

Two Recent *Agave* Introductions

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Introduction

There are two species of *Agave* that are relatively recent introductions to the horticulture industry. Both are highly decorative species that deserve a closer look at their ornamental appeal. The two species, *Agave geminiflora* and *Agave schidigera*, have some characteristics in common, yet they are distinct and worthy of cultivation. Both are native to Mexico, do not produce offsets, have dark green leaves with white markings, and lack teeth along the leaf margins, instead having thin marginal fibers. They differ in leaf size and texture, each having an interesting appearance that fits in with many styles of landscapes. Below descriptions, cultural notes, ways to distinguish each from similar species, and landscape applications for both species are given. They may not be available at large retail chains, but both should be found in the nursery trade, particularly at those nurseries specializing in more unusual species.

Agave geminiflora

Description: *Agave geminiflora* is a single, short-stemmed plant that forms dense, symmetrical rosettes of narrow, dark green leaves (Figure 1). The long, skinny leaves measure 2 feet long and 3/8 inch across. They are toothless along the margin, however, they may have fine, white marginal fibers. Because plants are all grown from seed, there is some variation in the amount of fibers along the leaf edge; some plants may not have any. The flower stalk is a narrow spike 15 - 18 feet tall. The name *geminiflora* is derived from the fact that there are two flowers at each bract along the spike. The flowers are greenish near the base, flushed with red or purple above. As with all *Agave* species these plants only bloom once then die, and because it is a solitary (non-offsetting) type, it would need to be replaced. It is not known how long this plant lives prior to flowering.

Ornamental Features: The long, thin, flexible, leaves with or without the white marginal fibers are one of the attractive features about Twin Flowered Agave. When grown in full sun, they form a dense, compact ball of leaves that is quite striking. The toothless leaf margins allow for safe use as a potted plant near high traffic areas, however, watch out for the sharp tip.

Culture/Maintenance: Because of its more tropical origin, *Agave geminiflora* should be placed under the protection of an overhang or a nurse tree in the Tucson area. If grown in full open exposure, be prepared to protect plants when temperatures drop below the mid 20's F. Plants can be grown without protection from frost in Phoenix and Palm Springs. Protect plants from rabbits and javelina if need be. The frost sensitivity makes this an ideal candidate for container culture. They may not freeze back when the winters are mild. In fact, I have seen four specimens in Tucson that do not show any frost damage at all. When grown in containers, they require supplemental water regularly during the growing season. They have a moderately fast growth rate and can make a nice sized specimen in a short time. Plants are very low maintenance, however, preventive treatment for the Agave Snout Weevil is advised.

Identification: The very narrow, dark green leaves that are smooth and pliant make this an easily identifiable species. There are other narrow leafed species currently cultivated. *Agave striata* and *Agave stricta* both have stiff, light green leaves with no marginal threads. *Agave parviflora* and *Agave toumeyana* both have dark green leaves with white markings and white marginal threads, but they are much smaller than *Agave geminiflora* and cannot be confused with it.

Landscape Application: Due to its frost sensitive nature, Twin Flowered Agave is best used as a container plant in colder regions like Albuquerque, Las Vegas, and El Paso, where it can be grown under the protection of a covered patio. If you are willing to cover plants in the winter, they can be planted out in the ground. *Agave geminiflora* seems to be adaptable to either full sun or placed under the protection and shade of *Acacia greggii*, *Acacia minuta*, *Olneya tesota*, *Pithecellobium* species, or *Prosopis* species. They can also be planted on the north side of a house where they will receive winter shade and summer sun. This is always one of the hardest spots to find plants for, yet *Agave geminiflora* will fill that niche. I have seen a plant on the north side of a house that is larger, yet still very attractive. In a xeriscape, Twin Flowered Agave can be used comfortably in the mini-oasis where its ornamental features can be viewed up close.

Agave schidigera

Description: *Agave schidigera* is a small or medium sized plant that grows to 2-3 feet across and 2 feet tall (Figure 2). The dark green leaves are 1 to 1.5 feet long and 1 inch wide at their widest point. They are decorated with white markings and thin white marginal fibers. Plants that are five to ten years old consist of 100-150 leaves which radiate uniformly from the center giving the plants a very symmetrical shape. There are no marginal teeth on the leaves, however, the tip is very sharp and can inflict some damage. The flower stalk is 10 feet to 12 feet tall and is densely loaded with dark purple flowers.

Ornamental Features: **Durango Delight™** (Trademark name by Starr Nursery) is a very symmetrical plant with straight leaves. Some populations of *Agave schidigera* have slightly curved leaves that detract from the symmetry. The small size, very decorative leaves and toothless nature combine to make this a very desirable plant for landscaping around houses and small patio areas.

Culture/Maintenance: *Agave schidigera* is tolerant of most southwestern soils. The only requirement is that it have good drainage and not be waterlogged. Plants have a moderate growth rate, responding some to supplemental water during the growing season (spring through early fall). Plants may benefit from fertilizing in spring and monsoon season. I have grown plants from the **Durango Delight™** population for 12 years. Plants have been subjected to winter lows of 17 degrees without suffering any damage. The only damage I have seen on any plants was from early morning overhead watering in the winter. The water froze and resulted in pockmarks on the leaves. Plants should be drip watered when in the ground.

Identification: **Durango Delight™** is easily recognized by its very symmetrical shape, the dark green, sword like leaves with distinctive white markings, and the white marginal fibers. The only *Agave* species that this could be confused with is *Agave filifera*. These two are separated by the non-offsetting nature of *Agave schidigera* compared to the offsetting nature of *Agave filifera*.

Landscape Application: *Agave schidigera* is quite versatile. Because of their symmetrical form and relatively small size, plants are very attractive when grown in pots. They work well in full sun or filtered light and can be placed in any zone of a xeriscape. Also, because of the small size, they can be used effectively in spaces as small as 2 feet or 3 feet wide. Plants can be grouped together or planted among boulders in a rock or cactus garden. They work well with perennials such as *Ageratum corymbosum* **Butterfly Blue™**, *Amsonia palmeri*, *Dyssodia pentachaeta*, *Eupatorium greggii* **Boothill™**, *Hymenoxys acaulis*, and *Zephyranthes citrina*. Some small shrubs that go well with this *Agave* are *Dalea capitata* **Sierra Gold™**, *Penstemon baccharifolius* **Del Rio™**, and *Salvia greggii*. Some plants that could be used as an over-story to shade the *Agave* would be *Acacia willardiana*, *Bauhinia lunarioides* (syn. *B. congesta*), *Cercidium microphyllum*, *Cercidium* hybrid 'Desert Museum', *Eysenhardtia orthocarpa*, and *Leucaena retusa*.

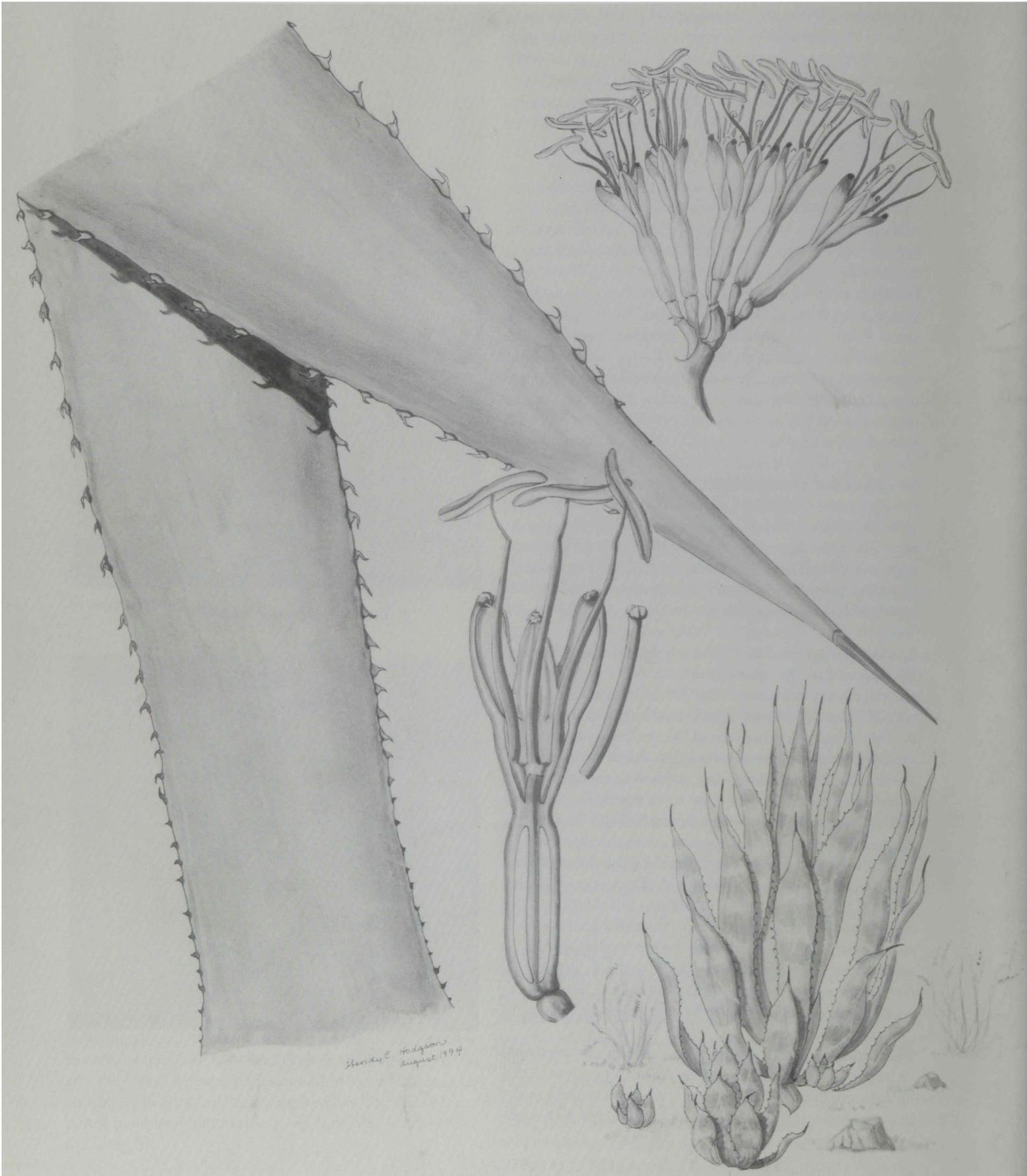
Precautions: As with all other *Agave* species, this one should be treated two or three times a year for the *Agave* weevil that tunnels into the stem. Also, there is a type of sucking insect that may cause leaf spotting. This can be treated with a systemic insecticide.



Figure 1. *Agave geminiflora*



Figure 2. *Agave schidigera*



Mrs. C. Hodgson
August 1994

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