







Dedicated to Conservation through Propagation of Rare and Endangered Beneficial Plants 2022 Complete Listings Contents

Cactaceae, Other Succulents/Xerophytes, Andean Accessions & Tubers, Medicinals & Edibles, Plants of CA, Books & Products

Work on a new, illustrated Sacred Succulents catalog has been full of stops and starts, diversions (such as births and deaths) and technological conundrums. Care and propagation of a cornucopia of unusual and wonderful plants from remote and immediate regions of our lush planet always comes first. We continue to strive toward maximizing biodiversity in our gardens and offerings. The reality of this means that we have not had many of the long hours needed in front of the computer to fully complete a catalog of our high standards. We are still pecking away at it but for now we offer you this complete list of our offerings. This list of nearly 1000 species reflects our increased propagation efforts with imperiled Andean species, obscure medicinals plus native and feral food plants. Some of the plants listed herein are only available in very limited quantities and will not make it to the final catalog. I know many of you are eager for the illustrated version and I deeply appreciate your patience!

A small family run business, Sacred Succulents was founded in 1997, borne from our love of plants and a calling to the sacred duty of their conservation through propagation, dissemination and education. While our initial focus was succulents and xerophytes, our travels and the necessity of species conservation has us propagating a diverse cornucopia of unusual and wonderful beneficial plants from remote and immediate regions of our fecund planet. We strive toward maximizing biodiversity in our gardens and offerings. Widespread dispersal of plants along with propagation on an individual level is one of the most viable means of helping protect wild populations while assuring the evolutionary expansion of these botanical wonders.

We all have the strange grace to live in this time of climatic change and massive biological extinction recognized to be greater than anything the biosphere has experienced in 65 million years. Plant extinctions have been estimated at a loss of nearly 2 species a day. Along with this extinction is the loss of our collective human heritage, as the cultures, languages, dreams and songs that were intimately woven to those species disappear with them. Amongst thousands of known food plants, the world's food supply relies on a scant dozen. We must do much more than save heirloom varieties and landraces of the major crops. We encourage you to relearn the forgotten indigenous foods and medicines of your region and of your lineage. Where habitat still exists, these are often disappearing from the fields and forests for lack of tending. Each and every one of us are co-creators of our ecosystems. Experiment with strange and rare edible plants, expand your palate. These are the seeds of true health and food security.

Whether you have a bright window in a city apartment, a suburban house with a yard, or access to acres of land, you can take part in the nurturing of endangered plants, propagate them and pass along the seeds, starts, attendant aspirations and ethnobotanical knowledge to friends. Realize the power we each have to assist our vanishing flora, acting as conservationists through a simple and joyful role as gardeners, horticulturalists, admirers of plants. These small endeavors help to put us in resonance with the viridian heartbeat of the biosphere, a reminder of earthly things like soil, weather and mooncycles in a world increasingly adrift in the navel gaze of cyberspace. Attention to seasonal gifts such as Spring flowers can refresh our wonder in the delicate fortitude of life in all its myriad forms. There is so much life and potential to celebrate all around us!

We believe the biological diversity of the world is a common inheritance shared by all and the right to having a personal individual relationship with the myriad life forms of the planet is intrinsic to that. It is the very fibers that weave us.

Public Domain Pledge

An important terms of business note to all our customers: In order to be in line with our mission to support the preservation of botanical biodiversity, following the lead of J.L. Hudson Seeds and in recognition that the biodiversity of the Earth is the common heritage of all life, all of our seed and plant offerings are now Public Domain. This means that all plants and seeds are supplied solely under the following conditions: We expressly prohibit the use of any seeds or plants supplied by us, or their progeny, in any form of genetic engineering, breeding, or research which will result in any form of life patent, variety protection, trademarks, breeder's rights or any form of intellectual property applied to living things which would compromise the Public Domain status of the seeds, plants, their progeny and any genetic material therein. We expressly prohibit the transfer to any third party of any seeds, plants, their progeny or any portion of their genetic material without these prohibitions in place. Commercial propagation is encouraged, but in the unlikely event that large-scale commercial distribution is achieved, benefit-sharing along the path towards the source, in accordance with the spirit of the International Convention on Biological Diversity, will be undertaken. Thank you for your understanding and support!

((((((((Plant seeds. Plant lots of seeds. Plant them without fear. Plant them with love.)))))))))

"The greatest service which can be rendered any country is to add a useful plant to its culture" - Thomas Jefferson

A bit about us: A small family operation, we are involved with the conservation of a perpetually increasing diversity of plants from many terrains at our biosanctuary here in northern California. Much of the focus of our catalog is on xerophytes such as cacti and other succulents, along with rare medicinals, edibles and unusual endemics. The intriguing variety of shapes and forms, the sacred geometries these evolutionary wonders express never ceases to amaze us. Many of the plants listed herein are seriously endangered in their natural habitats. We offer them to you in the hopes of the preservation of these species. We hold the vision that the self-destructive ways of the dominant world cultures may ultimately provide fertile compost for the blossoming of novel nurturing cultures...That the plants we offer may be utilized to repopulate what is left of the habitats in which their ancestors once evolved while new suitable habitats are established around the world. We feel that involvement in such endeavors is intrisic to human reciprocity with life. We are dedicated to creating fertility watersheds and align ourselves with the generative powers of life. Over the years we have learned of the special relationships various cultures have with these plants. Medicine, food, magic/religion and utility; through the myriad human relations with plants we have come to understand more completely why they are revered and considered sacred. We do not sell wild collected plants. We do support and encourage the ethical wildcrafting of seed. To assure distribution of the highest levels of genetic diversity the majority of our plants are grown from seed. Questions, comments and correspondence is always welcome. As a small family run business, your support is vital and goes a long way.

Thank you and enjoy!

Ben, Melissa, Shannon, Ember & Kieralia

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Plant Guarantee

We channel much time and life energy into growing our plants. We guarantee safe arrival of clean, healthy, correctly labeled specimens. If for any reason you are unsatisfied with the plants you receive, please notify us immediately and return them within 10 days for replacement, credit or refund. Beyond arrival, we cannot guarantee how plants will grow and survive in your conditions, so be prepared to receive them. It is up to you to provide adequate growing conditions and care for your plants. Plants ordered during Winter cannot be guaranteed, so please give thought to your weather when ordering during the cold season.

Plant labels: In an ongoing effort to minimize our use and handling of plastic, we only provide plastic plant labels with orders if requested. Otherwise the plants are sent with biodegradable wooden labels. Depending on your growing conditions, these labels will only last 3–12 months, and should therefore be considered temporary. Upon request we can send plastic labels with the plants, but you need to ask. For long term labeling we suggest impressible copper labels. Thank you for your support and understanding!

Seeds

Unless noted otherwise, seed packets contain 15–40+ seeds, often much more (with very tiny seed like *Campanula, Nicotiana, Sedum*, etc the seed count is in the hundreds). Seeds are guaranteed to arrive correctly labeled and in good condition. However, we offer no warranty when it comes to germination. Some of the seeds we offer are difficult and require specific conditions to germinate. The responsibility is in your hands to provide these correct conditions. The majority of the cactus seed is freshly harvested from our stock plants and should have excellent germination. Treating seed with gibberellic acid is found to increase germination in some species and is worth experimenting with. We have also found that treating seeds with EMTM (Effective Microorganisms, see resources) sometimes improves germination rates.

Please keep track of the collection numbers some seeds and plants come with, this allows them to be traced to their geographical location in habitat. Well documented collections help in conserving genetic diversity, especially of rare and endangered species.

*Note on cold treatment for seed: Some of the seeds on this list need a period of moist and cold before they will germinate. The simplest method is to sow the seeds in pots outdoors in Fall or Winter, the seeds will sprout with the Spring or Summer warmth. Another method is to place the seeds in a moistened sterile media in a plastic bag and refrigerate for the specified time, then sow and gradually warm to sprout.

Ordering Information

We do not ship plants outside the U.S., but seed orders are welcome. We ship year round. Plants are sent bare root unless requested otherwise. If you would like your plants shipped potted add \$1.00 extra per plant ordered (*Trichocereus* over 6" are only sent bareroot). We try to process and ship your order within a week or two of receiving it. If you do not receive your order within 4–6 weeks of sending it, please drop us a line – USPS is not infallible. Being a small nursery, most plants are available in limited quantities, so please list substitutes and your preference of credit or a refund in case a particular species has sold out. Let us know if you are looking for a particular plant not listed in the catalog. We have many species in quantities too small to list here. We also have **wholesale quantities** of much of the seed we offer, please inquire for wholesale list. We are always open to trade. Please inquire.

We do our best to make use of as much recycled packaging material as possible. After you receive your order, we encourage you to do the same! We offer ethnobotanical information in our listing to help further understanding of plants, rekindle human-plant relations, provide leads to promising plants for competent researchers, and for historical curiosity. We make no claims as to the accuracy of this information. It is compiled from many sources, some of which may be unfounded. This listing is not a guide to usage; edible, medicinal, or otherwise. We sell all plants and seeds strictly for growing purposes. Placing an order commits to an agreement to these terms.

Shipping and Handling

Seeds – First class mail USA \$4.00

Seed orders outside the USA: Email for current international rates, prices continue to go up, below is are old foreign rates, costs will be higher!

Air mail international \$12.00 (Canada, Central & South America)

Rest of the World: 1–12 seed packets \$18 / 13 or more seed packets \$24 / Priority Mail with tracking \$45–65 (Any number of seed packets) We take international money orders made out in USD\$, or USD cash (or the equivalent in Euros or British Pounds) sent registered mail to our PO Box. We also accept Western Union or a bank transfer (a \$15 fee for this one)—Email us your order if this is your preference.

Plants (USA only) – First class priority mail = \$10.00 for the first plant \$2 each additional plant. Express mail = Inquire for current costs Seeds ride free when ordered with plants.

*Plants marked with a single asterisk are large, heavy and have special shipping charges = \$16.00 for the first plant \$2 each additional plant.

Checks may take time to clear; use money orders or cash for quicker service.

Sorry, no credit cards or online payments.

California residents add 7.25% sales tax. Sonoma county residents 8%.

Questions and inquiries can be directed to us through our email address: **sacredsucculents@hushmail.com**Please note: We do not have a mobile device and often only check our emails in the morning Monday through Friday, sometimes less, so if you don't get an immediate response from us—do not fret! We will eventually get back to you.

Please fill out an order form (http://www.sacredsucculents.com/order-form/) or write your order on a sheet of paper, clearly listing botanical names (listed as bold herein) and mail with full payment to: Sacred Succulents, P.o. box 781, Sebastopol, CA 95473 USA

Cultivation

Please note: We grow our plants and produce our seed without the use of pesticides or synthetic fertilizers. We are not "certified organic" due to a general dislike of excessive paperwork and perhaps some degree of mistrust of the regulatory process. What do we use to feed our plants? Foremost compost teas and EM microbial brews, kelp meal/extract, granitic rock dust, worm castings, mycorrhizal inoculents, and depending on the plant and its needs: alfalfa and neem meal, seabird and bat guano, and for some of our garden plants composted horse manure from a local source that uses only organic feed. We eschew such popular "organics" as blood, bone, and feather meal which are unsavory byproducts of industrial slaughterhouses, cotton and soybean meal which are byproducts of industrial agriculture often laden with pesticide residues, and fish emulsion/meal which are harvested from our oceans already depleted fisheries, an now possible sources of radiation! For organic gardening supplies see Peaceful Valley Farm Supply (www. groworganic.com). For additional cultivation info see our website: www.sacredsucculents.com

When your plants arrive:

When you receive your plants, unwrap from the packaging carefully and plant in the appropriate size pot in a moist, but not soggy, soil mix. They should be placed in a semi-shady spot for a day or two to help them acclimate to their new home. For most succulents watering should be less frequent at first until the plants have re-established their root system, at which time regular culture can commence. For leafy plants—water thoroughly after planting with kelp extract (for transplant shock).

USDA Hardiness Zones

We have begun using the USDA Hardiness Zones in our plant descriptions for ease in delineating climate and minimum temperatures required. This should only be taken as a flexible guideline. There are many factors that determine a plant's cold tolerance such as humidity, duration of cold, siting, plant maturity, etc. Many succulents can survive in colder zones if kept completely dry. Know your microclimate and consider each plant's origin. Try growing a few plants that push the limits of your climate zone! For more zone info see – www.usna.usda.gov/Hardzone/ushzmap.html

General Succulent Culture (Including Cacti)

Although many cacti and other succulents are exposed to full sun and often extended periods of drought in habitat, these conditions are not necessarily ideal growing conditions. Chances are that the conditions in which you will be growing them are quite different from the ones they evolved in. What follows is a general recommendation of cultural needs and comes from a number of years of closely observing and communing with plants grown in windowsills, porches, outdoor beds and greenhouses, as well as in their native habitats. This information should help you to establish your plants. It is then up to you to observe and alter cultural conditions as you see necessary to your growing environment. Many succulents are evolutionary extremes and are quite eager to keep evolving in new habitats. The majority of succulent plants are very easy to grow. They do best in a porous, well drained potting media. We recommend at least 30-40% agricultural pumice stone mixed with any good, well composted potting soil. Some potting soils may need larger particles sifted out. We have found pumice stone to be less compacting than sand when added to a commercial potting mix. It creates more air pockets in the soil which encourages healthy root growth and lessens the chance of rot. For those of you who live in desert areas, you may try growing your plants in native soil. A good potting mixture is 1/3 desert loam, 1/3 pumice, and 1/3 coarse sand. We know a number of lucky folks who use this mix, their plants thrive and have virtually no pest or rot problems. The presence of mycorrhizae and other beneficial organisms in the soil probably adds to the vigor and health of plants grown with this mix. Initially, it is best to plant your succulents in pots that are no more than 1" greater diameter than the plants. They seem to develop healthy root systems faster in smaller pots and once established, you can increase the pot size as you like. Good ventilation is always appreciated, succulents do not do well in stale environments. Several hours a day of bright light is called for. Avoid intense all day sun, this can easily cook potted plants. Many of our plants are grown in greenhouses with 30-50% shadecloth and receive strong filtered light most of the day. Watering should be thorough and regular during warm weather. Make sure to completely drench the soil when watering, and let it approach dryness before watering again (this is usually every 3-5 days during Summer). Most succulents benefit from low nitrogen feeding during the growing season. We recommend and use only organic fertilizers, compost tea works wonders. We have found plants grown by organic methods to be much healthier and pest resistant. When cool weather comes during Fall, it is time to stop fertilizing and cut back severely on watering. This will induce dormancy in most plants, which is needed for flowering and robust growth of many species in the Spring. Depending on the plant, during Winter water infrequently, maybe once every month or two, just enough to keep the plant's roots from dessicating. Though many plants are cold hardy, to be on the safe side keep succulents above 40° F. Most succulents are fairly pest-free, but occasionally experience outbreaks of scale, mealybugs, fungus gnats, etc. Again, we recommend and use only organic pest control methods. Life is too precious to be thoughtlessly handling and spraying the carcinogenic poisons that stock most nursery store shelves. They don't just poison the bugs! If there is only a small pest problem it can usually be dealt with by hand, spraying pests off with a strong jet of water is surprisingly effective. Large infestations may call for biological control (predatory organisms) and as a last resort, and only if deemed completely necessary, organic pesticides. Insecticidal soap, neem-based products, etc. can be utilized safely if the package instructions are followed. Euphorbiacae and Aizoaceae may experience severe tissue burn from insecticidal soap and some Trichocereus cacti experience tissue damage from pyrethrins when applied and left on the plant during cool weather. Once you experience a heavy infestation of a particular pest, total eradication is nearly impossible and a waste of time. It is best to keep them in check by the necessary means and learn to live with small populations. Regular applications of EM and/or organic compost tea improves soil and plant health, while keeping disease and insects pests to a minimum, reducing the need for other pest control. Succulents are a little more prone to rot than most plants. If root or stem rot occurs, cut off the rotted tissue with a sharp sterilized blade and place the plant in a warm well-ventilated area to dry for several weeks. After a strong callous has formed, replant and water cautiously until the plant has re-rooted.

Cultivating Cacti from Seed

Many species of cacti are nearly extinct because of environmental destruction and over collection. This has led to the passing of the international CITES conservation laws, prohibiting the wild collection of most cactus species. Growing from seed is the only way now to obtain many of the rarer species, and doing so is one of the most practical means of safeguarding wild populations. Seed sowing also promotes genetic diversity which will give rise to desirable new character traits such as hardiness and rate of growth. Sowing seed now will create a living investment for future generations to inherit.

How to grow: Cacti are fun and easy from seed, but patience is required. For growing media we recommend a well composted soil mixed with 30–50% pumice stone. You may need to sterilize the mix. 20 minutes in the oven at 180° F should destroy any pathogens. Fill pots 3/4 full with the sterilized mix. Take a small amount and sift through 1/8" mesh screen (a tea strainer works well). This fine mix will top your pots and be the medium your seeds rest on. Sprinkle cactus seed evenly over the soil surface. Larger seeds need to be tamped down by hand. Moisten thoroughly with a hand sprayer or place pots in a tray of water and wait until the soil surface moistens through capillary action. Secure plastic wrap over the pot with a rubber band to create a mini greenhouse environment. Most seeds will germinate best at 75–85° F. We have found placing the pots on heating mats with full spectrum fluorescent lights suspended 8–10" above them works exceptionally well for germination. Seeds sprout into little green blobs in as little as 3–4 days, though many take 2–4 weeks. If no germination takes place within this time, let the soil dry out completely for a few weeks, then moisten and try again. Some seed need this treatment. Remove plastic wrap a few weeks after germination and sprinkle a thin layer of pea gravel around the seedlings to help retain even soil moisture. It is critical that the soil remain moist but not soggy for the first 6 months or more. Water weekly with a hand sprayer or by placing pots in a tray of water. After the first few months, seedlings develop their species characteristics relatively quickly. They can stay crowded together in their pot for a year or two, after which they should be carefully transplanted into larger pots or individually into small pots. Eventually you can slowly expose them to outside conditions and regular cactus culture.

Rare Plant and Seed List

Available by subscription. This is where you will find first offerings of exciting new plants that we have in quantities too small to list in our main catalog. One of a kind specimens, rarities and introductions from our travels, and other plants and seeds from the far reaches of our wondrous fertile planet. Something unique for everyone! Cacti including uncommon *Trichocereus* and *Ariocarpus* hybrids and specimens. Succulents such as rare *Bursera*, *Commiphora* and *Boswellia*. Obscure medicinal herbs, unusual perennial foodcrops and selections from our Andean accessions. A fully descriptive list. A must for any serious plant collector, herbal horticulturalist and permaculture enthusiast. 4 issues \$5 (\$10 outside USA), 8 issues \$8 (\$16 outside USA)

Grafting Guide

Grafting of a slower growing species onto a faster growing stock increases plant growth significantly. It is a viable means of quickly producing mature specimens for seed production and vegetative propagation. This illustrated guide covers all aspects of grafting, from week old seedlings to mature specimens. Includes tricks we have learned over the years that help make this valuable conservation technique accessible and practical. Focuses mainly on Cactaceae but coverage is given to Euphorbiaceae, Apocynaceae and other succulent families.

\$9 + \$4\$ postage (free shipping with plant orders) (foreign orders: email us for current shipping rates)

Sacred Succulents Cactaceae Complete List 2022

Genus Ariocarpus

Seven known species of small, slow growing, spineless, tubercled cacti. All species are native to the Chihuahuan Desert of Mexico, with one species, *A. fissuratus*, extending up into southern Texas. Plants are generally found in very rocky terrain, often growing flush with the ground. Their large taproot reaches deep into the earth, enabling them to survive the harsh desert conditions. They are believed to live for hundreds of years. All species of this remarkable genera are extremely endangered due to habitat destruction from human activities and over collection for the cactus trade. Several species are revered for their medicinal and magical properties by indigenous peoples. The mucilage in the roots of most species is used as a glue. Plants are slow from seed and don't grow into their mature flowering form until 5–8 years of age. Grafting seedlings can produce mature plants in as little as 1–3 years. In captivity, *Ariocarpus* need a potting mix of at least 50% pumice stone. Contrary to popular belief, these plants thrive with thorough and regular waterings during hot summer weather, provided they are well rooted and have optimal sun. A dry winter rest period is needed. Treated well they will produce an abundance of brilliant flowers September through December. All Z9a–b if kept dry. For *Ariocarpus* hybrids see our Rare Plant List.

Ariocarpus fissuratus "Hikuli Sunami"

The famous living rock cactus. Flattened stem, grayish to brownish green triangular tubercles with a deeply wrinkled surface and wooly central grooves. Large pink to magenta flowers. Grows in southern Texas and northern Mexico. Once utilized by the Tarahumara for its medicinal and psychoactive properties. It was said to be more powerful and effective than *Lophophora*. It was used externally for wound healing and internally to remedy fevers and relieve rheumatic pain. Pieces of tubercles were chewed by long distance runners for their stimulant properties. This beautiful cactus is believed to bring protection and good luck. Sadly, plants are still being illegally collected out of south Texas for the nursery trade. Grow your own!

inquire for plants/seed

Ariocarpus fissuratus f. intermedius SB503

A rare form of the living rock cactus that is an intermediate to the northern populations of *A. fissuratus* and the more southernly populations of *A. fissuratus* v. *lloydii* with fat rounded tubercles. Seed originally collected by Steve Brack near Cuatrocienagas, Coahuila, Mexico.

Sold out

Ariocarpus fissuratus v. lloydii

An incredible variety of the living rock cactus with smooth rounded tubercles, sometimes completely lacking a fissure. Tends to grow larger in width and heighth than the regular species. Pink purple flowers. Populations of this unusual Mexican plant occur near Parras, Coahuila and westwards towards Nazas, Durango. Has the same medicinal attributes as the type species. Our favorite of this wonderful genus.

10 seed \$4

Ariocarpus retusus "Tsuwiri" "Brujo"

Largest of the genus with pointed pyramidal blue-gray tubercles and white or occasionally pink flowers. The Huichol indians treat it with great respect. They believe it can trick a deceitful person into eating it, causing him to go mad with visions of his deception. Recent ethnobotanical research has revealed that certain well trained Huichol shamans consider it a powerful ally. Said to be a treatment for fevers. The peculiar habit of smoking the dried tubercle tips has become popular among some locals in Mexico. Though rare, this plant is widespread throughout central and northern Mexico and has many morphologically distinct forms.

Seed packet \$4 inquire for plants

Ariocarpus retusus 'Aguja'

A strain with triangular tubercles that are fat and somewhat rounded at the base but quickly narrow to a very slender, pointy tip with a tiny fuzzy areole. Wooly center, large white flowers that fade pink. We've had several plants of this unique form in our collection for nearly 20 years. Z9b 10 seed \$4

Ariocarpus retusus ssp. confusus

Claw-like, blue-green tuberlees that curve upwards at the tip, similar to *A. trigonus*. Large flowers, usually a bright magenta or occasionally pink-white. This decidedly unique subspecies is only known to occur around Aramberri, Nuevo Leon, Mexico. Z9b

Ariocarpus retusus cv. Frumdosus

A cultivar with chunky triangular tubercles often wider than long, flat, smooth surfaced and lacking an areole at the tip. Wooly center and white flowers.

10 seed \$4

Ariocarpus retusus v. furfuraceus

A northern form with shorter, more rounded tubercles and larger fuzzy areoles. Large white flowers that turn to pink as they fade. Seed packet \$4

Ariocarpus retusus 'San Rafael' Relatively small form with long and slender gray-green tubercles. Furry center, large white flowers. 10 seed \$4

Ariocarpus retusus v. scaphirostroides (= A. retusus v. brostawitzii)

Unusual variety, wide flat stems to 10" across, long straight tubercles, often curved upward at the tips, small areoles. San Luis Potosi. Seed packet \$4

Ariocarpus retusus v. confusus X Ariocarpus fissuratus v. lloydii

Pink flowered, pointy tubercled A. retusus v. confusus mated with the rounded A. fissuratus v. lloydii, produces gorgeous progeny. Sold out

Ariocarpus trigonus "Chaute"

Bizzare species with dark green claw-like tubercles which curve towards the center of the plant. Bright yellow flowers. Occurs along the eastern edge of the Sierra Madre Oriental and on into some of the nearby valleys. Natural hybrids with *A. retusus* are known to occur.

Sold out

Astrophytum myriostigma v. quadricostatum "Bishop's Cap"

Chunky globular cactus to 6" in diameter and height. This rare and much sought after variety has only 4 ribs completely covered in minute white-gray scales. Felty areoles with no spines. Large yellow flowers bloom all summer. Central Mexico. One of the many false "peyotes." Z9b Seed packet \$4

Armatocereus balsasensis KK1345

Gray-green columnar stems to 25'. 5–10+ ribs, small spines to 1" long. Jointed branches. White nocturnal flowers. Cajamarca and Amazonas, north Peru. Unidentified *Armatocereus* stem sections are used to purify water in Ecuador. Collected by the infamous Karel Knize near Balsas at 3000'. Z10a Seed packet \$3.50

Armatocereus laetus "Pishicol"

Grayish-green columnar cactus 10–20' high, branching from the base, with 6–8 deep ribs and 1" spines. The branches are formed of joints which indicate the yearly growth. White nocturnal flowers. Rare endemic known only from a few localities in northern Peru. While researching the "extraordinary moon-oriented magico-religious healing cults" of the Huancabamba, famous ethnobotanist Wade Davis reported this plant to be utilized for healing in the same manner as the San Pedro cactus (*Trichocereus pachanoi*). Z10a Seed packet \$3.50

Armatocereus matucanensis "Pichu"

Upright gray-green columnar stems 6–15'+ tall. 5–8+ ribs and spines to 3" long. Segmented branches indicate the yearly growth. White nocturnal flowers followed by spiny fruit with a sweet flesh that our Peruvian friends say is distinctly delicious. Native to the western Andean slopes of southern central Peru. We have admired this cactus growing alongside *Trichocereus peruvianus* near Matucana. Possibly the cold hardiest of the genus. Z9a Seed packet \$3.50

Austrocactus philipii

Possibly the rarest Chilean cactus. Beautiful small columns to 5–8"+ high, reminiscent of some *Echinocereus* species. Clustering, dark green-brown stems 1–1.5" diameter with 6–8 ribs. 3–4 central spines to1", black to yellow/gray, slightly curved at the ends, 6–8+ small radial spines. Blooms winter to early spring with relatively large funnelform flowers, a vivifying shiny yellow-orange-bronze color. Grape size green fruit with an excellent kiwi-like flavor. An endangered endemic from just two restricted locations in the mountains of central Chile at 6600' and 7300'. Grows amongst exposed rocks with *Ephedra chilensis, Berberis empetrifolia* and *Mulinum spinosum*. In cultivation it wants a well draining gritty soil and bright exposure. Dislikes hot, moist conditions which quickly lead to rot. Prefers a dry summer rest. Can tolerate significant cold rainfall and prolonged snow. Z6b–7a

10 seed \$5

Aztekium hintonii

A beautiful *Aztekium* discovered in 1992 in Nuevo Leon, Mexico. Globose stem to 3" tall and up 4" diameter, occasionally clustering. 8 to 15 grooved ribs, compressed, fuzzy areoles and miniature corky spines. Bright magenta flowers. In habitat it grows in almost pure gypsum. Endangered in habitat due to thoughtless overzealous collectors. Slow growing. Z10a inquire for seed

Aztekium ritteri

A unique miniature cactus. Pale-green depressed globular stems with 9–11 heavily wrinkled ribs. Close-set areoles that produce small papery spines and light brown wool. Delicate white and pink flowers arise from the center of the plant in summer. Forms multi-headed clumps with age. This species grows in a single isolated valley in Nuevo Leon, Mexico. Within this valley it occurs solely on vertical or near vertical limestone and gypsum cliffs. Another false "peyote." Highly prized by collectors. Easy, but one of the slowest cacti from seed. Z9b Seed packet \$4.50

Azureocerus hertlingianus (=Browningia hertlingiana)

One of the most gorgeous of all the columnar cacti! Frosted blue branches to 25' tall and 1' in diameter. 18 or more tuberculate ribs bearing large areoles and yellow spines up to 3" long. Small nocturnal flowers with a dark purple-brown tube and white petals. Endemic to the Mantaro Valley, Peru. Suspected medicinal properties. Z9b

Seed packet \$4

Azureocereus viridis BK14513.1 (=Browningia viridis)

Large columnar cactus to 15'+ tall. Candelabra stems to 10"+ diameter with a beautiful glaucus blue skin. V-notched, grey felted areoles with 1–2+ central spines 1–2.5" long and 6–8+ radial spines 1/4–1"+ long. New spines are yellow turning gray with age. Tubular flowers to 3" with dark brownblack bud scales, white petals. The dominant cactus of the dry forest along the Apurimac, 5000', Cusco, Peru. A truly gorgeous species, more so than *A. hertlingianus*, some clones were very sparsely spined while others were more heavily armored. Very rare in cultivation. Z9b/10a Seed packet \$5 inquire for plants

Borzicactus ventimigliae NL042108a (previously offered as B. leonensis)

Shrubby columnar cactus with deep green stems to 5'+. Nicely sculptured tuberculate ribs and red-black spines turn gray with age. Red tubular flowers, edible fruit. Seed collected by ethnobotanist N. Logan near Cuenca, Ecuador. A really beautiful species rarely seen in captivity. Previously mis-identified and offered as *B. leonensis*. Thanks to Tristan Davis for identification on this. Z9

4-6"+ plant 3+ years old \$12.50 (limited)

Browningia candelaris

Unusual tree like cactus up to 20' tall. The brown columnar stems have as many as 50 ribs and are as thick as 20". The trunk is initially unbranched and covered in large spines up to 6" long. Once it reaches about 10' tall it begins to branch and new growth is nearly spineless. Tubular white flowers and oblong edible fruits. Native to southern Peru and northern Chile. It has been suggested that one of the enigmatic Nazca lines, huge earth drawings made by the Nazca culture between 300–800 A.D., known as "El Candelabro" may be a depiction of *B. candelaris*. This drawing occurs at Paracas Bay in southern Peru where *B. candelaris* grows. It has been speculated that the cactus may have consciousness altering properties that inspired the monumental artwork. This unique plant is rarely seen in cultivation. Regular cactus care and frost protection is needed. Wild populations are in jeopardy due to livestock grazing destroying seedlings, seriously endangering the future of this mysterious plant. Z9b

Seed packet \$4

Blossfeldia liliputana

The smallest known cactus. Forms little clusters of multiple flattened disc-shaped stems that rarely exceed 3/4" in diameter. The tiny gray-green bodies have no ribs or tubercles, just spiraling areoles bearing tufts of wool and no spines. Yellow flowers and tuberous roots. Native to northern Argentina and southern Bolivia where the plants are found growing on rocky slopes and often between cracks in the sides of vertical stone cliffs. Except for certain parasites and aquatics, this species possesses the lowest density of stomata of any terrestrial flowering plant. This remarkable miniature has been found to lose up to 80% of its moisture in one year and then survive drought for an additional year, making it very similar to mosses and lichens in being adapted to withstand near complete loss of moisture! The miniscule seeds should be sown on the surface of a very finely sifted soil mix. These plants are very slow growing and should be watered by carefully misting with a hand held spray bottle until they are large enough to be watered normally. Some shade is preferred and a very well draining potting mix. We have even heard of people successfully growing this plant on a porous rock. Because of their slow growth rate, *Blossfeldia* are often grafted. A true wonder of the vegetal kingdom. Z9b

Seed packet \$4

Cipocereus bradei

Startling bright blue columns to 10' tall. 8–11 rounded ribs and small black spines. White tubular nocturnal flowers to 3" followed by 2" blue fruit. Superficially resembles *Trichocereus bridgesii*. A rare and much sought after gorgeous species from Diamantina, Minas Gerais, Brazil. Z10a/b

Seed packet \$4

Cleistocactus buchtienii BK10506.1 "Kitisira"

Slender cylindrical stems to 6'. Orangish to whitish spines, fine and needlelike. Pale red tubular flowers. Small edible fruit. Our collection from the base of Cerro San Pedro, Cochabamba, Bolivia, near 8,500'. We were told by friends that stems of this cactus are the preferred source for make "llujta", a regional kind of llipta for chewing with coca leaf. Naturally dead and dried stems are collected, ones with white spines are said to be superior. These are burned and the resulting ash mixed with a little cooked potato starch and formed into cylinders. A small amount is chewed with coca leaf to facilitate and add to its beneficial stimulating properties. Z9b?

Seed packet \$4 (limited) 5–7" plants 2–3 years old \$14.50 each

Copiapoa hypogaea

Weakly spined, small, soft globular stems, green-brown to bronze-gold in color, wooly centers. Yellow flowers and large taproot. Endemic to a narrow region of dry coastal ridges in northern Chile. Like many *Copiapoa*, this species is threatened by guanacos, feral donkeys and climatic change. Z10a

Seed packet \$3.50

Copiapoa tenuissima

Dwarf globular cactus. Dark green to brownish-purple/black skin. Small spines hug the body. White wooly center. Golden-yellow flowers. Endangered species from arid coastal Chile, Rudolf Schulz reports that populations are in extreme decline. Z10a 2"+ plant 5 years old \$12.50 (limited)

Corryocactus brevistylus BK09424.1 "Sanky"

Attractive *Trichocereus peruvianus*-like columnar cactus from southern Peru. Stems 10–20' tall, spines up to 9" long! Yellow tubular flowers and softball size fruit. Fruit purchased at one of the large traditional markets in Lima city. The flesh of the huge fruit is amazingly sour, as acidic as a lemon. Considered a liver and kidney tonic. We blended the pulp with a little honey-water to make a delicious and refreshing sanky-ade. More tolerant of cold and aridity than any lemon tree, could substitute in areas where lemons can't grow. Z8b–9a

Seed packet \$4.50
3–5"+ plant 2–3 years old \$14.50

Corryocactus erectus BK08521.10

A rather diminutive columnar species with slender spiny stems 1–5' tall. Flamboyant bright red-orange flowers. Small sour-sweet fruits, like kiwi. Our seed collection, east of Ollantaytambo, Cusco Dept., Peru, near 9000'. Cuttings from are from several seed grown clones. Z9a/b 5–6" cutting \$11.50

Corrvocactus melanotrichus RCB009 "K'usa k'usa"

Slender columnar stems to 6–8'+ tall, well armed with long spines. Endowed with Purplish flowers and fat round fruit to over 3" with a delicious sweet-sour flesh, reminiscent of kiwi. Seed collected along the Rio Abajo, La Paz, Bolivia, 11,750'. The fruit is said to be useful for inflammation and as an analgesic. Cut sections of stem, along with several other spiny cacti, are sold at the witches market in La Paz for use in misa offerings and as a wash for good luck. A hardy species worth growing for the fruit alone. Z8b/9a

Seed packet \$3.50

Corryocactus melanotrichus BK08603.4 Cuttings from our seed grown plants, Hacienda Huachjilla, south La Paz. 5-6" cutting \$17.50

Corryocactus sp. BK14516.19

Corvphantha compacta "Bakana"

Thin bright green cylindrical stems 12 to 24"+. Small white-gray spines clothe the 7+ ribs. Orange flowers, 1/2"+ green fruit with a white kiwi-flavored pulp. Growing on the cliff edge overlooking the Apurimac, Capuliyoc Pass, Cusco Dept., Peru, 9800'. May be a distinct form of *C. erectus*. Z9a/b

inquire for plants

Sold out

Spherical cactus to 4"+ in diameter. Spirally arranged rounded tubercles tipped with numerous white radial spines that closely guard the body of the plant. Large yellow flowers with reddish sepals. Native to Chihuahua, Mexico. Some Tarahumara shamans knew it to be a powerful medicinal plant and considered it a form of "hikuri". Z9b

Echinocereus scheeri v. huitcholensis Lau 768

Clustering, small columnar stems to about 3" covered in dense white spines. Brilliant orange tubular flowers. This clone was originally collected by Alfred Lau in Plomosa, Sinaloa, Mexico. The Tarahumara know *Echinocereus scheeri* to have magical/medicinal properties. Easy to grow, give bright light and regular succulent culture. Rooted offsets. Z8b

Seed packet \$3.50
3–4" plant \$9.50

Echinocereus triglochidiatus 'Pecos, NM'

A nice form of the hedgehog cactus with fat blue green stems, 1–4 radial spines per areole and red orange flowers. From seed we originally collected near the small town of Pecos in northern New Mexico. Sweet edible fruit. The Tarahumara consider closely related *E. triglochidiatus* v. *neomexicanus* to be sacred and utilize it for magical and medicinal purposes. Z7b

Seed packet \$3.50

Echinocereus triglochidiatus 'White Sands, NM'

Robust giant form the hedgehog cactus that grows to 3' + tall! Clustering stems, stout spines, carmine tubular flowers, sweet edible fruit with a white flesh. Z8a Seed packet \$4

Echinocereus triglochidiatus v. mojavensis f. inermis

Gray-green stems to 6" tall, almost completely spineless. Red flowers in spring. Forms large clusters with age. This rare spineless form is found growing on the mesas and mountains of southwest Colorado and southeast Utah. Z7b

Seed packet \$4 inquire for plants

Epithelantha greggii

Clustering button cactus with individual stems to 1–3" covered with tiny white spines often tipped red-brown to blackish. Little pink flowers from the furry crown, red-pink edible fruit. This Mexican endemic is likely medicinal like the closely related *E. micromeris*. Z10a Seed packet \$4

Epithelantha micromeris "Hikuli Mulato"

A small button cactus with minute dense white spines. Tiny pink flowers arise from the wooly crown, followed by club-shaped bright pink fruit. Revered by the Tarahumara of the eastern range of the Sierra Madre Occidental, it is utilized by shamans to heighten perception and clear the senses. The whole plant, including fruit, is used as a stimulant and protective charm by runners. Also known to prolong life. Prefers a soil with excellent drainage. Z9a

Epithelantha unguispina

Rare species with fat clustering stems, white spines up to 0.5" long tipped blue and black. Dark pink flowers. Nuevo Leon, Mexico. Z9b 10 seed \$3.50

Espostoa lanata "Pishicol Negro"

A unique tree-like branching cactus up to 20'+ tall. 2.5–4" diameter stems bearing many reddish or yellowish short spines. Multitudinous little hairs cover the stems creating the appearence that they are enclosed in spun wool. Produces a lateral cephalium; an extra thick wool that grows along one side of the upper 3' of mature stems. Small nocturnal funnel flowers, white to purple, bloom from the cephalium. Round red-purple fruits, good flavor. Variable species, southern Ecuador and north Peru. In Peru, hairs from the cephalium are used as pillow stuffing, stems reported as a San Pedro substitute. Z9a

Seed packet \$3.50

Espostoa nana

Branching dwarf wooly columnar cactus to 4.5'+. Numerous small yellowish spines hidden within a fuzzy wool that covers the entire stems. Lateral cephalium; an extra thick wool that grows along one side of the upper mature stems. The small nocturnal white flowers bloom from the cephalium. Round edible fruits. Native to the northern end of the Rio Santa Valley, Ancash Dept., Peru. Z9a

Seed packet \$3.50

Eulychnea castanea

Shrubby columnar cactus to 3' tall. 4" diameter stems with up to 11 ribs. Large fuzzy areoles, spines up to 4" long. 2–3" bell shaped white flowers. Spiny, green, edible fruits. Forms dense thickets along Chile's central coast, from Tongoy to Los Vilos. Closely related to *Trichocereus*. The woody core is used for making the musical instruments known as rain sticks. Z9b/10a

Seed packet \$4

Ferocactus glaucescens "Visnaga"

Barrell cactus with green to blue stems to 24". Yellow spines and metallic-yellow flowers. Hidalgo, Mexico. The seed is from our spineless mother plants (f. *inermis*), the seedlings are spiny but may lose their spines as they mature. Easy to grow. Z10a 2"+ plant 2+ years old \$8.50 or 2 for \$14

Frailea castanea

Small round stem to 1"+. Depressed center, purple-green skin. Tiny insignificant spines hug the indistinct ribs. Shiny yellow flowers. Native to Uruguay and Brazil. Amongst the cutest of cacti and easy to grow. Z10a

Seed packet \$3.50 / 1"+ plant 4 years old \$12.50 (limited)

Haageocereus acranthus SHL07031501

Stout columnar stems 4–6' high. 12–14 ribs, thick fuzzy brown areoles and yellowish spines. White tubular flowers to 3" long. Rounded green fruit with a sweet edible flesh. S. Lipe seed collection from near Matucana, Lima Dept., Peru 8300'. Z9b

Seed packet \$4

Haageocereus decumbens BK14518.2

Columnar cactus that grows prostrate with the tip held 5–8" above the ground. Brownish areoles and densely arranged black and gray spines. Creamwhite tubular flowers, round edible fruit with a sweet flesh. Endemic to the extremely arid sand dunes of the coastal deserts bewteen southern Lima Dept., Peru. Many of the wild populations are threatened by development. See from Parque de las Leyendas. Z10a

10 seed \$4 (limited)

Harrisia pomanensis "Pitaya"

Tropical semi-epiphytic cactus with long thin stems having 4–7 ribs and small spines. Large funnel form white flowers, nocturnal and sweet. Prolific 2" red fruit with sweet white flesh. Native to Argentina, Bolivia and Paraguay. Easy to grow, shows promise as a fruit crop. Z10b Seed packet \$3.50

Hylocereus undatus "Pitahaya" "Dragon Fruit"

A vining forest cactus with 3 ribbed jointed stems up to 15' long. Huge funnel shaped flowers, up to 1' long and 8" wide, yellow sepals and white petals, blossoming at night, sweetly scented. Produces an abundance of unusual egg-shaped red fruits, 3–5" long and 2–3.5" in diameter, with delicious white or pink pulp. Long cultivated for its edible fruit, its exact origin is uncertain, most likely Central America. In the last few decades it has become an important fruit crop in Southeast Asia and Israel. We offer seed from pink fleshed fruit. Z11

Seed packet \$3.50

Leuchtenbergia principis

Unique cactus to 2' high. Blue green tubercles, traingular and up to 5" long tipped with papery twisted spines to 4". Large yellow flowers. Native to the Chihuahuan desert, northern and central Mexico. Related to the genus *Ferocactus*. A slow grower, flowers in about 4 years. Z9a Seed packet \$3.50

Maihuenia poeppigii "Mahuen"

A unique low growing *Opuntia* relative. Forms mats of cylindrical stems to 4" topped with small fleshy leaves. Spines to 1/2"+ and yellow flowers. Seed wild collected in the mountains of central Chile. Edible fruit. Fantastic for the rock garden, tolerant of high rainfall. Z5b/6a Seed packet \$4 Unrooted cutting \$12.50

Mammillaria craigii "Wichuri" "Witculiki" "Peyote de San Pedro"

Globular pincushion cactus to 6" in diameter. Blue-green body made up of a multitude of rounded tubercles tipped with stout spines to 1" long. Abundant white fuzz at the center of the plant and in between the tubercles. Dark pink-purple flowers borne in rings in early summer. Oozes a milky white latex if punctured. Mexican species highly respected by the Tarahumara. The roasted center is squeezed into the ear to relieve earaches, headaches and deafness. Used as a stimulant by runners. The center or "heart" of the plant is ingested by well trained shamans. It is said to quickly put one to sleep and during this sleep one has brilliant dreams. Now popular with the Australian rave dance culture! Z9a

Seed packet \$5

Matucana madisoniorum (=Borzicactus madisoniorum)

Peruvian globular cactus becoming shortly columnar with age, up to 10" tall and 6" wide. The gray-green stems have 7–12 fat ribs. Plants vary from being completely spineless to bearing 1–5 easily detached, curved or twisted dark brown spines per areole, up to 2.5" long. Elongated bright vermilion flowers up to 4" arise from the center of the plant during warm summer days. Discovered in the late 1950's within a transition zone between xerophytic shrub forest and tropical jungle near the lower Rio Maranon, a principle tributary of the Amazon. Young spineless clones of this plant look incredibly like *Lophophora*. Fairly quick growing from seed. A rich soil mix and regular watering is needed. Z10b/11

Seed packet \$4

Melocactus peruvianus

Stout spined globular plant to 10". Red central cephalium, small pink flowers and edible pink fruit. Awesome rare species that occurs in the dry Andean foothills. The closely related *Melocactus bellavistensis* has recently been reported as a hallucinogen in Loja, Ecuador. Z10a/b Seed packet \$3.50

Mila nealeana

Clustering cylindrical stems 6–12", covered in small white brown spines. Brilliant yellow-green funnel-form flowers. Small juicy green edible fruit. Native to the arid Valleys of Lima Dept., Peru, 3000 to 8000'. A delightful plant, superficially resembles some *Echinocereus* species. Z9a Seed packet \$3.50

Neoraimondia rosieflora (=Neoraimondia macrostibas v. rosiflora)

Slow growing columnar cactus to 8' with many branches arising from the base. The few ribs have large, round brown fuzzy areoles and some of the longest spines of any cactus; nearly 12"! *Neoraimondia* are also unique in that when they reach flowering size they develop remarkable elongated flowering areoles. These felty cylindrical areoles produce small pinkish-red flowers, sometimes in sets of 2, year after year. Native to the borders of the desolate central Peruvian deserts. A known admixture of the ritualized bioactive Cimora brew. Grow in strong light, Z10a sold out

Neoraimondia sp. NL051008b "Cardon"

Distinct and awesome chunky columnar cactus to 8'. Collected by N. Logan on the dry slopes of Cerro Purgatorio above the ancient Tucume pyramids and *Prosopis* forests, northern Peru. Reported additive to San Pedro brews. Z10a Seed packet \$4.50

Neowerdermannia vorwerkii "Achacana"

Spherical cactus to about 4" diameter with dark green triangular tubercles. Curved spines, lilac-pink flowers and reddish fruit. Distributed from the altiplano of Bolivia to northern Argentina, from 10,000–13,000'+. The whole cactus is considered a kind of potato, it is gathered by the tens of thousands each summer, skinned, cooked and eaten. It is said to be very tasty and is a significant source of vitamin K, calcium and zinc. The pulp is also a remedy for stomach ailments and made into a drink for kidney and liver disease. There is some concern that harvesting may endanger the plant, but it has yet to be clarified how wild populations are impacted. Well worth cultivating as an unusual food plant. Needs strong light and gritty soil. Z7a or below.

10 seed \$5 inquire for plants

Opuntia phaeacantha "Desert Prickly Pear"

Sprawling clumps to 3" tall and up to 8' wide made up of numerous flat rounded stem segments or "pads", blue green in color, taking on a purplish tint in full sun. Minuscule glochids and several 1–3" long spines per areole. Big bright yellow flowers that turn shades of pinkish orange as they age. Large red purple fruits relished by humans and wildlife. Widespread and variable throughout the southwestern USA & Mexico. This cactus was important to several Native American tribes as a food stuff. In addition to the fruits, the seeds were ground into a flour and the pads were cleaned of spines and eaten raw or cooked. The Pima made a poultice of heated stems and applied them to breasts to encourage milk flow. Can be slow to germinate. Z6b

Seed packet \$3

Opuntia sp. NL050908

Upright shrub with flat spiny pads. Very large and delicious juicy fruits with a deep red flesh. Seed collected at the famous markets of Chiclayo, Peru. Z9?

6–10" plant 3–4 years old \$11.50 (limited)

Oreocereus pseudofossulatus

Columnar cactus to 10' tall. Stems to 3" diameter with 10–13 tuberculate ribs. Straw yellow spines up to 2" long. Course white hairs grow out of the areoles somewhat obscuring the stem of the plant and giving it a shaggy appearence. 3" tubular red-pink flowers. Large yellow edible fruits, partially self fertile. Highlands of central/northern Bolivia. Often seen growing with *Trichocereus bridgesii*. Easily grown. Z8b Seed packet \$3

Oroya borchersii "Andean Golden Barrel"

Beautiful, cold hardy, golden barrel type cactus, 8–12" in diameter. 1/2–1" curved golden spines cover the body of the plant. Yellow flowers. Usually solitary, but sometimes clustering. Native to open high altitude grassland, rock outcrops and *Puya raimondii* habitat, from 12–15,000'+, Cordillera Negra, Ancash, Peru. Z8 and below

Seed packet \$4

Oroya borchersii* BK09511.5 1.5–2.5"+ plant 4+ years old \$14.50

Pachycereus pecten-aborginum "Cardon" "Chawe"

Tree like columnar cactus up to 30' tall. Stems reach 1' or more in diameter and have 10–12 ribs with spines up to 1" long. Small white and purple flowers followed by spiny yellow fruit. Native to northern and central Mexico. The fruits were utilized as combs by natives. A sacred plant of the Tarahumara, the mucilage and sap of the trunk and young branches is used as medicine and to induce visions. A tea is made to treat aches, pains, as a purgative and laxative. Added to corn beers to increase the strength. Easily grown. Z10a

Seed packet \$3.50

Pachycereus pringlei "Cardon" "Sahueso"

Gigantic columnar cactus that forms huge candelabra like stands to 60' tall. Individual stems can grow as wide as 1 meter and have 10–16 gray-green ribs covered in 1"+ stout white spines. Oddly, the upper growth of tall stems is often completely spineless. 3–4" white nocturnal flowers that are pollinated by bats. Golf ball size spiny yellow fruits. A Mexican species that grows throughout Baja and from Sonora to Nayarit near the coast. Natives consider this cactus a sacred living spirit and utilize it for many purposes. Fruits and seeds were once an important food source. Fruit pulp was eaten fresh, cooked or made into preserves and the nutritious seeds were toasted and made into a pinole called "haixa" by the Seri. The now extinct Baja Indians and to a lesser extent the Seri of Sonora practiced extensive recycling of the seeds known as "second harvest." After eating great quantities of Cardon fruit the Indians would defecate on large flat rocks and let the matter completely dry out in the hot summer sun. They would then retrieve the seeds and thoroughly clean, cook and eat them. The inner wood of the Cardon was also used extensively for constructing homes, fences, spears, canes and other tools. The Seri were known to bury the placenta of a newborn at the base of these giants. Fruit preserves were used for dysentery and slabs of Cardon flesh for treating aches and wounds. The flesh is also rumored to have inebriating properties. Study of cave paintings in Baja suggest the plant was used shamanically by extinct tribes. Easily grown. Germinate like other cacti, but press the large seeds directly into the soil mix. Bright strong light and regular succulent culture is needed. Protect from frost when young. We have found plants over a foot tall to be cold hardy down to at least Z9b.

inquire for plants

Pelecyphora strobiliformis (=Encephalocarpus strobiliformis)

Gray-green globular cactus up to 2" in diameter. Covered in numerous overlapping tiny scale-like triangular tubercles that give the plant the appearance of a small pine cone. Brilliant violet-purple flowers arise from the wooly apex of the plant during late spring/early summer. Large taproot. Plants usually consist of a single head but are known to cluster with age. A rare Mexican species native to a few gravelly limestone hills in the states of Tamaulipas and Nuevo Leon. Over collection has nearly eradicated the populations in Tamaulipas and seriously threatens those in Nuevo Leon. Like many other inconspicuous Mexican cacti, this plant is known to some natives as "peyote" and may have some traditional medicinal uses. Plants are very slow from seed. Grow like *Ariocarpus*. Regular watering during summer and a dry winter rest is needed. Z9b

Pereskiopsis porteri BK10117.5

Shrubby cactus thin cylindrical stems to 6' and succulent true leaves that are edible. A primitive Opuntia relative with 1"+ spines and glochids. Rose-like yellow flowers. Orange fruit with a sweet-tart edible pulp. Our seed collection from the dry-forests of south Baja. Good seedling grafting stock. Z10a 3-6"+ plant 1-2 years old \$9.50

Pereskiopsis sp.

Central Âmerican tree-like cactus with slender round stems, 1–3" spines, glochids and true leaves. Large rose-like yellow flowers, yellowish fruit. Grows quickly and works great as a grafting stock for cactus seedlings. The fruit and leaves are edible. Regular watering and feeding. Cuts root quick. Z10a

Unrooted cutting \$5.50

Puna bonnieae

Small geophytic cactus, clusters of gray-green round stems to 1" arising from tuberous roots. Tiny red brown spines hug the body of the plant. Large pink flowers. This charming opuntiod, which resembles a cluster of miniature soccer balls, was first discovered in 1990 above 6,000' near Loro Huasi, Tinogasta, Catamarca, Argentina. Well draining soil and seems to be frost tolerant if kept moderately dry. Quite rare in captivity. Z8b/9a

inquire for plants/cuttings

Pygmaeocereus bieblii

Pygmy clustering stems 1–3" tall. Corky spines hug the spiral ribs. Sweet scented, white tubular flowers, like tiny *Trichocereus* blossoms. Endemic to the western Andean slopes of Ancash, Peru between 2–6000'. The most diminutive/desirable species in the Trichocereae tribe. A coveted favorite. Z9b Seed packet \$4.50 / 0.5–1"+ plant 2–3 years old \$16.50

Selenicereus grandiflorus "Queen of the Night"

Thin, cylindrical, climbing stems with 5–8 ribs and small bristly spines. The genus derives its name from the Greek selene (moon) which is in reference the enormous (12"!) white funnelform flowers with yellow-brown sepals and an incredible vanilla like perfume. The nocturnal flowers only last a single night. The specific origin of this epiphytic tropical cactus is unknown, but it occurs wild in eastern Mexico and throughout the Caribbean. The flowers and young stems are widely used in herbal medicine as an effective heart tonic. It's also known to help with urinary infections and is used topically for rheumatism. Mrs. Grieve's herbal reports that large doses produce delirium and hallucination. Cultivated commercially in Mexico for the herbal industry. Likes a rich soil and lots of water and food to bloom successfully. Give it a trellis or bush to climb on and protect from direct frost. Z9b

6"+ cutting \$7.50

Stenocereus queretaroensis "Pitayo" "Organeras"

Heavily branched candelabra tree-like cactus to 20' with a distinct trunk. 5"+ diameter stems with 6–8 prominent ribs and grayish spines up to 1.5". Funnelform white flowers, sweetly scented. Globose 2.5–3" fruit, with a sweet red pulp. Central Mexico. The fruit, known as "pitaya", are an important seasonal staple food for many indigenous groups. In Mexico it has emerged as a easy to cultivate crop with high economic viability for local markets. Thousands of acres of this cactus are now under cultivation. Holds great potential as a fruit crop for other arid regions of the world. In southern Jalisco there are many relict stands of this cactus that occur at pre-columbian archaeological sites, suggesting the antiquity of the cultivation of this majestic species. Prefers a bright sunny position. Z10a

Seed packet \$3.50

Stenocereus stellatus "Xoconochtli" "Tuchikishi" "Pitayo"

Shrubby multi-branched cactus to 12'. Dark green stems up to 4" diameter with 8–12 tuberculate ribs and spines 1–2" long. Relatively small tubular pale rose colored flowers open at night. 1–2" edible fruit with a juicy pulp that is ether sweet or sour depending upon the clone and variable in color, either purple, red, pink, orange, yellow, or white. Native to south central Mexico where the fruits are in great demand both fresh and dried, made into jams and fermented drinks. Cultivated for millennia, archaeological studies show that the plant has been eaten since at least 5,000 B.C. Nahua, Mixtec, and Popoloca people tend wild populations, often selecting desirable clones and cultivating them as living fences around their agricultural fields. This cactus responds very well to cultivation, producing much more abundant and larger fruits than wild plants. In addition to the fruits, the stems, flowers and seeds are also consumed. Cleaned seeds are rich in protein and essential fats, ground into a paste and made into a sauce, they are eaten with tortillas. This amazing plant is easy to grow in a sunny frost free environment. Z10a

Strombocactus disciformis

Gray-green spherical cactus to 5" diameter. 12–18 spirally arranged ribs divided into unusual rhomboid tubercles, each bearing 1–5 delicate white spines to 2/3" long. Creamy white flowers appear in summer. In habitat these plants often grow flattened or disc like but lose this characteristic in cultivation. Native to the Hidalgo and Queretaro, Mexico where the plants are found on steep calcerous cliffs. Highly valued by collectors and slow growing. Z9b Seed packet \$4

Strombocactus disciformis ssp. esperanzae

Small discoid stem to 1–1.5". Spirally arranged ribs and 1–2 weak spines. Deep magenta flowers. Discovered in the 1990s by S. Arias and the late Charles Glass growing on steep canyon walls alongside *Turbinicarpus alonsoi*, Xichu, Guanajuato, Mexico. This diminutive, bright flowered subspecies is still very rare in cultivation. Z10a Sold out

Tephrocactus geometricus

Opuntia relative with nearly spineless gray-purple spherical stems to 3", stacked like a pile of diminutive soccer balls. Large pink flowers. Catamarca, Argentina. Said to be one of the most desirable cacti! Fresh seed from our mother plants. Erratic germinator, alternate wet/dry cycles help. Z8 if kept dry.

10 seed \$5 Inquire for plants

Trichocereus - see separate list

Genus Turbinicarpus

A wonderful, small and relatively new genus of rare and endangered miniature cacti, native to northern and central Mexico. A few species are believed to be used medicinally and a number are known as "peyote" or "peyotillo", possibly due to their remarkable similarity to *Lophophora*. Tragically, high popularity with cactus collectors has lead to near extinction of many species in the wild. Easily grown from seed but fairly slow, usually flowering around 4–5 years of age. Growing medium should be very porous, at least 50% pumice stone with a small amount of lime added. Most species are opportunistic bloomers, flowering any time of year when conditions are right. Keep dry during winter and protect from frost, Z9b. All the *Turbinicarpus* seed we offer is produced by hand pollination of our mother plants. We have a limited # of plants of many species- inquire

Turbinicarpus alonsoi

Small, flattened gray-green stem to 3" in diameter. The ribs are divided into many triangular tubercles tipped with gray fuzz and 3–5 papery spines. Remarkable rose-magenta colored flowers. Discovered in 1994 growing on shale canyon walls in a remote area of north eastern Guanajuato. The most highly prized and slowest growing *Turbinicarpus*. Looks remarkably like an *Ariocarpus* or *Obregonia*. Interestingly, young juvenile plants are hard to distinguish from *Strombocactus* seedlings. Still extremely rare in cultivation, every effort should be made to propagate since plants are highly threatened by illegal collecting in habitat.

Seed packet \$5

Turbinicarpus bonatzii

Miniature blue green globular cactus with small conical tubercles tipped with several short corky spines. White flowers with purple midstripes. A beautiful recent discovery from near Cerritos, San Luis Potosi.

Turbinicarpus flaviflorus

Globose, cylindrical cactus, 3–4" tall. The small pointed tubercles are tipped with many twisting corky spines and white fuzz that almost completely obscures the body of the plant. Nice yellow flowers. An intriguing miniature found only in a small area near Santa Rita, SLP.

Seed packet \$4

Turbinicarpus jauernigii

A peyote look alike. Flattened red-purple stems to 2" in diameter. The nearly non-existent tubercles bear 1–3 short, stubby white spines with black tips. Unusual brown-white flowers and a large tap-root. Grows near Palomas, San Luis Potosi. An extremely rare little gem that is seldom seen in cultivation.

Seed packet \$5

Turbinicarpus klinkerianus

Dark green flattened globose stem up to 3" in diameter. Ribs divided into low and broad conical tubercles tipped with short incurving corky spines. White to creamy yellow flowers. Endemic to a few scattered rocky hillsides near central San Luis Potosi, Mexico. Sadly, like other *Turbinicarpus*, whole populations of wild plants have been destroyed by over collection.

Seed packet \$4

3/4-1"+ plant 3-4 years old \$12.50

Turbinicarpus klinkerianus 'La Negrita' Distinct handsome globular form, La Negrita. Seed packet \$4

Turbinicarpus krainzianus f. minimus

A miniature with elongated stems to 4" tall. Small conical tubercles with bristle like gray spines that curve towards and around the top of the plant. Bright yellow flowers. First discovered in 1987 growing on barren, stony hills near Ixmiquilpan, Hidalgo.

Seed packet \$4

Turbinicarpus lophophoroides

Globular blue-green or gray-green cactus to 3" in diameter. Ribs divided into rounded tubercles tipped with 4–6 small white spines. The center of the plant produces an abundance of white fuzz from which translucent pink or white flowers arise. As the species name implies, these plants somewhat resemble true peyote. Native to the state of San Luis Potosi in the areas of Villa Juarez and Las Tablas. Plant populations from the 2 sites have some noticeable morphological differences. The Villa Juarez plants have somewhat distinct ribs, darker green color and white flowers. Our plants from Las Tablas have ribs fully divided into tubercles, blue-green color and pink flowers. They grow in flat semi-desert areas that have an extremely high gypsum content in the soil. Threatened by the fact that the gypsum deposits on which they grow may be recognized as economically valuable and exploited.

Seed packet \$4

Turbinicarpus macrochele

Small *Lophophora* like grey green spherical stems to 2" in diameter. Flattened tubercles bearing 3–5 curved and twisted flat corky spines 1.5" or more in length, dark yellow to white in color. These unusual spines often completely obscure the top of the plant. White flowers bloom from the center of the cactus. Native to southern Nuevo Leon and north central San Luis Potosi.

Seed packet \$4

Turbinicarpus polaskii (=Turbinicarpus macrochele v. polaskii)

Small globular cactus with a flattened or depressed stem to 3" in diameter. Rounded ribs or tubercles bearing 1 or occasionally 2 small twisted corky spines per areole. White flowers bloom abundantly throughout the year. Young plants closely resemble *Lophophora*. The body of this cactus is a dull green but turns red or purple-brown when exposed to bright light. Once considered synonymous with *Turbinicarpus schwarzii*, recent research has shown it to be closer to *Turbinicarpus macrochele*. A few wild populations still survive near La Bonita, San Luis Potosi.

Seed packet \$4

Turbinicarpus pseudomacrochele

A small globose-cylindrical plant with rounded tubercles tipped with wavy bristle like yellow spines. Large pink flowers. Occurs only in the rocky terrain of a few small hills within the states of Queretaro and Hidalgo. Known as one of the false "peyote". Cultivation is critical as this plant is threatened with extinction in habitat.

Seed packet \$4

1"+ plant 3-4 years old \$12.50

Turbinicarpus rioverdensis

Dark green globular plants to 2" diameter. Low rounded tubercles tipped with 1–3 short corky radial spines. White flowers. Yet another *Lophophora* look alike. A recent discovery from near Rio Verde, San Luis Potosi. New to cultivation.

Seed packet \$5

Turbinicarpus roseiflorus

Small blue-green spherical cactus. Ribs divided into rounded tubercles tipped with numerous small radial spines and 1–2 central spines that curve towards the white-wooly top of the plant. Magenta colored flowers. This plant has never been discovered in the wild and it's believed it may be a hybrid between *Turbinicarpus lophophoroides* and *Gymnocactus viereckii*. Seed packet \$4

Turbinicarpus schwarzii

2–3" gray-green cactus with a flattened-globose stem similar in appearance to *Lophophora*. Low, rounded tubercles with 1–3 flat corky spines that curve towards the top of the plant. White flowers. Endemic to a limited range of limestone hills near Matehuala, San Luis Potosi. Over collection has led to the decimation of wild populations. All efforts should be made to protect and propagate.

Seed packet \$4

Turbinicarpus schwarzii v. rubriflorus

A rare and highly prized variety with lavender colored flowers and often longer corky spines. Known from only 2 localities near Cerros Blancos that have been ravaged by thoughtless collecting. Conservation is a must for this cactus!

Seed packet \$5

Turbinicarpus swobodae

Squat blue-green stems to 2". Wide rounded tubercles tipped with a few black bristly spines. Deep taproot and small yellow flowers. A rarity recently discovered near Rayones, Nuevo Leon.

Seed packet \$4

Ordering Information

We do not ship plants outside the U.S., but seed orders are welcome. Plants are sent bare root unless requested otherwise. If you would like your plants shipped potted add \$1.00 extra per plant ordered (cuttings and Tricho. over 6"cannot be shipped potted.) We try to process and ship your order within 1-2 weeks of receiving it. If you do not receive your order within 4-6 weeks of sending it, please drop us a line-USPS is not infallible.

Shipping and Handling

Seeds—First class mail USA \$4.00; Email for current international rates

Plants (USA only)-

First class priority mail= \$10 for the first plant \$2 each additional plant. Express mail= inquire

*Plants marked with a single asterisk are large, heavy and have special shipping charges = \$16.00 for the first plant \$2 each additional plant.

**Plants marked with double asterisk are extra large and/or heavy. We charge the actual USPS postage cost plus an \$6 handling fee on the total order-email us. Seeds ride free when ordered with plants.

Checks may take several weeks to clear;

use money orders or cash for quicker service. No credit cards or Paypal.

California residents add 7.25% sales tax. Sonoma County 8%

You can print out an order form- http://www.sacredsucculents.com/order-form/

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