Guide to Propagation and Characteristics of Favorite Georgia Natives:

Part I–Thirty Perennials for Pollinators

by Heather Alley
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State Botanical Garden of Georgia
at the University of Georgia

The State Botanical Garden of Georgia is a unit of the Office of Public Service & Outreach at the University of Georgia

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Last but not least, I would like to thank my faithful volunteers who come in every week and do whatever needs doing with smiles and laughter.

Introduction

The Georgia Native Plant Initiative (GNPI) is a network for promoting the use of Georgia native plants in all kinds of landscapes. The State Botanical Garden of Georgia (SBG) established the network in 2011 to connect native plant stakeholders. The GNPI is a collaboration between growers, landscapers, land managers, plant societies, garden clubs and gardeners. We seek to transform gardens, roadsides and natural areas across Georgia by encouraging supply and demand of aesthetically and ecologically valuable native plants.

Recognizing the critical role native plants play in preserving nature as we know and love it, SBG has a long-standing commitment to promoting the use of Georgia native plants in all of Georgia's landscapes. Mounting scientific evidence confirms that native plants are the foundation of nature's food web upon which all other wildlife depends.

Native plants are becoming ever more popular as their role in sustaining nature is revealed. Threatening to impact the production of many food crops, the honey bee's decline is widely publicized. Native bees, on which entire ecosystems depend, are suffering the same fate, though less well publicized. The Monarch Butterflies' listing as Endangered by the US Fish and Wildlife in 2015 resulted in national shortages of the Monarch host plant, as gardeners rushed to buy Milkweed for their own property. The Milkweed/Monarch Butterfly co-dependency illustrates the connection between plants and animals. This example is changing the mentality of many gardeners. As such, gardening with native plants is no more a fad than the love of nature or the food web itself.

However, native plants are hard to find. Commercial growers are often uncertain what plants are technically native, as "native" may be interpreted differently by people. Another obstacle to native plant availability is the lack of information on how to produce them or what plants to grow. This manual provides propagation methods and point-of-sales information for 30 favorite perennials from Georgia selected for their ease of production, attractive appearance, usefulness in landscapes, and significant benefit to native pollinators.

Detailed Propagation Methods

Each of the 30 species in this guide may be propagated with the same germination, cutting and potting mixes and fertilizer routines. The recipes, materials and growing conditions are explained below.

Growing Media and fertilizer

With the exception of wetland plants, native perennials need good drainage or root rot can develop. The Deep South's warm summer nights (consistently above 70 degrees Fahrenheit) and high humidity increase the risk of root rot. To achieve good drainage, we rely on composted pine bark (often sold as "soil conditioner"). The ideal average bark chunk size is between 0.5 and 1 inch. The mix will hold too much water if it is too fine, and bigger chunks don't hug the roots closely enough. The basic Native Plant Perennial Mix was adapted from Bill Cullina's mix at the New England Wildflower Society (Cullina). Where Cullina uses peat moss, we use a standard potting mix that has a peat moss base with additional pine bark and perlite for extra drainage. Look for a potting mix that has about 65 percent composted or aged pine bark, which is typical.

Native Perennial Mix

- 3 parts composted or aged pine bark
- 1 part potting soil
- 3/4 cup dolomitic lime per cubic foot
- 1 cup slow release fertilizer (10:10:10) per cubic foot (or per product directions)

Fertilizer is critical as potting mix nutrients are exhausted after a month or so. We have tried various brands and ratios of fertilizers and not noticed much difference among brands. Hen-manure-based organic fertilizer with 5:3:3 NPK ratio incorporated into the Native Perennial Mix also works well. After potting, fertilize up to once weekly or as needed with a good 300 ppm liquid fertilizer.

A standard potting mix with about 40 percent processed pine bark may be used for starting seedlings. After about 3 months, seedlings will start needing additional fertilizer as the potting mix looses its starter charge of fertilizer. Growing mediums sold as “germination mix” tend to stay too wet for many native plants.

For cuttings, the following mix works great for the species listed in this manual. Because our greenhouse tends to stay too warm in the ideal months for rooting most cuttings (May-June), we have started keeping cuttings under fluorescent lights (with a timer for 18 hours of light per day) in a room set at 70 degrees Fahrenheit. Keep the cuttings in a sealed plastic bag or under clear plastic covers.

Cutting Mix

- 3 parts perlite
- 1 part peat moss

Environmental Conditions

There is a fair amount of leeway in the timing of sowing seeds for the species included in this manual. Seedlings do best with soil temperatures around 70 degrees Fahrenheit. You do not need a greenhouse to raise Georgia native plants, but horticultural heating pads are helpful for getting seeds going in early spring. We time seed stratification start times so that seeds come out of the refrigerator in spring or summer. All seeds can be stratified in damp wet sand in a 35-40 degree Fahrenheit refrigerator.

A 40 percent shade cloth or greenhouse white -ash is recommended even for full sun plants. It keeps them cooler and helps prevent desiccation in the heat of summer. For shade plants, use a 50 or 60 percent shade cloth, or the shade of tall trees. Let your native plants go dormant in the winter, so they return fresh in the spring.

Scientific Name:

Amsonia tabernaemontana

Common Name:

Eastern or Common Bluestar

Family

Apocynaceae (Dogbane Family)

Natural Range:

FL west to TX, north to KS, IL, and NY

Photo by Heather Alley

General Description: Herbaceous multi-stemmed perennial, 2-3 feet tall, 2-3 feet spread with an upright loose habit. Oval **leaves** (to 4 inches) are alternate turning a beautiful golden yellow in fall. Star-shaped **flowers** are baby-blue, slightly scented, 0.5 inches wide and borne in terminal clusters in April – May in Athens, Ga.

The genus *Amsonia* comprises over 20 species and includes an Asian and a single European species. The rest are North American natives. *A. tabernaemontana* is most commonly cultivated; 'Montana' and 'Short Stack' are named cultivars. Like most members of the dogbane family, *Amsonia* has milky sap making it unpalatable and slightly toxic.

Soil Requirements: Prefers well-drained sandy soil

Water Requirements: Dry – high moisture

Light Requirements: Sun – part shade

Use in Landscape: Sunny borders, meadows and as single specimens; develops shrub-like character when mature; deer resistant

Hardiness Zones: 3-9

Propagation: Easy from seed or cuttings

Seed: Columnar shaped seeds are borne in long thin pods that ripen in late summer-fall. High germination rate is achieved with 90 days cold stratification and seeds lightly covered. However, fresh seeds may germinate when sown directly and older seeds may benefit from nicking (scarifying) to help imbibition (Lady Bird Johnson Wildflower Center). Plants grown from seed bloom in 2-3 years.

Cuttings: Stem cuttings are most successful when taken from new growth from older flowering stems following blooming. Rooting powder may be used. Stem cuttings may produce flowering plants in one year.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium

Sales Potential: Good during period of bloom and fall color

Vulnerabilities: Prone to rust during exceptionally wet summers; remove affected leaves and stems; plants usually make a complete recovery the next year

Wildlife Associations: Host plant for Coral Hairstreak butterfly caterpillar; nectar source for bees, moths, butterflies and hummingbirds; deer and rabbit resistant

Habitat: Mixed woods and roadsides in the piedmont

Maintainence: Cut back stems after blooming if plants develop straggly appearance; plants will resprout from crown the following year

Plant Tag Data: Shade to part shade, medium to low water, well-drained soil; benefits hummingbirds, butterflies, hawk moths, and Columbine Duskywing

Photos by Heather Alley

Scientific Name:

Aquilegia canadensis

Common Name:

Eastern or Wild Red Columbine

Photo by Alan Cressler

Family:
Ranunculaceae (Buttercup Family)

Natural Range: Widespread across North America

General Description: Mostly evergreen short-lived perennial Georgia (goes dormant in extreme heat) to 12 inches. Attractive blue-green divided foliage with rounded lobes resembles Maidenhair Fern or Meadow Rue. Exquisitely shaped **flowers**, borne on spikes up to 3 feet tall, are red with long spurs, yellow throats and prominent yellow anthers in early spring.

Soil Requirements: Well drained sand and loam; not heavy or rich; alkaline to circumneutral

Water Requirements: Low to medium; tolerates moist soil as long as well drained and periodic drought

Light Requirements: Part shade to part sun

Use in Landscape: Best in groups; cluster in swales, at edges of perennial shade gardens, woodland plantings and in containers; good cut flowers

Hardiness Zones: 4-8

Propagation: Easy from seed; division is impractical (owing to tap root)

Seeds ripen approximately 2 weeks after flower opens. No seed is treatment required. Germination takes about 10 days and germination rate is high. Sow on top of standard potting soil e.g. Georgia Native Germination Mix in spring as seedlings are heat sensitive

Potting Media: Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix

Fertilizer Requirement: Average

Growth Rate: Medium; plants bloom in second year

Sales Potential: Very good; plants thrive in pots; interesting leaf shape and texture lend year-round appeal

Vulnerabilities: Relatively trouble free; potential pests: Columbine Sawfly, Stalk Borer, Aphids, and Leaf-miners

Wildlife Associations: Hummingbirds, bees, butterflies, hawk moths, finches and buntings; host plant for Columbine Duskywing, Wild Indigo Duskywing, and several other butterflies and moths; moderately deer resistant

Habitat: Woodlands

Maintenance: Do not over water; deadhead spent flowers and leaves; different columbine species will hybridize with each other so saved seed may not come true; keep leaf litter away from crowns to prevent crown rot; remove leaves damaged by leaf-minors and discard to reduce infestations

Plant Tag Data: Shade to part shade, medium to low water, well-drained soil; benefits hummingbirds, butterflies, hawk moths, and Columbine Duskywing

Photo by Alan Cressler

Scientific Name:
Asclepias incarnata

Common Name:
Swamp Milkweed

Family Apocynaceae (Dogbane); formerly in Asclepiadaceae (Milkweed Family)

Natural Range: Widespread across North America; absent from west coast states and provinces

General Description: Swamp Milkweed is an herbaceous upright mostly unbranched perennial (unless pruned) 3-6 feet tall with smooth, with lance shaped **leaves** are 2-6 inches long and opposite. Its **flowers** are exquisitely shaped in terminal umbels of up to 20 flowers. The flowers range from light pink to light purple and bloom from June-October.

Photo by Hugh and Carol Nourse

Soil Requirements: Rich, slightly acidic, with wet to average moisture; will tolerate heavy clay if kept moist

Water Requirements: High to average

Light Requirements: Sun to part shade

Use in Landscape: Good for wetland garden in full sun; best in groups; plants are toxic if eaten in large quantities; excellent plant for wildlife; deer resistant

Hardiness Zones: 3-8

Propagation: Easy from seed; division or cuttings are also fairly easy

Seeds ripen in October-November. Sow seeds fresh or stored in dry cold. Seeds germinate between 10-30 days. Germination rate is high. Germination requires light so do not cover. Take cuttings early in growing season to allow time for crown buds to establish for overwintering. Soak fresh cuttings in water to remove milky sap before applying rooting powder.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix

Fertilizer Requirement: Average

Growth Rate: Fast

Sales Potential: Very good; plants fill a trade one gallon pot in five months; plants bloom in year two, occasionally year one

Vulnerabilities: Aphids

Wildlife Associations: Larval host plant for butterflies (Monarch, Queen) and moths (Milkweed Tussock and several others); nectar source for bees, butterflies and hummingbirds; deer resistant

Habitat: Marshes, bogs, swamps of mountains and piedmont

Maintenance: Start control early; spray aphids off with stream of water; insecticidal soap every two days; ladybugs may be effective if released weekly and early in the growing season (April); cut back infested or damaged stems

Plant Tag Data: Sun to part shade, medium to high water, rich soil; benefits hummingbirds, butterflies, bees and Monarch and Queen butterfly larvae

Photo by Heather Alley

Scientific Name:

Asclepias tuberosa

Common Name:

Butterflyweed

Photo by Heather Alley

Family Apocynaceae (Dogbane Family), formerly in Asclepiadaceae (Milkweed Family)
Natural Range: Ontario to Newfoundland; FL to New England, west to TX; north through CO to MN

General Description: Herbaceous perennial, 1-2 feet tall, with smooth or rough, mostly alternate, lance-shaped **leaves** from 1.5-2.25 inches long. The stems are highly branched. **Flowers** are bright orange to reddish-orange (occasionally yellow) in terminal clusters. The bloom period is primarily May-July with occasional blooms through October.

Soil Requirements: Prefers well-drained sandy soil

Water Requirements: Dry-average moisture

Light Requirements: Sun-part shade

Use in Landscape: Sunny borders, meadows and as single specimens; few other plants have such a vibrant orange color. Plants are toxic if eaten, deer resistant; excellent for other wildlife

Hardiness Zones: 5-10

Propagation: Easy from seed and root cuttings

Seeds ripen in late summer into fall. Check (pinch) for well-filled viable seeds. When viable, germination rate is high. Seeds need light to germinate and begin to germinate by 10 days. Stratify for 30 days for more uniform germination.

Root cuttings may be taken once plant has developed an adequate root system (one growing season). Transplant 2-inch sections (at least 0.25 inch diameter) burying them 1 inch below the surface of potting media. Pot plants in in deep cells for better drainage and tap root development.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average; may bloom in first year with regular weekly fertilization

Growth Rate: Fast

Sales Potential: Very good; plants grow quickly to fill one gallon sized pot in 5 months; plants bloom in second year, often in first year

Vulnerabilities: Aphids

Wildlife Associations: Larval host plant for Grey Hairstreak, Monarch, and Queen butterflies and Milkweed Tussock moths and several others; nectar source for bees, butterflies, and hummingbirds; deer resistant; lacks the milky sap that other milkweed have that protects caterpillars from predators

Habitat: Grasslands, roadsides, rights-of-way across Eastern North America

Maintenance: Start control early; spray aphids off with stream of water; insecticidal soap every two days; ladybugs may be effective if released weekly and early in the growing season (April); cut back infested or damaged stems

Plant Tag Data: Sun to part shade, low-medium water, very well drained soil; benefits hummingbirds, butterflies, bees and Gray Hairstreak, Monarch and Queen butterfly larvae

Photo by Hugh and Carol Nourse

Scientific Name:

Baptisia australis

Common Name:

Wild Blue Indigo

Photo by Hugh and Carol Nourse

Family Fabaceae (Pea Family)
Natural Range: TN, KY, GA

General Description: Wild Blue Indigo is an upright perennial 2-4 feet tall with a 3-foot spread. It has a dense and upright form. Its attractive blue-green three-parted **leaves** are topped with abundant pea-shaped blue with yellow **flowers** in May or June. Blue flowers are uncommon in the garden and Wild Blue Indigo's are a knockout.

Soil Requirements: Tolerates a range of soils from well drained to clay

Water Requirements: Average moisture

Light Requirements: Sun-part shade

Use in Landscape: Effective in sunny borders and as single specimens

Hardiness Zones: 4-9

Propagation: Easy from seed

Seeds ripen in late summer into fall. The germination rate is high but stratification for 30 days gives more uniform germination.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average; allow three years to flower

Growth Rate: Medium

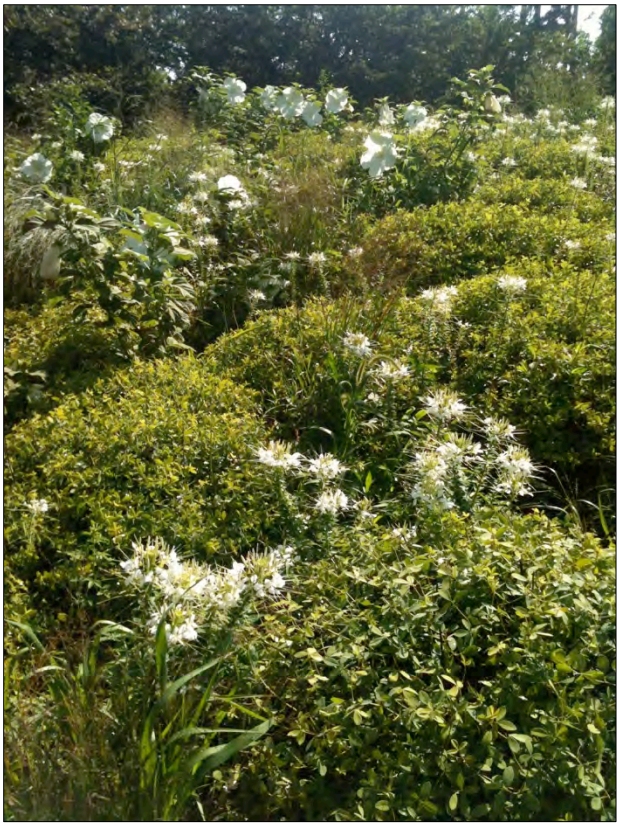

Photo by Heather Alley

Baptisia australis has a distinct mounding bush form, displayed with great effect at the Chicago Botanic Garden.

Sales Potential: Very good; plants grow slowly at first as roots establish but will fill a one-gallon pot in five months; plants bloom in third year

Vulnerabilities: Baptisias are generally trouble free; they may develop spider mites in a greenhouse environment

Wildlife Associations: Bumblebees and other pollinators frequent the flowers; host plant for Wild Indigo Duskywing, Clouded Sulphur, Eastern Tailed Blue, Hoary Edge, Henry's Elfin, Black-spotted Prominent and several other native butterflies and moths; relatively deer resistant

Habitat: Glades, barrens, and open woodlands over limestone (or other calcareous rocks) and diabase (or other mafic rocks), in areas that were formerly prairies, barrens, glades, or oak savannas (Weakley)

Maintenance: Plants may be cut back after frost turns leaves to black

Plant Tag Data: Sun to part shade, medium-high water, well drained to clay soil; benefits bees

Photo by Hugh and Carol Nourse

Scientific Name:

Clinopodium georgiana

Common Name:

Georgia Calamint

Photo by Alan Cressler

Family: Lamiaceae (Mint Family)
Natural Range: NC and south to FL, west to LA

General Description: Georgia Calamint is a small deciduous woody shrub (1-2 feet tall) with mounding growth pattern. Its shiny, opposite **leaves** are shaped like thyme leaves and are up to 0.5 inch wide and 1 inch long. They have a sweet fragrance when crushed. The **flowers** are small, mint-like, and pink with darker pink freckles inside the tube; borne in clusters of 5-9 September-October.

Soil Requirements: Well drained; sandy or sandy clay soil

Water Requirements: Average moisture

Light Requirements: Full sun-part shade

Use in Landscape: Specimen, shrub boarder, containers

Hardiness Zones: 8-9

Propagation: Easy by semi-hardwood cuttings

Cuttings: Semi-hardwood cuttings, approximately 3 inches long root with almost 100% success. Use rooting powder and keep moist until roots form (usually 1 month). Root in porous cutting mix with at least 50% pumice or coarse perlite and peat moss.

Seeds: Seeds are difficult to collect as the are nestled inside the calyx tube which is densely filled with hairs as pictured above; stratify 30-90 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Moderate

Sales Potential: Very good; plants bloom reliably in fall; an underutilized small shrub that is easy to grow

Vulnerabilities: None; susceptible to rot if kept too moist

Wildlife Associations: Native bees and other pollinators frequent the flowers

Habitat: Longleaf pine sandhills, dry rocky or sandy woodlands; uncommon; rare in FL and NC (Weakley)

Plant Tag Data: Full sun, medium water, well drained soil; benefits bees

Photo by Heather Alley

Scientific Name:

Chrysogonum virginianum

Common Name:

Green-and-Gold, Gold-star

Photo by Hugh and Carol Nourse

Family: Asteraceae (Aster Family)

Natural Range: FL west to LA, north to OH and NY

General Description: Green-and-Gold grows close to the ground similarly to strawberry plants. Its fuzzy **leaves** are oval and 1-3 inches long. It is nearly evergreen; it goes dormant in winter only after a hard freeze and grows back in late winter or early spring. Green-and-Gold's bright yellow **flowers** are abundant on variety "virginianum." The disk flowers have five tiny lobes giving them a star-shaped appearance. It blooms abundantly in April and then periodically through October.

Soil Requirements: Well drained, acidic

Water Requirements: Average-low moisture

Light Requirements: Sun-part shade

Use in Landscape: Green-and-Gold has long been recognized for its tolerance of dry shade. It doesn't bloom well in heavy shade. While it tolerates some drying, it is not drought proof. It is an excellent ground cover when planted thickly. The variety *Chrysogonum virginianum* var. *australe* spreads prolifically via runners, but doesn't bloom as heavily as *C. virginianum* var. *virginianum.* It can be grown in full sun if ample water is provided.

Hardiness Zones: 6-8

Propagation: Best by division or cuttings; seeds are difficult to obtain

Seeds: Do not let seeds dry out; collect seeds in fall when bracts turn brown; stratify for 60-90 days

Cuttings: In late spring, shoots may be rooted with rooting powder

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Fast

Sales Potential: Very good; plants bloom reliably in April; there are few if any native groundcovers that compare with Green and Gold.

Vulnerabilities: Generally trouble free; may be subject to spider mites in greenhouse environment; powdery mildew when nights get hot

Wildlife Associations: Native bees and other pollinators frequent the flowers ; relatively deer resistant

Habitat: Woodland edges and forest gaps

Plant Tag Data: Part shade, medium-high water, well drained well drained soil; benefits bees

Photos by Hugh and Carol Nourse

Scientific Name:

Chrysopsis mariana

Common Name:

Maryland Goldenaster

Photo by Alan Cressler

Family: Asteraceae (Aster Family)

Natural Range: FL west to NM, north to ND and ME

General Description: Maryland Goldenaster is a short, herbaceous perennial with interesting **leaves** covered with gauze-like webby hairs. In summer, a flowering stem shoots up to 2 feet and is topped with cheerful **flower heads.** Maryland Goldenasters blooms in late September into October in Georgia.

Soil Requirements: Well drained

Water Requirements: Average-dry

Light Requirements: Full sun-part shade

Use in Landscape: Effective in borders, containers and xeriscapes

Hardiness Zones: 5-9

Propagation: Easy from seeds

Seeds: Collect seeds when the spent flower has mostly dried and the seeds release easily. Ripe seeds have a pinkish hue. Seeds germinate easily with stratification. Stratify for 60-90 days. Seedlings are vulnerable and loath root damage. Therefore, sow lightly and transplant gently. Avoid overwatering.

Potting Media: For germination use Georgia Native Germination. Beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Moderate–fast

Sales Potential: Very good; particularly useful in xeriscaping as little care is required once established.

Vulnerabilities: Susceptible to rot if kept too moist

Wildlife Associations: Native bees and other pollinators frequent the flowers; host plant for Camphorweed Cucullia moth

Habitat: Pine woods, roadsides, grasslands

Plant Tag Data: Full sun, low-medium water, well drained soil; benefits bees; host plant for Camphorweed Cucullia moth

Photo by Heather Alley

Scientific Name:

Conradina canescens

Common Name:

False Rosemary, Wild Rosemary, Conradina

Photo by Alan Cressler

Family: Lamiaceae (Mint Family)

Natural Range: AL, FL, and MS

General Description: Wild Rosemary is a small evergreen woody shrub (1-2 feet) with an irregular branching pattern. Its needle-like gray-green leaves smell like lavender when crushed. Wild Rosemary has bilaterally symmetrical **flowers** that are lavender with white purple-spotted throats. It blooms abundantly along the stem in April.

Soil Requirements: Well drained; sandy

Water Requirements: Average moisture

Light Requirements: Full sun- part shade

Use in Landscape: Specimen, shrub boarder, containers

Hardiness Zones: 6-9

Propagation: Easy from cuttings

Cuttings: Easy by cuttings on semi-hard new growth; roots with close to 100% success like any proper mint; use rooting powder and keep moist until roots form by one month; root in porous cutting mix with at least 50% pumice or coarse perlite and peat moss

Potting Media: Beyond rooting stage use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Slow; it takes about one year for a cutting to fill a trade gallon; worth the wait

Sales Potential: Very good; plants bloom reliably in April; unique gray appearance is of special interest; performs well in a container tending to spill over the side

Vulnerabilities: Susceptible to rot if kept too moist

Wildlife Associations: Native bees and other pollinators; relatively deer resistant

Habitat: Sand dunes

Plant Tag Data: Full sun, medium water, well drained soil; benefits bees

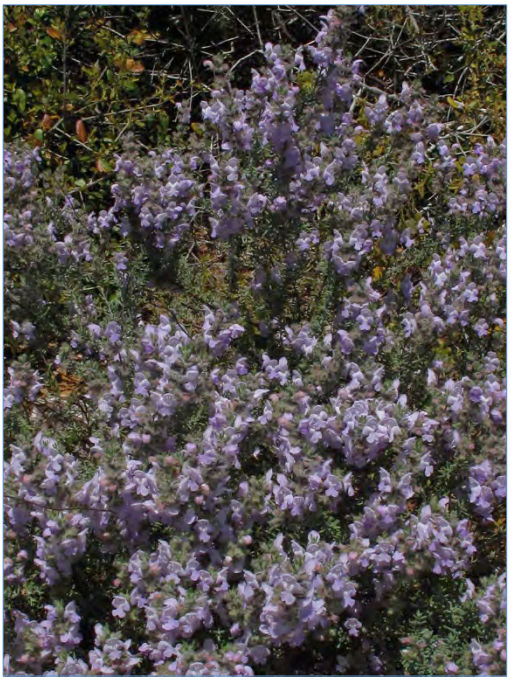

Photo by Alan Cressler

Photo by Heather Alley

Scientific Name:

Eryngium yuccifolium

Common Name:

Rattlesnake Master

Photo by Heather Alley

Family
Apiaceae (Carrot Family)

Natural Range:
Widespread across the southeastern and midwestern US

General Description: Rattlesnake Master is a distinctive perennial with rosettes of long, gray sword-shaped **leaves**. Each leaf is bordered with occasional, miniscule sharp teeth. The ball-shaped **flower heads** resemble that of thistles with spiny bracts and tiny white flowers.

Soil Requirements: Average-dry and well drained

Water Requirements: Low

Light Requirements: Full sun-part sun

Use in Landscape: Specimens, prairies, containers

Hardiness Zones: 4-9

Propagation: Easy from seeds

Seeds**:** Collect seeds when fruit capsule turns brown in fall; stratify 30-60 days

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: High

Growth Rate: Medium

Sales Potential: Very good; this unusual plant is easy to grow and has a striking appearance.

Vulnerabilities: None

Wildlife Associations: Host plant for Black Swallowtail; many native bees

Habitat: Prairies, barrens and glades, olivine barrens, pine savannas, and flatwoods with loamy or clay soils, and other open sites with at least periodic moisture (Weakley)

Maintenance: Cut seeds heads to prevent reseeding, unless that is desired; they reseed readily

Plant Tag Data: Full sun, low water needs, supports Black Swallowtail caterpillars and native bees

Photo by Heather Alley

Scientific Name:

Helianthus atrorubens

Common Name:

Appalachian Sunflower, Purple-disk Sunflower

Photo by Alan Cressler

Family Asteraceae (Aster Family)
General Description: Appalachian Sunflower has oval to round, mostly basal **leaves** with rough-hairy stems, 5-6 feet tall, topped with many orange-yellow **flower heads**. The daisy-shaped disk flowers are 3 inches wide with dark reddish-purple centers for which it is also called Purple-disk Sunflower.

Natural Range: Southeastern U.S. from FL north to NJ and west to LA and IL

Soil Requirements: Tolerates heavy to well drained soil

Water Requirements: Low-average

Light Requirements: Sun-part sun

Use in Landscape: Good for background of perennial beds or meadows in full sun; best in groups; plants are toxic in large quantities; excellent plant for wildlife

Hardiness Zones: 6-8

Propagation: Easy from seed

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Fast

Sales Potential: Very good; plants grow quickly; plants grow to fill one-gallon pot in 5 months and bloom in first year.

Vulnerabilities: This grassland, roadside species resents overwatering.

Wildlife Associations: Nectar source for bees, butterflies; deer resistant; host plant for Silvery Checkerspot and 72 other native butterflies and moths; birds will eat seeds

Habitat: Roadsides, pastures, rights-of-way, dry, rocky woodlands clay soils

Maintenance: Cut back yearly in winter; birds will eat seeds if seed heads are left

Plant Tag Data: Sun to part shade; medium low water; clay or well drained soil soil; benefits bees, butterflies, moths, birds

Photo by Heather Alley

Scientific Name:
Hibiscus coccineus

Common Name:
Scarlet Rosemallow

Family
Malvaceae (Mallow Family)

Natural Range:
Southeastern US from FL north into VA, west to LA and AR; may be introduced north of Georgia and is rare north of FL; mostly found along the gulf coast and in FL

Photo by Hugh and Carol Nourse

General Description: Scarlet Rosemallow is a perennial with deeply divided palmate leaves with multiple stems 5-8 feet tall, arising from clump-forming crowns. Its huge bright red **flowers** are 4-6 inches wide with a showy tube of stamens. Scarlet Rosemallow blooms abundantly July-September.

Soil Requirements: Wet, moist, well drained to seasonally flooded

Water Requirements: High

Light Requirements: Full sun-part sun

Use in Landscape: Rain gardens, wet ditches, pond borders, marshes, swales

Hardiness Zones: 7-9 (roots are sensitive to freezing in containers)

Propagation: Easy from seeds; softwood cuttings in May

Seeds**:** Collect seeds when fruit capsule turns brown and opens in late summer or fall. Stratify 30-60 days. According to Norm Deno, fresh seeds sown directly will germinate, while dry stored seeds need cold stratification.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: High

Growth Rate: Fast

Sales Potential: Very good; Scarlet Rosemallow is striking during its long bloom period; takes two years to bloom

Vulnerabilities: Japanese Beetles, sawfly larvae; roots are sensitive to freezing in containers

Wildlife Associations: Hummingbirds, Io moth, Checkered Skipper, Grey Hairstreak, and 16 other butterflies and moths; relatively deer resistant

Habitat: Wet ditches, marshes, and swamp forests in the Coastal Plain

Maintenance: Cutting stems back in June or July will keep habit shorter with more blooming stems; cut off spent blooms, which open for just one day, to encourage prolonged blooming

Plant Tag Data: Full sun, high water, and continuously moist soil; supports Hummingbirds, Io moth, Checkered Skipper, Grey Hairstreak, and 16 other butterflies and moths

Photo by Hugh and Carol Nourse

Scientific Name:
Ionactis linariifolius

Common Name:
Stiff-leaved Aster

Family Asteraceae (Aster Family)

Natural Range: Widespread across North America from FL north to Quebec west to MN and south to TX

General Description: Stiff-leaved Aster may be few to many stemmed, forming a spray or mound, with each reddish stem covered in small, stiff, needle-shaped stiff **leaves**. The leaves turn an attractive golden brown in the fall. It has tiny classic daisy-shaped disk **flowers heads** that are 0.5 inch wide with lemon yellow centers and baby blue rays.

Photo by Alan Cressler

Soil Requirements: Prefers well-drained rocky soil

Water Requirements: Low-average

Light Requirements: Sun-part sun

Use in Landscape: Sunny borders, containers, rock gardens

Hardiness Zones: 6-8 (9)

Propagation: Easy from seed

Photo by Heather Alley

Seeds: Self-incompatible; seeds ripen in October-November; germination rate is high; stratify 30-90 days; seeds begin to germinate between 10 and 30 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Slow

Sales Potential: Good; interesting foliage resembles a conifer or rosemary; often has golden fall color if conditions are right.

Vulnerabilities: None observed.

Wildlife Associations: Nectar source for bees, butterflies, moths

Habitat: Dry savannahs, sandhills woodland edges, and rocky woodlands

Maintenance: Cut back yearly in winter

Plant Tag Data: Sun to part shade, medium low water, clay or well drained soil. Benefits bees, butterflies, moths

Photo by Heather Alley

Scientific Name:

Liatris microcephala

Common Name:

Small Headed Blazing Star

Photo by Alan Cressler

Family Asteraceae (Aster Family)

Natural Range: FL west to LA, north to WI, and MA

General Description Blazing Star grows in erect, 2-4 feet tall spikes densely packed with tiny, bright purple **flowers.** The vibrant flowers are tiny, yet borne by the thousands, providing abundant pollen and nectar for bees and butterflies from July-September. Its **leaves** are grasslike and mostly clustered at the base of the stem.

Soil Requirements: Tolerates a range of soils from well drained to clay; becomes too big in rich soil thus requiring staking

Water Requirements: Average-low moisture

Light Requirements: Sun-part sun

Use in Landscape: Effective in sunny borders and as single specimens; excellent cut-flowers; meadows

Hardiness Zones: 3-9

Propagation: Easy from seed

Seeds: Ripen in late summer into fall. Germination rate is high with 30-60 days cold stratification. Seeds are easily collected by running a cupped hand up the stem in late fall after they have turned gray-brown.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Photo of the congener *Liatris graminifolia*, by Heather Alley

Fertilizer Requirement: Average (too much fertility can cause plants to become leggy)

Growth Rate: Fast

Sales Potential: Very good; plants grow slowly at first as they concentrate on roots first; plants grow to fill a quart sized pot in 5 months; plants bloom occasionally in first year

Vulnerabilities: Overly rich soil can result in leggy stems that can't hold themselves upright

Wildlife Associations: I've never seen this plant in bloom without multiple butterflies visiting on sunny days; birds eat the seeds; supports several butterflies and moths

Habitat: Flatwoods, seepages, prairies, open woods, wet meadows, roadsides, bogs, pine savannahs, rocky woods

Maintenance: Plants may be cut back after blooms, unless seeds are desired for feeding birds; division not required, but possible on older plants in spring or fall

Plant Tag Data: Sun to part shade, medium to low water, well drained to clay soil; benefits bees, butterflies, moths and birds

Photo by Shannah Cahoe Montgomery

Scientific Name:

Lobelia cardinalis

Common Name:

Cardinal Flower, Lobelia

Photo by Alan Cressler

Family: Campanulaceae (Bellflower Family)

Natural Range: Widespread across the Americas

General Description: One of North America's most iconic wildflowers, Cardinal Flower's rosette of basal **leaves** send up one to many striking 2-4 feet tall flower stalks in mid summer. **Flowers** are born on tall spikes with abundant intense bright red (occasionally pink or salmon) petals.

Soil Requirements: Moist, rich, hummus, sandy, well drained

Water Requirements: High-average

Light Requirements: Full sun-part shade

Use in Landscape: Rain gardens, wet ditches, borders, streamside, pond edge

Hardiness Zones: 3-9

Propagation: Easy from seeds; stem cuttings

Seeds**:** Collect seeds when fruit capsule turns brown in late summer or fall; no pretreatment required; seeds need light to germinate-do not cover.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling or cutting stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Fast

Sales Potential: Very good; striking red flowers

Vulnerabilities: Cardinal Flower foliage must be a delicacy to all herbivores. We have observed it be completely defoliated by grasshoppers, caterpillars, rabbits and deer. Fortunately it has deep fibrous roots and usually recovers from the shearing.

Wildlife Associations: Hummingbirds; supports at least 4 native butterflies and moths

Habitat: Ditches, ravines, depressions, stream and river banks, roadsides, pond edges, swamps, marshes, wet meadows

Maintenance: Plants die away at the crown after blooming, then secondary sprouts form from the roots and overwinter under the leaf litter as rosettes; cut back or let seeds fall if you want more

Plant Tag Data: Full to part sun, high water, moist soil; Hummingbird favorite; supports bees, butterflies, and moths

Photo by Hugh and Carol Nourse

Scientific Name:

Manfreda virginica

Common Name:

American Aloe, False Aloe

Family: Agavaceae (Century-Plant Family)

Natural Range: WV south to FL, west to TX and north to IL

General Description: American Aloe has thick, succulent, one-inch wide **leaves** that gradually taper to a point. They form a basal rosette up to one foot tall. The leaf color ranges from olive to gray-green, occasionally with brown spots. It resembles the familiar Aloe plant, but the leaves are flatter and wider and have no spines. The **flowers** have a most curious appearance, consisting of a pale green, six-lobed tube from which extend 6 showy stamens and a three lobed stigma. They are mildly scented, attracting night-flying moths.

Photo by Heather Alley

Soil Requirements: Rocky or sandy well drained soil

Water Requirements: Average-dry; tolerates more moisture than most succulents

Light Requirements: Full sun

Use in Landscape: Specimens, borders, containers, rock gardens, xeriscaping

Hardiness Zones: 4-8

Propagation: Easy from seeds

Seeds**:** Collect seeds when seed capsules turn brown in late summer or fall; seeds are flat black and triangular; cold stratify 30-90 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium

Sales Potential: Good, our only native succulent; great in containers

Vulnerabilities: None observed; do not overwater

Wildlife Associations: Bees, moths; relatively deer resistant

Habitat: Open woods, meadows, glades, and roadsides over mafic or calcareous rocks (Weakley)

Maintenance: Open woods, meadows, and roadsides

Plant Tag Data: Full sun, average water, well drained soil; benefits bees and moths

Photo by Heather Alley

Scientific Name:

Mitchella repens

Photo by Hugh and Carol Nourse

Common Name:

Partridge-berry

Family: Rubiaceae (Madder Family)

Natural Range: FL west to TX, and north to Nova Scotia and west to MN

General Description: Partridge-berry is an evergreen, creeping, mat-forming vine up to 2-3 inches in height. Its small opposite **leaves** are the size and shape of mouse ears. The **flowers** are small, white with four petals, fragrant, borne in pairs, and 0.5 inch long with fuzzy throats. They bloom in May then intermittently through October. The plant's main attribute is its handsome, year-round foliage. From fall and lingering through spring, it sports scarlet berries (0.25-0.5 inches round). When berries are not eaten by wildlife, plants may have both flowers and berries simultaneously.

Soil Requirements: Humus**,** sandy, sandy loam, acidic

Water Requirements: Moist-dry

Light Requirements: Shade-part sun

Use in Landscape: Ground cover in shady woodland gardens; does not tolerate foot traffic

Hardiness Zones: 3-8

Propagation: Root division, cuttings, division of mats, seeds

Seeds: Seeds require cold stratification 30-90 days with germination being sporadic over 18 months. Store seeds moist, because like many berry seeds, drying out will kill them.
Cuttings: Two-inch stem cuttings may be taken in fall. Direct stick into liner pots for an entire season. Use Georgia Native Perennial Mix.

Photo by Hugh and Carol Nourse

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Slow at first, then fast

Sales Potential: Very good

Vulnerabilities: Does not tolerate foot traffic or competition

Wildlife Associations: Native bees and other pollinators frequent the flowers; birds (grouse, turkey, quail) & mammals (skunks, mice) eat berries.

Habitat: Forests, stream banks, heath balds; relatively deer resistant

Maintenance: Prevent fall leaf litter from smothering; otherwise maintenance free

Plant Tag Data: Shade, medium water, well drained soil; benefits bees; fruits eaten by birds and mammals

Photo by Heather Alley

Scientific Name:
Monarda fistulosa

Common Name:
Wild Bergamot, Beebalm

Family: Lamiaceae (Mint Family)

Natural Range: GA west to TX, north to MN and ME

General Description: Wild Bergamot is a sweetly fragrant perennial mint standing up to 4 feet tall. It has pale green, opposite **leaves** and reddish stems. It may spread via rhizomes to create large patches, but not as aggressively as culinary mints. Shallow roots make it easy to control. The **flowers** range in color from white to light pink lavender to dark pink in some cultivars such as 'Claire Grace'. Flower color remains true in each individual plant. Wild Bergamot blooms May-July in Georgia.

Photo by Hugh and Carol Nourse

Soil Requirements: Tolerates a wide range of soil types from heavy clay to sand

Water Requirements: Low-high

Light Requirements: Full sun-part shade

Use in Landscape: Rain gardens, meadow gardens, perennial beds, pollinator gardens

Hardiness Zones: 3-9

Propagation: Easy from seeds, division, and cuttings

Seeds: Collect seeds when heads turns brown in late summer or fall. Stratify 60-90 days. Use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches in length or more) use Georgia Native Perennial Mix.

Cuttings: Cuttings of 2 or 3 nodes on soft new growth before it becomes hollow. When rooted, transfer to Georgia Native Perennial Mix.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Fast; divisions ready for sale in 6-8 weeks

Sales Potential: Very good; showy wildflower that attracts birds for seeds, hummingbirds for nectar, and bees and butterflies

Vulnerabilities: Prone to powdery mildew, but generally not until later in summer after blooming when plants can be cut back without loss.

Wildlife Associations: Hummingbirds, bees, seed eating birds; supports at least 7 native butterflies and moths; relatively deer resistant

Habitat: Prairies, open woods, wet meadows

Maintenance: Control spreading by pulling errant creeping runners; cut back after blooming; cut back to ground if plants get powdery mildew in mid-summer to fall

Plant Tag Data: Full sun, low to medium water, well drained soil; benefits many native bees, butterflies and moths

Photo by Heather Alley

Scientific Name:

Monarda punctata

Common Name:

Spotted Beebalm, Horsemint, Dotted Mint

Photo by Patrick Ceska

Family: Lamiaceae (Mint Family)

Natural Range: FL north to DE, west into VA

General Description: Spotted Beebalm is sometimes described as an annual but it can be a short-lived perennial. It has fragrant **leaves** and showy multicolored blooms atop 2-3 feet tall stems. Unlike most beebalms, its spread by rhizomes is minimal. The **flower** color of this mint is both enchanting and unlike any other garden plant. Mauve-pink bracts surround yellow ,two-lipped flowers dotted with brown freckles (hence the common name "spotted"). Inner petals are pale yellow with brown freckles (hence the common name: "spotted"). It blooms from July-August in Georgia.

Soil Requirements: Tolerates rich garden soil as well as sandy soils and clay, but well drained

Water Requirements: Low-medium

Light Requirements: Full sun-part shade

Use in Landscape: Perennial beds, pollinator gardens, open woodland gardens; nice cut flower

Hardiness Zones: 4-9

Propagation: Easy from seeds

Collect seeds when seed heads turns brown in late summer or fall; germinates well without pretreatment.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: High

Growth Rate: Fast; blooms in first year

Sales Potential: Very good; showy wildflower that attracts birds for seeds, and hummingbirds, bees and butterflies for nectar

Vulnerabilities: Prone to powdery mildew, but less than other Monarda species

Wildlife Associations: Hummingbirds, bees, butterflies, seed eating birds; supports at least seven native butterflies and moths; relatively deer resistant

Habitat: Prairies, open woods, maritime forests, dunes, roadsides, rocky and sandy woodlands; common in the Coastal Plain, uncommon in the Piedmont

Maintenance: Cut back after blooms fade; will bloom a second time if dead-headed

Plant Tag Data: Full sun, low water, well drained soil; supports many bees, butterflies, moths, and birds

Photo by Heather Alley

Scientific Name:

Oenothera fruticosa var. *fruticosa* & var. *globosa*

Common Name:

Southern Sundrops and Flatrock Sundrops

Oenothera fruticosa var. *subglobosa*, by Hugh and Carol Nourse

Family: Onagraceae (Primrose Family)

Natural Range: GA, NC, SC, and VA

General Description: Sundrops are semi-evergreen perennials with mostly basal leaves that are shiny and somewhat olive green. The **flowers** of each variety are distinct. Flowering stems of Southern Sundrops reach 30 inches and flowers 1.5 inches wide. Its color is consistently canary yellow. Flatrock Sundrops flowering stems grow to just 12 inches tall and their 1-inch wide flowers are canary yellow and turn orange with age.

Soil Requirements: Tolerates rich garden soil as well as sandy soils and clay; well drained

Water Requirements: Medium-high

Light Requirements: Full sun-part shade

Use in Landscape: Perennial borders in mass, or as specimen, containers, and rock gardens

Hardiness Zones: 4-9

Propagation: Easy from seed and division

Collect seeds when capsules turn brown starting in June (pictured at right); no seed treatment required

Fertilizer Requirement: Average

Photo by Heather Alley

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Growth Rate: Fast; blooms in first year

Sales Potential: Very good; showy wildflower that is vastly underused

Vulnerabilities: None

Oenothera fruticosa var. *fruticosa*, by Alan Cressler

Wildlife Associations: Bees, and at least 16 species of native butterflies and moths including White-lined Sphinx, Banded Sphinx, and Proud Sphinx; relatively deer resistant

Habitat: Southern Sundrops are found in open woods, meadows, glades, roadsides, and rock outcrops; Flatrock Sundrops are found on granite outcrops and domes, endemic to the GA Piedmont.

Plant Tag Data: Full sun, average water, supports bees, butterflies, moths and birds

Oenothera fruticosa var. *fruticosa*, by Heather Alley

Scientific Name:

Packera tomentosa

Common Name:

Woolly Ragwort

Photo by Heather Alley

Family: Asteraceae (Aster Family)

Natural Range: GA north to NJ and west to TX

General Description: Woolly Ragwort is a perennial with a basal rosette of grey-green fuzzy **leaves** up to 6 inches long. In spring, the indumentum (covering of fine hairs) fades following flowering and with summer conditions. Its **flowers** are yellow, abundant and very early (March in Athens) making it an important foraging plant for native bees.

Soil Requirements: Tolerates average well-drained soil

Water Requirements: Medium-low

Light Requirements: Full sun-part sun

Use in Landscape: Perennial borders in mass

Hardiness Zones: 4-9

Propagation: Easy from seeds; division

Collect seeds when seed matures and hardens in late summer or fall. Cold stratification for 30-60 days aids uniform germination.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium

Sales Potential: Good; spring foliage is especially attractive

Vulnerabilities: Leaf miners, aphids

Wildlife Associations: Supports early spring bees and at least 17 species of native butterflies and moths; relatively deer resistant

Habitat: Open woods, sandy, rocky habitats in full sun; usually rock outcrops in the Piedmont and wet sand in the Coastal Plain

Plant Tag Data: Full sun, average water, well drained soil; benefits early spring bees, butterflies and moths

Photo by Hugh and Carol Nourse

Scientific Name:

Penstemon laevigatus

Common Name:

Smooth Beardtounge

Family: Scrophulariaceae (Figwort Family)

Natural Range: GA north to ME, west to AR, north to MI

Photos by Heather Alley

General Description: Smooth Beardtounge is a semi-evergreen perennial that reaches 3 feet and persists as ground-level leafy red clumps through winter. The **leaves** are particularly noticeable in winter when they take on a marked red tone. It has numerous but delicate tubular white **flowers** borne on 2-4 feet tall stems from May-June. Its shiny, football-shaped capsules maintain interest after flowering.

Soil Requirements: Tolerates average well drained soil

Water Requirements: Moist-average

Light Requirements: Sun-part sun

Use in Landscape: Robust plant for borders, meadows, and winter interest. Compliments brightly colored flowers

Hardiness Zones: 3-9

Propagation: Easy from seeds and cuttings

Seeds: Collect the abundant seed from capsules after turning brown in late summer or fall. Cold stratification for 90 days results in more uniform germination using Georgia Native Germination Mix.

Cuttings: Use cuttings (from soft of semi-hard stems) to maintain cultivar purity as Penstemons hybridize.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Fast

Sales Potential: Good, particularly because it is evergreen

Vulnerabilities: None of significance observed

Wildlife Associations: Bees, hummingbirds, Common Buckeye, Purple-lined Sallow, and at least 6 other species of native butterflies and moths

Habitat: Moist forest gaps, low meadows, prairies in moist sandy soils of the Piedmont and Coastal Plain

Maintenance: Cut back spent flowers to prevent reseeding if desired; generally maintenance free

Plant Tag Data: Full sun, average water, well drained soil; benefits early spring bees

Penstemon smallii is another wonderful Penstemon with identical propagation methods. Photos by Heather Alley

Scientific Name:

Phlox divaricata

Common Name:

Wild Blue Phlox

Photo by Alan Cressler

Family: Polemoniaceae (Phlox Family)

Natural Range: GA west to TX, north to MN and east to Quebec

General Description: Wild Blue Phlox is a delicate and compact perennial that grows up to 1 foot tall. The **foliage** is a clean green but unremarkable. Its true glory is in its **flowers** that are abundant and very fragrant and periwinkle blue in April and May.

Soil Requirements: Tolerates average well-drained soil

Water Requirements: Consistent moisture

Light Requirements: Part shade–shade

Use in Landscape: Woodland gardens; pairs nicely with Spotted Cranesbill (Nelson)

Hardiness Zones: 3-9

Propagation: Seeds and cuttings

Seeds: Collect seeds when capsules turn brown. Plants are self-sterile so require out-crossing. Cold stratify for 90 days. Seeds decline when dried, so sow immediately or store in closed container.

Cuttings: Softwood cuttings should be taken from non-flowering stems after blooming has ceased.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium

Sales Potential: Good; numerous cultivars are available; 'Chattahoochee' was awarded an Royal Horticultural Society Award of Garden Merit.

Vulnerabilities: None observed

Wildlife Associations: Bees; supports at least 8 species of native butterflies and moths

Habitat: Rich deciduous woods

Maintenance: None.

Plant Tag Data: Shade-part shade, consistent moisture, well drained soil; benefits early spring bees

Photo by Heather Alley

Scientific Name:

Phlox paniculata

Common Name:

Garden, Summer, Fall Phlox

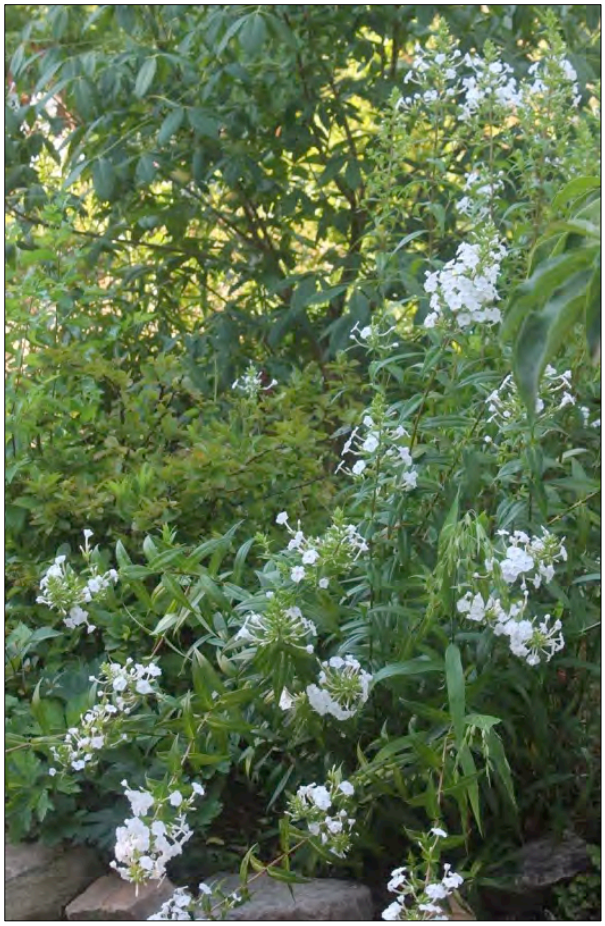

Photo by Heather Alley

Family: Polemoniaceae (Phlox Family)

Natural Range: GA west to AR, north to IL and east to NY

General Description: Summer Phlox is an upright perennial, 2-3 (occasionally 5) feet tall. They are multi-stemmed with opposite lance-shaped leaves. The scented **flowers** (0.5 inches across) are presented in tight rounded clusters atop the stem (June-September depending on cultivar). Cultivars range in color from white to pink to lavender.

Soil Requirements: Fertile, acidic, organic soil

Water Requirements: Moist

Light Requirements: Sun–part sun

Use in Landscape: Perennial borders in full sun

Hardiness Zones: 3-9

Propagation: Seeds or cuttings

Collect seeds when capsule turns brown in late summer or fall. Seed viability declines if dried. Seed should be cold stratified for uniform germination. Cuttings should be taken in spring from the top 6 inches of stems.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium

Sales Potential: Excellent; a well-known garden perennial

Vulnerabilities: Powdery mildew in non-resistant cultivars; straight species is more robust

Wildlife Associations: Supports at least 8 native butterflies and moths and bees

Habitat: Bottomlands, stream-banks, roadsides, and meadows

Maintenance: None significant; cut back stems in fall as they die back; cut spent blooms to encourage more flowers

Plant Tag Data: Full sun-part sun, consistent water, well drained soil; benefits bees and butterflies from summer into fall

Photo by Heather Alley

Scientific Name:

Ratibida pinnata

Common Name:

Yellow or Gray Prairie Coneflower

Photo by Alan Cressler

Family: Asteraceae (Aster Family)

Natural Range: Western GA (rare in Florida) west to OK, north to MN and east to OH

General Description: Yellow Coneflower is a perennial to 4 feet tall with deeply divided **leaves** that remain green until the first hard freeze. Its **flower heads** are daisy-like with bright yellow, downward pointing ray petals and a tall central cone that turns from green to dark brown.

Soil Requirements: Tolerates a wide range of soils from sandy to clay, dry or moist

Water Requirements: Low-high

Light Requirements: Full Sun

Use in Landscape: Sunny borders, meadows, prairies

Hardiness Zones: 3–9

Propagation: Easy from seeds

Seeds: Collect seeds when capsules turn brown in late summer or fall. Cold stratify 30-60 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Slow at first, and then fast; may require 18 months to bloom

Sales Potential: Good; wonderful bright yellow flowers and bird attractant (American Goldfinch) when in seed

Vulnerabilities: None significant

Wildlife Associations: Nectar and pollen feeding insects, and seed eating birds

Habitat: Prairie-like glades and oak-savannas in high pH soils; characteristic of western prairies; typically a Coastal Plain species

Maintenance: Cut back stems when dried

Plant Tag Data: Full sun, average water, well drained soil; benefits native bees

Photo by Heather Alley

Scientific Name:

Scutellaria incana

Common Name:

Downy or Hoary Skullcap

Photo by Alan Cressler

Family: Lamiaceae (Mint Family)

Natural Range: GA north to NY west to WI and south to KS

General Description: Downy Skullcap is a perennial that grows to 2-3 feet tall with branching stems and opposite, toothed **leaves**. It has excellent foliage then in late summer, clusters of tubular, 1-inch long, purplish-blue **flowers** put on a great show.

Soil Requirements: Tolerates a range well drained soil

Water Requirements: Average

Light Requirements: Sun-part shade

Use in Landscape: Perennial bed

Hardiness Zones: 3-9

Propagation: Easy from seeds

Collect seeds when seed capsules turn yellow in late summer or fall. Seeds shed quickly and sequentially requiring collection over a period of time. Cold stratify for 90 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium; may flower in the first season

Sales Potential: Good. Blue-violet flowers are uncommon. Like most mint relatives, Skullcap is deer resistant.

Vulnerabilities: None observed

Wildlife Associations: Bees and other pollinators; leaf-roller moth

Habitat: Shady upland woods both moist and dry

Maintenance: Cut back stems after flowering or collecting seeds if desired

Plant Tag Data: Full sun, average water, well drained soil; benefits native bees

Photo by Hugh and Carol Nourse

Scientific Name:

Solidago petiolaris

Common Name:

Downy Goldenrod

Photo by Hugh and Carol Nourse

Family: Asteraceae (Aster Family)

Natural Range: FL north to NC, west to CO and NM

General Description: Downy Goldenrod is a perennial standing 1-3 feet tall and is one of the prettiest smaller goldenrods. Its **flowers** are in dense, spike-like clusters at the top of stems creating a yellow plume from August-October.

Soil Requirements: Tolerates average well-drained soil

Water Requirements: Moist-dry

Light Requirements: Full-part sun

Use in Landscape: Sunny border, meadow, prairie

Hardiness Zones: 3-8

Propagation: Easy from seeds

Seed: Collect seeds late fall or early winter when the tufted seeds pull off easily. Stratify for 60-90 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium

Sales Potential: Good late summer bloomer; smaller in stature and stays in bounds

Vulnerabilities: None observed

Wildlife Associations: An excellent plant for supporting pollinators: bees, wasps, and at least 112 species of butterflies and moths; relatively deer resistant

Habitat: Grasslands, roadsides and open rocky woods

Maintenance: Cut back stems in late fall or winter after birds have removed seeds

Plant Tag Data: Full sun, average water, well drained soil; benefits butterflies, moths and bees in fall

Scientific Name:

Solidago rugosa

Common Name:

Wrinkle-leaf Goldenrod

Photo by Hugh and Carol Nourse

Family: Asteraceae (Aster Family)

Natural Range: Meadows, prairies, old fields, roadsides of FL west to TX north to MI and Newfoundland

General Description: Wrinkle-leaf Goldenrod is a perennial that grows up to 4 feet tall. Its basal **leaves** form a creeping carpet along the ground and can be somewhat aggressive. But the cultivar 'Fireworks' is well behaved, spreading slowly. Its **flowers** are tiny but profuse on tall (3 feet), long, thin branching stems creating a spray effect later in the season.

Soil Requirements: Tolerates wide range of well-drained soil

Water Requirements: Moist-dry

Light Requirements: Sun-part sun

Use in Landscape: Drought tolerant; excellent in perennial gardens, meadows; good cut flower

Hardiness Zones: 3-9

Propagation: Best by root division or soft-wood cuttings

Cuttings: Take cuttings (4-6 nodes) in spring and move to Georgia Native Perennial Mix.

Seeds: Cold stratify seed for uniform germination

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Fast

Sales Potential: Good; a late season bloomer that attracts abundant wildlife

Vulnerabilities: Lace-bugs

Wildlife Associations: Bees, wasps, and 112 species of native butterflies and moths; relatively deer resistant

Habitat: Grasslands, roadsides and open rocky woods

Maintenance: Cut back spent flower stalks in fall (after birds have eaten seed) to take advantage of evergreen groundcover effect

Plant Tag Data: Full sun, average water, well drained soil; benefits mid-fall bees and butterflies

Photo by Heather Alley

Scientific Name:

Symphyotrichum concolor

Common Name:

Eastern Silvery Aster

Photo by Alan Cressler

Family: Asteraceae (Aster Family)

Natural Range: FL north to MA, west to LA; critically imperiled in its northern range

General Description: Eastern Silvery Aster is an herbaceous perennial with single or multi-branched stems (depending on environmental conditions) 1-3 feet tall. The lance shaped **leaves** have fine short hairs creating a silvery appearance. Its **flowers** are attractive blue-purple disk flowers (0.3 inches across) born close along the stems in October.

Soil Requirements: Tolerates average well drained soil

Water Requirements: Average-low

Light Requirements: Full sun

Use in Landscape: Meadow, sunny perennial bed

Hardiness Zones: 3-9

Propagation: Easy from seeds, though like many asters, appears to be self-incompatible; outcrossed plants will produce more viable seeds.

Collect seeds when tufted seeds pull off easily in late fall.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Medium Blooms in first season

Sales Potential: Good; uniquely delicate in shape and form for an aster; tolerates drought

Vulnerabilities: None observed

Wildlife Associations: Bees and at least 105 species of native butterflies and moths (ex. Pearl Crescent)

Habitat: Grasslands, open pinelands, pine/oak woodlands

Maintenance: Cut back in fall or winter; may require staking in rich soil; hard pruning in mid-summer induces branching and more upright stature

Plant Tag Data: Full sun, average water, well drained soil; benefits bees

Photo by Heather Alley

Scientific Name:

Vernonia angustifolia

Common Name:

Narrow-leaf Ironweed

Family: Asteraceae (Aster Family)

Natural Range: NC, west to MS and south to FL

General Description: Narrow-leaf Ironweed is an herbaceous perennial to 2-3 feet tall with narrow needle-like **leaves.** Its abundance of **flower heads** are purple, fringed and borne in clusters of 10-20 heads at the end of branched stems. Narrow-leaf Ironweed is one of three Vernonias native to Georgia. 'Plum Peachy' is a selection of *V. angustifolia* found in 1998 in Turner Co. GA.

Photo by Heather Alley

Soil Requirements: Tolerates average well-drained soil

Water Requirements: Moist-dry

Light Requirements: Sun-part sun

Use in Landscape: Sunny perennial beds and borders; specimens

Hardiness Zones: 6-9

Propagation: Easy from seed

Seeds: Cold stratify seed for 60-90 days.

Potting Media: For germination use Georgia Native Germination Mix; beyond seedling stage (roots 2 inches or more) use Georgia Native Perennial Mix.

Fertilizer Requirement: Average

Growth Rate: Rapid; blooms in second season

Sales Potential: Good; very attractive bright purple flowers; much smaller than the towering New York Ironweed and thus more suitable for gardens

Vulnerabilities: None observed

Wildlife Associations: Important food source for late summer bees, butterflies, moths and seed eating birds; supports at least 19 species of native butterflies and moths

Habitat: Coastal Plain sandhills

Maintenance: Cut back stems in late fall or winter

Plant Tag Data: Full sun, average water, well drained soil; benefits birds, bees and butterflies and moths

Photo by Heather Alley

REFERENCES

Cullina, W. 2000.Wildflowers; A Guide to Growing and Propagating Native Flowers of North America. The New England Wildflower Society. Houghton-Mifflin Company, New York, New York.

Deno, N. C. 1993. Seed Germination Theory and Practice. USDA National Agricultural Library, Baltimore.

Nelson, G. 2010. Best Native Plants for Southern Gardens; A Handbook for Gardeners, Homeowners, and Professionals. University Press of Florida, Gainesville.

Lady Bird Johnson Wildflower Center at the University of Texas, Austin. 2015. https://www.wildflower.org/plants/

Weakley, A. S. 2012,2014. Flora of the Southern and Mid-Atlantic States: Working Draft. University of North Carolina Herbarium, Chapel Hill.

Scientific Name Index

Common Name Index