

## Native Keystone Species to grow in Brevard Co. to support caterpillars & native bees

The information in this bulletin was compiled from Doug Tallamy's presentation "[A Guide to Restoring the Little Things that Run the World](#)" hosted by the Florida Wildflower Foundation. The webinar's recording can be viewed on Youtube at <https://www.youtube.com/watch?v=KkSdBZI2qoM> . To discover your Keystone species visit <http://www.nwf.org/NativePlantFinder/>

### Did you know....

- < That all food webs on land depend upon insects?
- < Insect abundance has decreased globally by 45% since 1974.
- < National Geographic ran an article "Where have all the insects gone" in May, 2020 which can be found at this link <https://www.nationalgeographic.com/magazine/2020/05/where-have-all-the-insects-gone-feature/>
- < Caterpillars provide more energy from plants to animals than any other insect!
- < Migratory birds will stop migrating when they determine there aren't enough insects to make the risks of migration worthwhile.
- < There are not enough insects now to support migratory birds and the birds that reside here.
- < Specialist bees (our native solitary bees) pollinate native flowering plants which maintains plant diversity and they need our help also.
- < There currently aren't enough functional wild areas to support caterpillars (a major food source for birds) and specialist bees.
- < Invasive exotics, over 3,300 species, are causing the most harm to natural areas.
- < 5% of native plants provide 75% of the food that drive the food webs on land, and they are known as Keystone species.
- < Doug Tallamy stated - oaks are the most powerful plant because they support the most caterpillars, other insects, mammals & birds.
- < Follow the **5-10-15% rule** where no more than 5% of the plants are the same **genus & species**, no more than 10% of the plants are in the same **genus** and no more than 15% of plants are in the same **plant family**.

### What can we do?

- < Reduce our lawns, by a minimum of 50%, and replace them with the largest variety, and number of plants, from this bulletin.
- < Aim for a minimum of 70% of the plants in our yards to contain the keystone species and specialist bee plants listed in this bulletin.
- < There are other important suggestions in the recorded webinar, so watch it to discover all the other steps you can do to help.

### KEY:

- < \*UF/IFAS Bulletin available online
- < **NBF** – sold by Native Butterfly Flowers, 82 SW Irwin Ave, Melb. 32904 Sat. & Mon.
- < **COMMON NAME in bold font** - FANN (FL Association of Native Nurseries) one or more nurseries are growing it
- < **HH** - Hawthorn Hill is another possible plant source - contact [huegelc55@aol.com](mailto:huegelc55@aol.com) or call (727) 422-6583

**Plant Families (PF), *genera* and the (number of species) to assist with the 5-10-15% rule.**

No more than **5%** of the plants are the same **genus & species**,  
No more than **10%** of the plants are in the same **genus** and  
No more than **15%** of plants are in the same **plant family**

**Adoxaceae**

*Viburnum* (1)

**Anacardiaceae**

*Rhus* (1)

**Asteraceae**

*Baccharis* (1)  
*Chrysopsis* (6)  
*Coreopsis* (4)  
*Eupatorium* (7)  
*Helianthus* (5)  
*Heterotheca* (1)  
*Pityopsis* (1)  
*Rudbeckia* (1)  
*Solidago* (5)  
*Symphyotrichum* (3)  
*Verbesina* (1)

**Betulaceae**

*Carpinus* (1)

**Cannabaceae**

*Celtis* (1)

**Cornaceae**

*Cornus* (1)

**Ericaceae**

*Vaccinium* (5)

**Fabaceae**

*Amorpha* (1)  
*Lupinus* (2)  
*Sesbania* (2)  
*Vigna* (1)

**Fagaceae**

*Quercus* (11)

**Fraxinaceae**

*Fraxinus* (2)

**Geraniaceae**

*Geranium* (1)

**Juglandaceae**

*Carya* (3)

**Malvaceae**

*Hibiscus* (3)

**Onagraceae**

*Oenothera* (3)

**Panicaceae**

*Panicum* (2)

**Pinaceae**

*Pinus* (5)

**Portulacaceae**

*Portulaca* (2)

**Rosaceae**

*Prunus* (2)  
*Rubus* (2)

**Salicaceae**

*Salix* (1)

**Sapindaceae**

*Acer* (2)

**Ulmaceae**

*Ulmus* (3)

**Violaceae**

*Viola* (1)

**Vitaceae**

*Vitis* (4)

**Nitrogen-fixing  
legume plant**

**Edible plants**

Plants for well-  
drained/dry soils  
begin on page 3.

Plants for **moist to  
wet** soils begin on  
page 19.

## Plants for Dry/Well-draining soils ----- 3

(KS #1 Tree/Shrub) **Quercus / Oak – 395 spp. caterpillars ----- (Fagaceae family) ----- highly to extremely allergenic -----**

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>Q. chapmanii</i> *	<b>Chapman's oak</b> NBF, HH	6-15'		deciduous	full sun	dry/xeric soils, provides attractive fall color in shades of red or yellow.
<i>Q. geminata</i>	<b>Sand live oak</b> NBF	to 50'		evergreen	partial to full sun	dry/xeric soils, tree is highly resistant to wind, acorns produced each year. some acorns may produce a shrubbier & less treelike form.
<i>Q. incana</i>	<b>Bluejack oak</b> NBF	to 55'		deciduous	full sun	dry/xeric soil, will not sprout from underground runners
<i>Q. inopina</i>	<b>Sandhill oak</b>	to 16' shrub form	to 6'	evergreen	full sun to partial shade	dry/xeric soil
<i>Q. laevis</i>	<b>Turkey oak</b> NBF	40-70'		deciduous	full sun	dry/xeric soil, when growing in shadier locations may stay shorter, in the shrub layers. Leaves turn shades of yellow, orange, and red in the winter. <b>Can produce sprouts from underground runners.</b>
<i>Q. laurifolia</i> *	<b>Laurel oak</b>	60-70'	35-45'	evergreen	full sun to partial shade	well-drained, life span of 50-70 years
<i>Q. minima</i>	<b>Dwarf live oak</b>	3-7'	ground-cover, wide	evergreen	full sun	well-drained, <b>spreads by underground rhizomes forming extensive cloned colonies with many stems, many of them unbranched</b>
<i>Q. myrtifolia</i>	<b>Myrtle oak</b> NBF	to 40' 3-6' in	as broad as wide	evergreen	full sun to part shade	dry soil, <b>can form a shrubby thicket</b> from 5-30' tall
<i>Q. shumardii</i> *	<b>Shumard oak</b> NBF	55-80'	40-50'	deciduous	full sun	well-draining, high drought tolerance red, orange fall color
<i>Q. virginiana</i> *	<b>Live oak</b>	60-80'	60-120'	semi-evergreen	full sun to part shade	well-draining, high salt tolerance, good wind resistance, Cultivars: 'Cathedral' & 'Highrise'

(KS #2 Tree/Shrub) **Prunus / Cherry, Plum – 247 spp. caterpillars** ----- (Rosaceae family) ----- **Edible** -----

Scientific name	Common name	Ht.	Spread	Foliage	Blooms	Flwr color	Light	Soil
<i>P. umbellata</i> var. <i>umbellata</i> *	<b>Hog plum</b>	10-20'	10-15'	perennial	Spring	white	full sun part shade	well drained
<i>P. caroliniana</i> *	<b>Cherry laurel</b> <b>NBF</b>	25-40'	15-25'	perennial	Spring	white	full sun	well-drained

(KS #3 Tree/Shrub) **Carya / Hickory – 191 spp. caterpillars** ----- (Juglandaceae family) ----- **Edible** -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>C. floridana</i>	<b>Scrub hickory</b>	15-30'	10-15'	deciduous	full sun to part shade	dry soil, nuts are produced every year in Sept-Nov., eaten by many birds, sweet edible nuts produced
<i>C. glabra</i> *	<b>Pignut hickory</b> <b>NBF</b>	50-65'	30-40'	deciduous	full sun to part shade	well-draining, drought tolerant
<i>C. illinoensis</i> *	Pecan	70-100'	40-75'	deciduous	full sun to part shade	well-draining, pecans mature in the fall, many desirable cultivars

(KS #6 Tree/Shrub) <i>Pinus</i> / Pine – 171 spp. caterpillars ----- (Pinaceae family) ----- 5						
<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>P. clausa</i> *	<b>Sand pine</b> NBF	50-100'	25-60'	evergreen fragrant	full sun to full shade	dry soil, high drought, and salt tolerance, best as specimen because doesn't produce a uniform habit, wood susceptible to breakage
<i>P. elliotii</i> var. <i>densa</i> *	<b>FL slash pine</b> NBF	30-50'+	15-30'	evergreen fragrant	full sun to part shade	dry, acidic soil, shorter stature, and larger tap-root may be a storm-protection adaption, needles can shed all year, high pH water can cause micronutrient deficiencies of iron and manganese, trees grown out in the open keep their lower limbs, high drought & aerosol salt spray, doesn't tolerate alkaline soil.
<i>P. paulustris</i> *	<b>Longleaf pine</b> NBF	60-120'	30-50'	evergreen	full sun to part shade	well-drained soils, grows with an open habit
<i>P. taeda</i> *	Loblolly pine	50-80'	30-35'	evergreen	full sun	occasionally wet to well-drained soils, Moderate drought tolerance, fast growing, loses lower limbs as it grows older, group together
<i>P. taeda</i> 'Nana'*	Nana loblolly Pine	15-20'	15-20'	evergreen	full sun	well-drained soil, occasionally wet soil, highly drought tolerant once established
(KS #8 Tree/Shrub) <i>Ulmus</i> / Elm – 131 spp. caterpillars ----- (Ulmaceae family) -----						
<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>U. alata</i> *	<b>Winged elm</b> NBF	40-70'	30-40'	deciduous	full sun to part shade	well-draining, dry soils, corky wing-like projections, appears on both sides of twigs and branches
<i>U. americana</i> *	<b>American elm</b> NBF	60-80'	50-70'	deciduous	full sun	well-drained soils, long lived to 300+ years
<i>U. crassifolia</i> *	<b>Cedar elm</b>	40-80'	20-40'	deciduous	full sun to part shade	well-drained soils, very drought tolerant once established, fall color is bright yellow to red

**(KS #9 Tree/Shrub) *Fraxinus*/ Ash – 99 spp. caterpillars ----- (*Fraxinaceae* family) -----potential allergen----- 6**

<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>F. pennsylvanica</i> *	<b>Green ash</b> NBF	60-70'	45-50'	deciduous	full sun	well-drained, yellow fall color, Larval host for eastern tiger swallowtail ( <i>Papilio glaucus</i> ), mourning cloak ( <i>Nymphalis antiopa</i> ), orange sulphur ( <i>Colias eurytheme</i> ), and viceroy ( <i>Limenitis archippus</i> ).

**(KS #13 Tree/Shrub – VINE) *Vitis* / Grape – 58 spp. caterpillars ----- (*Vitaceae* family) ----- Edible -----**

<i>Scientific name</i>	Common name	Tendrils	Foliage	Fruit	Light	Soil/ Comments
<i>V. aestivalis</i>	<b>Summer grape</b>	forked pollinated by insects	thin, flat, smooth on top, hairy rust colored below	¼-3/4" dia. dk blue-blk lg. clusters	Full sun to part shade	well-draining, dry areas, grows to 65-70' with 5" diameter trunks fruit eaten raw, cooked, dried – leaves wrapped around food & baked, young tendrils eaten raw or cooked, sap from stem is a refreshing drink. <a href="https://pfaf.org/user/Plant.aspx?LatinName=Vitis+aestivalis">https://pfaf.org/user/Plant.aspx?LatinName=Vitis+aestivalis</a>

<i>V. rotundifolia</i> *	<b>Muscadine grape</b>	single, un-forked	dark green, shiny deeply & sharply	purple, ½" berries in	Full sun to part shade	well-drained to moist soil, attracts native bees, grows to 50', can be aggressive, delicious fruit, juice, jellies, wines, tough skin and seedy, <a href="https://edis.ifas.ufl.edu/pdf/HS/HS10000.pdf">https://edis.ifas.ufl.edu/pdf/HS/HS10000.pdf</a>
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**(KS #14 Tree/Shrub) *Carpinus* / American hornbeam – 54 spp. caterpillars ----- (*Betulaceae* family) -----**

<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>C. caroliniana</i> *	<b>Blue beech</b> NBF	20-30'	20-30'	deciduous	full sun to Shade	well-drained soils, attractive fall leaf color doesn't tolerate alkaline soils

**(KS #15 Tree/Shrub) *Rhus* / Sumac – 50 spp. caterpillars ----- (*Anacardiaceae* family) -----**

<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>R. copallinum</i>	<b>Shining sumac</b> NBF	10-25'	5-15'	deciduous attractive deep green foliage	full sun to part shade	well-drained soil, high drought tolerance, roots run, providing good cover for birds and wildlife, orange-red fall color, attractive red berries, tolerates salt spray

(KS #16 Tree/Shrub) **Celtis / Hackberry – 43 spp. caterpillars** ----- **(Cannabaceae family)** ----- 7

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>C. laevigata</i> *	Hackberry or Sugarberry	50-70'	50-60'	deciduous	full sun to part shade	well-drained, dry to wet soil, high salt spray tolerance, fruit attract birds, Woolly
Asian hackberry aphid can cause honeydew and sooty mold so don't plant near driveways and patios, Warblers will eat the aphids, regular pruning is needed for the development of a strong branch structure.						

When planting a new tree, shrub, perennial, wildflower, etc. in well-draining soil, follow these planting tips. 1) An hour before planting, soak the plant in one-gallon of water and a liquid soil microbial inoculant (i.e. Bushdoctor Microbe Brew or Kangaroots, etc.) in a bucket or tray so the rootball is heavy and dripping wet when placed in the planting hole. 2) Dig the hole no deeper than the depth of the rootball, and a little less would be fine. The top of the rootball should be planted at the same level as the surrounding soil or even a bit higher. 3) Inoculate the planting hole with a sprinkling of a granular mixture of mycorrhizae (i.e. Plant Success Organic Granular Mycorrhizae, etc.) and earthworm castings. 4) Water periodically around the rootball while packing in the soil around the rootball to remove any air pockets. 5) Don't place any mulch over the rootball of trees so roots won't grow in it, possibly develop girdling roots. 6) Water the tree with an inch of water, at one time, at least every 3<sup>rd</sup> day until new foliage is produced.

## **Shrubs (woody)**

To support birds, **create hedges** between three and eight feet tall. When creating the hedge, pay attention to the mature spread so that you can plant them close enough so they will grow together. Hedges provide perfect cover for the birds to raise their young. A **water feature** is also a great addition to the landscape. A bird bath will work fine and if it has moving water, you could attract even more birds. The last item that could be added to the landscape to attract birds would be **bird feeder(s)**. By incorporating all three strategies in your yard, you should have more than enough birds visiting and living in your landscape to keep you thoroughly entertained!

**(KS #7 Tree/Shrub) *Vaccinium* / Blueberry or bb – 160 spp. caterpillars ----- (Ericaceae family) ----- Edible ----- 8**

Scientific name	Common name	Ht.	Spread	Foliage	Blooms	Flwr color	Light	Soil/ Comments
<i>V. arboreum</i> (tree)	<b>Sparkleberry</b> NBF	6- 25'	4-15'	deciduous	Spring	white fragrant	full sun to part shade	dry, sandy acidic soils, fall color, high wind resistance
<i>V. corymbosum</i> (shrub)	<b>Highbush bb</b>	5-12'	3-5'	deciduous	Spring	white, pink	full sun to full shade	dry, acidic soil, forms a natural hedge, red fall color, bumblebees pollinate flowers
<i>V. darrowii</i> (shrub)	<b>Darrow's bb</b> NBF	2-6'	to 3'	evergreen	Spring	white, pink	full sun to part shade	dry, sandy, well-drained, acidic soil, <b>can produce a thicket</b> <b>1-2" in spreading from underground stems, forming masses broader than tall</b>
<i>V. myrsinites</i>	<b>Shiny bb</b> NBF	1-2'	18-30"	evergreen	Spring	white, pink	full sun	dry to very dry soil, small & compact, low hedge or boarder plant, <b>numerous under-</b> <b>ground branches</b> , broader than tall
<i>V. stamineum</i>	<b>Deerberry</b> NBF	15-20'	spreading		Spring		part shade	well-draining, <b>Spreading and</b> <b>forming clumps as broad as</b> <b>tall</b> , accent or specimen shrub

**(KS #10 Tree/Shrub) *Rubus* / Blackberry bb – 93 spp. caterpillars ----- (Rosaceae family) ----- Edible -----**

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>R. argutus</i>	Sawtooth bb	2 - 6'	spreading	evergreen	full sun to part shade	well-draining, two-year old canes bear fruit and then die, but new canes are produced the next spring, provide afternoon shade on dry sites, underground runners, pioneer species and moves into disturbed sites

<https://www.mailorder natives.com/rubus-argutus-southern-blackberry-1-gallon/>

<i>R. trivialis</i>	Dewberry	1-3'	spreading	evergreen	full sun to part shade	dry soil, spreads by underground runners and branches root where they touch the ground
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<https://www.ebay.com/itm/southern-dewberry-Rubus-trivialis-100-500-seeds-3-50-9-/143206359133>

<https://picclick.com/1-year-old-Dewberry-plant10-15-tall-sent-with-162285316178.html>



(KS #12 Tree/Shrub) *Viburnum* / *Viburnum* – 75 spp. caterpillars ----- (Adoxaceae family) ----- 9

<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>V. obovatum</i> *	<b>Walter's vib.</b> <b>NBF</b>	6-15'	6-10'	evergreen	full sun to part shade	well-draining soil, high drought tolerance, small leaves can be hedged

(other species *V. dentatum* and *V. nudum* are in nearby counties)

(KS #5 Flower (shrub) *Baccharis* / False willow – 31 spp. caterpillars ----- (Asteraceae family) -----

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil
<i>B. halimifolia</i> *	<b>Saltbush</b> <b>NBF- also have a dwarf saltbush</b>	8-12'	6-12'	perennial	Fall female plants only	white	full sun part shade	well-draining soil

(Two other species, *B. angustifolia* & *B. glomeruliflora* are native to Brevard but no seed or plant source was found)

(KS #10 Flower (shrub) *Amorpha* / **False indigo** – 24 spp. caterpillars ----- (Fabaceae family) ---- **N-fixing legume** -----

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>A. fruticosa</i>	False indigo <b>NBF, HH</b>	4-12'	to 6'+	deciduous	Spring	purple with yellow stamens	full sun	well-draining grows easily from seed

## Herbaceous flowering plants

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(KS #1 Flower/Grass) **Solidago / Goldenrod gr – 82 spp. caterpillars & 12 spp. specialist bees ----- (Asteraceae family) -----**

Doug Tallamy said that Goldenrod is “the most powerful herbaceous plant because 110 spp. of caterpillars feed on it.”

<https://www.prairiemoon.com/search.html?Search=solidago>

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>S. arguta</i> var. <i>caroliniana</i>	Carolina gr	to 3'	to 1.5'	winter deciduous	mid-summer Sept-Oct	lemon yellow	full sun part shade	sandy, doesn't spread by root suckers
<a href="https://bhwp.org/item/forest-goldenrod-solidago-arguta/#tab-additional_information">https://bhwp.org/item/forest-goldenrod-solidago-arguta/#tab-additional_information</a>								
<i>S. odora</i>	<b>Sweet gr</b>	3-6'	1-2 Easily kept in bounds		July – Oct	yellow	full sun to shade	dry, foliage is fragrant licorice, clump forming drought tolerant once established
<a href="https://www.prairiemoon.com/solidago-odora.html">https://www.prairiemoon.com/solidago-odora.html</a>								
<i>S. odora</i> var. <i>chapmanii</i>	<b>Chapman's gr</b> <b>NBF, HH</b>	to 3'	taller than wide	winter deciduous	summer fall	yellow	full sun to shade	dry, easily kept in bounds, with grassleaf goldenaster ( <i>Pityopsis graminifolia</i> ) clump forming, drought tolerant once established
<i>S. sempervirens</i>	<b>Seaside gr</b> <b>NBF</b>	3-6'	2-3'	evergreen basal leaves	Aug - Oct.	deep yellow	full sun	dry, high drought & salt tolerance, spread by rhizomes, pinch growing tips in June for compact plants, cut stems to ground after flowering
<a href="https://shop.wildseedproject.net/">https://shop.wildseedproject.net/</a>								
<i>S. tortifolia</i>	Twistleaf gr	to 4'		winter deciduous	summer to fall	yellow	full sun part shade	dry, well-draining soil not an aggressive self-seeder

(KS #2 Flower/Grass) *Helianthus* / **Sunflower sf – 58 spp. caterpillars & 18 spp. specialist bees ----- (Asteraceae family) ----- 11**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>H. angustifolia</i>	<b>Narrow-leaved sunflower</b> <b>NBF</b>	3-5'+	4-6'	perennial	October	yellow	full sun to part shade	tolerates dry soil, this sun loving perennial
grows well among <i>Schizachyrium scoparium</i> , <i>Andropogon virginicus</i> , <i>Symphyotrichum georgianum</i> , <i>Symphyotrichum oblongifolium</i> , and <i>Euthamia caroliniana</i> . Seeds sold at <a href="https://www.prairiemoon.com/helianthus-angustifolius-swamp-sunflower">https://www.prairiemoon.com/helianthus-angustifolius-swamp-sunflower</a>								

New moon nursery, plants, or flats

<i>H. debilis</i> subsp. <i>debilis</i>	<b>East Coast Dune sf</b> <b>NBF</b>	2-4'	2-4'	perennial	almost all year	yellow	full sun	dry sites, drought-resistant groundcover
Beach sunflower ( <i>Helianthus debilis</i> ) is a spreading perennial plant that also reseeds. Good cut flowers also. Flower heads are held 4 to 10 inches above the ground. Tolerant of salt spray. <b>Over-irrigation will stress the plant</b> , attracting cottony cushion scale, etc. and cause plants to decline. With occasional irrigation, beach sunflower plants will spread and quickly fill in the area. works well as a groundcover and is great for borders, edging, mass plantings, and even cascading down a wall.								

<i>H. radula</i>	<b>Rayless sf</b> <b>NBF, HH</b>	2-3'		deciduous perennial	late spring to early fall	no petals	full sun	well-drained soil, occurs in - naturally in sandy uplands, along dry roadsides. Attracts a variety of butterflies and other pollinators. Plant with a mix of Chalky bluestem or muhlygrass for a striking display. The common denominator seems to be its need for openness and ample sunlight. Its basal leaves are unlike any other sunflower, however. They are rounded, thick and rough, and held tightly against the ground surface. This plant also <b>suckers</b> , these leaves <b>eventually form thick colonies</b> that prevent most others from gaining a foothold next to them. Its adaptability and ability to draw butterflies make up for its lack of aesthetics and gives reason for including it in a mixed wildflower planting. Plant it near the front of the planting area where its foliage can be admired. Great mixed with other showier species for color.
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**(KS #4 Flower/Grass) *Vigna* / Cowpea – 35 spp. caterpillars ----- (Fabaceae family) ---- N-fixing legume plant ----- 12**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>V. luteola</i>	Hairy cowpea	vine		perennial	all year	yellow	full sun	well-drained

**NBF**

Seeds can be collected locally

**(KS #6 Flower/Grass) *Eupatorium* / Thoroughwort tw – 31 spp. caterpillars ----- (Asteraceae family) -----**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>E. capillifolium</i>	Dogfennel – 'Elegant feather' sterile cultivar	4-8'	24-36"	annual	late summer to mid-fall	white	full sun to part shade	well-drained

eaten by Florida's [scarlet-bodied wasp moth](#), *Cosmosoma myrodora*. These moths feed on the plant while mature, to store its toxins and ward off predators. Dogfennel spreads by both seeds and [rootstocks](#) and **can grow quite aggressively**. Dogfennel contains [liver-damaging pyrrolizidine alkaloids](#).

<https://shop.romencegardens.com/eupatorium-capillifolium-elegant-feather-p254.aspx> sterile form

<https://www.friendsschoolplantsale.com/plant/8799>

<i>E. serotinum</i>	Lateflower	to 6.5'			fall		full sun	dry
								This species is pollinated by insects

<https://www.amazon.com/Boneset-Flowering-Eupatorium-serotinum-Thoroughwort/dp/B016YZVGE8>

<https://www.prairiemoon.com/eupatorium-serotinum-late-boneset-prairie-moon-nursery.html>

<https://www.kollarnursery.com/eupatorium-serotinum>

<i>E. x anomalum</i>	Florida tw	to 5'		perennial	July & Aug	white & pink		tuberous rhizomes
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**(KS #8 Flower/Grass) *Geranium* / Geranium – 58 spp. caterpillars & 18 spp. specialist bees ----- (Asteraceae family) -----**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>G. carolinianum</i>	Carolina geranium	rarely >1.5'	1-2'	short-lived annual	May-Aug.	pink 5-petals	full sun part shade	dry soil to medium dry appears in spring & is

typically gone by mid-summer and/or could appear in the winter, distinctly lobed foliage, common in most upland sites like urban landscapes and disturbed sites, produces characteristic beaked fruit.

<https://www.prairiemoon.com/geranium-carolinianum-carolina-cranesbill-prairie-moon-nursery.html>

(KS #9 Flower/Grass) **Lupinus / Lupine – 25 spp. caterpillars ----- (Fabaceae family) ----- N-fixing legume plant ---- 13**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>L. cumulicola</i>	Sandhill lupine	to 2'	by seeds	perennial	Jan.-May	blue	full sun	excellent drainage dry/xeric, deep tap- root, toxic to cattle, fire dependent species, start seeds where they will grow because of taproot
<i>L. diffuses</i>	Sky Blue lupine	2-3'	2-3'	perennial	Spring	pale blue or violet	full sun	sandy, dry, well- draining, deep soil is needed for long taproot

<https://b-and-t-world-seeds.com/cartall.asp?species=Lupinus%20diffusus&sref=437515>

(KS #11 Flower/Grass) **Verbesina / Frostweed – 20 spp. caterpillars ----- (Asteraceae family) -----**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>V. virginica</i>	Frostweed <b>NBF</b>	4-6'	widely	perennial deciduous	late summer thru fall	white	full sun to part shade	well-drained <b>spreading</b>

**rhizomes form colonies**, best for naturalizing and not formal landscapes, planting frostweed in dryer soils and with exposure to more sun will help keep the plants smaller and more compact and will encourage more blooms. Removal of spent seed heads and annual pruning are also recommended. Frostweed is best propagated by seeds, although plants can be divided when dormant (winter).

**Growing in the BDG – our seed source**

(KS #12 Flower/Grass) **Portulaca / Purslane – 20 spp. caterpillars ----- (Portulacaceae family) ----- Edible -----**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>P. pilosa</i>	Pink purslane <b>NBF</b>	to 6"	6-12"	annual	June–Oct.	pink	full sun	sandy, good drainage dry
<i>P. oleracea</i>	Common purslane	<1'	.5-1.5'	annual	June-Oct.	yellow	full sun	sandy, good drainage dry

[https://en.wikipedia.org/wiki/Portulaca\\_oleracea](https://en.wikipedia.org/wiki/Portulaca_oleracea) - The species status in the Americas is uncertain. In general, it is often considered an exotic weed, but there is evidence that the species was in Crawford Lake deposits (Ontario) in 1350–1539, suggesting that it reached North America in the pre-Columbian era. Scientists suggested that the plant was already eaten by native Americans, who spread its seeds. How it reached the Americas is currently unknown. **EDIBLE**

**check our yards for plants/seed source**

**(KS #13 Flower/Grass) *Sesbania* / Rattlebox – 19 spp. caterpillars ----- (Fabaceae family) ----- N-fixing legume plant ----- 14**

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>S. herbacea</i>	Danglepod	4-8'	to 3'	annual	summer to fall	yellow & red	full sun	dry, attracts beneficial insects and it is a host plant for the ceranus blue butterfly. Toxic to cattle. Attracts birds and beneficial insects, including lady bugs and parasitic wasps.

**(KS #14 Flower/Grass) *Viola* / Violet – 19 spp. caterpillars ----- (Violaceae family) -----**

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>V. sororia</i>	Common wood violet	< 1'	< 1'	perennial	Mar-May	blue or white	full sun to part shade	average moisture, rich soil, well-drained, dead-heading prolongs flowering, freely self-seeds

**NBF, HH**

<http://www.newmoonnursery.com/plant/Viola-sororia>

(*V. palmata* is another species that are in surrounding counties N, W & S)

**(KS #15 Flower/Grass) *Oenothera* / Evening Primrose– 18 spp. caterpillars ----- (Onagraceae family) -----**

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>O. humifusa</i>	Seabeach evening primrose	3-6"	to 3'	herbaceous perennial	all year, peak spring-summer	yellow	full sun	sandy, dry, well-drained soils, found on dunes & barrier islands
	<b>NBF</b>							
<i>O. laciniata</i>	Cut-leaf evening primrose	to 8"		herbaceous biennial		yellow	full sun part shade	sandy, dry soil, flowers open late afternoon
	<b>NBF</b>			and stay open all night, pollinated by moths, best used in a "moon garden"				
<i>O. simulans</i>	Southern beeblossom	3-6'		annual	spring thru summer	white	full sun	sandy, dry, flowers open at night & turn to pink, plant has a lanky appearance

(*O. biennis* is found N, W & S and *O. nutans* is found in Seminole Co.)

**(KS #16 Flower/Grass) *Heterotheca* / False Goldenaster ga– 18 spp. cater / 11 spp. specialist bees ----- (Asteraceae family) -----**

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>H. subaxillaris</i>	Camphorweed	to 5'	narrow	annual to biennial	July-Nov or all year	yellow	full sun	dry soil, plant with other sturdy plants, self-seeds

**NBF?**

## Clumping Grasses

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(KS #7 Flower/Grass) ***Panicum* / Switchgrass sg – 25 spp. caterpillars** ----- (***Panicaceae* family**) -----

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Light	Soil/ Comments
<i>P. amarum</i>	Coastal sg or Beachgrass	3-5'	spreads	perennial	inconspicuous	full sun	dry, well- drained, <b>bluish-green foliage</b> , spreads by

rhizomes, highly salt tolerant, naturalizes easily in the landscape and is a great addition to a rain garden or back border. Low water use, low maintenance and tolerates dry soils, drought, and air pollution. Turns reddish in the fall. Important in dune stabilization. 'Dewey Blue' is an available cultivar.

<https://shop.midatlanticnatives.com/Panicum-amarum-Coastal-panicgrass-beachgrass-GP28.htm>

<i>P. virgatum</i>	<b>Switchgrass</b> <b>NBF?</b>	clumping to 5-6'		perennial winter dormant	purple,	full sun part shade	dry to medium to wet soils can have a weedy look, so
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plant toward the back of a wildflower garden, attractive fall yellow foliage, doesn't require supplemental water once established. Clump-forming and rhizomatous. Prolific self-seeder. Use with caution in very small landscapes. Consider not cutting the plants back in late fall to provide cover for small mammals and birds. Cut back in late winter/early spring to maintain attractive shape.

**Attracts:** Birds, Butterflies, Bees, **Larval Host:** Delaware skipper, tawny edged skipper. The Grass Family is an essential larval host for most banded skippers and most of the satyrs.

<https://www.prairiemoon.com/panicum-virgatum-switch-grass-prairie-moon-nursery.html>

<https://roundstoneseed.com/native-grasses/102-switchgrass.html>

<https://www.americanmeadows.com/grass-and-groundcover-seeds/switchgrass-shelter-seeds>

<https://www.prairienursery.com/switchgrass-panicum-virgatum.html>

Here are some suggestions on how to support our **native specialist bees**. 1) Choose a variety of flowers so nectar and pollen will be available throughout the year. 2) Plant a mass planting of a variety of these plants together in clumps or drifts. 3) Leave the soil bare throughout the interior of the clump(s) or drift(s) so the ground dwelling bees can dig their burrows and raise their young. 4) Mulch around the outer edge of the plant bed to help suppress the weeds and give the bed a neat appearance.

## 16

Out of 11 *Chrysopsis* [species](#) that are native to FL, six (6) are [endemic](#) to Florida, being limited to relatively small regions of Florida's well-drained, sandy ridges. plants occur in dry, nutrient-poor, xeric upland ecosystems, including sand pine scrub, longleaf pine / turkey oak sandhills. These species are deciduous and will disappear in the fall to re-emerge in the spring

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>C. delaneyi</i>	DeLaney's ga	to 4'		weak. per.		yellow (?)	full sun	dry soil, well-draining
<i>Produce large, "lettuce-like" rosettes, and are covered with viscid (resin-producing) hairs (glandular-stipitate trichomes). Flowers are borne at the tops of leafy stems.</i>								
<i>C. gossypina</i>	Cottony ga	1-3'		perennial	Sept-Nov.	yellow	full sun part shade	dry soil, well-draining
<i>C. linearifolia</i>	Narrowleaf ga	to 3' maybe to 6'	narrow	biennial	Sept-Nov	yellow		
<i>C. linearifolia dressii</i>	Dress' ga	to 32"		perennial	Sept-Nov	yellow	full sun	extremely well-drained. sandy soils
<i>C. mariana</i>	Maryland ga	to 1'		perennial,	Aug-Oct	yellow	full sun	dry, sandy
<i>provides a low, sturdy rosette effect until flowering branches lift clusters of flowers</i>								
<i>C. subulata</i>	Scrubland ga	to 28"		perennial	June – Sept	yellow	full sun	well-drained uplands - especially xeric flatwoods and sandhills, Scrubland goldenaster is a perennial that dies back to the ground in winter, but often retains its basal leaves. Its tolerance of a variety of growing conditions should make it a relatively easy species to maintain in a typical landscape situation and its growth habit should allow it to mix well with other species.



**Coreopsis / Tickseed ts – supports 9 spp. of specialist bees ----- (Asteraceae family) -----**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>C.lanceolata</i>	<b>Lance-leaved ts</b> <b>NBF</b>	12-18"		short-lived perennial	April-June	yellow	full sun	well-draining, easiest to grow, drought tolerant,

grows in small clumps, good cut flower, Prompt deadheading of spent flower stalks encourages additional bloom and prevents any unwanted self-seeding. Freely self-seeds, and in optimum growing conditions will naturalize to form large colonies. Plants may be cut back hard in summer if foliage sprawls or becomes unkempt. If grown in borders, division may be needed every 2-3 years to maintain robustness. Good plant for areas with poor, dry soils. Can be effective in borders, but self-seeding tendencies must be kept in check.

<i>C.leavenworthii</i>	<b>Leavenworth's ts</b> <b>NBF</b>	12-18"	1-3'	annual	year-round.	Yellow	full sun	can tolerate some drought and drier soils, it will not perform as well. Moist soils also allow for reseeding—important in maintaining the species. Attracts many pollinators.
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**Pityopsis / Silkgrass sg – supports 10 spp. of specialist bees ----- (Asteraceae family) -----**

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>P. graminifolia</i>	<b>Silver-leaved aster</b> <b>NBF</b>	1-2'	1-3'	perennial	late summer - early winter	yellow	full sun light shade	well-drained to dry soil, they don't self-

seed readily, so collect seed and germinate in winter as they aren't viable for very long, can form dense clonal patches(?)

Additional information <http://flawildflowers.org/resources/pdfs/2014/Silver-leavedAster.pdf>  
[https://flawildflowers.org/resources/pdfs/Publications/20Easy\\_Pityopsis.pdf](https://flawildflowers.org/resources/pdfs/Publications/20Easy_Pityopsis.pdf)

<https://www.amazon.com/Narrowleaf-Silkgrass-graminifolia-Seed-Native/dp/B00BSZHKKO>

Seed & plant sources couldn't be found for *P. aspera* var. *adenolepis*, *P. baccharis*, *P. carolinensis*, *P. falcata*, *P. foetida*, *P. aspera* var. *adenolepis*, *P. baccharis*, *P. carolinensis*, *P. falcata*, *P. foetida*, *P. graminifolia*, var. *latifolia*, and *P. longifolia*.

**Rudbeckia / Coneflower – supports 9 spp. specialist bees (+11 spp. caterpillars) ----- (Asteraceae family) -----**

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>R. hirta</i>	Black-eyed Susan	2-3'	1-2'	perennial	summer	yellow	full sun	dry to average moisture, most drought

**NBF (seed locally harvested)**

**HH (southern variety)**

tolerant Rudbeckia species, space plants 18-24", reliably self-sows, colonizes (by seeds) disturbed areas, Caterpillars of Silvery Checkerspot Butterflies forage on the foliage and seeds are consumed by goldfinches. Blossoms attract native bees, pollinating flies, beneficial wasps, and butterflies.

**FANN sources** and [https://www.edenbrothers.com/store/rudbeckia\\_seeds.html](https://www.edenbrothers.com/store/rudbeckia_seeds.html) /

<https://www.harrisseed.com/collections/rudbeckia/>

<https://www.americanmeadows.com/wildflower-seeds/wildflower-species/black-eyed-susan-seeds/>

<https://www.outsidepride.com/seed/flower-seed/rudbeckia/black-eyed-susan-wildflower-seed.html> /

<https://www.swallowtailgardenseeds.com/annuals/rudbeckia.html/>

<https://www.prairiemoon.com/rudbeckia-hirta-black-eyed-susan-prairie-moon-nursery.html>

<https://www.johnnyseeds.com/flowers/rudbeckia-black-eyed-susan/>

<https://www.monticelloshop.org/>

<https://www.prairienursery.com/black-eyed-susan-rudbeckia-hirta.html>

**Symphyotrichum / Old Field Aster – supports 9 spp. of specialist bees (+7 spp. caterpillars) ----- (Asteraceae family) -----**

National Wildlife Federation says only 2 spp. are native (**in bold below**)

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>S. carolinianum</i>	<b>Climbing aster</b> <b>NBF</b>	8'+ if climbing shrub is 5' tall & wide		perennial	late fall & winter	lavender	full sun part shade	moderately dry
<i>S. dumosum</i>	Rice button aster <b>HH</b>			perennial	Sept - Dec. can bloom all year	white to pink to lavender	full sun part shade	dry, sandy, acidic spreads by suckering
<i>S. walteri</i>	Walter's aster <b>HH</b>	up 2' when flowering		perennial	late fall & early winter	lavender	full sun part shade	dry to moist, well drained, sandy

## Plants for Moist to Wet soils -----

(KS #1 Tree/Shrub) <i>Quercus</i> / Oak – 395 spp. caterpillars ----- (Fagaceae family) -----						
<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<i>Q. laurifolia</i> *	Laurel oak	60-70'	35-45'	evergreen	Full sun to partial shade	<b>occasionally wet</b> , life span of 50-70 years
<i>Q. minima</i>	Dwarf live oak	3-7'	ground-cover, wide	evergreen	Full sun	<b>moist soil</b> , spreads by underground rhizomes forming extensive cloned colonies with many stems, many of them unbranched
<i>Q. myrtifolia</i>	Myrtle oak NBF	to 40' 3-6' in	as broad as wide	evergreen	Full sun to partial shade	<b>moist soil</b> , can form a shrubby thicket from 5-30' tall
<i>Q. nigra</i> *	Water oak	60-80'	60-70'	deciduous	Full sun	<b>wet soil</b> , may turn yellow in fall, rapid grower, short life span of 30-50 years
<i>Q. shumardii</i>	Shumard oak NBF	55-80'	40-50'	deciduous	Full sun	<b>occasionally wet</b> , high drought tolerance, red, orange fall color
<i>Q. virginiana</i> *	Live oak	60-80'	60-120'	semi-evergreen	Full sun to Part shade	<b>occasionally wet</b> , high salt tolerance, good wind resistance; cultivars available; 'Cathedral', 'Highrise'

(KS #3 Tree/Shrub) <i>Carya</i> / Hickory – 191 spp. caterpillars ----- (Juglandaceae family) ----- <b>Edible</b> -----						
<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<i>C. aquatica</i>	Water hickory NBF	60-70'	narrow	deciduous	Full sun to part shade	<b>wet</b> but well-draining, produces nuts annually, <b>sprouts from roots, stumps and severed roots rapidly sprout</b>
<i>C. floridana</i>	Scrub hickory	15-30'	10-15'	deciduous	Full sun to part shade	<b>wet soils</b> , aggressive invader in wet areas, nuts produced yearly, sweet edible nuts

(KS #4 Tree/Shrub) **Salix / Willows – 190 spp. caterpillars** ----- (Salicaceae) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil	Comments
<i>S. caroliniana</i>	<b>Coastal plain willow</b> <b>NBF</b>	15-30'	15-30'+	perennial deciduous	full sun part shade	<b>moist to wet</b>	<b>host plant</b> for Mourning Cloak, Viceroy, Red-Spotted Purple Butterfly, and Cecropia Moth

(KS #5 Tree/Shrub) **Acer / Maple – 171 spp. caterpillars** ----- (Sapindaceae family) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil	Comments
<i>A. negundo</i> *	<b>Box-elder</b>	30-50'	25-40'	deciduous	Full sun to Shade	<b>moist to extended flooding</b>	undesirable tree for many urban situations, brittle, weak wood, short life span, susceptibility to boxelder bug & trunk decay, but tree will grow just about anywhere. Cultivars available, yellow fall color.

<i>A. rubrum</i> *	<b>Red maple</b> <b>NBF</b>	30-70'	20-40'	deciduous fall color	Full sun to partial sun	<b>moist to wet</b>	fast grower, wood isn't strong don't plant near structures 'Florida Flame' is a cultivar that produces bright red fall foliage.
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(KS #6 Tree/Shrub) **Pinus / Pine – 171 spp. caterpillars** ----- (Pinaceae) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<i>P. serotina</i>	<b>Pond pine</b>	60-70'	to 46'	evergreen	Full sun to Partial shade	<b>Moist</b> , acidic soil
<i>P. taeda</i> *	Loblolly pine	50-80'	30-35'	evergreen	full sun	<b>occasionally wet</b> to well-drained soils, Moderate drought tolerance, fast growing, loses lower limbs as it grows older, group together
<i>P. taeda</i> 'Nana'*	Nana loblolly Pine	15-20'	15-20'	evergreen	full sun	well-drained soil, <b>occasionally wet soil</b> , highly drought tolerant once established

(KS #8 Tree/Shrub) **Ulmus** / Elm – 131 spp. caterpillars ----- (Ulmaceae) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil	Comments
<i>U. alata</i> *	<b>Winged elm</b> NBF	40-70'	30-40'	deciduous	full sun to partial shade	<b>wet</b> to <b>moist</b> , corky wing-like projections	appears on both sides of twigs and branches
<i>U. crassifolia</i> *	<b>Cedar elm</b>	40-80'	20-40'	deciduous	full sun to part shade	well-drained, <b>tolerates extended flooding</b> , very drought tolerant once established, fall color is bright yellow to red	

(KS #9 Tree/Shrub) **Fraxinus** / Ash – 99 spp. caterpillars ----- (Fraxinaceae family) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<i>F. caroliniana</i>	<b>Pop ash</b> NBF	30-50'		deciduous	part shade to full sun	<b>wet soils</b> , larval host plant to the Eastern tiger swallowtail ( <i>Papilio glaucus</i> ), mourning cloak ( <i>Nymphalis antiopa</i> ) and viceroy ( <i>Limenitis archippus</i> ).
<i>F. pennsylvanica</i> *	Green ash NBF	60-70'	45-50'	deciduous	full sun	<b>tolerates extended flooding</b> , yellow fall color

(KS #11 Tree/Shrub) **Cornus** / Dogwood (dw) – 77 spp. caterpillars ----- (Cornaceae family) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<i>C. foemina.</i>	<b>Swamp dw</b> NBF	10-15'	10-15'	deciduous	full sun to part shade	<b>wet</b> to <b>moist</b> , produces blue fruit that birds eat

(KS #13 Tree/Shrub – Vine) *Vitis* / Grape – 58 spp. caterpillars ----- (Vitaceae family) ----- **Edible** -----

Scientific name	Common name	Tendrils	Foliage	Fruit	Light	Soil/ Comments
<i>V. cinerea</i> var. <i>floridana</i>	<b>Florida grape</b>	forked	dull green, wrinkled on top	1/8-1/4" black	Full sun to part shade	<b>damp</b> areas, vine branchlets are angled, fruit not edible for some
<i>V. rotundifolia</i> *	<b>Muscadine grape</b>	single, un-forked	dark green, shiny deeply & sharply	purple, 1/2" berries in	Full sun to part shade	well-drained <b>to moist soil</b> , attracts native bees, grows to 50', can be aggressive, delicious fruit, juice, jellies, wines, tough skin and seedy, <a href="https://edis.ifas.ufl.edu/pdffiles/HS/HS10000.pdf">https://edis.ifas.ufl.edu/pdffiles/HS/HS10000.pdf</a>
<i>V. shuttleworthii</i>	<b>Calloose grape</b>	forked	thick foliage, hairy Underneath, Wrinkled on top	large, semi-sweet	Full sun to	<b>moist to wet soil</b> , foliage looks quilted on top and is cupped underneath

(KS #14 Tree/Shrub) *Carpinus* / American Hornbeam – 54 spp. caterpillars ----- (Betulaceae family) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<i>C. caroliniana</i> *	<b>Blue beech</b> NBF	20-30'	20-30'	deciduous attractive fall color	full sun to shade	<b>tolerates extended flooding</b> , doesn't tolerate alkaline soils

(KS #16 Tree/Shrub) *Celtis* / Hackberry – 43 spp. caterpillars ----- (Cannabaceae family) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/ Comments
<i>C. laevigata</i> *	Hackberry or Sugarberry	50-70'	50-60'	deciduous	full sun to part shade	well-drained, <b>moist to wet soil</b> , salt spray tolerance, fruit attract birds, Woolly Asian hackberry aphid can cause honeydew and sooty mold so don't plant near driveways and patios, Warblers will eat the aphids, regular pruning is needed for the development of a strong branch structure.

## Shrubs (woody)

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(KS #7 Tree/Shrub) **Vaccinium** / Blueberry or bb – 160 spp. caterpillars ----- (Ericaceae family) ----- **Edible** -----

Scientific name	Common name	Ht.	Spread	Foliage	Blooms	Flwr color	Light	Soil/Comments
<b>V. corymbosum</b> (shrub)	<b>Highbush bb</b>	5-12'	3-5'	deciduous	Spring	white, pink	full sun to full shade	<b>moist to wet</b> , acidic, forms a natural hedge, red fall color, bumblebees pollinate
<b>V. darrowii</b> (shrub)	<b>Darrow's bb</b> <b>NBF</b> produce a thicket 1-2" in spreading from underground stems and forming masses broader than tall	2-6'	to 3'	evergreen	Spring	white, pink	full sun to part shade	<b>moist</b> , sandy, well-drained, acidic soil, <b>can grow and</b>
<b>V. myrsinites</b>	<b>Shiny bb</b> <b>NBF</b>	1-2'	18-30"	evergreen	Spring	White, pink	full sun	<b>moist</b> , small & compact, low hedge or boarder plant, <b>numerous underground branches</b> , broader than tall
<b>V. stamineum</b>	<b>Deerberry</b> <b>NBF</b>	15-20'	spreading		Spring		Part shade	<b>moist</b> , spreading and forming clumps as broad as tall, accent or specimen shrub

(KS #10 Tree/Shrub) **Rubus** / Blackberry bb – 93 spp. caterpillars ----- (Rosaceae family) ----- **Edible** -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<b>R. trivialis</b>	Dewberry	1-3'	spreading	evergreen	full sun to part shade	<b>moist to seasonally wet</b> , spreads by <b>underground runners</b> and branches root where they touch the ground

<https://www.ebay.com/itm/southern-dewberry-Rubus-trivialis-100-500-seeds-3-50-9-/143206359133>

<https://picclick.com/1-year-old-Dewberry-plant10-15-tall-sent-with-162285316178.html>

(KS #12 Tree/Shrub) **Viburnum** / Viburnum – 75 spp. caterpillars ----- (Adoxaceae family) -----

Scientific name	Common name	Ht.	Spread	Foliage	Light	Soil/Comments
<b>V. obovatum*</b>	<b>Walter's vib.</b> <b>NBF</b>	6-15'	6-10'	evergreen	full sun to part shade	<b>occasionally wet</b> , high drought tolerance, small leaves can be hedged, many cultivars

are available: 'Mrs. Schiller's Delight' groundcover, 2-3' tall; 'Native Snowball' (Agri-starts); 'Walter's Whorled Class'; 'Withlacoochee Viburnum'; 'Compact Walter's Viburnum, groundcover? 'Densa' 4-5' tall for sale from Waterwise Botanicals in California!

(other species *V. dentatum* and *V. nudum* are in nearby counties)

(KS #3 Flower (shrub) *Hibiscus* / Rosemallow (rm) – 37 spp. caterpillars ----- (Malvaceae family) -----

<i>Scientific name</i>	Common name	Ht.	Spread	Foliage	Blooms	Flwr color	Light	Soil/Comments
<i>H. coccineus</i> *	<b>Scarlet hibiscus</b> NBF, HH	4-6'	2-5'	winter dormant	summer to early fall	deep scarlet red, 8-12" wide	mostly sunny	<b>moist to wet</b> , shallow pond, water features, fairly drought tolerant after establishment, upright growth
<i>H. furcellatus</i>	Sleepy rm NBF	4-6'	4-6'	lanky, evergreen perennial	much of the year	bright pink 6-8" long,	full sun	<b>moist</b> during hot summer, nodding half- open blooms

Plants/seeds unavailable online - try [huegelc55@aol.com](mailto:huegelc55@aol.com) or call him at (727) 422-6583

<i>H. grandiflorus</i> *	<b>Swamp hibiscus</b> HH	6-10'		winter dormant	summer to early fall	soft pink with red eye	full sun	<b>moist to wet</b> upright growth
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(KS #5 Flower (shrub) *Baccharis* / False willow – 31 spp. caterpillars ----- (Asteraceae family) -----

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/Comments
<i>B. halimifolia</i> *	<b>Saltbush</b> NBF- also have a dwarf saltbush	8-12'	6-12'	perennial	Fall	white	full sun	<b>moist to wet</b> female plants only part shade

(Two other species, *B. angustifolia* & *B. glomeruliflora* are native to Brevard but no seed or plant source was found)

(KS #10 Flower (shrub) *Amorpha* / False indigo – 24 spp. caterpillars ----- (Fabaceae family) -- N-fixing legume plant -----

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/Comments
<i>A. fruticosa</i>	False indigo NBF, HH	4-12'	to 6'+	deciduous	Spring	purple with yellow stamens	full sun	<b>moist to wet</b> grows easily from seeds



(KS #1 Flower/Grass) **Solidago** / **Goldenrod** gr – 82 spp. caterpillars & 12 spp. specialist bees -----(Asteraceae family) -----

Doug Tallamy said that Goldenrod is “the most powerful herbaceous plant because 110 spp. of caterpillars feed on it.”

<https://www.prairiemoon.com/search.html?Search=solidago>

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>S. fistulosa</i>	<b>Pine barren gr</b> <b>NBF</b>	4-6'		winter deciduous	fall Oct-Nov	yellow	full sun	<b>moist, suckers from rhizomes</b> <b>aggressively causing dense growth</b>
<i>S. latissimifolia</i>	Elliott's gr	3-7' to 13'	1-5 stems can form thickets	perennial	Year-round	yellow	full sun	<b>wet-fresh &amp; brackish</b> <b>Suckers from under- underground rhizomes</b>
<i>S. leavenworthii</i>	Leavenworth's gr <b>NBF, HH</b>	to 6.5'		winter deciduous	Aug - Dec (1 site said through May)	yellow	full sun	<b>moist-wet, suckers from underground rhizomes</b>
<i>S. sempervirens</i>	<b>Seaside gr</b> <b>NBF</b>	3-6'	2-3'	evergreen basal leaves	Aug - Oct.	deep yellow	full sun	<b>moist soil, does not spread by rhizomes</b> pinch growing tips in June for compact plants cut stems back down to the ground after flowering
<i>S. stricta</i>	<b>Wand gr</b> <b>NBF, HH</b>	to 3'	2-4'	winter deciduous	Aug - Nov.	yellow	full sun part shd	<b>moist-wet, tolerates occasional flooding</b>

Nectar plant for monarch (*Danaus plexippus*) and other butterflies. Attracts pollinators including native bees. The goldenrod soldier beetle (a.k.a. leatherwing beetle, *Chauliognathus pensylvanicus*) is a goldenrod pollinator ([FL Wildflower Foundation](#))

(KS #2 Flower/Grass) **Helianthus** / **Sunflower sf – 58 spp. caterpillars & 18 spp. specialist bees** ---- (**Asteraceae** family) ----- 26

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>H. agrestis</i>	Southeastern sf	to 6'		annual	Aug-Nov	red, yellow, purple	full sun	<b>Moist soil</b>

One plant can produce up to 15 flower heads

<i>H. angustifolia</i>	<b>Narrow-leaved sf</b> <b>NBF</b>	3-5'+	4-6'	perennial	October	yellow	full sun to part shade	<b>wet</b> soils, good for <b>bog</b> or <b>pond</b> areas.
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This sun loving perennial grows well among *Schizachyrium scoparium*, *Andropogon virginicus*, *Symphyotrichum georgianum*, *Symphyotrichum oblongifolium*, and *Euthamia caroliniana*. Seeds sold at

<https://www.prairiemoon.com/helianthus-angustifolius-swamp-sunflower>

New moon nursery, plants, or flats

<i>H. carnosus</i>	Lakeside sf <b>NBF, HH</b>	to 2' tall		perennial	June-Aug.	yellow	part shade	<b>usually moist</b> & never dry
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<i>H. floridanus</i>	Florida sf	to 6' tall		perennial	Aug-Nov	yellow	full sun	<b>moist</b> to <b>wet</b> , Multiple branched
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stems arise from these leaves. Like most sunflowers, it spreads to form colonies that can become extensive over time. Needs a lot of room as it spreads by underground rhizomes and its large size tends to overwhelm less-robust species. Great around the **edge of lakes and wetlands**. Email for current list at huegelc55@aol.com or call at (727) 422-6583

<i>H. radula</i>	<b>Rayless sf</b> <b>NBF, HH</b>	2-3'		deciduous perennial	late spring to early fall		full sun	well-drained soils, occurs along <b>moist</b>
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roadsides, and in **seasonally wet** savannahs and pine flatwoods. Attracts a variety of butterflies and other pollinators. Plant with a mix of Chalky bluestem or muhlygrass for a striking display. The common denominator seems to be its need for openness and ample sunlight. This plant also **suckers, eventually form thick colonies** that prevent most others from gaining a foothold next to them. Plant it near the front of the planting area where its foliage can be admired. Great mixed with other showier species for color

(KS #4 Flower/Grass) **Vigna** / **Cowpea – 35 spp. caterpillars** ----- (**Fabaceae** family) ----- **N-fixing legume plant** -----

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>V. luteola</i>	Hairy cowpea <b>NBF</b>	vine		perennial	All year	yellow	full sun	<b>moist to wet</b>

(Seeds can be collected locally)

(KS #6 Flower/Grass) ***Eupatorium*** / Thoroughwort tw – 31 spp. caterpillars ----- (Asteraceae family) ----- 27

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>E. anomalum</i>	FL tw	to 5'		perennial	July & Aug	White & pink	full sun- part shade	<b>moist soil</b>

<i>E. leptophyllum</i>	Falsefennel -	to 6'		perennial				<b>wet</b> areas, can grow in <b>shallow water</b> , often at the <b>edges of ponds</b>
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<i>E. fistulosom</i> ( <i>Eutrochium fistulosum</i> )	Joe-pye weed <b>NBF</b>	5-10'	2-3'	perennial	summer	mauve-pink	full to part sun	<b>wet to moist</b> , rhizomatus plants with sturdy stems and attractive flowers Avoid cutting stems back in winter to "tidy" the garden. If stalks remain, they will add winter interest, provide seed to birds, and perhaps enhance cold hardiness. Accumulation of winter rain in the hollow severed stalks can cause the plant to decline. A dramatic Accent for a Wildlife Garden or moist Meadow. Plants are also used as Butterfly Nectar Plants, Cut Flowers or as part of a Grouping or Mass Planting. Try pairing <i>Eupatorium fistulosum</i> with <i>Aster oblongifolius</i> , <i>Coreopsis tripteris</i> , <i>Lobelia siphilitica</i> , <i>Monarda fistulosa</i> , <i>Rudbeckia fulgida</i> var. <i>fulgida</i> , <i>Solidago rugosa</i> or <i>Sorghastrum nutans</i> . Flowers attract skippers, moths, and bees. Swamp sparrows feed on the seed. In general, the former <i>Eupatorium</i> spp. with whorled leave are now called <i>Eutrochium</i> spp. and the bonesets which have opposite leaves are still <i>Eupatorium</i> spp.
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<https://www.prairiemoon.com/eupatorium-fistulosum-hollow-joe-pye-weed-prairie-moon-nursery.html>

<http://www.newmoonnursery.com/plant/Eupatorium-fistulosum> - contacted then for plant availability and pricing

<i>E. mikanioides</i>	Semaphore tw							<b>wet to moist</b> salt-tolerant
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<https://broward.fnpschapters.org/gardening-and-landscaping-with-native-plants/seed/> - possible source of seeds

<i>E. mohrii</i>	Mohr's tw	to 3'+ stems		perennial				<b>moist areas</b> , edges of ponds, and sandy soils produces tuberous <b>rhizomes</b> . forms hybrids with <i>Eupatorium serotinum</i> and <i>Eupatorium rotundifolium</i> .
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<i>E. rotundifolium</i>	Roundleaf tw <b>NBF</b>	to 3'+ stems						<b>moist to wet soils</b> savannas and bogs produced from short <b>rhizomes</b>
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<https://www.amazon.com/Thoroughwort-Eupatorium-rotundifolium-Seed-Native/dp/B00BQKL0SY>

<https://roundstoneseed.com/native-wildflowers/217-roundleaf-thoroughwort.html>

<https://www.dropseednursery.com/product/eupatorium-rotundifoliumround-leaved-thoroughwort/>

<i>E. serotinum</i>	Lateflower	to 6.5'			fall		full sun	<b>moist</b> This species is pollinated by insects
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<https://www.amazon.com/Boneset-Flowering-Eupatorium-serotinum-Thoroughwort/dp/B016YZVGE8>

<https://www.prairiemoon.com/eupatorium-serotinum-late-boneset-prairie-moon-nursery.html>

<https://www.kollarnursery.com/eupatorium-serotinum>

(KS #11 Flower/grass) **Verbesina** / Frostweed – 20 spp. caterpillars ----- (Asteraceae family) -----

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/Comments
<i>V. virginica</i>	Frostweed	4-6'	wide	perennial deciduous	late summer thru fall	White	full sun to part shade	<b>moist</b> <b>spreading</b>

**rhizomes form colonies**, best for naturalizing and not formal landscapes, planting frostweed in dryer soils and with exposure to more sun will help keep the plants smaller and more compact and will encourage more blooms. Removal of spent seed heads and annual pruning are also recommended. Frostweed is best propagated by seeds, although plants can be divided when dormant (winter).

(KS #13 Flower/Grass) **Sesbania** / **Rattlebox** – 19 spp. caterpillars ----- (Fabaceae family) ----- **N-fixing legume plant** -----

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>S. herbacea</i>	Danglepod	4-8'	to 3'	annual	summer to fall	yellow & red	full sun	<b>moist to wet soil</b> , attracts beneficial

insects and it is a host plant for the ceranus blue butterfly. Toxic to cattle. Attracts birds and beneficial insects, including lady bugs and parasitic wasps.

<i>S. vesicaria</i>	Bladderpod	4-8'		annual	summer to fall	yellow to coral red	full sun	<b>moist soil</b> , seeds toxic to cattle, can
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single main stem

tolerate fire, freshwater flooding and drought, Larval host: Zarucco Duskywing Skipper Butterfly (*Erynnis zarucco*)

(KS #14 Flower/Grass) **Viola** / Violet – 19 spp. caterpillars ----- (Violaceae family) -----

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>V. lanceolata</i>	Bog white violet	6"	6"	perennial	Apr-June	white	partial to full shade	<b>moist to wet soil</b>

**NBF**

<https://www.toadshade.com/Viola-lanceolata.html>

<i>V. sororia</i>	Common blue violet	6-10"	6-10"	perennial	Mar-May	blue	sun to Pt shade	<b>moist</b> to average, rich soil, well-
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**NBF, HH**

<http://www.newmoonnursery.com/plant/Viola-sororia>

(*V. palmata* is another species that are in surrounding counties N, W & S)

drained, dead-heading prolongs flowering, freely self-seeds

## Clumping Grasses

(KS #7 Flower/Grass) ***Panicum*** / Maidencane – 25 spp. caterpillars ----- (***Panicaceae*** family) -----

Scientific name	Common name	Ht.	Spread	Life cycle	Blooms	Light	Soil/Comments
<i>P. virgatum</i>	<b>Switchgrass</b> <b>NBF?</b>	clumping to 5-6'		perennial winter dormant	purple & attractive fall color/bright yellow foliage	full sun part shade	<b>moist to wet</b> can have a weedy look so plant toward the back of a moist wildflower garden, doesn't require supplemental water once established, clump-forming and rhizomatous, prolific self-seeder, use with caution in very small landscapes, consider not cutting the plants back in late fall to provide cover for small mammals and birds, cut back in late winter/early spring to maintain attractive shape.

**Attracts:** Birds, Butterflies, Bees, **Larval Host:** Delaware skipper, tawny edged skipper. The Grass Family is an essential larval host for most banded skippers and most of the satyrs.

<https://www.prairiemoon.com/panicum-virgatum-switch-grass-prairie-moon-nursery.html>

<https://roundstoneseed.com/native-grasses/102-switchgrass.html>

<https://www.americanmeadows.com/grass-and-groundcover-seeds/switchgrass-shelter-seeds>

<https://www.prairienursery.com/switchgrass-panicum-virgatum.html>

Here are some suggestions on how to support our **native specialist bees**. 1) Choose your flowers so that there will be nectar and pollen available throughout the entire year. 2) Plant a mass planting of a variety of these plants together in clumps or drifts in your landscape. 3) Leave the soil bare throughout the interior of the clump(s) or drift(s) to allow the ground dwelling bees a place to dig their burrows and raise their young. 4) Mulch around the outer edge of the plant bed to help suppress the weeds and give the bed a neat appearance.

## Additional Herbaceous Flowering plants that support **Specialist bees**

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### **Coreopsis / Tickseed ts – supports 9 spp. of specialist bees** ----- (**Asteraceae** family) -----

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>C. floridana</i>	<b>October daisy</b>	2-3'	narrower	annual	fall-winter	yellow	full sun	<b>moist to wet</b> Intolerant of long periods of drought.
<i>C. gladiata</i>	Southeastern ts	2-5 ft.			Sept-Oct.	yellow	full sun	<b>moist to wet</b>
<i>C. leavenworthii</i>	<b>Leavenworth's ts</b> <b>NBF</b>	12-18"	1-3'	annual	year-round.	Yellow	full sun	<b>moist</b> though it can tolerate some drought and drier soils, it will not perform as well. Moist soils also allow for reseeding—important in maintaining the species. Attracts many pollinators.

### **Symphotrichum / Old Field Aster – supports 9 spp. of specialist bees (+7 spp. caterpillars)** ----- (**Asteraceae** family) -----

National Wildlife Federation says only 2 spp. are native (**in bold below**)

<i>Scientific name</i>	Common name	Ht.	Spread	Life cycle	Blooms	Flwr color	Light	Soil/ Comments
<i>S. carolinianum</i>	<b>Climbing aster</b> <b>NBF</b>	8'+ if climbing shrub is 5' 5' wide		perennial	late fall & winter	lavender	full sun part shade	<b>moist to wet</b>
<i>S. elliotii</i>	<b>Elliot's aster</b> <b>NBF</b>	4'+	suckers aggressively	herbaceous perennial	late fall	lavender	full sun	<b>moist to wet</b>
<i>S. walteri</i>	Walter's aster <b>HH</b>	up 2' when flowering		perennial	late fall & early winter	lavender	full sun part shade	<b>moist</b> , well-drained soil sandy

(Couldn't find sources for *S. adnatum*, Clasping Aster/ *S. bahamense*, Bahaman aster/ *S. chapmanii*, Savannah aster/ *S. concolor*, Eastern silver aster/ *S. dumosum*, Rice button aster/ *S. elliotii*, Elliot's aster/ *S. fontinales*, FL water aster/ *S. kralii*, Kral's aster/ *S. simmondsii*, Simmond's aster/ *S. subulatum*, E. ann. saltmarsh aster/ *S. tenuifolium*, Saltmarsh aster)

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