

Woody Plant Profile: *Euonymus americanus*¹⁰

Choosing the Right Tree for the Right Place

American Strawberry Bush **by Carson Colenbaugh**

Latin name: <i>Euonymus americanus</i> ¹⁰	Texture: Medium ¹²
Common name: American Strawberry Bush ¹⁰	Growth rate: Medium ¹³
Flowers: Small green-yellow flowers, non-showy, May-June ¹²	Light: Part shade to full sun ¹³
Fruit or cones: Bright red fruits open to reveal orange seeds ¹⁰	Moisture: Medium ¹²
Height & Width: 4-5' X 3-4' ¹³	Soil*: Tolerates a wide variety of soils including clay ¹²
Type: Deciduous perennial ¹⁰	Zones: 6-9 ¹²
Habit: Woody shrub with erect stems ¹²	Origin: Native to South Carolina and Southeast U.S. states ¹⁶
Wetland indicator category**: FAC ¹⁷	Ecosystem benefits: Fruits and seeds are a minor food source for songbirds ¹³

(Numbers identify sources listed on page 2-3)

Features: American strawberry bush is a low maintenance, deciduous shrub with medium green leaves in spring and summer. The foliage changes to red or red-orange in the fall with green or purple stems in winter, depending on how much sun the shrub has. The more sun the plant receives, the more purple the stems become¹³.

Siting: American strawberry bush fruits best in light shade but will tolerate partial shade to full sun¹³. It also tolerates a wide variety of soils (including clay) and is fairly tolerant of moist soils, as well as drought¹³.

Care: Plant so root flare is visible at soil surface¹⁴. At planting, water the root ball daily with two gallons of water per inch of trunk diameter for two weeks, every other day for two months and then weekly until established. Modify water recommendations to reflect site drainage and rainfall. Apply 3" of mulch over the planted area. Do not allow mulch to touch the trunk¹⁴.

Pests: American strawberry bush is relatively pest-resistant if cultural preferences are met, however it can be impacted by *Euonymus* Scale¹⁰.

This plant does not appear on the following invasive plant lists on (___3/1/21___):

- USDA SC Invasive Plant Species Web site at <http://www.invasivespeciesinfo.gov/plants/main.shtml>
- SC Exotic Plant Pest Council Web site at <http://www.se-eppc.org/southcarolina/>



Image:

Image source: <https://plants.ces.ncsu.edu/plants/euonymus-americanus/>

Sources:

- (1) Armitage, A. (2001). *Armitage's manual of annuals, biennials, and half-hardy perennials*. Portland, OR: Timber Press.
- (2) Armitage, A. (2006). *Armitage's native plants for North American gardens*. Portland, Oregon: Timber Press.
- (3) Armitage, A. (2008). *Herbaceous perennial plants: A treatise on their identification, culture, and garden attributes*. Athens, GA: University of Georgia.
- (4) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Flowers fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/flowers/>
- (5) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Groundcovers & vines fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/groundcovers/>
- (6) Clemson Cooperative Extension Home and Garden Information Center. (2011). *Trees*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/trees/>
- (7) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Shrubs*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/shrubs/>
- (8) Dirr, M. A. (2009). *Manual of woody landscape plants*. Champaign, IL: Stipes Publishing.
- (9) Gilman, E. F. (1997). *Trees for urban and suburban landscapes*. Albany, NY: Delmar Publishers.
- (10) Lady Bird Johnson Wildflower Center University of Texas at Austin. (2012). *Native plant information network*. Retrieved from <http://www.wildflower.org/explore/>

- (11) McMillan, P., Plant taxonomist Clemson University, personal communication.
- (12) Missouri Botanical Garden Kemper Center for Home Gardening. *Plant finder*. Retrieved from <http://www.mobot.org/gardeninghelp/plantfinder/Alpha.asp>
- (13) North Carolina State University (2005). *Plant fact sheets*. Retrieved from <http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/index.html>
- (14) Strother, E. V., Ham, D. L., Gilland, L. (2003) *Urban tree species guide: Choosing the right tree for the right place*. Columbia, SC: South Carolina Forestry Commission.
- (15) University of Florida, IFAS Extension. (2011). *Southern trees fact sheet*. Retrieved from http://edis.ifas.ufl.edu/department_envhort-trees
- (16) USDA. *Plant profile*. (n/d). Retrieved from <http://plants.usda.gov/java/>
- (17) USDA. *Plant wetland indicator status*. (n/d). Retrieved from <http://plants.usda.gov/wetland.html>
- (18) Vincent, E., Environmental horticulturist Clemson University, personal communication.

*Soil pH is determined using a professional soil test. Contact your Clemson University County Extension service for assistance www.clemson.edu/extension/. Click on "local offices".

**2012 Plant Wetland Indicator categories (quantitative derived) <http://plants.usda.gov/wetinfo.html>

Indicator Code	Indicator Status	Comment
OBL	Obligate Wetland	Almost always is a hydrophyte, rarely in uplands
FACW	Facultative Wetland	Usually is a hydrophyte but occasionally found in uplands
FAC	Facultative	Commonly occurs as either a hydrophyte or non-hydrophyte
FACU	Facultative Upland	Occasionally is a hydrophyte but usually occurs in uplands
UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands

Woody Plant Profile: *Magnolia macrophylla* Choosing the Right Tree for the Right Place

Bigleaf Magnolia by Kayla Pratt

Latin name: <i>Magnolia macrophylla</i>	Texture: Coarse ¹²
Common name: Bigleaf Magnolia	Growth rate: Medium ¹⁹
Flowers: White flowers with purple bases, bloom in May ^{12, 19}	Light: Part sun – full sun ^{12, 19}
Fruit or cones: Showy fruit, mature to red color ¹²	Moisture: Well drained ^{12, 19}
Height & Width: 30'-40' tall, 30'-40' wide ^{12, 19}	Soil*: Sand, clay, loam; acidic-alkaline ¹⁹
Type: Deciduous ¹⁹	Zones: 5-8 ¹²
Habit: Upright, wide crown ¹²	Origin: Lower 48 states ¹⁷
Wetland indicator category**: FACU ¹⁷	Ecosystem benefits: Attracts butterflies, bird and hummingbirds ¹⁹

(Numbers identify sources listed on page 2-3)

Features: This tree has attractive flowers for wildlife¹⁹. It also is an attractive addition to lawns¹⁹. *Magnolia macrophylla* has the largest simple leaves of any tree native to North America and can get up to 30 inches in length¹².

Siting: Used in lawns for its attractive flowers¹². This magnolia should be used in areas away from urban pollutants as it is sensitive to them and it should also be placed in a location protected from strong winds to protect its large leaves¹².

Care: Plant so root flare is visible at soil surface¹⁴. At planting, water the root ball daily with two gallons of water per inch of trunk diameter for two weeks, every other day for two months and then weekly until established. Modify water recommendations to reflect site drainage and rainfall. Apply 3" of mulch over the planted area. Do not allow mulch to touch the trunk¹⁴.

Pests: Plants are relatively pest resistant if cultural preferences are met¹².

This plant does not appear on the following invasive plant lists on (4/15/21):

- ✓ USDA SC Invasive Plant Species Web site at <http://www.invasivespeciesinfo.gov/plants/main.shtml>
- ✓ SC Exotic Plant Pest Council Web site at <http://www.se-eppc.org/southcarolina/>



(1)



(2)

Image sources:

- (1) <https://www.clemson.edu/extension/carolinayards/plant-database/index.html#cypdb/details/52ee9eb1740e8cad593e5217/>
 (2) <https://garden.org/plants/photo/484385/>

Sources:

- (1) Armitage, A. (2001). *Armitage's manual of annuals, biennials, and half-hardy perennials*. Portland, OR: Timber Press.
- (2) Armitage, A. (2006). *Armitage's native plants for North American gardens*. Portland, Oregon: Timber Press.
- (3) Armitage, A. (2008). *Herbaceous perennial plants: A treatise on their identification, culture, and garden attributes*. Athens, GA: University of Georgia.
- (4) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Flowers fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/flowers/>
- (5) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Groundcovers & vines fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/groundcovers/>
- (6) Clemson Cooperative Extension Home and Garden Information Center. (2011). *Trees*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/trees/>
- (7) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Shrubs*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/shrubs/>
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- (9) Gilman, E. F. (1997). *Trees for urban and suburban landscapes*. Albany, NY: Delmar Publishers.
- (10) Lady Bird Johnson Wildflower Center University of Texas at Austin. (2012). *Native plant information network*. Retrieved from <http://www.wildflower.org/explore/>
- (11) McMillan, P., Plant taxonomist Clemson University, personal communication.

- (12) Missouri Botanical Garden Kemper Center for Home Gardening. *Plant finder*. Retrieved from <http://www.mobot.org/gardeninghelp/plantfinder/Alpha.asp>
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- (15) University of Florida, IFAS Extension. (2011). *Southern trees fact sheet*. Retrieved from http://edis.ifas.ufl.edu/department_envhort-trees
- (16) USDA. *Plant profile*. (n/d). Retrieved from <http://plants.usda.gov/java/>
- (17) USDA. *Plant wetland indicator status*. (n/d). Retrieved from <http://plants.usda.gov/wetland.html>
- (18) Vincent, E., Environmental horticulturist Clemson University, personal communication.
- (19) Clemson Extension. Carolina Yards Plant Database. Retrieved from <https://www.clemson.edu/extension/carolinayards/plant-database/index.html>

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UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands

Herbaceous Plant Profile: *Zizia aurea*

Choosing the Right Plant for the Right Place

by Molly Glaser

Latin name: <i>Zizia aurea</i>	Texture: Medium ¹³
Common name: Golden Alexander	Growth rate: Fast ¹³
Flowers: Flowers are small in size and clustered into flower heads. Gold/yellow color and blooms from April to May ¹³	Light: Part-shade ¹⁰
Fruit: Flowers give way to fruit capsules that are green and turn light purple in fall ¹³	Moisture: Medium ¹⁰
Height & Width: 1-2ft x 1-2ft ¹³	Soil*: Moist, sandy, or sandy-clay ¹⁰
Type: Perennial ¹³	Zones: 3-8 ¹³
Habit: Clumping, erect ¹³	Origin: Eastern North America ¹⁶
Wetland indicator category**: FAC ¹⁷	Ecosystem benefits: Attracts butterflies, bees, and other pollinators and is a wildlife food source ¹³

(Numbers identify sources listed on page 2-3)

Features: This plant can thrive in different types of soils and landscapes and attracts bees and butterflies to the garden. Yellow/gold flowers bloom in spring and give way to green/purple fruit in the fall, making it attractive in many seasons¹³.

Siting: Golden Alexander would work well as an accent or border plant in a naturalized or meadow area. It also adds value to butterfly or pollinator gardens¹³.

Care: Plant crown at soil level¹⁸. At planting, water the roots and surrounding area slowly and deeply. Keep soil moist until plant is established, then apply enough water to thoroughly moisten the root zone when the soil is dry or during drought. Modify water recommendations to reflect site drainage and rainfall. Apply 3" of mulch over the planted area. Do not allow mulch to touch the plant stems¹⁸.

Pests: Caterpillars of the Black Swallowtail butterfly feed on the leaves and flower⁴.

This plant does not appear on the following invasive plant lists on (3/2/21):

✗ USDA SC Invasive Plant Species Web site at <http://www.invasivespeciesinfo.gov/plants/main.shtml>

X SC Exotic Plant Pest Council Web site at <http://www.se-eppc.org/southcarolina/>

Image:



Image source: <http://www.pwconserve.org/plants/goldenalexander.html>

Sources:

- (1) Armitage, A. (2001). *Armitage's manual of annuals, biennials, and half-hardy perennials*. Portland, OR: Timber Press.
- (2) Armitage, A. (2006). *Armitage's native plants for North American gardens*. Portland, Oregon: Timber Press.
- (3) Armitage, A. (2008). *Herbaceous perennial plants: A treatise on their identification, culture, and garden attributes*. Athens, GA: University of Georgia.
- (4) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Flowers fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/flowers/>
- (5) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Groundcovers & vines fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/groundcovers/>
- (6) Clemson Cooperative Extension Home and Garden Information Center. (2011). *Trees*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/trees/>
- (7) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Shrubs*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/shrubs/>
- (8) Dirr, M. A. (2009). *Manual of woody landscape plants*. Champaign, IL: Stipes Publishing.
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- (10) Lady Bird Johnson Wildflower Center University of Texas at Austin. (2012). *Native plant information network*. Retrieved from <http://www.wildflower.org/explore/>
- (11) McMillan, P., Plant taxonomist Clemson University, personal communication.
- (12) Missouri Botanical Garden Kemper Center for Home Gardening. *Plant finder*. Retrieved from <http://www.mobot.org/gardeninghelp/plantfinder/Alpha.asp>

- (13) North Carolina State University (2005). *Plant fact sheets*. Retrieved from <http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/index.html>
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- (16) USDA. *Plant profile*. (n/d). Retrieved from <http://plants.usda.gov/java/>
- (17) USDA. *Plant wetland indicator status*. (n/d). Retrieved from <http://plants.usda.gov/wetland.html>
- (18) Vincent, E., Environmental horticulturist Clemson University, personal communication.

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Woody Plant Profile: *Calycanthus floridus* Choosing the Right Plant for the Right Place by Emma Hanson

Latin name: <i>Calycanthus floridus</i>	Texture: Medium ¹³
Common name: Carolina Allspice	Growth rate: Medium ¹³
Flowers: Brown or red blooms from May to July ¹⁰	Light: Full sun ⁷
Fruit: Brown seed pods in the fall ¹³	Moisture: Medium ¹²
Height & Width: 6-10ft x 6-12ft ¹²	Soil*: Moist, well-drained soil ¹³
Type: Deciduous shrub ⁷	Zones: 4-9 ¹⁹
Habit: Dense, mounded ¹³	Origin: Pennsylvania, south to Florida ¹⁶
Wetland indicator category**: FACU ⁵	Ecosystem benefits: Butterfly nectar at blooms, insects feed on flowers ¹³

(Numbers identify sources listed on page 2-3)

Features: Low maintenance, is tolerant of clay soil, attracts butterflies and pollinators, resistant to deer and heat¹³, fragrant, showy flowers, adapts to many types of soil, and is very resistant to disease and insect problems¹⁰.

Siting: Can be used near entrances or pathways as a fragrant bush, or as a shrub border and in a native garden¹².

Care: Plant crown at soil level¹⁸. At planting, water the roots and surrounding area slowly and deeply. Keep soil moist until plant is established, then apply enough water to thoroughly moisten the root zone when the soil is dry or during drought. Modify water recommendations to reflect site drainage and rainfall. Apply 3" of mulch over the planted area. Do not allow mulch to touch the plant stems¹⁸.

Pests:

Plants are relatively pest resistant if cultural preferences are met¹⁸.

This plant does not appear on the following invasive plant lists on (3/2/21):

X USDA SC Invasive Plant Species Web site at <http://www.invasivespeciesinfo.gov/plants/main.shtml>

X SC Exotic Plant Pest Council Web site at <http://www.se-eppc.org/southcarolina/>



Image:

Image source:

<https://plants.ces.ncsu.edu/plants/calycanthus-floridus/>

Sources:

- (1) Armitage, A. (2001). *Armitage's manual of annuals, biennials, and half-hardy perennials*. Portland, OR: Timber Press.
- (2) Armitage, A. (2006). *Armitage's native plants for North American gardens*. Portland, Oregon: Timber Press.
- (3) Armitage, A. (2008). *Herbaceous perennial plants: A treatise on their identification, culture, and garden attributes*. Athens, GA: University of Georgia.
- (4) Clemson Cooperative Extension Home and Garden Information Center.(2011). *Flowers fact sheets*. Retrieved from <http://www.clemson.edu/extension/hgic/plants/landscape/flowers/>
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- (9) Gilman, E. F. (1997). *Trees for urban and suburban landscapes*. Albany, NY: Delmar Publishers.
- (10) Lady Bird Johnson Wildflower Center University of Texas at Austin. (2012). *Native plant information network*. Retrieved from <http://www.wildflower.org/explore/>
- (11) McMillan, P., Plant taxonomist Clemson University, personal communication.
- (12) Missouri Botanical Garden Kemper Center for Home Gardening. *Plant finder*. Retrieved from <http://www.mobot.org/gardeninghelp/plantfinder/Alpha.asp>
- (13) North Carolina State University (2005). *Plant fact sheets*. Retrieved from <http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/index.html>
- (14) Strother, E. V., Ham, D. L., Gilland, L. (2003) *Urban tree species guide: Choosing the right tree for the right place*. Columbia, SC: South Carolina Forestry Commission.
- (15) University of Florida, IFAS Extension. (2011). *Southern trees fact sheet*. Retrieved from http://edis.ifas.ufl.edu/department_envhort-trees
- (16) USDA. *Plant profile*. (n/d).Retrieved from <http://plants.usda.gov/java/>

(17) USDA. *Plant wetland indicator status*. (n/d). Retrieved from <http://plants.usda.gov/wetland.html>

(18) Vincent, E., Environmental horticulturist Clemson University, personal communication.

(19) The Morton Arboretum. *TREES & plants*. Retrieved from <https://www.mortonarb.org/trees-plants>

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FAC	Facultative	Commonly occurs as either a hydrophyte or non-hydrophyte
FACU	Facultative Upland	Occasionally is a hydrophyte but usually occurs in uplands
UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands

Woody Plant Profile: *Clethra alnifolia* Choosing the Right Tree for the Right Place

Summersweet Clethra by Owen Lancaster

Latin name: <i>Clethra alnifolia</i>	Texture: Coarse ¹⁶
Common name: Summersweet Clethra	Growth rate: Moderate ¹⁶
Flowers: Showy, fragrant white/pink flowers that occur in 2-6" racemes ⁸	Light: Full sun to part shade, tolerates heavy shade ¹²
Fruit or cones: Showy, brown, persists through winter ^{10,8}	Moisture: High, yet drought tolerant ¹²
Height & Width: 3-8' ft. high, variable spread ⁸	Soil*: Provide acid (pH<6.8), moist, well-drained soils ^{10,12}
Type: Deciduous ¹²	Zones: 4 to 9 ⁸
Habit: Densely rounded shrub and often suckering, resulting in large colonies ⁸	Origin: United States east coast, Maine to Florida to coastal Texas ^{8,16}
Wetland indicator category**: FAC, FACW ¹⁷	Ecosystem benefits: Ornamental, fragrant, outstanding fall color; bees, butterflies, and hummingbirds use flowers; provides food for wildlife ¹⁰

(Numbers identify sources listed on page 2-3)

Features: This shrub is an amazingly adaptable plant ⁸. It is very ornamental and fragrant, with outstanding fall color. It attracts bees, butterflies, and hummingbirds and provide food for some mammals ¹⁰. Offers multiple seasons of interest with its spring foliage, summer blooms, yellow fall color, and exfoliating bark in winter ⁷.

Siting: Great choice in a shrub border, along streams and ponds, or in large masses by the edge of woodlands ⁸.

Care: Plant so root flare is visible at soil surface ¹⁴. At planting, water the root ball daily with two gallons of water per inch of trunk diameter for two weeks, every other day for two months and then weekly until established. Modify water recommendations to reflect site drainage and rainfall. Apply 3" of mulch over the planted area. Do not allow mulch to touch the trunk ¹⁴.

Pests: Damage caused by spider mites can be severe on plants in hot, dry locations ¹⁶. Plants are relatively pest resistant if cultural preferences are met ^{10,12}.

This plant does not appear on the following invasive plant lists on (3/2/2021):

x USDA SC Invasive Plant Species Web site at <http://www.invasivespeciesinfo.gov/plants/main.shtml>

x SC Exotic Plant Pest Council Web site at <http://www.se-eppc.org/southcarolina/>

Image:



A)



B)

Image source:

A) https://www.wildflower.org/gallery/result.php?id_image=63518

B) https://www.wildflower.org/gallery/result.php?id_image=3526

Sources:

- (1) Armitage, A. (2001). *Armitage's manual of annuals, biennials, and half-hardy perennials*. Portland, OR: Timber Press.
- (2) Armitage, A. (2006). *Armitage's native plants for North American gardens*. Portland, Oregon: Timber Press.
- (3) Armitage, A. (2008). *Herbaceous perennial plants: A treatise on their identification, culture, and garden attributes*. Athens, GA: University of Georgia.
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- (19) Clemson Extension. Carolina Yards Plant Database. Retrieved from <https://www.clemson.edu/extension/carolinayards/plant-database/index.html>

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FACW	Facultative Wetland	Usually is a hydrophyte but occasionally found in uplands
FAC	Facultative	Commonly occurs as either a hydrophyte or non-hydrophyte
FACU	Facultative Upland	Occasionally is a hydrophyte but usually occurs in uplands
UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands

