

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 they can be hard to keep straight! With over 200 species and numerous subspecies and varieties, even experienced landscapers can be 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. 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 Agaveceae, which includes the genera Agave, Hesperaloe, Dasylirion, and Yucca, among other lesser known plant types. This 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 countries of Venezuela and Colombia. The Caribbean Islands also contain some species of Agave.

These living sculptures provide incredible design opportunities. The impressive flower spikes of larger species can reach a height of 30 feet, and grow up to 3 inches per day. Virtually all Agaves bloom only once, at the end of their life cycle.

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 and collector alike, 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 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 takes 100 years to reach flowering stage. Maturation is the true determining factor for flowering and the time varies with species and cultural practices, but generally ranging from 8 to 30 years. You can really 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 can grow up to 3 inches per day. Experts group Agaves by the form of the inflorescence (flower spike), whether it is unbranched (Spicate) or a branched form (Paniculate).

Some species produce little plant offsets 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 (small clones of the mother plant) found on the flower stalk or inflorescence. Other species only reproduce through seed.

Depending on origin, Agaves prefer full sun to filtered shade. Almost 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



Agave americana v. mediopicta



Agave chrysantha



Agave desmettiana 'Variegata'

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 can be identified first by scarring at the base of the leaf rosette, the mother weevil will inject her eggs right into the heart of the plant. Once these grubs hatch, infested plants will show leaf wilt, followed by the 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. 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, gray leaves have stiff terminal spines and recurved teeth along the margins. Unfortunately, it is also the most popular menu item for the Agave Snout Weevil. As a result, we do not grow this particular species. However, several cultivars of this familiar plant are presented below.

***Agave americana v. 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 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 sun, reflected sun, or part shade. This plant may reach a size of 6-10 feet tall and 10-13 feet wide. It is cold hardy to 15°F.

***Agave americana v. mediopicta alba* (Center-stripe Century Plant)**

This striking agave has distinctive arched leaves, decorated with a creamy white stripe down the center, and bordered by gray-green margins. It is smaller in stature than the species or the regular variegated form, making it more useful in containers or patio spaces. This cultivar also can produce offsets along the base to carry on the population when the mother plant flowers and dies. This variety will reach a mature size of about 4 feet tall and wide. As with all *americana* selections, this variety is susceptible to agave snout weevil. Hardy to 15°F.

***Agave chrysantha* (Golden Flowered Century Plant)**

Golden Flowered Agave is generally solitary, reaching a mature size of about 3 feet tall and 5 feet wide. Tolerant of many different conditions, this Agave can handle full sun and reflected heat, while also growing well in partial shade. Fleshy, upright leaves can range from bright green to gray. Hardy to 5°F.

***Agave desmettiana 'Variegata'* (Variegated Smooth Agave)**

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 about 3 feet in diameter. The branched flower stalk has pale yellow flowers and may produce bulbils as well as offsets. Cold hardy to 5°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



Agave havardiana

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-tinged flower stalk is unbranched, producing copious amounts of yellow flowers. Cold hardy to 20°F.

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

Havard 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 the low desert regions. It will mature to about 3 feet tall and 4 feet wide. Hardy to –20°F.



***Agave multiflora* (Chahuíqui)**

Chahuíqui 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, unbranched flower stalk bears light green flowers with pink margins. Plants in the low deserts will prefer some shade and supplemental irrigation. Plants will grow to about 3 feet tall and 5 feet wide at maturity. Hardy to 20°F.

***Agave murpheyi* (Murphy's Agave)**

This bold, medium-sized Agave has blue-green to gray-green leaves decorated with striking bud imprints. It can produce numerous offsets to form large colonies. Native to Arizona and Mexico, this plant tolerates extreme heat and full sun with minimal supplemental irrigation. The tall, branched flower stalks produce pale green flowers, and sometimes numerous bulbils. Variety '**Rodney**' grows just like the species, but has bright yellow margins to the leaves. Typical mature size is about 3 to 4 feet in diameter. Cold hardy to 10°F.

Agave ocahui

This Agave is very tolerant of full sun and reflected heat, even here in the low deserts of Phoenix. Deep green leaves with a small spine at the tip provide a lush appearance. Native to Sonora, Mexico this plant will form a tight spiral of leaves with smooth edges. A 10 to 15 foot tall, unbranched flower stalk is heavily covered with yellow flowers. Plants will reach about 2 to 3 feet in diameter at maturity. Hardy to 15°F.

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

Whale's Tongue Agave has a bold silhouette and stout powder-blue leaves. It forms a slightly flattened rosette, and the leaves have a pronounced groove on the upper surface. This native of Nuevo Leon, Mexico 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 reach about 3 feet tall and 4 feet wide. Hardy to 5°F.

***Agave parryi* v. *couesii* (Coues Agave)**

Coues Agave is an attractive, smaller variety of the *parryi* group. Native across central Arizona between 4000 and 8000 feet, this Agave can produce many offsets to form flat-topped colonies. Leaves are narrow and lined with marginal teeth, as well as a stout

Agave ovatifolia 'Frosty Blue'



Agave parryi v. couesii



Agave parryi v. truncata



Agave schidigera Durango Delight™



Agave weberi

terminal spine. Tall, branched flower stalks are covered with fiery-red flower buds that open to yellow. Mature size will be about 1 1/2 feet tall and 2 feet wide. Hardy to 0°F.

***Agave parryi v. 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 leaves with marginal teeth and a prominent terminal spine. Individual plants will reach 2 to 3 feet in diameter, but this variety will eventually produce many offsets. The tall, branched flower stalk produces clusters of yellow flowers. Hardy to -20°F.

***Agave parryi v. 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 about 7500 feet in elevation. This plant produces many offsets, forming large colonies. A tall branching flower stalk produces clusters of yellow flowers. Plants grow well in full sun to partial shade. Mature plants are about 2 feet in diameter. Hardy to 10°F.

Agave pelona

This fairly small Agave will mature to a size of about 2 feet in diameter. The thin, dark green, linear leaves have a stiff terminal spine and distinctive white leaf margins. Often the foliage will take on a purplish cast, especially in times of cold or drought. Native to Sonora, Mexico it can handle about 20°F. In the low deserts, this Agave will prefer some light afternoon shade or filtered sun. As it is typically solitary, the Agave is well suited for containers or in small scale plantings.

Agave schidigera Durango Delight™

Durango Delight™ has a tight, compact form reaching a mature size of about 18 to 24 inches in diameter. Leaves are dark green and have a white edge and marginal fibers and end in a sharp terminal spine. A 10 foot unbranched flower stalk will be loaded with purple-green flowers. Generally solitary, this plant does quite well in full sun and even reflected heat. Cold hardy to 15°F.

***Agave victoria-reginae 'Compacta'* (Compact Queen Victoria Agave)**

This small, compact Agave forms a very rounded rosette. The leaves are dark green with distinctive white markings. The leaves are very stiff and thick, with a smooth margin and a sharp terminal spine. Green flowers tinged with red are produced on an unbranched flower stalk that can rise to 15 feet tall. Plant in full sun and water sparingly to maintain the dense form. Mature size is about 18 inches in diameter. Hardy to 10°F.

***Agave weberi* (Weber's Agave)**

This is one of the largest Agave species, reaching 5 to 6 feet tall and up to 10 wide. Fleshy, wide, gray-green leaves have fine teeth next to the base, and a long and sharp terminal spine. A 20 feet or more branched flower stalk produces loads of yellow flowers. Weber's Agave grows well in full sun to part shade. Hardy to 10°F.



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