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WINTER HOURS

7:30 am — 4:30 pm Office
7:00 am — 3:30 pm Yard
Monday through Friday
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UPCOMING EVENTS / NOTICES

January 11–12
Southern Utah Green Conference
Holiday Inn, St. George, UT
Info: Contact St. George Parks Division (425) 634-5869

January 12–14
2005 ProGreen Expo Nursery and Landscape Industry Show and Conference
Colorado Convention Center, Denver, CO
Info: Contact ProGreen Expo, (303) 756-1079; fax (303) 756-5699 or www.progreenexpo.com.

January 19–21
Idaho Horticulture Expo
Boise Center on the Grove, Boise, ID
Sponsored by the Idaho Nursery and Landscape Association.
Info: Contact INLA, (800) 462-4769; fax (208) 529-0832; email: abates@inlagrow.org

January 24–26
Utah Green Conference and Trade Show
South Towne Centre, Sandy, UT
Info: Contact Diane Jones, Utah Nursery & Landscape Association, (801) 484-4426; fax (801) 463-0026; e-mail: unlal@aol.com

January 27–28
19th Annual Think Trees New Mexico Conference
Marriott Pyramid North Hotel, Albuquerque, NM. Info: Contact Bernalillo County Extension at (505) 243-1386 or visit www.thinktreesnm.org; or e-mail APomo67826@aol.com

January 27–28
First Annual Colorado River Horticulture Conference
Nautical Inn and Resort, Lake Havasu City, AZ. Sponsored by the University of Arizona and the Regional Master Gardeners. Info: Contact Mohave County Extension (928) 753-3788 or email mohavece@ag.arizona.edu

February 16
15th Annual Nevada Landscape Association Trade Show and Conference
Reno Hilton, Reno, NV
Info: Contact Debra Rae Drew, Executive Director, Nevada Landscape Association, (775) 673-040; (800) 645-9794; fax (775) 673-5828; e-mail nlainfo@nevadala.com

February 16–17
The Landscape Industry Show
Sponsored by the California Landscape Contractor's Association. Los Angeles Convention Center, Los Angeles, CA

Info: Contact CLCA (916) 830-2780; (916) 830-2788 fax; or visit www.clca.org

February 24–26
10th New Mexico Xeriscape Conference
Albuquerque Convention Center, Albuquerque, NM
Info: Contact Xeriscapae Council of New Mexico (505) 468-1021; (505) 237-2060; email: scott@xeriscapenm.com or visit: www.xeriscapenm.com

AH, THOSE AMAZING AGAVES

Agaves can be intimidating. Not only because of their wicked terminal spines and prickly teeth, but because there are so many, and they are so hard to keep straight! With over 200 species and numerous subspecies and varieties, even experienced gardeners are challenged. These living sculptures provide incredible design opportunities, but how can the average person sort through all of the available species to find the best one for their situation?

We thought we would offer a mini-primer to help you. In the preparation of this article, several resources were utilized including Mary and Gary Irish's great book, *Agaves, Yuccas, and Related Plants*, published by Timber Press. This easy to read book provides quick searches. We also consulted Dr. Howard Gentry's encyclopedia, *Agaves of Continental North America*. This terrific resource was out of print for many years, but is now available from the University of Arizona Press.

Agaves are monocotyledons and members of the family Agavaceae, which includes the genera Agave, Hesperaloe and Yucca, among other lesser known plant types. The genus is divided into numerous groups that help in classification. Agave is derived from the Greek word for "noble."

Agaves are native only to the New World, with a wide range of distribution from the Southern United States, south into Mexico, Central America and into the South American states of Venezuela and

Colombia. The Caribbean Islands also contain some species of Agave.

Agaves produce leaves arranged in rosettes on a nearly invisible stem. This handy arrangement allows for efficient water channeling during the slightest rainfall. The leaves are typically thick and full of juicy tissue, giving it a succulent nature. Most people who handle agaves come to appreciate (or despise) the rigid spines that may be produced on the tip and/or the margins of the leaves. The spine arrangement, length and shape help to differentiate between species. To the layman, it is the arrangement of the spine imprints upon the bottom of the leaf that provokes lust and admiration for these plants. Many species bear this imprint for life.

Nearly all of the agaves are monocarpic, blooming only once, at the end of their life cycle. There are only a few polycarpic agaves that flower repeatedly. All of the species we offer bloom only once. Many people refer to agaves as Century Plants, in reference to the misconception that it took 100 years to flower. Maturation is the true determining factor for flowering and the time varies with species and cultural practices, but generally it ranges from 8 to 25 years. You really can kill these plants with kindness, as ample fertilization and irrigation can cause plants to mature more rapidly.

The impressive flower spikes of larger species can reach a height of 30 feet, and grow up to 3 inches a day. Experts group agaves by the form of the inflorescence, i.e., whether the inflorescence

(essentially the flower stalk) is an unbranched spike form (spicate) or a branched form (paniculate).

Some species produce little plant off-sets from underground stems known as rhizomes (these little plants are known in the trade as pups) to keep the population going, while others grow only as solitary plants. Some plants produce bulbils (which are small clones of the mother plant) found on the flower stalk or inflorescence. Other species only reproduce from seed.

Depending on origin, agaves prefer full sun to filtered shade. All species prefer deep and infrequent irrigation, and require well-drained soil. The smaller species are ideal choices for containers or shallow planters with limited soil volume. Agaves are relatively problem-free, except for the aggravating agave snout weevil (sometimes referred to as sisal weevil). This destructive and voracious insect seems to prefer the larger, broad-leafed species. Infested plants will show leaf wilt, followed by total collapse of the plant. If this occurs, promptly remove and destroy the infected plant, as well as any weevils and grubs you can find. Drenching the soil with a systemic insecticide may help control problems as well. Be sure to check with your county extension agent for appropriate control measures.

Most everyone is familiar with the common Century Plant, *Agave americana*. This giant has probably scared off more people from planting agaves than any other species. It is relatively fast growing and grows to huge dimensions. The wide, grey leaves

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have stiff terminal spines and recurved teeth along the margins. Unfortunately, it is the most popular menu item for the agave snout weevil. As a result, this agave is not in the catalog. However, several cultivars of this familiar plant are presented below.

***Agave americana* var. *marginata* (Variegated Century Plant)**

This bold plant forms a large rosette of strap-like leaves with creamy yellow margins. The wide leaves are armed with stout teeth along the edge and at the tip. It may produce numerous offsets near the base, creating large colonies. This plant is fairly common in the trade. It may be planted in full, reflected sun or part shade. This plant may reach a size of 10 feet tall by 13 feet wide. Hardy to 15° F.

***Agave americana* var. *mediopicta* (Variegated Century Plant)**

This striking agave has distinctive arched leaves, decorated with a creamy white-yellow stripe down the center, and bordered by green margins. It is smaller in stature than the species or the regular variegated form, making it more useful in containers and patio spaces. This cultivar produces offsets which carry on the population after the mother plant flowers and dies. This selection is susceptible to the agave snout weevil. This agave is smaller than its cousin, only reaching 4 feet in diameter. Hardy to 15° F.

***Agave bracteosa* (Green Spider Agave)**

This relatively small agave is perfect for patio containers or small planting spaces, as it rarely grows larger than one foot tall and wide.

The flexible, spineless, lime green leaves twist and arch, providing a unique silhouette. Older specimens often generate new plants from rhizomes of the leaf axils, resulting in a wide-spreading mound of individual agaves. It is native to the Mexican states of Coahuila and Nuevo Leon. Hardy to 15° F.

Agave celsii

This delightful medium sized agave produces rosettes of succulent bright green to blue-grey leaves. Plants produce numerous offsets, forming dense colonies over time. Part shade and supplemental irrigation

are helpful in low desert locations. The unbranched flower spike produces greenish flowers tinged with purple or red. It is monocarpic. Plant in protected areas to prevent frost damage. The average size is about 2 feet in diameter Hardy to 12° F.

***Agave colorata* (Mescal Ceniza)**

This medium-sized agave is native to Sonora, Mexico. The broad blue-grey leaves are decorated with intricate patterns and edged with large, dark brown teeth. It has a slow to moderate growth rate, and thrives in full sun and reflected heat exposures. It also works in coastal areas, provided that drainage is excellent. The flower stalk is branched, with reddish buds that open to bright yellow flowers. This species is usually solitary. Mature plants will be about 4 feet in diameter. Hardy to 15° F.

Agave desmettiana

This fast-growing agave has fleshy, arching, light green leaves with generally smooth edges and a stout terminal spine. Although it can tolerate full sun and reflected heat, in the low deserts it looks better in filtered shade. Plant in well-drained soil or in containers. Mature size is 3 feet in diameter. It is quite drought tolerant but will also handle regular irrigation. The branched flower stalk has pale yellow flowers and may produce bulbils as well as offsets. Hardy to 25° F.

***Agave geminiflora* (Twin-flowered Agave)**

This agave is amazingly versatile, tolerating exposures from full sun and reflected heat to full shade. It forms a dense, symmetrical rosette of narrow, dark green leaves. Many plants have very fine white filaments along the leaf margins. In full sun, the leaves are stiff and straight, while the leaves relax to form a softer silhouette in shady locations. Plants mature to about 3 feet in diameter. The red flower stalk is a slender unbranched spike producing numerous pairs of yellow flowers tinged with red. It is an excellent container plant. It was once thought this plant was polycarpic, but sadly it is not. Hardy to 20° F.

***Agave havardiana* (Havard Agave)**

This agave is native to rocky grasslands in west Texas and northern Mexico, at elevations of 4000 to 6000 feet. This handsome plant has silver gray leaves bearing sharp marginal teeth and a stout terminal spine. The leaves are held in a tight rosette which is typically solitary. The branched flower stalk has greenish-yellow flowers. Provide full sun at higher elevations, and some shade in low desert regions. It is normally about 3 feet tall by 4 feet wide. Hardy to -10° F.

***Agave lophantha* (Center Stripe Agave)**

This clumping agave forms irregular colonies. The green leaves are stiff, glossy, and sword-like, with a light stripe down the center. Leaves have teeth on the margins and a sharp terminal spine. The flower spike is unbranched to 12 feet tall, with greenish-yellow flowers. It has a slow to moderate growth rate. It is native to south Texas and eastern Mexico. Plant in well-drained soils, and full sun to partial shade. It will be about 2 feet tall by 3 feet wide. Hardy to 15° F.

***Agave montana* (Mountain Agave)**

This medium-sized, solitary agave slowly develops a form reminiscent of a huge artichoke. The wide leaves are glossy green, with large teeth along the margins and a stout terminal spine. The large teeth create interesting imprints in the inner foliage. This native of northeastern Mexico is found at elevations up to 9,000 feet and is very tolerant of cold, heat, drought, and poor soils. In low deserts it should be planted in part shade. Mature plants will be 4 feet tall and 5 feet wide. Hardy to 5° F.

***Agave multiflifera* (Chahuiqui)**

This agave forms a dense rosette of narrow leaves lined with prominent white filaments. Older plants form a modest trunk. This native of the Mexican states of Chihuahua, Durango and Sinaloa occurs at elevations from 4500 to 6500 feet. The tall flower spike bears light green flowers with pink margins. Plants in low deserts prefer some shade and supplemental irrigation. Most plants will be about 3 feet tall by 5 feet wide. Hardy to 20° F.

***Agave murpheyi* (Murphy Agave)**

This bold, medium-sized agave has blue-green to gray-green leaves decorated with striking bud imprints. It is typically solitary but occasionally produces offsets. Native to Arizona and Mexico, this plant tolerates extreme heat and full sun with minimal supplemental irrigation. The flower stalks produce pale green flowers and many bulbils. Typical mature size is 3 feet in diameter. Hardy to 10° F.

***Agave ovatifolia* (Whale's Tongue Agave)**

This stunning agave has a bold silhouette and stout powder-blue leaves. It forms a slightly flattened rosette, and the leaves have a pronounced groove on their upper surface. This native of northern Nuevo Leon, Mexico is a recently described species and is related to *A. havardiana* and *A. parrasana*. Its tall, branching flower stalk has clusters of light green flowers. Plant in full sun in cooler locations, but provide some afternoon shade in the low deserts. Most plants will be 3 feet tall by 4 feet wide. Hardy to 5° F.

***Agave parryi* var. *parryi* (Parry's Agave)**

This cold-hardy agave is native from central Arizona into New Mexico and south into Mexico. The compact, nearly round rosettes consist of gray-green lanceolate leaves 7 to 20 inches in length. Leaves have marginal teeth as well as a stout spine on the tip. A single specimen eventually forms colonies of many offsets. Average height is 3 feet and each plant will be about 3 feet wide. The tall branched flower spike holds clusters of lemon yellow flowers. This is one of the hardiest Agaves at -20° F.

***Agave parryi* var. *truncata* (Artichoke agave)**

The dense symmetrical form and wide blue-gray leaves make this agave a favorite. Found along the Durango-Zacatecas border in Mexico, it grows in grasslands at 7500 feet in elevation. This plant produces many offsets, forming large colonies. A tall branching flower spike produces clusters of yellow flowers. Plant in full sun or light shade. Mature plants are 3 feet in diameter. Hardy to 10° F.

Agave parviflora

This is one of our smallest Agave species growing only 6 inches in diameter, making it perfect for containers and for patio use. It is native to southern Arizona and Sonora, Mexico. The dark green linear leaves are less than 1/2 inch wide and only 4 inches long, with filaments along the margins. The narrow, unbranched flower spike may reach 6 feet in height, and has pale yellow flowers. This plant starts to decline shortly after flowering, but will continue to be attractive for nearly two years. In the low desert it should be planted in part shade. Hardy to 10° F.

Agave pelona

This is a fairly small agave that matures to about 2 feet in diameter. The thin, dark green, linear leaves have a stiff terminal spine and a distinctive white stripe on the margin. Often the foliage will take on reddish to purplish cast, especially if the plant is stressed. Native to Sonora, Mexico it is hardy to about 20° F. In low deserts it will prefer some afternoon shade to avoid leaf scorch. As it is typically solitary, this agave is well suited for containers or in small scale plantings.

Agave potatorum

This beautiful, petite agave has striking blue-gray leaves that terminate in a distinctive, often twisted, reddish spine. The leaf margins display pronounced swellings at the base of the teeth, giving the margins a ruffly appearance. The flower spike can be branched or unbranched, with light green flowers. Place in some shade in the low deserts, and provide ample supplemental irrigation. This solitary agave is native to the Mexican states of Puebla and Oaxaca at elevations from 4500 to 7500 feet. Typical size is 2 feet in diameter. Hardy to 25° F.

***Agave scabra* (Rough-leafed Agave)**

This agave has thick, wide, gray-green leaves that are rough on the back. The leaves are edged with recurved teeth and end in a stout terminal spine. There is great variation in this species in the wild. Most plants will be about 4 feet tall and wide. The form we are growing produces offset freely. It is abundant in the Chihuahuan Desert region of

northeastern Mexico, from elevations of 3600 to 5700 feet. Yellow flowers are borne on a tall branched flower spike. This species prefers hot, dry locations, and requires excellent drainage. It is hardy to 0° F.

***Agave schidigera* Durango Delight™**

This compact, symmetrical agave has dark green leaves which are decorated with white markings and thin white marginal fibers. The leaf edges are smooth, and end in a sharp spine. The flower spike is 10 to 12 feet tall and is densely loaded with dark purple flowers. This agave should be planted in full sun exposures to maintain the tight form. It is also tolerant of reflected heat. Plants will mature to about a 2 foot diameter. Hardy to 15° F.

***Agave victoria-reginae* (Queen Victoria Agave)**

This small, compact agave forms a symmetrical rosette. The short, stout leaves are dark green with distinctive, showy white markings. The leaves have smooth edges, but possess a sharp terminal spine. The reddish-purple flowers are densely packed on a 15-foot unbranched spike. This species is very slow growing and long-lived, taking many years to reach flowering size. Plant it in full sun and water sparingly to maintain the tightest form. Most specimens will grow to about 18 inches in diameter. It is native to the Chihuahuan Desert, at elevations from 4000 to 5000 feet. Hardy to 10° F.

***Agave weberi* (Weber Agave)**

This is one of the largest agave species, with wide, fleshy gray-green leaves. Mature plants may be 5 feet tall and 10 feet wide. The leaves usually have fine teeth along the margins of the lower end of the leaf and a sharp terminal spine. The flower spike is branched, producing yellow flowers and occasionally bulbils as well. This agave is often seen in landscapes, but there do not appear to be any wild specimens left. Plants require full sun to part shade to look their best. Yellowing of the foliage may indicate heat stress and a requirement for more water. Hardy to 10° F.