

Tips and Terms

Selection

It may take a while to understand your landscape's soil and drainage conditions. If your wildflowers don't succeed, try again, maybe with different species. Remember, success depends on using the right plant in the right place.

Water

Water plants thoroughly when planting, then water as needed until they are established and putting out new foliage. Once plants are established, irrigation should be needed only during extended dry periods. Learn to recognize when plants look wilted and water them then. Over-irrigation can cause fungus and rot, which can kill your wildflowers. It can also cause them to grow too quickly, becoming more susceptible to pests and diseases, or too tall, requiring staking.

Fertilizer

Native wildflowers should not need fertilizer. Applying fertilizer can produce plants that grow too quickly, which can lead them to become pest and disease prone, and too tall, requiring staking.

Fertilizing also encourages weeds, which can easily out-compete wildflowers.

Sustaining wildflowers

If you want wildflowers to persist on their own in your landscape, you'll need to allow for self-seeding, especially for annual or short-lived species. Keep open, lightly mulched areas available for seed to germinate. You also can collect seed and plant it where you want it. When seeds germinate, you'll need to recognize wildflower sprouts so that you don't pull them out when weeding. To download a PDF document showing some common wildflower seedlings, visit www.FlaWildflowers.org/planting.php.

Many wildflowers are deciduous, dying back in the winter, particularly in colder areas of the state. Don't plant over them before they re-sprout in the spring, and don't weed them out when they sprout. Mark areas with deciduous plants so you can be on the lookout for their seasonal comeback.

Mulch

We recommend Florida pine straw. To help prevent weed germination in the first month or two after planting, you can apply a 2- to 4-inch layer of mulch, but keep it away from the base of the plants. Once plants are established and before they fully flower, carefully reduce the mulch to a thin layer. Too much mulch can contribute to fungal and rot problems. To promote self-seeding, spread mulch thinly enough so that you can see the soil below.









Glossary of helpful terms

Appressed: pressed closely, but not fused (e.g. leaves against a stem)

Basal: forming or attached at the base

Calyx: the sepals of a flower, typically forming a whorl that encloses the petals and protects the flower bud

Cultivar: a horticultural variety of a naturally-occurring "wild" plant species that was produced in cultivation by selection

Disk floret: in composite flowers of the Asteraceae family, the tubularshaped florets that form the "eye" or center of the bloom; compare to ray floret

Dissected: deeply divided or cut into many segments

Ecotype: a distinct form of a plant species that occupies a particular habitat

Form: a taxonomic rank below variety that identifies differences within a species

Nutlet: one of the one-seeded segments of the ovary of some members of the Lamiaceae family

Panicle: a loose, branching cluster of flowers

Ray floret: in composite flowers of the Asteraceae family, the strap-shaped, petal-like florets that form the ray of the bloom; compare to disk floret

Scape: a long, leafless flower stalk coming directly from a root

Variety: a taxonomic rank below species and above form that identifies differences within a species

Need more information? Consult these resources:

- Florida Wildflower Foundation www.FlaWildflowers.org
- Florida Association of Native Nurseries www.PlantRealFlorida.org
- Florida Native Plant Society, www.FNPS.org
- Florida Wildflower Seed & Plant Growers Association, www.FloridaWildflowers.com

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About this species



Blanketflower (Gaillardia pulchella), also known as Firewheel and Indian Blanket. is one of two Gaillardia species native to Florida, the other species being Lanceleaf Blanketflower (G. aestivalis). Blanketflower occurs throughout Florida in coastal areas and disturbed sites.



Description

In Florida, Blanketflower is an annual or short-lived perennial. Its linear- to lance-shaped leaves are quite hairy, which makes the plant appear grayish-green. Under natural conditions, it's from 12 to 18 inches tall and about as wide. In gardens, it can easily spread twice that.

Its brightly colored flowers, long blooming season and drought tolerance make this a popular garden plant. Flower petals typically are bi-colored with an inner red band surrounded by an outer yellow band. The relative amounts of red and yellow can vary considerably. Petals can

be entirely red or yellow, have an inner red band surrounded by a white band, or, on rare occasions, be entirely white. Sometimes the petals even are tubular - narrow at the base and flaring out like trumpets.

Peak flowering is from mid-spring to late summer, with diminished flowering until frost; in Central and South Florida, Blanketflower can bloom at any time of the year.

Use Blanketflower in landscape sites where it can be allowed to spread, as it can be a very aggressive re-seeder, especially in loamy soils.

Blanketflower is an excellent nectar plant for butterflies and pollinators. Its "tough as nails" reputation is well deserved. If you have an open, sandy, sunny spot where nothing grows, try Blanketflower.











Blanketflower easily sustains itself through re-seeding. To ensure seed set, several to many plants should be in close proximity so bees and other insect pollinators can crosspollinate flowers. Plantings can be established by seed or plants.

Seeds

Blanketflower seeds are commercially available. Sow in early to mid-fall on an untilled seed bed.

Plants

Containerized plants often are sold in 4-inch, quart and gallon containers. For a dense planting, space plants about 12 to 18 inches apart, on center.

Care

Established plants are drought tolerant, so supplemental

watering might be needed only during extended dry periods. When irrigating, apply $\frac{1}{3}$ - to $\frac{1}{2}$ - inch of water.

In late fall, plants that have not died can be cut back to 6 to 8 inches of stubble. No cold protection is needed during winter; even the tiniest seedlings tolerate frost and freezes into the low 20s.

Blanketflower is relatively pest- and disease-free. When viewing leaves closely, you may notice tiny white speckles, which horticulturists often refer to as stippling. Whatever the cause, stippling does not appear to be detrimental to the Blanketflower's overall health.





Gaillardia seedlings at 22 days



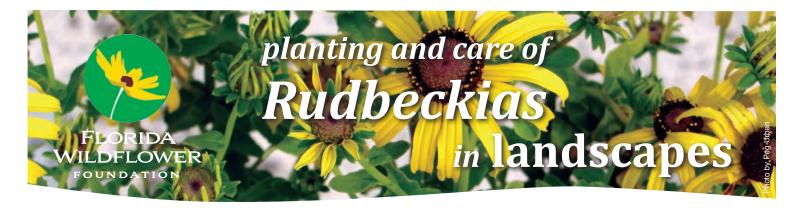
Gaillardia seedlings at 2-3 months

Site Conditions

Blanketflower is salt tolerant and grows best in full sun in dry to slightly dry, well-drained soil. In shadier sites, it gets very leggy and can even creep into adjacent shrubs. Once established, Blanketflower is very tolerant of hot, dry conditions, especially in very sandy soils. Drought tolerance may be diminished in heavier soils.



Varieties sold CAUTION at many large retail outlets and garden centers, and by national wildflower seed companies, often are non-native Gaillardia aristata or one of the many varieties of Gaillardia pulchella or Gaillardia x grandiflora (a hybrid of G. pulchella and G. aristata). Avoid planting these in the vicinity of Gaillardia pulchella, as they may hybridize.





Rudbeckia hirta

Rudbeckia species are commonly known as Black-eyed Susans or Coneflowers. The most widely available native is Black-eyed Susan (Rudbeckia hirta), found throughout Florida in sandhills, flatwoods and disturbed areas, including the variety Rudbeckia hirta var. floridana, endemic to Central and South Florida.

Softhair Coneflower (*Rudbeckia mollis*) and Cutleaf Coneflower (*Rudbeckia laciniata*) can be used successfully throughout the Panhandle and in North and Central Florida

Description

Black-eyed Susan, especially the variety found in Central and South Florida, appears to be perennial. However, varieties may be annual, biennial or perennial. Plants are generally 1 to 2 feet tall with most of the foliage on the bottom half. Leaves are very rough to the touch (which can help identify young plants). The 3- to 4-inch deep-vellow aster-like flowers have dark brown disk flowers in a central dome. Rudbeckia blooms spring through fall, and has scattered blooms through the winter in South Florida.

Softhair Coneflower is annual or biennial, with soft, almost velvety hairs on plants that reach 3 feet or more when flowering. The 2½-inch flower heads are similar to Black-eyed Susan. They have showy ray florets, but the disk is



Rudbeckia lacianata

These plants are excellent nectar sources and are also larval hosts to some moths.

Cut flowers can last up to 10 days in bouquets.

Black-eyed Susan roots also have been used in various medicines.

flattened and brown or purplish. Softhair Coneflower is a robust plant that can have 30 flowers open at a time from late spring through summer. It naturally occurs in sandhills and open hammocks, so plant it in sandy, well-drained soils, and mix it with other species where its height is a welcome addition to the landscape.



Rudbeckia mollis





Cutleaf Coneflower is a large perennial reaching 4 to 6 feet tall and up to 4 feet across when in full bloom in late summer and fall. Found in moist, open hammocks and floodplains of North Florida, it prefers moist settings and may need a little more shade or protection from the west sun when used in Central Florida. The lower leaves are toothed and deeply dissected. The large flowers stand 2 to 4 feet above



Rudbeckia hirta seedlings at 22 days

the last leaves and have long yellow ray florets spreading from the mounding disk with greenish yellow florets. Cutleaf Coneflower's very beautiful rosette of large, rich green leaves can be seen through much of the year, making a fine mass planting.

Planting

Use Black-eyed Susans in mixed wildflower beds. This and most other *Rudbeckia* species easily self-seed if open or lightly mulched areas are available.

Space Black-eyed Susans and Softhair Coneflower 14 to 18 inches apart. Space Cutleaf Coneflower about 3 feet apart.

Seeds

Seeds can be collected after the ray and disk flowers finish blooming. Pick a head and tear it apart to find the mature cone-shaped seeds, which should have a solid white centers. Seeds can be purchased commercially.

Care

Monitor plants during extra-long dry periods, especially in spring, and water deeply only as needed. Black-eyed Susan flowers can be cut after they bloom to encourage more flowering stems and lengthen the bloom period.



Rudbeckia mollis



Rudbeckia hirta

Site Conditions

This plant does well in many soil types as long as the site is well-drained and not extremely dry. Give *Rudbeckia* full sun or partial shade for the best blooming.



Rudbeckia mollis in landscape

There are many named cultivars of *Rudbeckia* species, and some are quite popular and widely available. None of the cultivars currently available were derived from Florida ecotypes, and they are not considered native wildflowers. They may not perform as well or live as long as those from your local region.





Liatris chapmanii

Florida gardeners will find four native *Liatris* species on the market: Chapman's Blazing Star (*Liatris chapmanii*), Dense Blazing Star (*L. spicata*), Evergreen Blazing Star (*L. tenuifolia var. quadriflora*) and Graceful Blazing Star (*L. gracilis*). These species are found throughout Florida. Evergreen Blazing Star can also be used in the Keys.

Blazing Stars are excellent nectar plants and will reliably attract numerous butterflies, moths, bees and other insect pollinators. Hummingbirds may also nectar on the flowers, which have long been a favorite in floral bouquets. Flowers start opening at the top of the stem and continue to bloom after cutting.

Description

Blazing Stars are among our taller perennial wildflowers, generally standing 2 to 4 feet. One or more flowering stems rise from basal rosettes in the summer, with blooms appearing anywhere from late summer through fall, depending on the species. This is a deciduous wildflower — it overwinters underground and sends up stalks from thickened, cormlike rootstock, which resembles underground bulbs. Foliage tends to be thin or not particularly noticeable. However, Evergreen Blazing Star does maintain a visible basal rosette in the winter.

Chapman's Blazing Star blooms as early as August and into September, with light-lavendercolored blooms. Dense Blazing Star, the most commonly available and typically tallest of the



Liatris gracilis

species, has bright lavendercolored blooms from October into early November. Evergreen Blazing Star has lavender-colored flowers anywhere from September through October. Graceful Blazing Star has light- to bright-lavender flowers in October and November.

Native Americans used these plants to treat a variety of illnesses, and researchers have discovered anti-cancer substances in various species. Modern herbalists use the plants for homeopathic remedies and in potpourris and insect repellants.



Liatris spicata



Blazing Stars require little ground space, and can be used even in small gardens. While you can plant at anytime of the year, you may be most successful planting in spring after plants emerge from dormancy. To provide seasonal color and vertical interest, plant Blazing Stars in clusters, in beds of mixed wildflowers and ornamental grasses. To lengthen your Blazing Star blooming season,



Liatris spicata seedlings at 40 days

plant more than one species. Their thin, stiff, upright silhouette can be complemented by plants with rounder or spreading forms, wide strappy leaves, and different flower shapes and sizes.

Seeds

Seeds are commercially available. To collect your own, wait until the flowers are light tan in color and fluffy, then shake or lightly brush the flowers into a container. The brown achenes are the seeds.

Plants

Blazing Stars are available in 4-inch and gallon containers. Space plants 12 to 15 inches apart. Keep them watered until you see new growth or seasonal rains begin.

Care

Staking of Blazing Stars is usually needed only because the plants have been over irrigated or fertilized, and thus are weak from having grown too quickly.

Cut stems only if necessary, and carefully, because the plants pull up easily. For this same reason, be very careful when weeding in and around Blazing Star plants. You may want to mark your plantings so that you will remember where they are in the spring.

After flowering, the dead stems shelter insects — an important food source for birds, which use the stems as a place to hang out while hunting insects. Birds will also feed on the seeds.

Other species

You may also find Elegant Blazing Star (*Liatris elegans*) suitable for exceptionally deep, well-drained sand in North and North Central Florida. In October, it presents light lavender flowers.

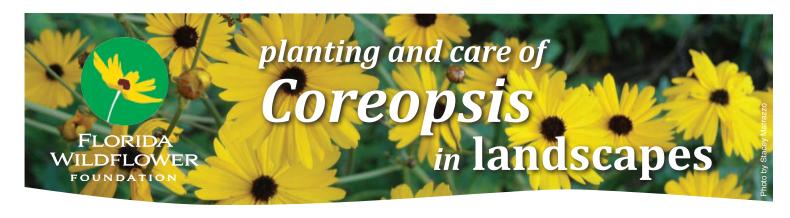
Site Conditions

All the plants listed here need full sun for best flowering and well-drained soils. Some Blazing Stars are especially sensitive to persistent moisture in the soil. Chapman's and Graceful Blazing Star are found in habitats where soil is very well-drained, deep sand. Do not plant these species where the ground remains moist or wet. Dense Blazing Star prefers a moist-wet situation, but is fairly adaptable and surprisingly drought tolerant.



Liatris spicata

Non-native
Blazing Star
plants are often
sold in large retail
stores and garden
centers. Blazing Star seed
sold by out-of-state vendors
is typically not Florida native
ecotype.





Coreopsis leavenworthii

Florida's state wildflower is Coreopsis, also known as Tickseed, and refers to all 11 species native to Florida. Many of these occur only in North Florida and the Panhandle. The most common species, Coreopsis leavenworthii, is almost entirely endemic to Florida. which means it occurs naturally nowhere else in the world. Commonly known as Leavenworth's Coreopsis, or Common Tickseed, this plant can be found throughout Florida, especially on roadsides and in disturbed areas, flatwoods and prairies.

Description

Coreopsis is an annual but can be a short-lived perennial in the southern half of Florida. It blooms with bouquets of yellow daisylike flowers throughout the year — especially in spring — when the weather is warm. The 1- to 2-inch flowers have dark centers surrounded by scalloped yellow ray florets, which look like petals, but technically are not. Coreopsis grows 1½ to 3 feet tall on slender stems with many branches. Its bright green leaves are narrow and range from simple to lobed or deeply divided, thus giving the plant a more open appearance.

Planting

As an annual or short-lived perennial, *Coreopsis* needs a site that offers space for it to reseed. It can reseed between other plants, such as other wildflowers, if they are not too competitive.

Coreopsis is a great nectar plant for butterflies and pollinators.

It also has been used to make tea and for treating various medical ailments.



Coreopsis lanceolata



Coreopsis lanceolata "meadow"





Seeds

Seeds are commercially available, or you can harvest your own. They mature very quickly after flower petals have withered. Look for mature seeds with "wings" on their sides in the little cup at the tip of the stem. Germination usually occurs in less than seven days. The first leaves of a seedling are not lobed and have rounded tips.



Coreopsis leavenworthii seedlings at 24 days

Site Conditions

Coreopsis likes any open, moist site, preferably sandy and drained, but is not very particular about soil acidity. Full sun produces the most flowers. Though it can tolerate some drought and drier soils. it will not perform as well. Moist soils also allow for reseeding — important in maintaining this species.

Plants

Coreopsis is available in quarts and gallons. They may be planted anytime of the year; plant in the spring for the full benefit of flowering. Space 1 to 2 feet apart. Coreopsis establishes quickly in moist soils.

Care

Because this plant is an annual, especially in colder areas, cold protection is not needed. Coreopsis is relatively disease



Coreopsis lanceolata seedlings at 22 days

and pest free, though some critters may feed on it.

If the plants are cut back near the end of their bloom, they will produce another flush of flowers. Plants can be string-trimmed or mowed at a 6- to 8-inch height.

Other species

Lanceleaf Coreopsis (Coreopsis lanceolata) grows naturally in North Florida and the Panhandle in sandhills and disturbed areas and is widely used farther south with good success. It is a short-lived perennial that readily reseeds. Its yellow ray flowers are complemented by a golden disk atop fairly thick stems. This spring bloomer can flower into summer with dead-heading and is drought tolerant.

Florida Coreopsis (Coreopsis floridana) is endemic to Florida and grows in wet prairies and wet pine flatwoods throughout the state. This perennial has thick fleshy leaves and larger flowers than Leavenworth's Coreopsis. It blooms in the fall on stems up to 3 feet tall. Yellow ray flowers surround a deep brown disk.



For Coreopsis CAUTION leavenworthii, which occurs throughout Florida, the origin of the plants or seed does not seem to be a factor in successful growth, according to recent research. If other species of *Coreopsis* are being considered, look for local sources, as most other species occur far outside of Florida. Some, such as Lanceleaf Coreopsis, also have popular horticultural varieties developed from progeny outside Florida.



About this species



Solidago sempervirens

Seaside Goldenrod (Solidago sempervirens) is generally the most available of the four native Goldenrods that are grown commercially. This plant blooms in very showy masses on dunes, in swales and brackish marshes, on sandy soils in coastal areas, and occasionally inland throughout the state, except for the Keys.

Description

Seaside Goldenrod has goldenyellow tubular blooms that densely cover the long wandlike inflorescences on the tips of the stem in summer and fall in most of the state, and also in the spring in South Florida. This perennial retains long, strap-shaped, somewhat-fleshy basal leaves year-round. Leaves gradually become smaller as they ascend the stems. Plants are 4-to 6-feet tall in flower and spread by rhizomes to make large colonies over time. Plant it where it can make a big show in the garden, or allow it a large space in the landscape.

Goldenrod is often mistakenly blamed for triggering allergies, but it is ragweed, which blooms heavily around the same time, that is to blame.

Butterflies and other pollinators are attracted to Goldenrod as a nectar plant. The plants also attract birds searching for insects.

Goldenrods have been used medicinally since Roman times or earlier. Seaside Goldenrod was used by the Seminoles to treat wounds.



Solidago sempervirens



Solidago fistulosa





Since Seaside Goldenrod spreads by rhizomes to make dense stands with stout stems, it is easy to retain in the landscape. It can be propagated using division or seeds.

Seeds

Collect seeds after flowers are spent and fluffy tufts of hairs occur. These are called "pappus" and are attached to the end of seeds. Seeds also are available commercially.

Plants

Plants are available in quart, gallon and 3-gallon containers. Because of their large size, they can be spaced 3 feet or more apart and allowed to fill in over time.

Care

This plant performs best in harsh conditions with no watering after establishment. To reduce height, cut back plants in mid-summer before blooms start to form, and cut back to basal rosettes after blooming. There is no need for cold protection. Seaside Goldenrod is also fairly disease-free.

Other Species

Wand Goldenrod (*Solidago stricta*) blooms in the fall with lavender Blazing Stars in wetter flatwoods and prairie communities throughout Florida. It has the same slender wand appearance of the Blazing Star, but its flowers are golden yellow. This 2- to 4-foot perennial has small basal leaves and very small appressed leaves on its flowering stems, which die back after seeds mature.

Pinebarren Goldenrod (*Solidago fistulosa*) is Florida's most common goldenrod, found on disturbed sites and in pine flatwoods, wetter soils, and dry upland habitats throughout Florida. The panicles of its golden flowering heads are found on the ends of stems reaching 3 to 5 feet. It spreads through rhizomes to cover large areas, so it should be carefully placed in the landscape.

Chapman's Goldenrod (*Solidago odora* var. *chapmanii*) likes the dry sandy soils of sandhills and open hammocks in the peninsula and a few areas in the Central Panhandle. It does not spread by rhizomes, and is a relatively slender branching plant that reaches 3 to 4 feet tall — shorter than most other species. Its typical golden flowers bloom in late summer to early fall and are found on the tips of downward-bending branches.

Site Conditions

This plant needs lots of sun to bloom prolifically, but it will tolerate some shade. Although it can occur in moist to wet areas naturally, it is important to plant it in sandy, well-drained soils for best performance in landscapes. This keeps its height in check, keeps plants from falling over or needing staking, and produces more showy blooms. Seaside goldenrod is salt tolerant.





Solidago fistulosa



About this species



Spotted Beebalm (*Monarda punctacta*), also known as Dotted Horsemint, occurs south to Lee and Palm Beach counties in dry sandy soils that are often disturbed sites, such as roadsides, but also in open pine flatwoods. It is moderately tolerant of salt spray and can be found near the Gulf of Mexico and along the Indian River Lagoon.

Description

Monarda punctata is a perennial that dies back to the ground in winter in North Florida, but can retain some foliage farther south. It is multi-stemmed, almost bushy in form, with a 2- to 4-foot spread and height of about 3 feet. It can grow taller with irrigation and fertilizer. Its bright green, lance-shaped leaves make attractive foliage that is scented like oregano or thyme.

The whorls of flowers are creamy white to yellow with purple spots, and are underlain with even showier bracts of lavender to cream. The whorls are repeated several times on a single stem. Because of its height and ability to spread easily by seed, it should be used toward the back of the landscape or in a place of its own.





Beebalm is known as perhaps the best Florida wildflower for attracting vast numbers of pollinators. From summer through fall, the showy blooms and bracts attract many butterflies and a great variety of other insects not generally seen in any other season, including many native bee species. Hummingbirds also use it.

It is a good cut flower for arrangements, and the flowering stems can also be dried and used in arrangements.

Native American tribes used the plant to treat a wide variety of ailments. A weak tea can be made from the leaves, but stronger concoctions may have unwanted effects.





As a perennial, Spotted Beebalm will comes back each year, and can be divided to produce more plants in the spring when there is new growth (they may be too woody for division in summer or fall). It readily reseeds itself in the garden.

Seeds

Seeds are commercially

available, or collect your own after flowering is complete and stems are drying The seeds, or nutlets, are found in the calyx at the base of the flower. Look for almost-black seeds the size of poppy seeds as a sign of maturity. To collect, cut and shake stems into a container.



Monarda punctata seedlings

Site Conditions

Full sun will bring out the best flowering, but partial shade also works. Spotted Beebalm does best in sandy, well-drained soils. More mesic conditions are tolerated, but when more nutrients or water are available, the plant is likely to grow taller and even fall over, requiring extra trimming or staking. In wet conditions, it can be susceptible to fungal attacks.

Plants

Four-inch to 1-gallon pots are available; plants should be 2 to 4 feet apart. Don't crowd plants; allow for good air circulation. Mulching may help to reduce the number of unwanted seedlings.

Care

Spotted Beebalm is quite drought resistant, but during prolonged spring droughts, it may need a little extra water.

In early summer, plants can be cut back to reduce the height and still produce blooms. Cutting back the bloom stalks near the end of flowering may also help lengthen the bloom period.

Spent stems are beneficial to insects and birds, but can be cut back to the emergent growth if desired for tidiness.

Spotted Beebalm contains a chemical called thymol that helps to prevent fungal and bacterial diseases, so it is relatively trouble-free.







This species grows throughout the Eastern U.S. and into Canada. For best landscape performance, be cautious and purchase plants that are Florida native ecotypes.



About this species

Silver-leaved Aster (*Pityopsis graminifolia*) also known as Grass-leaved Goldenaster or Narrowleaf Silkgrass, is found throughout Florida in scrub, sandhills and flatwoods ecosystems.

The species has five varieties, two or more of which may be found in native nurseries. Pityopsis graminifolia var. tracyi, or Tracy's Silver-leaved Aster, can be found in all of the habitats, though mostly in flatwoods. P. graminifolia var. aequifolia, or Sandhill Silver-leaved Aster, is usually only found on drier soils of sandhills and scrub. It blooms later than most other fall wildflowers, providing color into late fall and early winter. Tracy's Silver-leaved Aster also makes a short silvery groundcover and can often be seen mown on upper slopes of many roadsides.

Silver-leaved aster attracts butterflies and various pollinators as a nectar plant.

Description

Silver-leaved Aster is a fitting name, as the leaves are covered with silky hairs that give it a silvery look. At first glance, the plant may appear to be a grass. It is a perennial with short or long rhizomes, depending on the variety, and is less than a foot tall until the fall, when it sends up bloom stalks on stems up to 3 feet tall. Its yellow aster-like flowers can bloom into November and December, and even later farther south.





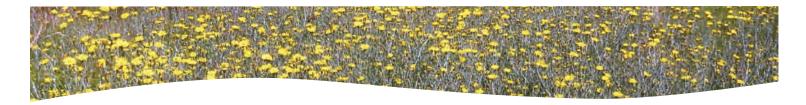
Pityopsis graminofolia

Tracy's Silver-leaved Aster spreads from rhizomes to make a dense groundcover and has flowers over 1 inch across on the tips of branched stems with short, appressed leaves. This variety, with its ability to spread, can make a very pleasing silvery grass-like groundcover over time. Sandhill Silver-leaved Aster grows as a single clump with smaller flowers on the tips of stems that have longer spreading leaves all the way to the top. It can be mixed with other wildflowers that offer a variety of color and bloom times.



Pityopsis graminofolia var. tracyi





Silver-leaved Aster is relatively easy to establish and maintain over time, especially if it is one of the spreading varieties. The more rhizomatous varieties can also be divided and planted in new areas.

Seeds

Though some varieties will spread, *Pityopsis* do not reseed as readily as do wildflowers such as *Coreopsis* and Blanketflower. Collect the seed heads once the head has completed flowering and the seed has fluffed out. Seeds may need to be sown rather soon in the winter months, because they aren't viable for long.

Plants

Plants are generally available in quarts or gallons from native nurseries. Space them 2 feet apart — closer if using Tracy's Silverleaved Aster to create a groundcover quickly by spreading. Plants can be established at any time of the year from containers by watering in well after planting and following with water as needed until established or well into the rainy season.

Care

After the plants have bloomed, cut back the flowering stems to ground level. You can even mow in areas where Tracy's Silver-leaved Aster has been used to make a spreading groundcover. Use well-sharpened blades, as the stems and leaves are quite tough.



Pityopsis aspera



Pityopsis graminofolia



Pityopsis graminofolia

Site Conditions

The plant prefers full sun to light shade and well-drained soils to droughty sandy soils. Avoid heavily shaded or crowded plantings. Different varieties may require different growing conditions; ask about the plant's origins.



Pityopsis graminofolia

The different varieties of Silver-leaved Aster are not well known, even by native growers, so ask about the growth characteristics when you purchase plants or obtain plant material from a friend.





Salvia coccinea

Florida gardeners will generally find three native Salvia species available. Scarlet or Tropical Sage (Salvia coccinea) is the most commonly available and occurs throughout the state (with the exception of the Keys) in areas with moist, well-drained soils. Lyreleaf Sage (Salvia lyrata) occurs throughout Florida south to Broward and Lee counties in moist soils at woodland edges or in open areas. Creeping or Southern River Sage (Salvia misella) occurs in moist semishaded woodlands from Alachua County south through Miami-Dade and Monroe counties. All of these Salvias are reliable nectar sources for butterflies.

Description

Scarlet Sage is a short-lived perennial that persists in the landscape by self-seeding. It generally reaches 18 to 36 inches in height and is taller than it is wide. Blooming occurs throughout the year in South Florida, and summer through fall in Central and North Florida. The abundant blooms are 1-inch long and usually deep coral or fire-engine red, although pink and white forms occur as well. The plant has square stems, which range in color from green to dark brown.

Lyreleaf Sage is a perennial that, for much of the year, consists of relatively flat, variegated leaves that display a range of green, dark-violet and chocolate-brown colors. Light violet-colored flowers appear on deep-green

Salvia is the largest genus in the mint family and has a long history of medicinal uses. Crush the foliage, and you'll detect a faint herbal fragrance.

or burgundy-colored stems in late winter or early spring. Stems reach 12 to 24 inches high or taller, depending on available moisture, nutrients and light.

Creeping Sage is a low-growing evergreen groundcover 6 to 8 inches high. Blooming occurs off and on throughout the year, with tiny but abundant blue flowers. The blooms are not noticeable from a distance, but the light-green foliage is very attractive. Plants creep out from a main central stem.



Salvia lyrata



Salvia misella





Some growers have successfully established Lyreleaf sage as a spreading groundcover after two or three years of cultivation in a landscape. Creeping Sage is a good choice for tight areas and under trees, where it can be planted in pockets between roots. It tolerates light foot traffic.

Photo by Christina Chappell

Salvia lyrata seedlings

Seeds

Scarlet and Lyreleaf sage seeds are commercially available. To collect your own, allow flowers to dry on stems and gently shake them into a container to or remove flowers and obtain seed.

Plants

Plants are available in 4-inch to 1-gallon containers. Use Scarlet Sage in the mid-portion of a mixed wildflower bed or as an accent by itself.

Space Scarlet Sage plants 1 to 2 feet apart and resist the urge to plant in masses — they self-seed readily and will spread throughout the garden. Plant Lyreleaf Sage in small clusters, with individual plants about a foot apart. Space Creeping Sage plants 6 to 8 inches apart.

Care

For continuous blooming, cut Scarlet Sage plants back after flowers are spent for continuous blooming. Lyreleaf Sage can be mowed in late spring or early summer, after it has gone to seed. Creeping Sage can be clipped down once or twice in the summer, if desired. Lyreleaf and Creeping Sage may need water if planted in full sun or during extended drought.

Other Species

A wonderful but uncommon find for Central and North Florida gardens is perennial Sky Blue Salvia (*Salvia azurea*), with light-blue flowers the color of a cloudless sky, appearing in late summer and early fall. Plant several in a cluster, a few inches apart, in a mixed bed in full sun in very well-drained, sandy soils. Stems reach 2-3 feet high or more. Foliage is sparse and plants die to the ground in the winter.



Salvia azurea

Site Conditions

Scarlet Sage does best in moist (but not wet), well-drained sandy soils with full sun to afternoon shade. It can tolerate some salt spray.

Lyreleaf Sage prefers moist ground and partial shade, but will tolerate full sun.

Creeping Sage does well in bright shade and prefers moist soils, although it will adapt to dry shade. It will tolerate full sun but be stressed in hot weather.



Salvia lyrata

Many non-native Salvias are sold in garden centers and other large retail outlets, with minimal identification.





Silphium astericus

Florida has two native Silphium species, both with robust foliage and flowers. The traditional common name for these plants is Rosinweed, but to eliminate any misconception that these beautiful plants are weeds, we're adopting new common names. Starry Silphium (Silphium astericus) occurs in flatwoods, sandhills and disturbed areas in the Panhandle and the western central peninsula south to Lee County. Bigleaf Silphium (Silphium compositum) occurs in sandhills in the Panhandle and northern counties south to Pasco County.

Description

Starry Silphium is a perennial that may die back in the winter. particularly if cold. It sports new foliage in the spring and can produce flowers from mid-spring through early fall, and even through winter if temperatures are mild. The flowering stems can reach 3 to 5 feet, with plants about 2 feet across. The lance-shaped, toothed leaves occur throughout the stem to the flowering scapes, where the stems branch to support many flowering heads. The 2-inch flowerheads have yellow ray petals and disks. This species is especially loved, because it blooms over a long period of time.

Bigleaf Silphium is also a perennial, but does die back in the winter. It emerges in spring with very unique basal leaves — they are almost round, deeply dissected, dark green, red-veined and 4 to 12 inches across. The flowering stems can

reach 6 feet and have a few tiny leaves scattered up the stem, which branches near the top. Flowers are slightly smaller than Starry Silphium, with yellow ray petals surrounding reddish disks, and bloom toward the end of summer. Because the stems are not leafy and have flowers only at the top, place plants where the beautiful basal foliage can also be appreciated.



Silphium compositum

Both *Silphiums* are good attractors of butterflies, native bees and other pollinators, and birds will eat the seeds.

The stems contain a gummy or resinous substance, and Native Americans chewed stems to clean their teeth.

Cherokees also used the plants medicinally.





Both species can be found in nurseries in one gallon containers, but Bigleaf Silphium is not widely available.

Seeds

Seeds are commercially available; you also can collect your own when flowering heads are dry. Break them apart to separate the seeds. As a



Silphium compositum basal leaves

perennial, both species persist in the landscape and are known to reseed on their own. For best results, plant seeds shortly after collection and keep the soil surface moist until germination occurs in about 3 weeks. To get more even and faster germination, first cold-stratify the seed by keeping it moist in planting media and refrigerated for 30 days. Seed will begin to germinate in 4 days and complete germination in 2 weeks.

Plants

Space plants about 2 feet apart. Because both species are able to tolerate some drought, water deeply and thoroughly to wet the soil at least 7 inches down around the plant until well-established, but only as often as needed.

Care

Once established in the right soil, plants should not need extra water, but watch for extra-long droughts, especially in the spring, and water deeply as needed. Plants can be cut back after flowering if desired. On Starry Silphium, cut the flowering portion only, leaving the leafy stems. Bigleaf Silphium can be cut back to the basal leaves.

Photo by Nancy Bissett

Silphium astericus



Silphium astericus

Site Conditions

Although the natural range of Starry Silphium is the west side of the peninsula, it performs well through much of the state. It is fairly drought-resistant, and also does well in moist soils. Full sun to partial shade is needed for good flowering.

Bigleaf Silphium naturally occurs in sandhills, so it is even more drought tolerant than Starry Silphium and does well in dry, sandy soils. It also tolerates moist, well-drained soils, but may grow taller under those conditions. Full sun is needed for best flowering.

Neither species is salt tolerant.



Since both species of Silphium occur north to the Mid-Atlantic States, it is important to purchase plants that were originally propagated from Florida progeny for best performance.





Helianthus debilis

Of Florida's 17 native sunflower species, gardeners will most often find two:
Dune or Beach Sunflower (Helianthus debilis) and Narrow-leaf Sunflower (Helianthus angustifolius).
Dune Sunflower naturally occurs along the coast, but adapts well for inland use. Narrow-leaf Sunflower grows throughout the Panhandle, North and Central Florida south to about Lake Okeechobee.

All of Florida's native sunflowers are excellent nectar plants for butterflies and pollinators.

Description

Dune Sunflower is a perennial providing bright yellow blooms throughout the year. It will die back in North Florida in the winter. Depending on the variety (see Caution), this plant may be spreading or upright. As a spreading groundcover, it may sprawl several feet, but generally does not exceed 1 or 2 feet in height. The upright variety can be taller.

Narrow-leaf Sunflower has showy golden flowers 3 inches across with reddish-brown centers. It can reach 4 to 6 feet in height. It has long, narrow, rough leaves, hence its name. This plant blooms in the fall and is perennial, but may die back to the ground in the winter, particularly in the northern third



Helianthus carnosus

of the state. It's a great choice for a large moist meadow, around a lake edge or retention pond, in a ditch or at the back of a bog garden.



Helianthus angustifolius



Helianthus debilis used in the landscape





Give Dune Sunflower room to roam, as it spreads readily. For mass plantings, space plants 3 to 4 feet apart. Do not irrigate after establishment. Plant Narrow-leaf Sunflower where you won't mind it spreading by underground rhizomes. Space plants 2½ to 3 feet apart. Consider placing it where you won't mind seeing spent stems and flowers after the plants finish blooming. These



Helianthus debilis seedlings at 22 days

plant parts have their own subtle beauty, particularly in contrast with their surroundings, and are essential sources of food and shelter for insects and birds.

Seeds

Seeds are available commercially. To collect your own, allow flower heads to dry on the plants, then break them open to to collect seeds.

Plants

Both species are available in containers from native nurseries. Dune Sunflower and Narrow-leaf Sunflower also are often available at commercial garden centers (see Caution).

Care

Dune Sunflower will, over time, get leggy and messy-looking. Remove old stems and let new plants sprout from seeds. Light trims every three months will help keep foliage looking fresh.

Narrow-leaf Sunflower stems can be pinched back in late spring or early summer to encourage shorter, bushier growth and more blooms. When the plant spreads, it can be divided for planting elsewhere.

Other Species

Gardeners may encounter two other species: Rayless Sunflower (*Helianthus radula*) and Lakeside Sunflower (*Helianthus carnosus*). Rayless Sunflower has no sunny yellow petals. Instead, this perennial presents dark, purplish flower heads on erect stems 2 to 3 feet high in the fall. The leaves are also unusual — large, round, thick and relatively flat on the ground. You can use this plant in well-drained moist soils from Lake Okeechobee northward. Mix a few in with ornamental grasses and other wildflowers for a great visual contrast.

Lakeside Sunflower blooms from late spring to fall with very showy 3-inch yellow flowers with greenish yellow centers. The 1- to 3-foot-tall stems rise from an evergreen basal rosette. Central and North Florida gardeners can use it in most irrigated or otherwise moist-to-wet soils.

Site Conditions

Both species need full sun for best flowering and to avoid leggy growth. They will tolerate light shade for part of the day.

Dune Sunflower is saltand wind-tolerant. It likes exceedingly well-drained sandy soils. Avoid persistently moist or heavily irrigated situations.

Narrow-leaf Sunflower likes moist to wet, acidic soils.

There are three CAUTION distinct subspecies of Dune Sunflower: East Coast Dune Sunflower, West Coast Dune Sunflower (Helianthus debilis subsp. vestitus) and Cucumberleaf Dune Sunflower. Most native nurseries should know the difference: other nurseries may not. Environmentally conscientious gardeners living along the coast should ask their nursery supplier for the subspecies native to their locale. This can help preserve the distinct identities and ecological roles of these

Narrow-leaf Sunflower naturally ranges as far west as Texas and as far north as New York. Large retail outlets and national seed suppliers sell varieties originating from out of state. Their performance in your landscape can be different.



Follow these 12 steps to establish a small landscape planting of native wildflowers: 1. Location, Location, Location

Choose a site that is sunny most of the day, has well-drained soil, and is free of weeds.

2. Determine Suitable Wildflower Species

Pictures and descriptions of wildflowers that are adapted to your area of Florida are listed at the Florida Wildflower Seed and Plant Growers Cooperative website, www.FloridaWildflowers.com. Common wildflowers are generally adaptable to a range of gardening conditions and are generally listed as suitable for North, Central or South Florida where they will thrive naturally in nature. Seeds can be purchased in small individual packets or as garden mixtures.



Sow seed from

- mid-September to mid-October in North Florida
- mid-October to end of December in Central Florida
- November through January in South Florida

Planting can be extended to mid-April by using irrigation. Planting during hot months should be avoided, because the soil's surface dries out too quickly.



While some gardeners prefer to chemically eradicate weeds with glyphosate, the Foundation recommends soil solarization as the best means of obtaining a weed-free planting site. This process takes time and patience, and must be done from June to mid-August. First, remove existing turf and weeds with a shovel. Then till the soil 12 to 18 inches deep, breaking up soil clods (the finer the soil texture, the better). Remove sticks, roots and other debris brought up by tilling. Rake the surface of the area until smooth, then water until slightly moist but not soggy. Cover with clear plastic that is 3-6 mil thick. (1mil is equal to .001 or 1/1000 inch.) To prevent wind from lifting the sheet, bury its edges in up to 12 inches of soil. Solarization takes about six weeks. Leave the plastic in place until the seed is sown.

5. For Areas with Bare Soil

Scratch or firm up soil. For sites with bare soil, soil-to-seed contact is critical, so one day before seeding, or just prior to seeding, lightly scratch firmer soils with a rake. Sandy soils might have to be made more firm by rolling to ensure that seeds do not sink too deep.









6. Sow Seeds

This method distributes seeds evenly over the garden:

- Fill a large bucket about halfway with sand or vermiculite; slightly moisten the sand or vermiculite.
- Add ½ of the total seeds and mix thoroughly.
- Starting at one end of the garden, spread the mixture evenly over the site.
- Repeat the above steps with the other ½ of the seeds but start spreading them from the opposite end of the plot.

7. Place Seeds in Contact with Soil

Walk over the site to ensure good seed to soil contact. If the area is larger, consider renting a sod roller. Seeds should remain on top of the soil or be covered 1/8 inch deep to 1/4 inch at most. Generally, the smaller the seed, the more shallowly it needs to be planted. Most seeds need light to germinate!

Water seeds gently after planting to help settle them in the soil, then wait until spring for further irrigation if rain is not sufficient for growth.

8. Be Patient!

Though some species will germinate quickly, others may need to rest in the soil for 3 to 4 months. In that time they will naturally receive water and fluctuating temperatures that will stimulate their emergence at the right time in early spring.

9. Irrigate

Keep the planting site moist, but not wet. For loamy soils, that might mean watering 2 to 4 times per week with about $\frac{1}{4}$ to $\frac{1}{2}$ inches of water; sandy soils might need daily watering. Monitor the soil for moisture and adjust watering accordingly. After wildflowers germinate, irrigate with about $\frac{1}{2}$ -inch of water only if they show signs of drought stress.

10. Keep Out the Weeds

To minimize weed interference, remove by hand seedlings of grass or non-wildflowers after wildflowers have emerged and been identified. To help identify your young wildflowers, photos of young plants showing leaf shape and arrangement can be found on the Florida Wildflower Foundation website at http://goo.gl/IXEXYX.

11. Do Not Fertilize

Many of Florida's native wildflower species are adapted to and perform well in soils with low fertility. Excess fertilization will promote vegetative growth over flowering, might make wildflowers more susceptible to insect and disease pests, and will promote weed growth. If plants appear nutritionally deficient in the growing season, a light layer of compost or several applications of a half-strength liquid fertilizer can be applied to correct the problem.

12. Wait Until Seeds Have Matured

Your wildflowers will reseed themselves if given the opportunity, so wait until seeds have matured before deadheading or mowing. For many species, seeds need 2 to 4 weeks to mature after plants bloom. Seeds can be dried, stored in plastic bags at 40F, and replanted in the fall in your garden.



Purchase Florida native wildflower seeds and seed mixes through our store at www.flawildflowers.org/shop.php.

Florida's wildflowers

- Provide habitat for bees responsible for every third bite of food we eat
- Curb water use in landscapes
- Reduce water and air pollution
- Beautify communities and roadsides
- Contribute to a sense of place that is uniquely La Florida

What you can do

- Landscape with Florida native wildflowers and plants
- Stop using pesticides, which harm bees and other beneficial insects
- Stop using fertilizer, which harms waterways and lakes
- Ask your county to preserve roadside wildflowers
- Work with lawmakers to preserve and conserve natural resources and lands

Resources

www.FlaWildflowers.org www.PlantRealFlorida.org www.FloridaWildflowers.com www.FNPS.org

