

Taylor County Horticulture Newsletter

May 2023

Cooperative Extension Service

Taylor County
1143 South Columbia Avenue
Campbellsville, KY 42718
(270) 465-4511
Fax: (270) 789-2455



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

Upcoming Events

Eastern Standard Time

Tuesday, May 2	4-H Horticulture Judging	3:30 PM
Monday, May 8	Busy Bloomer Garden Club: Visiting Sunny Day Nursery & Granny's Greenhouse	Leave the Extension Office at 1:00 PM
Monday, May 8	Pounded Flower Art	5:30 PM
Friday, May 12	TCPL Vegetable Container Garden—Call the Library at (270) 465-2562 to register.	10:30 AM
Monday, May 15	Pounded Flower Art	1:30 PM
Monday, May 15	Home Lawn Weed Control	5:00 PM
Tuesday, May 16	4-H Horticulture Judging	3:30 PM
Tuesday, May 16	4-H Horticulture Pounded Flower Art	3:30 PM
Thursday, May 18	Green River Beekeepers—at Larue County	7:00 PM
Saturday, May 20	Petting Zoo at the Taylor County Farmers' Market	10:00 AM—12:00 PM
Tuesday, May 30	4-H Horticulture Judging	3:30 PM



Taylor County Farmers' Market
Open Saturday's
8:00 Am—2:00 PM

For more information and to RSVP, please call the Taylor County Extension Office at (270) 465-4511.



Kara Back
Extension Agent
For Horticulture

Cooperative Extension Service
Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or national origin. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.

LEXINGTON, KY 40546



Disabilities
accommodated
with prior notification.

Mayapple, *Podophyllum peltatum*

Mayapple is a native woodland plant that is widespread across most of eastern North America south to Texas in zones 3 to 8. *Podophyllum peltatum* is the only species in this genus in the barberry family (Berberidaceae). This herbaceous perennial typically grows in colonies from a single root in open deciduous forests and shady fields, riverbanks and roadsides. All the parts of the plant, except the fruit, contain podophyllotoxin which is highly toxic if consumed, but was used by Native Americans for a variety of medicinal purposes. Podophyllotoxin is an ingredient in prescription drugs.

The upright stems grow from a shallow, creeping, branched underground rhizome, composed of many thick dark or reddish-brown tubers connected by fleshy fibers and downward spreading roots at the nodes. Each terminal bud produces a shoot. The mostly unbranched 12-18 inch tall stems are topped with umbrella-like (peltate) leaves.



The leaves remain furled as the stem elongates in the spring, unfolding when the stem nears its full height. Each smooth, pale green, rounded, palmate leaf has 5-9 shallowly to deeply cut lobes. There are one or two leaves per stem, each up to a foot across. Only stems with more than one leaf will flower. Mayapple often forms large, dense colonies in the wild.

As with many native spring wildflowers, mayapple emerges in early spring before trees produce leaves and then senesces to go dormant by mid-summer. Shoot senescence is affected by both the vigor of the rhizome system and environmental conditions (the sunnier the location the earlier it goes dormant).

Flowering stems produce solitary flowers in the axil of the two leaves. The nodding, white to rose-colored flowers appear in April or May. Each flower is 2-3 inches wide, with 6 light green sepals, 6 to 9 waxy petals, and twice as many stamens with white filaments

and yellow anthers. Although the flowers are quite showy, they are short-lived and usually hidden by the leaves. The flowers are fragrant, variously described as pleasant to putrid and are visited by bumblebees and other long-tongued bees.



Pollinated flowers are followed in early summer by fleshy, ovoid to lemon-shaped fruits (a berry) containing several tan seeds. These green "apples" ripen to a golden color, sometimes tinged with pink or purple, later in the summer. The 1½-2 inch long fruits (but not the seeds) are edible (but bland) when ripe and can be used in jellies or preserves. They may also be eaten by box turtles and other wildlife that disperse the seeds. Plants will self-seed under ideal growing conditions.



These native wildflowers are often grown as ornamental plants for their attractive foliage and flowers. They are perfect for naturalizing in a woodland garden or native plant garden. This plant is rarely used in borders, as it goes dormant in the summer, leaving a large gap that is difficult to fill, and does not like competition. This plant is apparently juglone tolerant so will grow under black walnut, and is not eaten by deer or rabbits.

Mayapple needs partial or full shade to thrive and prefers rich, moist soil with abundant organic matter. It can be propagated by division of the roots when dormant (in late summer or fall or very early spring) or from seed. Seeds should be planted immediately (stored seed will require three months of cold-moist stratification) and seedlings take 4-5 years to mature.

There are some uncommon variations in the species. *P. peltatum* forma *deamii* has pink, rose, or purple flowers followed by maroon or red fruits. Even more rarely plants produce a cluster of fruits (forma *polycarpum*).

– Susan Mahr, University of Wisconsin – Madison
<https://hort.extension.wisc.edu/articles/mayapple-podophyllum-peltatum/>

Soil Solarization for High Tunnels

Tomatoes are the most widely grown vegetable crop in high tunnels throughout Kentucky. This is primarily due to the high value of the crop, particularly since the high tunnels allow for entry into the market several weeks earlier than field planted crops. As a result, many producers do not rotate and continue to grow consecutive tomato crops. The repeated cropping of tomato in the same soil can lead to disease problems such as Fusarium crown rot and white mold (timber rot).

Soil solarization takes advantage of solar radiation to heat the soil to temperatures that are lethal to many fungal pathogens, nematodes, and weed seeds. In Kentucky, soil solarization is not always practical for field use since the period where soil solarization would be useful, summer, is also the period where most growers must produce crops. It could be an option for open fields if a grower had enough land to leave some out of production. This may become increasingly important as fumigation is not a viable option for many growers anymore.

The use of soil solarization in high tunnels, however, may be more practical since these crops are produced earlier than field crops. Additionally, there is chance for greater heating of the soil if the high tunnel vents are all closed, which is another advantage compared to solarizing in an open field. As an example, determinant tomatoes in high tunnels in Kentucky may be grown from the third week of March through July. A second flush of tomatoes may occur in August, but by this time the price of tomatoes may make the continued production of tomatoes into August impractical. Further, at this point in the season, most growers are dealing with significant foliar diseases like leaf mold and insect pests that reduce the growth, size, and yield of tomatoes.

Soil preparation – All plant material should be removed from the soil to be solarized. The soil should be well-tilled and leveled as if preparing for planting or bed formation. If beds are to be solarized, the beds should be formed and the plastic applied rather than forming the beds after solarization. However, using this method, extra caution must be taken when re-covering with black plastic mulch as you do not want to contaminate solarized with non-solarized soil from the row middles.

Irrigation – Adequately moistened soils will conduct the radiant heat of the sun and are required for the treatment to be effective. It is best to wet the soil to at least 12 inches. Place the plastic on the soil after the soil is irrigated.

Plastic tarp – The best way to trap the radiant energy of the sun is to use clear plastic. In general, the thinner the plastic, the better. One- to 2-mil plastic should work well. Some growers that have effectively solarized high tunnel soils simply utilized the old plastic covering from the existing high tunnel, which is usually 6 mil. However, some growers may want to use a plastic treated with a UV inhibitor so the plastic doesn't break down too soon. The plastic should be placed snug against the soil.

Temperature – Soil solarization is most likely to be successful if the soil temperature in the top 6 inches reaches 110 to 125 degrees F. Bury at least one soil thermometer so that the temperature of the soil may be monitored without too much disturbance to the tarp. Higher temperatures will be achieved if the high tunnel is closed up, but growers should check to be sure that the high temperatures will not damage any greenhouse equipment or structure. This could include fertilizer injectors, greenhouse controllers, and plastic electrical conduit.

Time – Most soil solarizations for open field will require four to six weeks to be successful. The higher the temperatures achieved, the less time is required. There could be potential to reduce the time to two- four weeks given the warmer conditions in high tunnels.

Soil solarization is just one tool to use against soil borne diseases of tomato in high tunnels. It will still be necessary to practice sanitation and keep the area around the high tunnel free of weeds and debris. In some cases, resistant varieties may be used against tomato diseases.

By Shubin Saha – University of Kentucky & Dan Egel – Purdue University

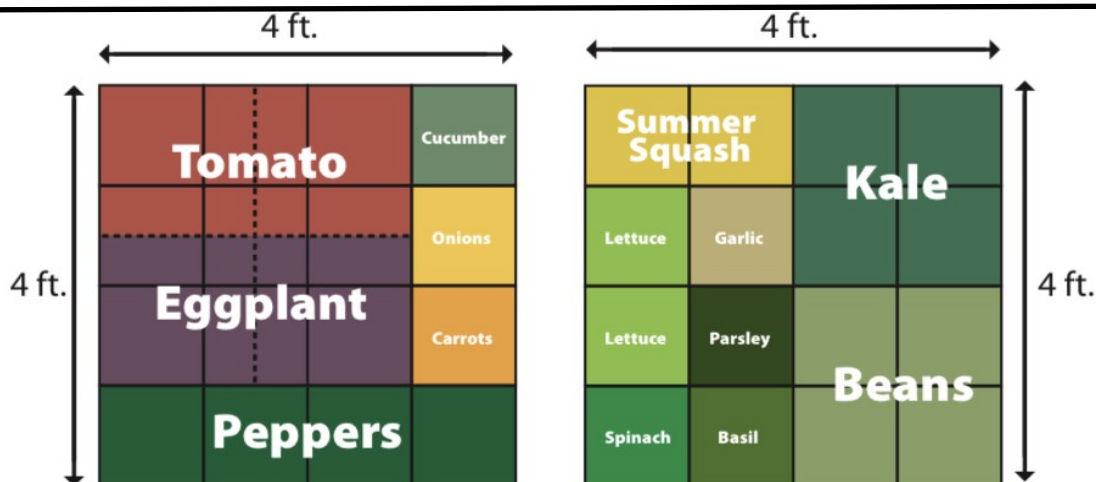


Figure 1. Example of vegetable spacing in a raised bed garden*

* As you plan from year to year, remember to move plants around if possible. In this example, each year the plants grown in the first bed (e.g., tomatoes, eggplant, peppers) can be moved to the second bed and plants grown in the second bed (e.g., summer squash, kale, lettuce) can be moved to first bed to prevent build up of certain pests.

** Early plants are grouped together for crop succession and smaller plants are placed on the outer areas of the garden to avoid shading.

The following vegetables will grow in an area receiving 4 to 6 hours of direct sunlight a day (however, best yields may be realized in full sun).

<i>Carrots</i>	<i>Lettuce</i>	<i>Radishes</i>
<i>Cauliflower</i>	<i>Onion</i>	<i>Spinach</i>
<i>Swiss chard</i>	<i>Parsley</i>	<i>Winter squash</i>
<i>Cucumber</i>	<i>Peas</i>	

Vegetables for Beginners

Tomatoes, especially cherry types. Two recent cultivators selected as winners by All-America Selections include Lizanno and Terenzo, but plant availability may be limited. These plants do not require caging or support and produce heavy yields of cherry tomatoes. Other varieties will also do well but most will require staking and tying or caging. Applications of agricultural lime, 2 to 3 tablespoons per plant worked into the soil or soilless mix at planting, is beneficial. Tomatoes need even moisture while developing fruit. Keep container plants well-watered and apply a mulch of straw, leaves, newspaper, or a combination of them around tomatoes growing in the garden. If you encountered problems with birds or rodents feeding on ripening fruit, pick the tomatoes as that are first starting to ripen and allow them to finish ripening indoors—quality will not be compromised.

Peppers, especially small hot types or banana types. These peppers are often more compact than standard bell types but give good yield and are attractive in containers. Peppers need good air circulation, so don't plant them too close. Provide adequate moisture but not too wet. Peppers can be harvested at any stage of development. For sweet types, flavors may peak as the peppers color. For hot types such as jalapeno,, the flesh may gain a little more heat as they ripen. Regardless, peppers are generally quite tasty at any stage of development.

Green beans, bush types. These types of green beans produce their first crop about 6-8 weeks after planting. Even if you have space for only 15 to 20 plants you may get a harvest sufficient for several meals for a family of four. Provide good moisture and try to locate the plants where they will get morning sun to help dry the plant. If moisture remains on the plants into the morning, it may increase disease issues. Mexican bean beetles look like lady bugs but usually are more brown. The immature insects look like yellow to orange cotton balls. In a small planting these can usually be picked off by hand and destroyed in a small container of soapy water or rubbing alcohol.

Summer squash, such as zucchini or yellow straight or crook neck types. Summer squash are very slow to vine and are suitable for containers or garden areas. Plants usually begin producing squash in about 6 weeks from planting. However, don't be alarmed if your plants begin to wilt and die in late summer. A moth will lay eggs on the plant and the baby caterpillars will tunnel into the vines, causing damage and allowing disease to spread. This is the squash vine borer and it is very difficult to control. However, most people who grow squash find that they get a good harvest before the vines are destroyed.

Table 1. Suggested final spacing* of commonly planted vegetables in raised beds and containers

Vegetable type	Typical spacing (inches)	Plants per square foot
Radishes Leaf lettuce (quick crop)	2 x 2	36
Carrots Onions (green from seed) Spinach Leaf lettuce Mustard	3 x 3	16
Beets Turnips Garlic Onions (from slips or bulbs) Peas (provide trellis or support)	4 x 4	9
Most herbs (Basil, Cilantro, Dill, Fennell**, Mint**, Parsley*, Oregano**, Thyme) Bok Choy Head Lettuce Chard Beans Garlic Edible Soybean (Edamame) Corn (not recommended in small plantings)	6 x 6	4
Broccoli Cauliflower Kale Collards Cabbage Potatoes Sweet Potatoes Horseradish Summer squash Eggplant (dwarf types) Cucumber (trellised) Okra Peppers	12 x 12	1
Tomatoes Cucumbers (not trellised) Eggplant Pumpkins Rhubarb** Winter squash Cantaloupe Watermelon	18 x 18 to 18 x 24	<1 (actually .33-.44 plants per square ft)

*Biennial but usually grown as an annual

**Perennial, some perennial herbs can be aggressive, such as mint

Monthly Tips and Tasks

Ornamentals

- Apples, crabapples and hawthorns susceptible to rust disease should have protective fungicidal sprays applied beginning when these trees bloom.
- Pinch azaleas and rhododendron blossoms as they fade. Double flowered azaleas need no pinching.
- If spring rains have been sparse, begin irrigating, especially plants growing in full sun.
- Fertilize azaleas after bloom. Use a formulation which has an acid reaction.
- Canker worms (inch worms) rarely cause permanent damage to ornamentals. Use Bt if control is deemed necessary.
- Don't remove spring bulb foliage prematurely or next year's flower production will decline.
- Continue monitoring pines, especially Scotch and mugo, for sawfly activity on new shoots.
- Begin planting gladiolus bulbs as the ground warms. Continue at 2-week intervals.
- Plant hardy water lilies in tubs or garden pools.
- Scale crawlers are active now. Infested pines and euonymus should be treated at this time.
- Plant summer bulbs such as caladiums, dahlias, cannas and elephant ears.
- Begin planting warm-season annuals.
- Begin fertilizing annuals. Continue at regular intervals.
- Trees with a history of borer problems should receive their first spray now. Repeat twice at 3-week intervals.
- Bulbs can be moved or divided as the foliage dies.
- Pinch back mums to promote bushy growth.

Miscellaneous

- Birds eat many insect pests. Attract them to your garden by providing good nesting habitats.
- Herbs planted in average soils need no extra fertilizer. Too much may reduce flavor and pungency at harvest.
- Take houseplants outdoors when nights will remain above 50 degrees. Most prefer only direct morning sun.
- Watch for fireflies on warm nights. Both adults and larvae are important predators. Collecting may reduce this benefit.



Lawns

- Keep bluegrass cut at 1.5 to 2.5 inch height. Mow tall fescue at 2 to 3.5 inch height.
- Mow zoysia lawns at 1.5 inch height. Remove no more than one-half inch at each mowing.
- Apply post-emergence broadleaf weed controls now if needed.
- Zoysia lawns may be fertilized now. Apply no more than 1 pound of actual nitrogen per 1000 square feet.
- Watch for sod webworms emerging now.

Vegetables

- Place cutworm collars around young transplants. Collars are easily made from cardboard strips.
- Growing lettuce under screening materials will slow bolting and extend harvests into hot weather.
- Slugs will hide during the daytime beneath a board placed over damp ground. Check each morning and destroy any slugs that have gathered on the underside of the board.
- Plant dill to use when making pickles.
- Keep asparagus harvested for continued spear production. Control asparagus beetles as needed.
- Begin planting sweet corn as soon as white oak leaves are as big as squirrel ears.
- Isolate sweet, super sweet and popcorn varieties of corn to prevent crossing.
- Thin plantings of carrots and beets to avoid overcrowding.
- Control caterpillars on broccoli and cabbage plants by handpicking or use biological sprays.
- Set out tomato plants as soils warm. Place support stakes alongside at planting time.
- Place a stake by seeds of squash and cucumbers when planting in hills to locate the root zone watering site after the vines have run.
- Remove rhubarb seed stalks as they appear.
- Watch for striped and spotted cucumber beetles now. Both may spread wilt and mosaic diseases to squash and cucumber plants.
- Set out peppers and eggplants after soils have warmed. Plant sweet potatoes now.
- Make new sowings of warm-season vegetables after harvesting early crops.

Fruits

- Mulch blueberries with pine needles or sawdust.
- Don't spray any fruits while in bloom. Refer to local Extension publications for fruit spray schedule.
- Prune unwanted shoots as they appear on fruit trees.



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

Taylor County
1143 South Columbia Avenue
Campbellsville, KY 42718

NONPROFIT ORG
US POSTAGE PAID
CAMPBELLVILLE, KY
PERMIT 1067



Cauliflower Casserole

- | | | |
|--|---|--|
| 1 head cauliflower | ½ cup finely chopped green pepper | ½ cup finely chopped white onion |
| 1 cup fat-free sour cream | ½ cup finely chopped red bell pepper | 1 teaspoon salt |
| 1 cup low-fat shredded cheddar cheese | Paprika | ¼ cup grated, reduced-fat Parmesan cheese |
| ½ cup crushed corn flakes | | |

Preheat oven to 325 degrees F. **Grease** a 2-quart baking dish with cooking spray or vegetable oil. **Remove** the core and any green leaves from the cauliflower head. **Chop** the remaining head into 2 inch pieces. **Place** a steamer insert into a saucepan and fill with water to just below the bottom of the steamer. **Cover** and bring the water to a **boil** over high heat. **Add** the cauliflower, and **steam** until tender, about 5 minutes. **Drain** and set aside. **Combine** sour cream, cheddar cheese, corn flakes, peppers, onion

and salt in a medium bowl. **Stir** in the cauliflower and **transfer** to the prepared baking dish. **Sprinkle** Parmesan cheese and paprika over the top of the dish. **Bake** uncovered until heated through, about 30-35 minutes.

Yield: 8 servings.

Nutritional Analysis: 110 calories, 3 g fat, 1.5 g saturated fat, 0 g trans fat, 10 mg cholesterol, 519 mg sodium, 13 g carbohydrate, 2 g fiber, 6 g sugar, 8 g protein.



Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.