 3 (mas o menos) fresh-roasted green chiles, chopped 2 ½ c shredded Colby or Colby/Jack cheese, saving 1/2 c for topping

Combine all and pour into a greased 9x12 or 8x8 baking dish. Sprinkle ½ c of cheese on top. Bake 400° for 25–30 minutes. Do not overbake.

Recipe courtesy of NSS Staff member Nancy Reid

# Corn/Maize Zea mays

\$3.25 Unless otherwise indicated

Corn is classified into different types based on the composition of hard and soft tissues of the kernels. Indigenous seed savers have selected for different tissue traits as well as different plant characteristics and growing conditions to give us thousands of different corn varieties that exist today. Just as there are thousands of varieties there are many ways to eat corn with each type being prepared in different ways based on the kernel texture. Approx. 10–18g/50 seeds per packet. Seed Saver Size contains approx. 250 seeds.

**Culture:** 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 kernal development. Needs rich soil and moisture. Heat, aridity, and high winds can all reduce pollination.

**Seedsaving:** 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.



# Seeds Corn/Maize Zea mays

## **Dent Corn**

Hard endosperm surrounds soft sugary layer in dent corn types. The soft starch shrinks as it drys, 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 coming of the summer rains is celebrated. Grows 10'+ tall. Staff favorite for green corn tamales and roasting corn. ZD084 **H L S B Seed Saver Size: ZP084.SS** 

**Mayo Tuxpeño** Originally collected in Saneal, Sonora, Mexico. Large fat ears on 10–12' tall plants with yellow, blue and yellow, or pink ears. **ZD083 H L S**  **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** 

## 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.

**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 Seed Saver Size: ZF029.SS** 

**Rio Grande Blue** A great, all-purpose blue flour corn. Long slender ears on plants 5–7' tall. A corn lineage grown from a mix of blue corn varieties from the Rio Grande Pueblos in New Mexico. **ZF202 H 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 B

**Tohono O'odham 60-Day** Extremely fast-maturing, desert-adapted corn traditionally grown with the summer rains in the 'ak chin' floodwater fields of the



# All seeds are open-pollinated and non-GMO

#### **More Flour Corn**

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** 

**Yoeme Blue** Smallish kernels range from steel blue to dark purple on small cobs. The plants are 3–4' tall and bushy. They are heat tolerant and fast growing. Originally collected on the Salt River Pima Reservation in Arizona, this is one of the few low elevation blue corn varieties in our collection. **ZF024 L S M** 

#### **Flour/Flint Corn**

The diversity present within landraces prevents them from always fitting into distinct categories. Flint/Flour 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 B** 

Nambe White Long slender ears with white to pearly kernels. From Nambe Pueblo in New Mexico at about 6,000' elevation. ZL079 H S B

**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 B Seed Saver Size: ZT111.SS** 

**Tarahumara Apachito** One of the favorite races grown by the Tarahumara. Kernels are typically a pearly light pink to dark rose-colored and occasionally white or yellow. The fastest maturing Tarahumara corn in the NS/S collection. Short plants. Used for cornmeal, tortillas, atole, and pink variants are used to prepare *tesgüino*, a corn beer. **ZT033 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 B** 

**Tarahumara Serape** This gorgeous Cristalino de Chihuahua landrace has beautiful, long slender ears with pearly white, red, or striped kernels. Plants 4–5' tall. **ZT044 H S B** 



# Seeds Corn/Maize Zea mays

## 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 at one point was widely grown from southern Arizona to Sinaloa, Mexico. One of the four most ancient corns. A gorgeous deep brown color (the only brown corn), 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** 

**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** 

**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** 

**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 M**  **Palomero de Chihuahua** White pointy kernels on small 5" cobs typical of many popcorns. Plants are about 5–6' tall. Grown at almost 8,000' elevation. **ZP099 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** 

#### Terry's "Cherry Pie in a Glass"

4 oz. tart cherry juice 4 oz. cold water 1 tsp. agave nectar

3 heaping tbsp. Ramona Farms Corn Pinole

Mix juice, water and agave nectar in a 12 oz. glass. Add Pinole and stir vigorously. Drink and enjoy! Stir between sips, as Pinole will settle to bottom.

Recipe courtesy of Terry Button of Ramona Farms Ramona Farms Corn Pinole is available on page 50, online, and at NS/S retail store.



# Find more varieties at nativeseeds.org

## 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.

**Guarijío Red** Produces tall 8' to 10' plants with long, slender, sweet ears. Seed will turn burnt-orange to red as seed matures. Harvest when light in color for optimal sweetness. Plant with the summer rains in the low desert. **ZS106 H L S M \$4.95** 

**Guarijío Sweet** Produces cobs with yellow or burntorange kernels. Dark color of kernels intensifies as corn ripens past the milk stage and drys down. Harvest when

Americans today eat more sweet corn than ever before ... and yet corn is not as good for us as it used to be. Some of the newest varieties of supersweet corn are as high as 40% sugar.<sup>1</sup> Old fashioned sweet corn is more like 4% protein and 10% sugar.<sup>2</sup> Dent and flour corn varieties have an even higher protein-to-sugar ratio. Research using the NS/S seed collection has also shown that dark-colored corns have higher concentrations of healthful anthocyanins and caretenoids.<sup>3</sup> It would benefit our health to cultivate a taste for the true corn flavor of heirloom corn varieties.

Sources: <sup>1,2</sup>Eating on the Wild Side, Jo Robinson; <sup>3</sup>Ryu, Werth, Nelson, Scheerens, and Pratt, 2013. Variation of Kernel Anthocyanin and Carotenoid Pigment Content in Borderland Races of Maize.

#### Elote (Mexican-style corn-on-the-cob)

This recipe is shared from the Tucson CSA website. We suggest trying this with Dia de San Juan corn or Tohono O'odham 60-Day corn.

3 tablespoons mayonnaise 2 teaspoons fresh lime juice 2 tablespoons finely grated Parmesan cheese ½ teaspoon chili powder ¼ teaspoon ground red pepper ¼ teaspoon ground cumin 1/8 teaspoon salt 2 ears shucked corn

1. Prepare grill. Combine mayonnaise and juice in a small bowl. Combine cheese and next 4 ingredients in another small bowl.

2. Place corn on a grill rack coated with cooking spray. Grill 12 minutes or until tender, turning frequently. Remove corn from grill, brush with mayonnaise mixture, and sprinkle with cheese mixture. Serve immediately.

light in color for optimal sweetness. From Sonora, Mexico. Grow only with midsummer rains in the low desert due to day-length requirements. Plants are 6–8' tall. **ZS142 H L S \$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. **TS361 H L N \$4.95** 



#### **NEW!** 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 6 varieties, **\$15.95** per packet:

> Chapalote ZP090.SS Dia de San Juan ZD084.SS Glass Gem ZP103.SS Hopi Blue ZF029.SS Onaveno ZT111.SS Reventador ZP092.SS

# **Seeds** How to Nixtamalize Maize

Nixtamal (pronounced niks-ta-MAHL) is corn that has been treated with an alkaline material to remove the outer hulls (pericarp) of maize kernels. Nixtamalized corn, also called hominy, is the basis of posole, corn tortillas, tortilla chips, and tamales. The name comes from the Nahuatl (language spoken by many indigenous Mexicans) word *nextamalli*, a combination of the words for lime or cal and tamale. The nixtamalization process makes the corn easier

to grind, more of the nutrition accessible, intensifies the color, and gives corn a distinctive corn chip flavor and smell.

**Step 1** Combine 1 quart (around 2 pounds) of dried corn kernels and 1/4 cup of lime, also called cal (calcium hydroxide) or pickling lime. Lime can be found in the canning sections at the supermarkets or Mexican groceries. If you want to do smaller batches, then use a ratio of 1 cup corn to 1 Tablespoon lime.

**Step 2** Add corn to 3 quarts water, bring to a boil, reduce heat and simmer on the stove for 20 minutes. When heating the corn only use a nonreactive pot like stainless steel or enamel. Do not use aluminum.

**Step 3** Soak corn overnight in the same water. The skins will begin to fall off. You may need to experiment with the ideal simmering and soaking time for the specific variety of corn you are using and the way you want to use it. If the skins are difficult to remove, then additional boiling time may be necessary. Dent and flour corn varieties typically require these suggested times, or less. Harder flint corns may require longer. If you prefer to use the corn to make masa, then do not overcook as simmering too long will result in gummy texture.

**Step 4** Drain and rinse repeatedly. Remove the skins by rubbing the kernels between your hands. The kernels are ready when the water is clear and kernels are not slimy.

The corn in this stage is now called nixtamal. It can be cooked at this stage for posole, dried for later use,



Grinding nixtamal for masa.

or ground into masa for tortillas of tamales. Nixtamal can also be frozen. To grind, use a stone metate or a hand-crank *molino* (grain mill). A good quality food processor can also be used, but it 'cuts' the kernels into smaller pieces and does not give a fine ground consistency ideal for tortillas.

In the Southwest, people have been treating corn with lime or ash for centuries. The process how-

ever is different than that of making nixtamal described above. It is more customary for the limestone powder or ash to be added to water and ground cornmeal to make dough. This process changes the nutrition composition of the corn as well as intensifies the color of the finished food. For Diné people, juniper ash is used and has also recently been documented to increase the calcium content of the treated foods. The Hopi traditionally use ash made from

dried bean pods. A traditional method among people from Zuni Pueblo is to burn limestone to create a powder that is then added to cornmeal.

#### **Smokey Posole Stew**

1 c dried posole 4–5 c water 1/2 medium onion 3/4 c mushrooms, sliced 2 cloves garlic, minced 1–1 1/2 c green chiles, roasted, peeled, and chopped 2-3 tsp chipotle powder 2 tsp Mexican Oregano 1 tsp salt or to taste 1 c flour

Simmer dried posole in 4 cups water, 2-3 hours on stove, or 6-8 hours in a crockpot. Add more water as needed. Saute onion and mushrooms in a skillet for 5 minutes. Add garlic, chiles, chile powder, and oregano and cook 1-2 minutes longer. Stir onion mixture and salt into pose. Simmer 30 minutes. Adjust seasonings and serve.

# All seeds are open-pollinated and non-GMO

# Cotton Gossypium spp.

Cultivated since ancient times, people have utilized the lint for spinning and weaving. In frost-free areas, cotton can be a perennial shrub or small tree. Approx. 2g/20 seeds per packet.

Culture: Plant in spring after last frost, 1/2" deep, 12" apart. Plants need a long season for bolls to mature.

**Seedsaving:** 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.

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

**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. **H005 H L S** 

**Sacaton Aboriginal** *G. hirsutum* var. *punctatum*. Grown by the Pimans 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." Pimans planted cotton "when the mesquite began to leaf out." A stunningly beautiful plant. **H002 H L S** 

# Cowpea Vigna unguiculata

An introduced legume from Africa that tolerates high heat and drought. A good producer in the low, hot desert. Peas can be eaten green (immature) or dry. Leaves can be cooked and eaten as greens. Approx. 5g/25 seeds per packet.

**Culture:** Plant 1" deep and 6" apart, or in basins, into warm soil in spring or with summer rains. Plants sprawl, trellising is helpful and will produce more pods for a higher yield. Likes well-drained soil, excessive nitrogen will reduce yield. Pick very small, 2–3", for "green beans" or let dry on vine for dry peas.

**Seedsaving:** An annual that is mainly self-pollinating. Large, showy flowers attract pollinators. Dried pods should be harvested throughout the growing season. Mature pods will split open if left on the plant. Recommended minimum population for seedsaving: 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 B**  **Guarijío Frijol Gamuza** A small orange/brown bean with a white eye used by the Guarijío and Mayo Indians in subtropical/desert canyons of Sonora. **V008 H L S B** 

**Corrientes** Collected in Nayarit, Mexico. Extremely hardy and prolific, with dark red seeds. Excellent as green beans or shelled. **V013 H L S** 

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





\$3.25

## More Cowpea

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 chocolatecolored seeds. From Los Capomos, Sinaloa. V015 **HLSB** 

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

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 B

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 B

Tohono O'odham "U'us mu:n." 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 HLSFB

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

#### Approx. 0.8 g/30 seeds per packet.

Culture: Cucumbers prefer direct sun and warm growing conditions. Plant in rich, warm soil 1" deep and 6" apart. Give the long vines a trellis to climb or space to sprawl

Seedsaving: Cucumbers produce separate male and female flowers. Females can be recognized by their ovaries at the base of the blossoms. Unless hand-pollinating techniques are used, bees are 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



## \$3.25

# Devil's Claw Proboscidea spp.

Cultivated by many Southwest tribes. The black fiber of the fruit or "claw" is used in basketry. Seeds are rich in oil and protein, and dried seeds can be peeled and eaten. Very heat tolerant, the flowers and foliage make these attractive landscape plants. Approx. 1.5g/25 seeds per packet.

**Culture:** Peel 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.

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

**Tohono O'odham Domesticated** *P.* parviflora var. hohokamiana. "I:hug" ("ee hook "). Selected by basketmakers for the extremely long claws (up to 15"). Claws saved for basketry are sometimes buried to keep the black color from fading. White seeds. **R004 H L S**  The stunning basketry created by Tohono O'odham weavers comes not only from amazing artistic skill, but also from centuries of relationship with plants. Indigenous weavers today continue a long tradition of caring for devil's claw plants, saving seeds and selecting for desired traits such as longer and wider fibers, finer grain, and other characteristics that suit their needs. This relationship helps create the beauty seen in baskets like these by Evelyn Juan and Delores Stephens.



# Eggplant Solanum melongena

\$3.25

Eggplant is native to the Indian subcontinent. It has been cultivated in southern and eastern Asia since prehistory, but appeared in the Western world around 1500 AD. Approx. 0.1g/25 seeds per packet.

**Culture:** In the spring after soil reaches at least 70°F, plant seeds directly in the garden 1/4" deep, or start indoors and transplant after all danger of frost. Allow 15" spacing between plants.

**Seedsaving:** Allow fruits to mature past eating stage till they begin to turn brown. Cut lower half of the fruit into 1" squares and blend or food process. Add water and stir. Good, clean seeds will sink to the bottom. Rinse and dry on a paper towel. Recommended minimum population for seedsaving: 6–20 plants.

**Black Beauty** Black Beauty was introduced in 1902 and remains the world's common market eggplant because of its large size, 6", and earliness, 74 days to maturity. Black, shiny fruits. **TS321 H L N** 

**Ping Tung Long** A productive Asian-style eggplant with beautiful bright purple narrow fruits 12–18" long. Mild flavor with no bitterness; no need to peel the tender skin. Organically Grown. **TS322 H L N** 



# Fava Bean Vicia faba

Fava beans may have originated in Southeast Asia. They arrived in South and Central America via the Spanish and Portuguese. Favas can be eaten as fresh shelled beans before mature, or as dry beans. They are also very effective as a nitrogen-fixing cover crop. Approx. 15 seeds per packet.

**Culture:** Soak seeds overnight for better germination. A cool season plant in the low desert, plant in fall or late winter for spring harvest. In higher elevations or more northerly climates, plant in early spring. Plant seeds 6–8" apart and 1" deep. If pollinators are limited in your area, gently shake flowering plants each morning to encourage pollination and fruit-set.

**Seedsaving:** Favas are self-pollinating, but the showy flowers can attract insects that cause crossing. Isolate varieties by 160' or more. Let seed mature and dry on plant, harvesting only after pods start to turn black. Recommended minimum population for seedsaving: 10–25 plants.

**Broad Windsor** Classic, large-seeded fava with strong, upright, plants bearing large seeds for fresh shelling. **TS010 H L N** 

# Gourd Lagenaria siceraria

# The earliest known domesticated plant. Used for ladles, rattles, canteens or containers, as well as musical instruments. Can be carved, burned, or painted. Approx. 1.5–3.5g/15 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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** 

**Mayo Warty Bule** From Piedras Verdes, Sonora, Mexico. Unique gourds, used for canteens or water jugs, most fruits have "warts" or pebble-like knobby growths around the bulbs. (f,d) M028 L S B

Cuarteles Originally collected in 1988 north of

Española in Cuarteles, NM. Plants grow 1.5-2' tall. The

seeds are pale green. FV022 H L S

**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,l) M031 L S

#### Letters at the end of descriptions refer to the key (above) — all shapes may not be currently available.





\$4.95

\$3.25

nk Non-Collection

)

High Desert Lo

Low Desert

Seed Bank

# All seeds are open-pollinated and non-GMO

## **More Gourd**

**O'odham Dipper** This was our first dipper gourd collection made in 1982 at Topawa on the Tohono O'odham Nation. Gourds vary from 8" to 18" long and have a long thin neck and small bowl. Trellis the plants (or allow them to climb trees) to obtain straight-necked fruit. (g) **M020 H L S F M** 

**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 B** 

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 B

**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** 

\$3.25

# Greens

Greens are excellent sources of vitamins, calcium, and iron. See listing for packet size. See also Kale on page 34.

Culture and Seedsaving: Varies by species; see information and instructions on seed packets.

**Arugula** *Eruca sativa*. Wonderful, peppery distinct flavor that is treasured by nutritionists and favored by gourmets. Bushy, 1–2' plant. Grow year-round fresh greens in the desert. Cold and heat tolerant. Easy to grow. Approx. 1g/350+ seeds per packet. **TS134** 

**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** 

**Golden Purslane** Portulaca oleracea var. sativa. "Verdolagas" in Spanish. This is not the wild purslane that grows throughout the Southwest, but a cultivated variety that has higher seed germination. The succulent leaves are large and upright, making them easy to pick. Crisp, lemony flavor. Very nutritious. Plant in the spring or with the summer rains. Approx. 0.1g/250 seeds per packet. **TS203 H L N**  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** 

Mostaza Roja *Brassica* sp. "Mequasare." A wild mustard with tender, mild-flavored leaves. Use in salads or as cooked greens. Plant in fall in the low desert. Very productive. Approx. 0.2g/100 seeds per packet. GR008 H L S M

**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. **TS211 H L N** 

**Red Malabar Spinach** *Basella rubra*. This is not a true spinach. Spinach-like leaves thrive in hot weather, unlike regular spinach. Beautiful vining plant with dark red stems and deep green leaves rich in vitamins A and C, iron, and calcium. Plant in the warm season. Approx. 1g/50 seeds per packet. **TS202 H L N** 

Magdalena Acelgas Beta vulgaris. Acelgas is Spanish for chard. A family heirloom from Magdalena, Sonora,



# Herbs

Most herbs are easy to grow and are quite happy in poor, gravelly soils. Besides being essential to fine cuisine, herbs are used medicinally and are effective insect repellents. See listing for packet size.

Culture: See individual seed descriptions for growing information.

**Seedsaving:** 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.

**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 B** 

**Epazote** Chenopodium ambrosiodes. A commonly used herb in southern Mexico. Aromatic foliage has a distinct flavor that is a favorite seasoning for beans. Also said to reduce the flatulence caused by beans. Approx. 0.1g/200 seeds per packet. **HB015 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.* One of the most popular culinary herbs. 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. 6–12". Start indoors or direct-seed outdoors in early spring. 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 high-

fiber 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 B** 

**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. Great dried. Provides a winter-long supply of fresh nutritious greens. 2–3' tall. 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 cucumber salads, cold summer soups, or freshly baked mountain trout with the lacy, pale gray-green leaves of this popular herb! Yellow, umbel-shaped, summer blossoms are beautiful as cut flowers. 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"h deep. Approx. 0.2g/50 seeds per packet. **HB003 H L S F** 



# Find more varieties at nativeseeds.org

# **Saving Seeds in the Southwest:** An invaluable resource for southwestern gardeners and seed savers

Whether you are a grower serious about increasing seed production on your farm, or a backyard gardener wanting to save seed on occasion, *Seed Saving in the Southwest* will give you the information you need to be a productive seed saver. Written in clear and straightforward language, it is accessible and useful from cover to cover.

#### **Topics include:**

- \* Understanding trait inheritance and plant life cycles
- \* Planning a garden with seed saving in mind
- \* Recommended varieties for Southwestern conditions
- \* How to prevent unwanted cross-pollination
- \* Seed saving techniques for dry- and wet-seeded crops
- \* Safe seed storage, and more.



This little book includes detailed information for 29 popular crops that grow well in Southwestern gardens, plus a quick reference guide on isolation distances and seed saving techniques.

Native Seeds SEARCH staff members Joy Hought and Melissa Kruse-Peeples have produced this great resource with our region in mind, but it would be useful for gardeners in most any climate. The 72-page guide is affordably priced and is part of NS/S's effort to spread seed-saving knowledge far and wide. Please contact us for discounts on bulk orders for classes and community projects. **PB2017 \$9.95** Also available in Spanish. **PB2019 \$9.95** 

## More Herbs

**Sweet Italian Basil** Ocimum basilicum. Specially selected strain from the mountains of northern Italy produces larger, tender leaves. Deep, rich basil flavor. Plant in the summer. In the low desert, give plants some shade to get larger leaves. Approx. 1g/200 seeds per packet. **TS535 H L N** 



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. Taste the best strain of any oregano we have found! Deep, genuine, oregano flavor! Pinkish-white flowers decorate this herb that doubles as a perfect ground cover with soft gray-green leaves. 12–18" tall. Plant in fall through early spring in the low desert, spring through summer in colder climates. Approx. 0.1g/200 seeds per packet. **TS516 H L N** 

# Kale Brassica oleracea

In high and low elevations alike, kale is one of the most dependable sources of vitamins and miner-

als. Approx. 0.5g/150 seeds per packet.

**Culture:** Plant seeds 1/4" deep and 3–4" apart. Thin to 8" apart and eat the seedlings as baby greens. Kale is best as a cool season crop in the low desert. Frost can improve its already rich flavor. It can also handle heat well, once established.

**Seedsaving:** Individual plants do not self-fertilize. Provide at least two or more flowering plants to assure seed formation. Since bees can cross-pollinate kale with other *Brassica*, isolation distances should be 1,600 feet (488 meters) or more for seed purity. Recommended minimum population for seedsaving: 20–50 plants.

**Dwarf Siberian** Blue-green leaves are ruffled and delicately flavored. Plants are compact, approximately 1'. Hardy variety, perfect for small gardens. **TS103 H L N** 

**Lacinato** Ready 50–60 days from transplanting. Dark blue-green savoyed leaves. Winter and summer hardy. Highly adaptable and can be grown almost year-round in many locations. Tender, succulent, and sweet as

steamed greens or in a stir-fry. A reliable workhorse. **TS107 H L N** 

**Red Russian** Dark green, oakleaf-cut leaves, may be richer in vitamins and minerals than other greens. Red and purple hues intensify after fall frosts, giving way to tender, sweet, rich, dark green kale when cooked. Also good raw. Very disease resistant. **TS105 H L N F** 

# Lettuce Lactuca sativa

#### \$3.25

Many wonderful colors and textures to choose from! These lettuces are chosen for their ability to cope with southwestern heat, but should be planted as a cool season crop. Approx. 1g/700 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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

**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** 



# All seeds are open-pollinated and non-GMO

## **More Lettuce**

**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

# Luffa Luffa operculata

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** 

#### \$4.25

# Various species of *Luffa* are grown worldwide for food and to produce natural sponges. Approx. 1g/25 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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 B

# Melon Cucumis melo

An early introduction by the Spanish into the Greater Southwest. The fruits are varied, with orange, green, or white flesh, and skins that are smooth, ribbed, or netted. A summertime favorite. Approx. 1g/25 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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 on paper or cloth to dry thoroughly. Recommended minimum population for seedsaving: 5–10 plants.

Acoma Fruit are round or oval, with smooth yellow skin and ribs. Flesh is white to salmon-colored with a mild, sweet flavor. F014 H S

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



\$3.25

## More Melon

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

**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 B** 

**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 near Albuquerque, New Mexico. Tolerates heat. F004

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 cantaloupetype 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** 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** 

**Navajo Mix** Our original seeds were 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 B** 

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

**Ojo Caliente** Originally obtained from a farmer in 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 B** 

**Planters Jumbo** A favorite cantaloupe with market growers because it grows well in wet or dry conditions. Firm rind and sweet, deep orange flesh. Developed for hot climates and is resistant to Powdery and Downy Mildew. Melons are 7" by 6" and average 4–5 lbs. **TS262 H L** 

Santo Domingo Casaba Originally collected in Santo Domingo Pueblo, this is a casaba-type melon. The skin is slightly wrinkled, the flesh is white to light green. Sweet and tasty. F019 H S B



High Desert Low Desert Seed Bank N

Non-Collection



ACCESS TO CROP DIVERSITY FOR CLIMATE RESILIENCE AND FOOD SECURITY

Providing growers with access to brackly-antighted cog diversity can simultaneously (1) promote agricultural sustainability. (2) improve lammon' assistance to classes thange, and (2) integritien local diversity of the second second



#### **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. This online platform provides details about every accession in our seed bank collection 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 our website at **nativeseeds.org**/ **get-seeds/adapts** for more information.

# **Okra** Abelmoschus esculentus

#### \$3.25

An introduced African crop that does well in southern areas of the United States. Okra is droughttolerant and heat-loving. All parts of the plant are edible. Fruit are ready to pick when they snap off the stalk and are versatile in the kitchen: try them fresh, pickled, fried or in gumbo. The leaves may be eaten raw or cooked. Plants are tall with stunning showy flowers. Approx. 2g/25 seeds per packet.

**Culture:** Soak seeds overnight for quicker germination of this warm-season crop. Plant 1/2" deep and allow 12–18" between plants. Plants can grow to 4–6 feet tall and will produce until frost.

**Seedsaving:** 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 B** 

**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 B**  **Guarijío "Nescafe"** From Sonora, Mexico. The beautiful yellow flowers have red throats. The plants are very broad and bushy, with large leaves, and are very productive. Young pods are fired, boiled, or added to stews and gumbos. Seeds can be roasted, ground, and used as a coffee substitute. **OK001 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** 



Okra seeds can only be shipped to Arizona, New Mexico, Oklahoma, and Texas addresses.

# Onion Allium cepa

#### Onions are a staple for most cuisines and essential in every garden. See listing for packet size.

**Culture:** Onions prefer well-drained, rich soil, high in organic matter. Water frequently, especially during dry spells.

**Seedsaving:** 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.

Australian Brown Superb flavor in a Spanish-type onion that keeps exceptionally well. Medium size with firm white flesh and a waxy brown papery sheath. Intermediate day length, approximately 100 days to maturity. Approx. 1g/200 seeds per packet. TS145 H L N

**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** 

**Texas Early Grano** Developed in Texas in 1944 to be the perfect eating sweet onion. 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** 

Tohono O'odham I'itoi 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 I'Itoi signifies the Elder Brother, who is the creator deity in Tohono O'odham legends. Approx. 10 bulbs per packet. Seasonal Availability Only, beginning mid to late summer; substitution is TS140. B001 H L S F B

# Panic Grass Panicum sonorum

\$3.25

A native domesticate of arid America, the grass is used as a forage and the tiny seed harvested for grain. Replace a quarter to half of the flour in recipes with finely ground seed. Approx. 0.5g/500 seeds per packet.

Culture: Plant with summer rains by broadcasting. Rake in. Protect germinating seeds from birds.

**Seedsaving:** 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.

**Guarijío** "Sagui." A rare grass collected by NS/S cofounders Gary Nabhan and Barney Burns during a 2-day burro trek to remote villages in Sonora, Mexico. The small golden seed is rich in lysine. Attractive plants are fast-growing and heat-tolerant. Birds love it! O001 H L S F B



# All seeds are open-pollinated and non-GMO

## Pea Pisum sativum

Nothing is quite as sweet as fresh-picked peas. Introduced by the Spanish. Seed Bank Collection peas can be picked young and eaten as fresh shelling peas, or left to dry on the plant and used like beans for soups, hummus, etc. Pea greens are wonderful in salads. Approx. 10g/50 seeds per packet.

**Culture:** 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.

**Seedsaving:** Peas produce perfect, self-pollinating flowers. Cross-pollination by insects is possible but rare because pollination occurs before the flower opens. Ideally, different varieties need to be separated 50 feet or with another crop flowering at the same time. 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.

New Mexico A typical smooth-skinned, beige Spanish soup pea. Grown throughout New Mexico. Q023 H S

**O'odham Green** From Santa Rosa Village on the Tohono O'odham Nation. Good in soups and stews. Also nice and sweet if shelled before peas fill the pod. Smooth, green seeds. Very hardy in low desert winters, doesn't mind a light frost. **Q020 H L S** 

**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

# Radish Raphanus sativus

#### \$3.25

Rapidly maturing, radishes are typically grown for their mild to spicy roots, though their leaves and seed pods are also edible. Approx. 4g/470 seeds per packet.

**Culture:** Provide shade in summer or plant only in cool season. Plant often for continuous supply, 1/4–1/2" deep and 1" apart.

**Seedsaving:** Radishes produce annual flowers which require pollination by insects, primarily bees. Satisfactory results for home gardeners require no more that 250' of separation. If seed purity is required, separate varieties by 1,600 feet or more. 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** 



#### \$3.25

# Sesame Sesamum indicum

Brought to America from East Africa in the 17th century. Attractive to pollinators, and beneficial as a companion plant for corn and other summer crops. Sesame is also very heat and drought tolerant. Approx. 2g/300 seeds per packet.

**Culture:** Plant 1/2" deep in moist soil after danger of frost. In the low desert, grows best if planted with summer rains. Tolerates heat & dry conditions once established. Thin to 12–15" apart. Grows 2–6' tall.

**Seedsaving:** Self-pollinated, but crossing by insects common between varieties. Seeds held within deeply grooved capsules. Continues to produce new flowers and capsules until frost. Seeds mature and shatter while still flowering, so pick dry pods throughout the season to avoid loss. Recommended minimum population for seedsaving: 25–40 plants.

**Benne** More flavorful than modern sesame. Leaves used as soup greens; tan seeds flavor rice and baked goods or can be made into flour. High in protein, cal-

cium, iron, zinc, and vitamins. Seed acquired from Anson Mills, preserver of heirloom Southern crops. **TS280 H L N** 

# Sorghum Sorghum bicolor

Originally from Africa. Introduced as a forage, grain, and sugar source. The prolific plants are deserthardy. An excellent cover crop to renew tired soils in arid regions. Stalks are chewed for their sweet juices. Approx. 2g/75 seeds per packet.

**Culture:** 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).

**Seedsaving:** 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 seedsaving: 10–25 plants

**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** 

Mayo Broomcorn "Caña de Escoba." Tassel spikes are used to make brooms. Collected near Alamos, Sonora. S003 HLSB

San Felipe Pueblo Grown as "sugar cane", these stalks are chewed as a sweet treat. Dark black seeds, and plants up to 5' tall. S011 **H** S B

TarahumaraPoppingThe white seeds aretraditionally popped and ground into flour.Popped

seeds can be eaten as a nutty, tasty snack. Originally collected from Batopilas Canyon in the Sierra Madres of Mexico. Flour is nutritious and gluten-free. **S005 H L S B** 

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

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

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



\$3.25

# Find more varieties at nativeseeds.org

# Squash Cucurbita spp.

\$3.25

Squash fruits vary in shape, color and flavor. Flowers, seeds, and growing tips of vines are all edible. All fruits (especially *C. argyrosperma* and *C. pepo*) can be eaten when small and immature as summer squash, and mature as winter squash. Approx. 4.5g/15 seeds per packet unless noted otherwise.

**Culture:** 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.

**Seedsaving:** 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 seed-saving: 5–25 plants.

**Cultural Varieties:** Some of our squash and melons 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, we have found that this is a cultural mixing. Traditional gardeners and farmers 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.

Acoma Pumpkin *C. pepo.* Round, thick-fleshed fruits have dark and light green stripes; some turn orange when fully ripe. Grown in northern New Mexico and used as winter squash. **EP045 H S B** 

**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** 

**Calabaza Mexicana** *C. argyrosperma.* Pear or flattened pumpkin-shaped fruits are white with green stripes turning yellow-orange, with pale colored flesh and Taos-type seeds. Collected from the region around Espanola, New Mexico, at 5,500'. EA013 H S B

**Escondida Calabaza** *C. maxima.* From Escondida, New Mexico, at 5,000'. Fruits 4–15 lbs., oblong or rounded with slight ribbing and cream to light orange skin. Flesh is yellow-orange. **EX007 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 H L S B** 





## **More Squash**

**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** 

**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 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** 

**Moctezuma Cushaw** *C. argyrosperma.* Large, greenand white-striped fruits. Collected from an Opata farmer in Moctezuma, Sonora. Apricot flesh, stringy similar to spaghetti squash. Large, knobby peduncles or stems. **EA042 L S B** 

**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** 

**Nogales Cushaw** *C. argyrosperma.* Large fruits are round with either long or short necks. Flesh is orange. Pick as a summer squash when young or a winter squash when large. **EA045 H L S** 

**Pacheco Pumpkin** *C. pepo.* From the northern plains of Chihuahua. Typical round to elongated "native

pepo" with bright yellow skin and delicious cream-colored flesh. **EP046 H S** 

Papalote Ranch Cushaw *C. argyrosperma.* Small, dark green cushaws with varied shapes. Tasty and versatile. Good keeper with very thick skin. Collected at Papalote Ranch in southern Arizona, but originally from Mexico. EA021 H L S B

**Rancho Marques** *C. moschata.* An incredibly beautiful and varied accession from Rancho Marques in Sonora, Mexico at around 3,200'. A good keeper with good flavor that gets sweeter with storage. Mottled green to buff, yellow, and orange markings and a wide variety of shapes. Prolific producers at the Conservation Farm in Patagonia, AZ. EM025 H L S B

**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 B** 

**Tarahumara** *C. pepo.* Pumpkin-shaped, medium-sized fruits are cream- and green-striped with beige ribs. Very sweet, great tasting, and productive. **EP042 H L S** 

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



# All seeds are open-pollinated and non-GMO

## **More Squash**

Vadito Pumpkin C. maxima. Gray or orange spherical fruit with sweet orange flesh. Fruits often have pointed ends, some warty, and some elongated in shape. From Vadito in northern New Mexico at 8,000'. EX018 H S

**Waltham Butternut** *C. moschata.* 8–10" fruits with deep, buttery-smooth orange flesh inside hard tan skins. One of the best storing winter squashes. An American favorite that does quite well in the southwest. Approx. 2g/20 seeds per packet. **TS331 H L N** 

Wild Cushaw C. argyrosperma var. sororia. Called Coyote Breasts or Trickster Breasts. Bitter juice of fruits is reputedly used for weaning infants. Produces a small, 5"-round, green-striped fruits. Will cross with domesticated cushaw squash (C. argyrosperma). A fun experience with agricultural history. EA040 L S

Yellow Crookneck *C. pepo.* Tender, yellow squash with gracefully arched stems. Firm texture. Buttery flavor. Harvest early as baby squash or wait until 5–6" long for slicing. Approx. 2g/20 seeds per packet. TS333 H L N

# Sunflower Helianthus spp.

#### \$3.25

A Native American domesticate, the seeds are eaten raw or roasted, pressed for oil, planted as an ornamental or for bird feed. Approx. 2–3g/25 seeds per packet.

**Culture:** Plant seeds in the spring or with the summer rains, 1" deep and 12" apart. Plants can grow 6–9' tall.

**Seedsaving:** 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. **IO50 H L S B** 

**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 Dye** Called "Tceqa" by the Hopi, the blue/black hull is used for wool, basket dye, and eye medicine, but the seeds are also edible. Flower heads are medium- to large-sized. Beautiful, and extremely popular. **1003 H L S F M** 

**Hopi Mixed** Tall, single-headed plants, with massive flower heads, that reach 8' or more. The name refers to the seeds which are white/black striped, solid black and gray/black striped. An early collection from Kykotsmovi Village. **IO10 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 years after some Mennonites there shared seeds. Very beautiful. **1005 H L S M** 



# Tobacco Nicotiana rustica

\$3.25

Tobacco, used as a sacred and medicinal herb, is an important part of Indian culture and folklore. Can be used as an organic insecticide (with appropriate caution). Approx. 0.1g/125 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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.

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

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

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

San Juan Pueblo Traditionally grown by elders in small secluded patches. Leaves are used ceremonially. Plants have small, tubular yellow flowers. N005 H S B

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

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

Tomatillos, "husk tomatoes," are used to make traditional and savory green salsas and stews. Related to ground cherries and Cape gooseberries. Approx. 0.1g/25 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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 water in blender. Pulp will rise and seeds will sink. Recommended minimum population for seedsaving: 2–10 plants.

Mountain Pima Husked fruit are small and plants are somewhat sprawling. Originally collected in Nabogame, Chihuahua, at 5,900' elevation. Commonly used in salsa. TM011 H S B

**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** 

**Toma Verde** An early-bearing green tomatillo with medium to large fruit. The tart fruits become sweeter as they ripen. **TS350 H L N** 

**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

Originally domesticated in the Andean region of South America, the modern cultural and nutritional importance of tomatoes worldwide is difficult to exaggerate. Approx. 0.1g/25 seeds per packet unless otherwise indicated.

**Culture:** In the spring after danger of frost is past, plant seeds directly in the garden 1/4" deep, or start earlier indoors and transplant. Allow 15" between plants.

**Seedsaving:** Flowers are both insect- and self-pollinated, and varieties can cross. Bag flowers or separate by 10 feet (3 meters) to prevent crossing. To remove seeds, puree ripe fruit with water in blender. Pulp will rise and seeds will sink. Recommended minimum population for seedsaving: 1–10 plants.

**Chichiquelite** *S. melanocerasum*. Not actually a tomato but a solanum cousin. Collected from Piedras Verdes, a Mayo community in Sonora, Mexico. Commonly called the garden huckleberry, the leaves are cooked (do not eat raw!) and the shiny black berries are edible and delicious. Delicious for pies, jellies, and jams but do require more sweeteners than other berries. Berries are 1/2-3/4" in diameter and produce abundantly over a long season. Do not eat unripe green berries. Originated in the tropics of western Africa. Approx. 100 seeds per packet. **GR012 H L B** 

**Ciudad Victoria** *5. lycopersicum* var. *cerasiforme*. A weedy, semi-cultivated tomato from dooryard gardens in Ciudad Victoria, Tamaulipas. Tiny round, sweet fruit are late-maturing 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** 





#### \$3.25

## **More Tomato**

**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. Performed impressively in our 2012 trials in Tucson, producing throughout the summer despite full exposure and harsh conditions. Renowned for its early maturity.

**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 lanatus

\$3.25

# Fruits vary in size and color of flesh and rind. Seeds are eaten and used for their oil. Approx. 1.5g/15 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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** 

**Hopi Yellow** "Sikyatko." 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 B** 

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** 

**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** 

**Rio Grande Red Seeded** Small, round fruits with yellow flesh, thick rind, and red seeds. Found growing wild in the Rio Grande Valley. Flavor is light and not very sweet, with hints of citrus or cucumber. Thick rind perfect for watermelon pickles! **G021 H L S B** 

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

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 L S F



## Watermelon Rind Pickles

The majority of modern watermelons have been bred for rinds that are too thin to bother pickling. Use an heirloom variety like Rio Grande Red Seeded, which has a thick rind. The rind from six of these watermelons will make 12 half pints. My family always served this pickle at Thanksgiving and Christmas dinners. It's good right out of the jar, too!

#### Preparing the rind

Remove the green outer rind with a vegetable peeler and scoop out the flesh of the watermelon. Cut remaining rind into pieces about 1" square. In a stainless steel or enameled pot, dissolve 1/3 c pickling salt in water. Add the rind and enough water to cover. Let stand overnight, drain, and rinse well. Add fresh water to cover. Boil the rind until easily penetrated with a fork, about 20–30 minutes. Drain.

#### Pickling the rind

6 lbs of sugar 2 quarts vinegar (I prefer apple cider vinegar) 2 Tbs allspice 2 Tbs whole cloves 4 sticks cinnamon, broken into pieces 2 pieces of ginger root, peeled and cut into sticks

Tie the spices loosely in a doubled piece of cheese cloth. Place in the pot with sugar and vinegar. Bring to a boil. Add the rind and boil until the rind looks somewhat clear and the syrup thickens, about one hour. Remove the bag of spices.

#### Canning the pickle

Divide the rind pieces among the canning jars, leaving enough headspace to cover them with the syrup. Use the water-bath method, leaving the jars in the bath as appropriate for your location (15 minutes for Tucson altitude). The pickle is good when new, but gets even better a few weeks later.

Recipe courtesy of NS/S volunteer Maggie White, from her family recipe.

# Wheat Triticum aestivum

#### \$3.25

A native of the Old World, wheat was introduced to the Southwest by Father Kino as he established the "Missionary Trail". These grains were quickly integrated into the winter fields of indigenous farmers, where they thrived until the early 20th Century. 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. Approx. 28g/700 seeds per packet.

**Culture:** 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.

**Seedsaving:** 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 Pima 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 H L S B**  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 H L S B

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.

Arroyo Lupine Lupinus succulentus. Beautiful spikes of violet-blue, pea-like blooms. Plant fall to early spring. \$3/pkt WF017A or \$12/oz WF017B

Blue Flax Linum lewisii. Perennial herb blooms sky blue with 5 petals from April to September. Used for fiber. Plant fall to spring. \$3/pkt WS030

**California Poppy** Eschscholzia californica. This bright golden blossom is the official state flower of California. It is drought-tolerant, self-seeding, and easy to grow. Best grown in full sun and sandy, well-drained, poor soils. Plant fall to early spring. \$3/pkt WF001A or \$12 (0.5oz) WF001B

**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

Firecracker Penstemon Penstemon eatoni. Bright red flowers that attract hummingbirds. Will bloom March through July depending on water. Plant early fall to winter. \$3/pkt WS024

Firewheel Gaillardia pulchella. Firewheel 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

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





**Desert Lupine** 



Desert Marigold



**Mexican Gold Poppy** *Eschscholtzia mexicana*. The most popular, most photographed, golden desert wild-flower. 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** 

**Palmer's Penstemon** *Penstemon palmeri*. Beautiful white flowers tinged with pink or lilac. Has a delicate, inviting fragrance. Grows in washes and along road-sides 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, bell-shaped flowers. Plant fall to early spring. \$3/pkt **WF012A** or \$12/oz **WF012B** 

# **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 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** 

**Great Basin Wildflower Mix** Especially mixed for Prescott, Payson, southern Utah, Santa Fe, and similar habitat. Contains 13 different wildflowers including Buttonroot Snakeweed, Purple Coneflower, and Mexican Hats. \$3/pkt **WS025** 

Happy Hummingbirds Designed to draw hummingbirds to your garden. Includes 5 different colorful **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** 

White Evening Primrose Oenothera pallida. Especially suited to hot, dry gardens with well-drained soils. The large, showy, pale flowers and dark green foliage are just part of what makes this a gardener's favorite. The fragrance seals the deal! Perfect for rock gardens and edging, drought tolerant once established. Perennial. Plant in fall. \$3/pkt WF006A or \$12/oz WF006B

desert Penstemons, as well as Lemon Beebalm and Gooding's Verbena. \$2/pkt **WRA008** or \$12 (0.5oz) **WRB008** 

**Mogollon Rim Wildflower Mix** For Flagstaff and locations above Arizona's Mogollon Rim. Best at elevations of 6,500–9,000'. The different wildflowers include Goldpea, Locoweed, and Tall Verbena. (Locoweed not recommended in livestock areas.) \$3/pkt WS026

**Old Town Tucson Mix** Thirteen beautiful wildflowers commonly found growing in central Tucson. Includes: Bahia, Arizona Poppy, Bladderpod, Owl's Clover, Parry's Penstemon, Globemallow "Colors", Silverbells, Desert Zinnia, and more. \$2/pkt **WRA051** or \$12 (0.5oz) **WRB051** 

**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



More Desert Wildflower seeds are available at nativeseeds.org



NS/S supports local businesses who grow and/or process foods from the southwest region by offering their products for sale. This year we feature corn products on these two pages, but you'll find so much more at our retail store in Tucson and online at **nativeseeds.org**. All corn products are non-GMO.

#### Pinole

From Ramona Farms. Made from heirloom Pima 60-Day corn, an ancient flour corn prized for its flavor and texture. The mature ears are hand-picked and shelled, next, the kernels are mesquite parched and stone milled to produce this delicious ancient "fast food" used by Pima runners as they traveled from village to village carrying important news.

\$7.00 – 8 oz. **RF009** 

#### Popcorn

Who doesn't love popcorn? Try one of these fabulous varieties below:

Fiesta \$6.00 – 12oz. LC005 Blue \$6.00 – 12oz. LC019 Red \$6.00 – 16oz. RG024

#### Posole

Also known as dried hominy, posole is often made into soups or stews. It is also makes for a great addition to a pot of beans.

Blue \$6.00 – 12oz. LC006 White \$6.00 – 12oz. LC021

## **Ed's Pinole Bars**

These bars are a favorite of staff and volunteers at NS/S when Ed bakes them to share:

1 cup butter 1 cup sugar 2 large eggs 1/2 cup pinole 1 cup flour

Preheat oven to 350°F. Cream butter and sugar. Beat in eggs, then pinole. Stir in flour just until mixed. Spread in greased 9x13 pan. Bake 25–30 minutes, or until lightly brown on top.

Recipe courtesy of longtime NS/S volunteer Ed Hacskaylo.

## **Yellow Cornmeal**

#### Polenta

From Hayden Flour Mills. Stone milled from the highest quality corn grown by Ute Indians in Colorado. Also known as grits, this creamy, chewy polenta retains its beautiful yellow color when cooked. **\$15** – 1.8 lbs **HFM002** 

#### Blue Cornmeal

Tamaya Blue Corn products from The Cooking Post, a tribal enterprise of the Santa Ana Pueblo.



**Beaded Corn Earrings** by Navajo/Hopi artist Debbie Sakiestewa. Choose from one of four colors: white, red, blue, yellow/orange; additional colors may be available in-store. **\$30 D\$016** 

#### Pancake Mix

A wonderful mix for a particularly Southwestern way to start your day! This mix combines the pancake with the distinctive flavor of blue corn. **\$6** – 12oz. **FD500** 

#### Cornmeal

A finely ground whole grain that can be used in most recipes using regular cornmeal. Especially good for baked breads, it should be blended with wheat and other glutinous grain flours. This Blue Cornmeal can be used to make dishes such as piki bread, porridge, corn flakes, muffins, and pancakes. **\$6**–12oz. **FD009** 

#### Atole

Atole is made by mixing this roasted meal with water or milk. Some add sugar, some add salt, before heating, for a delicious and nutritious drink. The cornmeal can also be mixed to a thicker consistency and cooked to make a corn meal porridge. Additional ingredients, like cinnamon, honey, raisins, salt can be added to these mixtures to make a tasty and exciting meal. **\$6** – 12oz. **FD025** 

#### **Other Traditional Pima Corn Foods**

# From Ramona Farms, a Native American owned and operated company within the Gila River Indian Community of Central Arizona.

#### Ga'ivsa

Cracked Roasted Pima Corn. Monsoon "60-Day Corn" is hand-picked in the milk stage, husked, roasted over a mesquite fire, dried in the sun, then hand-shelled and ground. Perfect as a hot breakfast cereal or add cheese and chiles for a traditional Southwestern side dish. **\$16** – 8 oz. **RF002** 

#### Huuñ Ga'i

Whole Kernal Roasted Pima Corn. Monsoon "60-Day Corn" is hand picked in the milk stage, husked, roasted over a mesquite fire, then sun dried and shelled by hand. Add uncooked kernels to beans, soups, and stews with other ingredients at the start of cooking for a traditional treat! Wonderfully sweet, with a chewy texture. **\$15** – 8oz. **RF001** 

#### Cheri's Jalapeño Corn Bread

A delicious, lightly spicy and moist quick bread bake-mix from Cheri's Desert Harvest. Includes a jar of Jalapeño Pepper Jelly. **\$11 CDHMX001** 

## Many more products are available at nativeseeds.org

# **Important Ordering Information**

## Please put quantity ordered, item number, and item name on order form.

Keep a copy of your order. If you have any missing items or problems, it helps if you can identify your order. Please retain your catalog for reference.

We accept checks or money orders drawn on US Banks. For your own safety, please do not send cash. Our website accepts PayPal. We accept credit card orders (Visa, MasterCard, Discover/Novus) by mail, phone, our secure website, and in our store. Our toll free number is 1.866.622.5561 x113 — please note we are closed on weekends and major holidays.

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

We have limited quantity of some seeds and may need to limit your order. On occasion it may be necessary to substitute seed varieties. Please contact us if you are unsatisfied with your seeds or if you would like additional information to help with your selections.

We ship via USPS unless otherwise specified.

We are unable to ship via UPS to P.O. Boxes.

Okra and Cotton seeds can only be shipped to Arizona, New Mexico, Texas, and Oklahoma addresses.

# **Shipping & Handling Charges**

We ship nationwide and to Canada

## Shipping & handling charge for seed orders

Native American Orders \$3.95 U.S. Orders \$5.95 Canadian Orders \$8.95

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

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

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

Please call 1-866-622-5561 x 113 if you are unsure about your shipping charges.

## Gift Packaging

Choose any items from the *Seedlisting* and add \$5 for special NS/S presentation (gable box, cellophane bag, logo box). We will choose best fit.

# Holiday shipping: Be sure to get your order in by December 8 for delivery by December 25

# **Catalog Order Form**

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

Full Name	Shipping	Shipping Address (if different):		
Street Address	Full Name			
City/State/Zip	Street Address			
Daytime Phone	City			
Email	State/Zip			
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 $\bigcirc$  Is this a gift? Let us know what to put on the card! (in 20 words or less)

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# 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

#### 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):
	○ Squash \$35
Address	○ Gourd \$50
	○ Bean \$100
City/State/Zip	••••••••••••••••••••••••••••••••••••••
	○ <b>Corn</b> \$500
	○ Sunflower \$1,000
Email	○ Student/Low Income \$20
	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.

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

# **Seed Collections**

NEW! All our seed collections are updated with varieties and growing information. Collections may include both seed bank and non-collection varieties. Each variety is individually packaged. Substitutions may be necessary.

Visit **nativeseeds.org** for a complete list of seeds included in each.

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 **SC008 \$29.95** 

Low Desert WildflowerGarden 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 \$38.95



## **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.

#### NEW! Seed Saver Packet Size see page 21

**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. Hand-pollination instructions (found on **nativeseeds.org**) are included with your order. 100 Ear Shoot Bags **\$6 SSS007** or 50 Tassel Bags **\$12 SSS008** 

Seed Envelopes A key to successful seed saving is proper labeling and storage. Our preprinted tear-off strip 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 see page 25



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

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



Conservation Farm: Patagonia, Arizona



Retail Store: 3061 N Campbell Ave. in Tucson. Call us at 520.622.5561 for hours.



**Conservation Center:** 3584 E. River Rd. in Tucson. Administrative Offices, Mail and Web Orders, & Seed Bank. 520.622.0830