

# Vertical Pallet Garden

---

Plant Care and Gardening Instructions

## **Congratulations on your new vertical pallet garden!**

We would to thank you for taking part in our vertical pallet garden program. Since we have created this pallet garden with your needs in mind we want to ensure that lives it up to our expectations and yours. Enclosed you will find plant profile sheets that will give you detailed information about each plant in your garden. The plant profiles will tell you about care instructions, benefits, and uses for each plant. We have also included a step-by step guide to starting your own vegetable garden, so you're ready for the next planting season!

Now that your pallet garden has been installed we want to help make you successful, and continue to improve upon our garden's design. You can expect to hear from a representative within the first two weeks to talk to you about your garden. We have included the questions that you will be asked during this call, for your convenience. Should you need more assistance, or additional information regarding any of your plants please don't hesitate to contact us.

Happy Gardening!

Malisia Wilkins & Allison Kelly

malisiw@g.clemson.edu or akelly4@g.clemson.edu

## Plant Profiles

**Common name: Oregano**

<b>Latin name:</b> <i>Origanum vulgare</i> <sup>12</sup>	<b>Texture:</b> Fine <sup>19</sup>
<b>Common names:</b> Oregano <sup>12</sup> Mediterranean oregano <sup>19</sup>	<b>Growth rate:</b> Medium <sup>12</sup>
<b>Flowers:</b> Showy, pink, white <sup>12</sup>	<b>Light:</b> Full sun <sup>12</sup>
<b>Fruit:</b> Inconspicuous <sup>19</sup>	<b>Moisture:</b> Low to medium <sup>12</sup>
<b>Height &amp; Width:</b> 12"-18" x 12"-18" <sup>12</sup>	<b>Soil*:</b> Soil PH: 6.0-9.0, Ideal 6.0-8.0 <sup>19</sup>
<b>Type:</b> Herbaceous perennial <sup>12</sup>	<b>Zones:</b> 4-8 <sup>12</sup>
<b>Habit:</b> Sprawling <sup>12</sup>	<b>Origin:</b> Europe <sup>12</sup>
<b>Wetland indicator category**:</b> <sup>17</sup>	<b>Benefits:</b> Drought and deer tolerant <sup>12</sup>

(Numbers identify sources listed on page 2-3)

**Features:** Oregano is an herb that is grown almost exclusively for culinary use, and features pungently aromatic, flavorful, oval, dark green leaves. Clip fresh leaves as needed or dry them for year-round use. Tiny, white to rosy pink flowers appear throughout the summer. Oregano is drought and deer tolerant<sup>12</sup>.

**Siting:** Primarily grown in the herb or vegetable garden. For ornamental value, there are a number of *Origanum* hybrids and *O. vulgare* cultivars which display showier flowers and/or more colorful foliage. Oregano can also be used for erosion control<sup>12</sup>.

**Care:** Oregano prefers to be planted in well-drained soil. It is pretty low maintenance as long as it has well-drained soil and sun. It pretty much looks after itself<sup>12</sup>.

**Pests:** Soil must be well drained or root rot will be a big problem<sup>19</sup>.

This plant does not appear on the following invasive plant lists on (3/18/13):

## Onward & Upward:

---

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:** Sources: <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/plant-finder/plant-details/kc/e420/origanum-vulgare.aspx>

- (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.

## Onward & Upward:

---

- (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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/5640-oregano-mediterranean-oregano/guide/overview>

## Onward & Upward:

---

**Common name:** Sweet basil

<b>Latin name:</b> <i>Ocimum basilicum</i> <sup>12</sup>	<b>Texture:</b> Silky <sup>21</sup>
<b>Common name:</b> Sweet basil <sup>12</sup>	<b>Growth rate:</b> Medium <sup>12</sup>
<b>Flowers:</b> Showy <sup>12</sup> , purple, edible <sup>21</sup>	<b>Light:</b> Full sun <sup>12</sup>
<b>Fruit:</b> Small, round, white <sup>21</sup>	<b>Moisture:</b> Medium <sup>12</sup>
<b>Height &amp; Width:</b> 18-24"x18-24" <sup>12</sup>	<b>Soil*:</b> Moist, rich, well-drained soils <sup>12</sup> , pH range of 5.5- 6.5 <sup>21</sup>
<b>Type:</b> Annual <sup>12</sup> , Forb/herb <sup>16</sup>	<b>Zones:</b> 2-11 <sup>12</sup>
<b>Habit:</b> Upright <sup>18</sup>	<b>Origin:</b> Tropical Asia to Africa <sup>12</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefits:</b> Medicinal properties, used as sedative and for nausea <sup>21</sup>

(Numbers identify sources listed on page 2-3)

**Features:** Basil has a mildly peppery flavor with a trace of mint and clove. It is an annual herb belonging to the mint family, and like others in this family, basil can be identified by its square, hairy stems<sup>21</sup>. Herbalists have recommended basil for years for stomach cramps, vomiting and constipation. Basil has been described as having a slight sedative action, which would explain why it is sometimes recommended for headaches and anxiety<sup>21</sup>.

**Siting:** Sow seeds in early spring. Basil grows best in full sun in moderately rich and well-drained soil. Pinch out centers to encourage bushy growth; as frost approaches, root cuttings in water and pot for winter use<sup>12</sup>. Basil can be used in the herb garden, flower garden, as borders plants, in containers, raised beds, and in hanging baskets<sup>21</sup>.

**Care:** Basil is easily grown from seed, started indoors or outside in the garden after the danger of frost has passed. It is very tender and sensitive to frost injury. For indoor culture, sow seeds in a flat, and cover them with a moistened, sterile mix to a depth not more than twice the size of the seed. Space seeds 3/8 to 1/2 inch apart in the flat. Maintain a soil temperature of approximately 70 degrees F. Once germination begins, at 5 to 7 days, the plantlets must be kept warm at 70 degrees F or above and the soil must be kept moist. When seedlings have at least 2 pairs of true leaves, transplant them to 2 inch pots<sup>21</sup>. Fertilize basil sparingly because it decreases the fragrant oils<sup>21</sup>.

**Pests:** Basil may be skeletonized by Japanese beetles. To control, remove beetles by hand<sup>12</sup>.

This plant does not appear on the following invasive plant lists on (3/10/13):

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

## Onward & Upward:

---

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



Image:

Image source: <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/plant-finder/plant-details/kc/a689/ocimum-basilicum.aspx>

### 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/>

## Onward & Upward:

---

- (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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/2791-basil-basil/guide/overview>
- (20) University of Minnesota Extension. (2013) Retrieved from <http://www.extension.umn.edu/distribution/horticulture/M1221.html>
- (21) Ohio State University Extension. (2008) Retrieved from <http://ohioline.osu.edu/hyg-fact/1000/1644.html>



## Onward & Upward:

---

Common name: Thyme

<b>Latin name:</b> <i>Thymus vulgaris</i> <sup>12</sup>	<b>Texture:</b> Fine <sup>19</sup>
<b>Common name:</b> Thyme, English thyme <sup>12</sup>	<b>Growth rate:</b> Medium <sup>12</sup>
<b>Flowers:</b> Showy, purple <sup>12</sup>	<b>Light:</b> Full sun <sup>12</sup>
<b>Fruits:</b> Inconspicuous <sup>19</sup>	<b>Moisture:</b> Low <sup>12</sup>
<b>Height &amp; Width:</b> 6"-12"x 6"-12" <sup>12</sup>	<b>Soil*:</b> Soil PH: 6.5-8.5, Ideal 6.5-7.0 <sup>19</sup>
<b>Type:</b> Herbaceous perennial <sup>12</sup>	<b>Zones:</b> 5-9 <sup>12</sup>
<b>Habit:</b> Upright <sup>12</sup>	<b>Origin:</b> Southern Europe <sup>12</sup>
<b>Wetland indicator category**:</b> UPL, FACU <sup>17</sup>	<b>Benefits:</b> Rich in vitamins, minerals and antioxidants <sup>19</sup> . Evergreen during mild winters <sup>12</sup>

(Numbers identify sources listed on page 2-3)

**Features:** Thyme is rich in vitamins, minerals, and antioxidants. It also contains Thymol, an essential oil with antiseptic and antifungal properties<sup>19</sup>. Highly aromatic leaves, reach peak just before plants flower, and are frequently used fresh or dried as a seasoning. Good for soups, stews, sauces, meat and fish dishes. Whorls of tiny, tubular, lilac flowers appear on the stem ends in late spring to early summer. Flowers are attractive to bees. Plants are evergreen in mild winters<sup>12</sup>.

**Siting:** Thyme is an upright, woody-based perennial which is primarily grown as a culinary herb. Best used in herb gardens. Makes a good companion plant for eggplant or tomatoes in vegetable gardens<sup>12</sup>.

**Care:** Thyme can grow in most soils, but performs best in well-drained soil with moderate nutrients. Soil which is too rich will cause the plant to get leggy and lose its compact shape. Thyme will also grow in very shallow soil where few other plants will grow<sup>19</sup>.

**Pests:** Soil must be well drained or root rot will be a problem<sup>19</sup>.

This plant does not appear on the following invasive plant lists on (3/18/13):

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/>

## Onward & Upward:

---



Image:

**Image source:** <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/plant-finder/plant-details/kc/f970/thymus-vulgaris.aspx>

### 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.

## Onward & Upward:

---

- (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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/2089-thyme-thyme-common/guide/overview>

## Onward & Upward:

---

**Common name:** Italian parsley

<b>Latin name:</b> <i>Petroselinum crispum</i> <sup>12</sup>	<b>Texture:</b> Medium <sup>19</sup>
<b>Common name:</b> Italian parsley <sup>12</sup>	<b>Growth rate:</b> Medium <sup>12</sup>
<b>Flowers:</b> Showy <sup>12</sup>	<b>Light:</b> Full sun to part shade <sup>12</sup>
<b>Fruit:</b> Small, oval-shaped, color varies from grayish to grayish brown <sup>20</sup> .	<b>Moisture:</b> Medium <sup>12</sup>
<b>Height &amp; Width:</b> 12"x12" <sup>12</sup>	<b>Soil*:</b> Moist, well-drained soils <sup>12</sup> , pH range of 6.0-7.0 <sup>20</sup>
<b>Type:</b> Biennial grown as annual <sup>12,20</sup>	<b>Zones:</b> 2-11 <sup>12</sup>
<b>Habit:</b> Clumping <sup>12</sup>	<b>Origin:</b> Mediterranean <sup>12</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefits:</b> Larval food for black swallowtail butterfly <sup>12</sup>

(Numbers identify sources listed on page 2-3)

**Features:** The flat serrated leaves have a much stronger and sweeter flavor than the other varieties, making it more desirable for cooking. Native to the Mediterranean area, parsley has a biennial life cycle, (flowering during the second season of growth), but is usually grown as an annual in our region, because the plants often die during cold winters. It has a fresh and clean, but slightly peppery flavor<sup>20</sup>. Attracts beneficial insects<sup>19</sup>. Parsley is a larval food plant for the black swallowtail butterfly<sup>12</sup>.

**Siting:** Parsley does best in a sunny area which receives direct light for 6-8 hours a day, although it can tolerate some light shade. Plants will be more productive if grown in well drained soil that is fairly rich in organic matter, with a pH range of 6.0-7.0<sup>20</sup>.

**Care:** Seeds can be started indoors in the late winter approximately 6-8 prior to the last frost. Seeds can also be sown directly in the ground after danger of spring frosts has passed. Cover seeds with 1/8 inch of soil, and keep them moist. Slow to germinate. Emerging seedlings will appear almost grass-like, with two narrow seed leaves opposite each other. Thin or transplant seedlings when they are 2-3 inches high. Final spacing should be 10-12 inches apart<sup>20</sup>.

**Pests:** No serious insect or disease problems. Septoria leaf spot: rid field of excess plant material to limit inoculum. Use seed at least two years old, since the viability of seedborne Septoria is very low after this much time<sup>21</sup>. Carrot weevil: locate fields away from areas surrounded by woodlots, forest, or successional areas to reduce the number of overwintering locations for adult weevils. Parsley fields are on a three or five year rotation, with a conscious effort to locate newly planted fields away from previous parsley or carrot fields<sup>21</sup>. Flea beetles, leafhoppers: minor to none on parsley, except parsley

## Onward & Upward:

---

can act as reservoir of leafhoppers and aster yellows for lettuce; parsley is non symptomatic <sup>21</sup>. This variety is relatively pest resistant if cultural preferences are met.

This plant does not appear on the following invasive plant lists on (3/3/13):

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: <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/plant-finder/plant-details/kc/e477/petroselinum-crispum.aspx>

### 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/>

## Onward & Upward:

---

- (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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/576-parsley-gigante-italian/guide/overview>
- (20) University of Minnesota Extension. (2013) Retrieved from  
<http://www.extension.umn.edu/distribution/horticulture/M1221.html>
- (21) Ohio State University Extension. (2008) Parsley Pest Management Strategic Plan. Retrieved from  
<http://www.ipmcenters.org/pmsp/pdf/OHparsleyPMSP.pdf>

## Onward & Upward:

---

**Common name:** Sweet marjoram

<b>Latin name:</b> <i>Origanum majorana</i> <sup>12</sup>	<b>Texture:</b> Medium <sup>19</sup>
<b>Common name:</b> Sweet marjoram <sup>12</sup>	<b>Growth rate:</b> Medium <sup>19</sup>
<b>Flowers:</b> Not showy, pink <sup>12</sup>	<b>Light:</b> Full sun <sup>12</sup>
<b>Fruits:</b> Small, brown nutlets <sup>19</sup>	<b>Moisture:</b> Medium <sup>12</sup>
<b>Height &amp; Width:</b> 1 to 2 feet high, and 1 to 2 feet wide <sup>12</sup>	<b>Soil*:</b> Neutral to alkaline soils <sup>12</sup>
<b>Type:</b> Herbaceous perennial <sup>12</sup>	<b>Zones:</b> 9-10 <sup>12</sup>
<b>Habit:</b> Upright mound <sup>12</sup>	<b>Origin:</b> Mediterranean and Turkey <sup>12</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefits:</b> Thrives in gritty, sandy loams <sup>12</sup>

(Numbers identify sources listed on page 2-3)

**Features:** Sweet marjoram has branching, reddish, square stems that are densely clad with ovate, highly aromatic, pubescent, gray-green leaves up to 1.25" long. Small two-lipped, tubular, white or pale pink flowers with gray-green bracts bloom in spike-like clusters from mid to late summer. It has a mild, delicate flavor for seasoning soups, sauces, salads, stuffings, stews, roasts, vegetables and meats<sup>12</sup>.

**Siting:** Marjoram performs best in average, dry to medium, well-drained soils in full sun. It prefers neutral to alkaline soils, and thrives in gritty, sandy loams. Superior soil drainage is the key to growing this plant well<sup>12</sup>.

**Care:** Start seed indoors about 6 to 8 weeks prior to last spring frost or sow seed outdoors about two weeks prior to last spring frost. New plants may also be purchased from local nurseries. Cut back stems before flowers appear to encourage bushy growth. Leaf flavor is usually best before flowers bloom<sup>12</sup>.

**Pests:** No serious insect or disease problems. Root rot may occur in wet, poorly drained soils.<sup>12</sup> The species is relatively pest resistant if cultural preferences are met.

This plant does not appear on the following invasive plant lists on (3/3/13):

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/>

## Onward & Upward:

---



Image:

Image source: <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/plant-finder/plant-details/kc/d828/origanum-majorana.aspx>

### 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.



## Onward & Upward:

---

- (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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/544-marjoram-marjoram/guide/overview>
- (20) University of Minnesota Extension. (2013) Retrieved from <http://www.extension.umn.edu/distribution/horticulture/M1221.html>

## Onward & Upward:

---

**Common name:** Pepper 'Orange Blaze'

<b>Latin name:</b> <i>Capsicum annuum</i> 'Orange Blaze'	<b>Texture:</b> Medium <sup>19</sup>
<b>Common name:</b> Pepper 'Orange Blaze'	<b>Growth rate:</b> Medium <sup>19</sup>
<b>Flowers:</b> Not showy <sup>4</sup>	<b>Light:</b> Full sun <sup>4,19</sup>
<b>Fruit:</b> Two to three lobed fruits are 4" long and 1.5" wide <sup>19</sup>	<b>Moisture:</b> Medium <sup>4,19</sup>
<b>Height &amp; Width:</b> 22-30" x 11-12" <sup>19</sup>	<b>Soil*:</b> Well-drained, organic soil; optimum pH 5.8 – 6.5 <sup>4</sup>
<b>Type:</b> Annual <sup>19</sup>	<b>Zones:</b> 4-12 <sup>19</sup>
<b>Habit:</b> Upright <sup>19</sup>	<b>Origin:</b> Native to Latin America <sup>20</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefits:</b> Bred for high resistance to Bacterial Leaf Spot and Tobacco Mosaic Virus <sup>19</sup>

(Numbers identify sources listed on page 2-3)

**Features:** The 'Orange Blaze' Pepper is bred for early maturity, disease resistance, sweet taste and bright orange color<sup>19</sup>. This bell pepper can be used in a variety of dishes or eaten raw<sup>19</sup>.

**Siting:** 'Orange Blaze' Pepper grows best in well-drained, loamy soil with at least 6 hours of sun<sup>4,19</sup>. Do not plant in areas that have had eggplant, tobacco, pepper or Irish potato planted in the previous year<sup>4</sup>.

**Care:** Sow seeds indoors until threat of frost has passed and then transplant outdoors<sup>4</sup>. 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 stems<sup>18</sup>.

**Pests:** This variety is relatively pest resistant if cultural preferences are met.

This plant does not appear on the following invasive plant lists on (2/18/13):

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/>

## Onward & Upward:

---



Image:

**Image source:** <http://www.harrisseeds.com/storefront/images/PRODUCT/medium/11559.jpg>

### 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:

## Onward & Upward:

---

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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/3168-peppers-orange-blaze-pepper/guide/overview>

## Onward & Upward:

---

**Common name: Coriander or Cilantro 'Slow Bolt'**

<b>Latin name:</b> <i>Coriandrum sativum</i> 'Slow Bolt'	<b>Texture:</b> Fine <sup>19</sup>
<b>Common name:</b> Coriander or Cilantro 'Slow Bolt'	<b>Growth rate:</b> Fast <sup>19</sup>
<b>Flowers:</b> Inconspicuous <sup>18</sup>	<b>Light:</b> Full sun to part shade <sup>4,10</sup>
<b>Fruit:</b> Inconspicuous <sup>18</sup>	<b>Moisture:</b> Medium <sup>10</sup>
<b>Height &amp; Width:</b> 18-24" x 12" <sup>19</sup>	<b>Soil*:</b> Average, well-drained soil <sup>4,10</sup> ; pH 6-7 <sup>4</sup>
<b>Type:</b> Annual <sup>4,10</sup>	<b>Zones:</b> 2-11 <sup>10</sup>
<b>Habit:</b> Upright <sup>19</sup>	<b>Origin:</b> Throughout North America <sup>16</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefits:</b> Relatively pest resistant <sup>12</sup>

(Numbers identify sources listed on page 2-3)

**Features:** This annual herb is grown for both its leaves, known as cilantro, and its seeds, known as coriander<sup>4</sup>. The young leaves are used primarily in Latin and Asian dishes while the mature seeds are frequently used in Indian cooking<sup>19</sup>.

**Siting:** Cilantro needs at least 6 hours of sun and performs best in well-drained, organic soils with a pH between 6 and 7<sup>4</sup>.

**Care:** As with most annual herbs, Cilantro is grown primarily by seed during early spring<sup>4</sup>. Plant the seeds at a depth of ¼". Sow seeds 1" apart and then thin plants to 12" once germinated<sup>19</sup>. Germination usually takes 5 to 10 days<sup>19</sup>. 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 a thin layer of mulch over the planted area. Do not allow mulch to touch the plant stems<sup>18</sup>. Harvest leaves in summer and seeds during late summer<sup>20</sup>.

**Pests:** Plants are relatively pest resistant if cultural preferences are met<sup>12</sup>.

## Onward & Upward:

---

This plant does not appear on the following invasive plant lists on (2/18/2013):

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:**

[http://imavex.vo.llnwd.net/o18/clients/urbanfarm/images/Herbs/Coriander\\_Slow\\_Bolt.jpg](http://imavex.vo.llnwd.net/o18/clients/urbanfarm/images/Herbs/Coriander_Slow_Bolt.jpg)

**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/>

## Onward & Upward:

---

- (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](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) Urban Farmer, Westfield, IN (2013). Retrieved from <http://www.ufseeds.com/Coriander-Slow-Bolt.item>
- (20) American Horticultural Society. (2009). *New Encyclopedia of Gardening Techniques*. London, UK: Mitchell Beazley.

## Onward & Upward:

---

### Common name: Romaine lettuce

<b>Latin name:</b> <i>Lactuca Sativa</i> <sup>12</sup>	<b>Texture:</b> Smooth <sup>19</sup>
<b>Common name:</b> Lettuce <sup>12</sup>	<b>Growth rate:</b> Fast <sup>19</sup>
<b>Flowers:</b> Not showy <sup>12</sup>	<b>Light:</b> Full sun to part shade <sup>12</sup>
<b>Seeds:</b> Very small <sup>21</sup>	<b>Moisture:</b> Medium <sup>12</sup>
<b>Height &amp; Width:</b> 6"-12"x6"-12" <sup>12</sup>	<b>Soil*:</b> Moist, rich, well-drained soils <sup>12</sup> , pH range of 6.0 to 6.5 <sup>21</sup>
<b>Type:</b> Annual <sup>12</sup>	<b>Zones:</b> 2-11 <sup>12</sup>
<b>Habit:</b> Upright <sup>19</sup>	<b>Origin:</b> Mediterranean <sup>12</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefit:</b> Easy to grow, cool-season crop <sup>19</sup>

(Numbers identify sources listed on page 2-3)

**Features:** Romaine is just one of many types of lettuce that can be grown with little maintenance, and provide healthy leafy greens for salads, and sandwiches. Romaine is tolerant of cooler temperatures, and forms in a long cylindrical shape that leaves nothing to waste<sup>19</sup>.

**Siting:** Lettuce is a cool-season vegetable and for best quality it should be grown under cool, moist conditions. Lettuce seedlings will tolerate a light frost. Ideal growing temperatures are between 45 F and 65 F<sup>21</sup>. Romaine lettuce can be grown in any size bed, including small beds, and container gardens<sup>19</sup>.

**Care:** Romaine can be grown from either seeds or transplants. Since lettuce seeds are so small, it is best to start with a well prepared bed. Seeds can be started indoors six weeks before the preferred planting date, or transplants may be purchased locally. Romaine can be harvested by removing the outer leaves, digging up the whole plant or cutting the plant about an inch above the soil surface<sup>21</sup>.

**Pests:** This variety is relatively pest resistant if cultural preferences are met. Bolting can become a problem in prolonged heat, particularly if plants dry out. This can be prevented by planting lettuce in the shade of other plants, and picking frequently. Bolting can also be a sign of full growth. If left to bolt lettuce can be very attractive, and will provide seed for future harvest<sup>19</sup>.

Flea beetles may also be a problem, but weeding will deprive flea beetle larvae of food sources, and may help to lessen the flea beetle population<sup>20</sup>.

This plant does not appear on the following invasive plant lists on (4/3/13):

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/>



## Onward & Upward:

---



Image:

Image source: <http://ancientomnivore.com/2012/08/09/garden-goodness/attachment/3269/>

### 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.

## Onward & Upward:

---

- (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](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) Smart Gardener. (2013). Retrieved from <http://www.smartgardener.com/plants/1342-lettuce-romain-lettuce/guide/overview>
- (20) University of Minnesota Extension. (2013) Retrieved from <http://www.extension.umn.edu/distribution/horticulture/m1250.html>
- (21) Ohio State University Extension. (2008) Retrieved from <http://ohioline.osu.edu/hyg-fact/1000/1610.html>

## Onward & Upward:

---

### Common name: Swiss Chard 'Pot of Gold'

<b>Latin name:</b> <i>Beta vulgaris</i> 'Pot of Gold'	<b>Texture:</b> Medium to coarse <sup>19</sup>
<b>Common name:</b> Swiss Chard 'Pot of Gold'	<b>Growth rate:</b> Medium <sup>19</sup>
<b>Flowers:</b> Small green or red flowers lacking petals develop on a long stalk which grows during the second season <sup>19</sup>	<b>Light:</b> Full sun, but can tolerate partial afternoon shade <sup>19,20</sup>
<b>Fruit:</b> Small clusters of nuts develop from aggregate of two or more flowers <sup>19</sup>	<b>Moisture:</b> Medium and consistent <sup>19,20</sup>
<b>Height &amp; Width:</b> 24-36" x 18-24" <sup>20</sup>	<b>Soil*:</b> Well-drained, organic soil <sup>19</sup>
<b>Type:</b> Biennial <sup>19</sup>	<b>Zones:</b> 8-11 <sup>19</sup>
<b>Habit:</b> Upright <sup>19</sup>	<b>Origin:</b> USA (AL, CA, CT, MA, ME, MI, MO, MT, NC, NH, NY, OR, PA, SC, TX, UT, VA, WV), USA+ (PR) <sup>16</sup>
<b>Wetland indicator category**:</b> UPL <sup>17</sup>	<b>Benefits:</b> Attractive foliage allows for use in flower beds <sup>19</sup>

(Numbers identify sources listed on page 2-3)

**Features:** The 'Pot of Gold' Swiss Chard can be grown in containers, in a vegetable garden or used as an ornamental in the flower bed<sup>19</sup>. This particular variety features bright yellow stems with dark green foliage<sup>19,21</sup>. A close relative of the beet, this particular chard is grown for its foliage and can be prepared in a variety of ways<sup>19,20,21</sup>.

**Siting:** 'Pot of Gold' Swiss Chard grows best in well-drained, loamy soil with at least 6 hours of sun, though it can tolerate some afternoon shade<sup>19</sup>. Consistent moisture is required for this plant<sup>19,21</sup>. Chard is tolerant of mild frosts and is more tolerant of hot weather than most other greens<sup>19</sup>.

**Care:** Sow seeds indoors until threat of frost has passed and then transplant outdoors<sup>4</sup>. 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 stems<sup>18</sup>. Swiss Chard should not be allowed to dry out completely as excessive fluctuations in moisture causes the beet root to crack<sup>19</sup>.

**Pests:** Watch for slugs and snails<sup>20</sup>. Otherwise, plants are relatively pest resistant if cultural preferences are met.

This plant does not appear on the following invasive plant lists on (4/1/13):

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

## Onward & Upward:

---

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



Image:

Image source: <http://d3t0t2nqwmr1c9.cloudfront.net/photos/57451/chard-gold2.medium.jpg>

### 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

## Onward & Upward:

---

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](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) Floridata. (2003). Retrieved from [http://www.floridata.com/ref/b/beta\\_vul.cfm](http://www.floridata.com/ref/b/beta_vul.cfm)
- (20) Ohio State University. (2012). Retrieved from <http://bygl.osu.edu/content/vegetable-swiss-chard-beta-vulgaris-subsp-cicla>
- (21) Renees's Garden. (2013). Retrieved from <http://www.reneesgarden.com/seeds/packpg/veg/chard-gold.htm>

## Onward & Upward:

---

**Common name:** Borage

<b>Latin name:</b> <i>Borago officinalis</i>	<b>Texture:</b> Coarse <sup>19</sup>
<b>Common name:</b> Borage	<b>Growth rate:</b> Moderate <sup>19</sup>
<b>Flowers:</b> Small, star-shaped blue flowers <sup>20</sup>	<b>Light:</b> Full sun to light shade <sup>12,19</sup>
<b>Fruit:</b> Four small nutlets replace each flower <sup>20</sup>	<b>Moisture:</b> Dry to medium <sup>12</sup>
<b>Height &amp; Width:</b> 1-3' x 1' <sup>13</sup>	<b>Soil*:</b> Average, well-drained soil <sup>12,19</sup>
<b>Type:</b> Annual <sup>12,13</sup>	<b>Zones:</b> 2-11 <sup>12</sup>
<b>Habit:</b> Upright <sup>19</sup>	<b>Origin:</b> Native to Mediterranean, but naturalized throughout the United States <sup>16</sup>
<b>Wetland indicator category**:</b> Not available <sup>17</sup>	<b>Benefits:</b> Attractive to bees and other beneficial wildlife <sup>21</sup>

(Numbers identify sources listed on page 2-3)

**Features:** This annual herb is grown for both its leaves and its attractive flowers, both of which can be used in various recipes<sup>13,19</sup>. Although typically grown as an annual herb, Borage spreads by reseeding itself and may need to be kept in check each spring season<sup>19</sup>. The flowers attract beneficial pollinators such as bees<sup>13</sup>.

**Siting:** Borage requires at least 6 hours of sun and performs best in well-drained, organic soils<sup>12</sup>.

**Care:** Sow indoors or directly in the garden during early spring<sup>20</sup>. 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 a thin layer of mulch over the planted area. Do not allow mulch to touch the plant stems<sup>18</sup>. Harvest young leaves and flowers when present<sup>19</sup>.

**Pests:** Plants are relatively pest resistant if cultural preferences are met.

This plant does not appear on the following invasive plant lists on (4/1/2013):

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/>

## Onward & Upward:

---



Image:

**Image source:** [http://www.burpee.com/images/product/prod000462/prod000462\\_lg.jpg](http://www.burpee.com/images/product/prod000462/prod000462_lg.jpg)

**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/>

## Onward & Upward:

---

- (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](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) Illinois Wildflowers. (2012). Retrieved from <http://www.illinoiswildflowers.info/weeds/plants/borage.htm>
- (20) W. Atlee Burpee & Co. (2013). Retrieved from [http://www.burpee.com/herbs/borage/borage-prod000462.html;jsessionid=FDA65F1A21D3116CB90417B40B053A19?catId=2183&trail=&\\_requestid=634109](http://www.burpee.com/herbs/borage/borage-prod000462.html;jsessionid=FDA65F1A21D3116CB90417B40B053A19?catId=2183&trail=&_requestid=634109)



## Onward & Upward:

---

(21) Plants For A Future. (2012). Retrieved from  
<http://www.pfaf.org/user/Plant.aspx?LatinName=Borago+officinalis>

**\*Soil ph is determined using a professional soil test. Contact your Clemson University County Extension service for assistance [www.clemson.edu/extension/](http://www.clemson.edu/extension/). Click on "local offices".**

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

<b>Indicator Code</b>	<b>Indicator Status</b>	<b>Comment</b>
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

## Starting a vegetable garden

[www.growit.umd.edu](http://www.growit.umd.edu)

### How to Start a Vegetable Garden: 6 Basic Steps

#### STEP 1—Plan your garden.

- Will you grow vegetables and herbs in containers or in garden soil?
- Start small with an in-ground garden and expand when you are ready. A good starter size is 50-75 sq. ft.
- Will you dig or till your entire plot, or perhaps use raised beds?
- Grow vegetables that you like to eat and are expensive to buy. Some of the easiest vegetables are bush bean, tomato, cucumber, pepper, lettuce, summer squash, and leafy greens (Swiss chard, kale, mustard, etc.).
- Place taller crops on the north and west sides so they will not shade shorter plants.
- Group plants by what season they grow in and how long they take to come to maturity. (This information is available on the Grow It Eat It website.)
- Early, short-season crops, like lettuce, can give way to late season crops after harvest.

#### STEP 2—Select your site.

- Your garden should be on level ground in a spot that gets at least 6 hours of full sun a day (preferably more).
- Avoid trees, shrubs, and buildings where possible.
- Make sure you have access to every part of your garden—include paths.
- Easy access to water is essential.
- Know your local animal population and fence as needed.

#### STEP 3—Prepare your soil.

- Vegetable garden soil should be deep and crumbly, should drain well, and should contain plenty of organic matter.
- Have your soil tested to determine nutrient levels and pH, and to be sure it is safe to plant in (low lead level).
- Turn under or remove the grass sod but do not dispose of it as sod contains valuable topsoil and organic matter. You can also kill the grass by covering it with sections of newspaper and then covering that with a 2 to 4 inch layer of compost.
- A small plot (less than 100 sq. ft.) can be prepared using hand tools.

## Onward & Upward:

---

- Add organic matter, such as compost, manure, chopped leaves, etc. Organic matter should make up one quarter of the top 8 inches of your soil by volume.
- Garden beds may either be surrounded by an enclosure or built up with sloped sides and no enclosure.

### **STEP 4—Plant your crops.**

- Check the Grow It Eat It website to determine whether a particular vegetable is best direct-seeded in the ground or whether its seeds have to be planted indoors and grown to transplant size. You can buy seeds and transplants from local stores.
- If you buy seedlings to transplant, make sure they look healthy and are not so overgrown that roots encircle the bottom of the pot.
- Transplants raised inside your home or in a greenhouse should be exposed gradually to outdoor temperatures and conditions; this is called “hardening off.”
- Transplant on a cloudy, calm afternoon if possible, and water well; handle plants carefully and make sure there is adequate room for the roots in the planting hole.

### **STEP 5—Take care of your garden.**

- Water deeply around the base of your vegetable plants, as necessary, to keep the roots systems moist. Frequent, shallow watering is good for newly planted seeds—not mature plants.
- Water in the morning when possible. Use a soaker hose or drip irrigation system to reduce water use.
- Fertilize as necessary based on your soil test recommendations, fertilizer label instructions, and the needs of your different crops.
- Control weeds by laying down organic mulches, slicing or chopping weeds with a hoe, and hand-pulling. Start early, as soon as weeds appear.
- Support tomato, pepper, and cucumber plants with stakes or trellises to save space.
- Monitor plants regularly for problems; check out Maryland Cooperative Extension’s resources for solutions. Learn to take an integrated pest management (IPM) approach to any plant or pest problem. Vegetables and herbs can be grown successfully in Maryland gardens without chemical pesticides.

### **STEP 6—Harvest and enjoy!**

Author: Erica Smith, Maryland Master Gardener, Montgomery Co.  
March, 2009

## Vertical Pallet Garden: Client Survey

**A representative will contact you with the following questions regarding your experiences with your vertical pallet garden.**

The purpose of our survey is to ensure that you are pleased with your garden. The information you provide will never be used to identify you, and will only be used for the purposes of improving the construction, distribution, and plant selection for our pallet gardens. It is of the utmost importance to us that your pallet garden fits you and your family's needs.

1. When did you first receive your vertical pallet garden?
  
  
  
  
  
  
  
  
  
  
2. Have you needed to move your vertical pallet garden since its original installation?
  
  
  
  
  
  
  
  
  
  
3. What has been the most pleasing thing about your pallet garden?
  
  
  
  
  
  
  
  
  
  
4. Do you find your pallet garden is easy to care for?
  
  
  
  
  
  
  
  
  
  
5. Have you had any trouble caring for any specific plant?
  
  
  
  
  
  
  
  
  
  
6. Have any of the plants in your garden died?

## Onward & Upward:

---

6. What can we do to make this a more pleasing experience for you?

If you don't mind I'd also like to ask you a few personal questions to help us better understand your needs.

1. Which best describes you?

- a) Student
- b) Currently working
- c) Currently not working
- d) Retired

2. What is your gender?

- a) Male
- b) Female

3. What is your age group?

- a) Under 18
- b) 18-29
- c) 30-49
- d) 50-65
- e) Over 65

Thank you so much for taking the survey. Do you have any questions about you vertical pallet garden that I can answer for you now?