June 2022-Vol.8, No.6

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Sowing Seeds for Gardening Joy: Drawing

By mking | June 2022-Vol.8, No.6

Piedmont Master Gardeners want to encourage children's interest in plants and other natural materials. In the children's activity in our March newsletter, the author suggested that children take a closer look at nature by using a cardboard tube for focused observation. In this activity, children again make observations outdoors, collect a few items from nature, view them carefully, and record what they see in drawings.

Activity: Draw What You See (ages 7-10, can be adapted for younger and older)

Objective: Enjoy and learn from drawing natural objects collected outdoors.

Materials: several sheets of plain white paper (copier paper is fine), magnifier (if available), sharpened pencil, colored pencils (optional), bag or small box to collect samples

Child observing outdoors through cardboard tube. Photo: Melissa King

Process:

1. Go outdoors with child to a natural setting, such as a park or your own backyard. Ask the child to look around and talk about what she sees. Child can observe through a cardboard tube, if one is available.
2. Notice and talk with the child about leaves, sticks, pinecones, acorns, or other visible items from plants on the ground.
3. Prompt observations with questions:
    - What do you see when you look around?
    - What's below you on the ground?
    - What objects catch your interest? Why? (size, unusual edges, colors, the shape, texture)
    - Where did this object come from? (tree, bush, etc.)
4. Have the child collect 4-5 items to take home. Place these in paper bag or small box. Remind child not to disturb anything growing, such as parts of living plants.
5. Back inside, ask child to look closely at the collection. Turn items to view all sides. Talk about colors, sizes, shapes, folds, textures, and edges.
6. View objects with a magnifier. How do they look close up? What details can you see now?
7. Ask the child to compare two of the items. Which one is bigger? Which one is darker? Which one is more irregular? Encourage child to use descriptive language.

Children collecting natural materials to draw. Photo: Melisssa King

Natural materials to observe and draw. Photo: Melissa King

8. Next, have child compare all items in the collection. Which one is the biggest? The prettiest? The most interesting? etc. Do you have a favorite? If so, why? (the size, shape, color, smell, etc.)

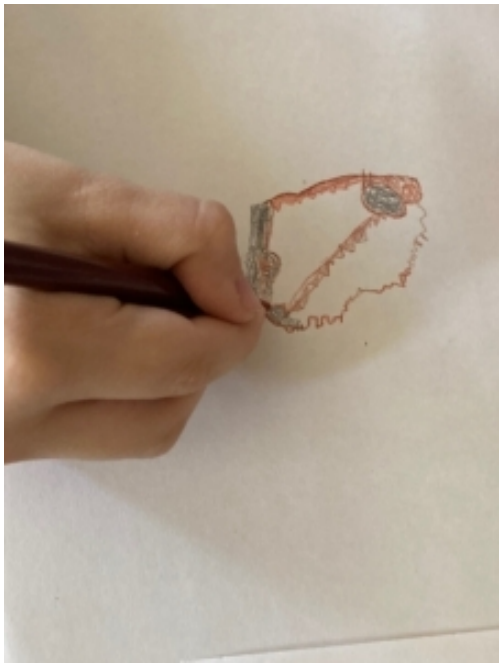
9. Ask child to choose one item from the collection to draw. Set object on a table or countertop in good light. Have child describe the shape of the object (circular, oval, etc.).

10. Ask child to draw that shape with a pencil, including smooth or zigzag edges. Notice the folds, bumps, openings, edges, shadows, or hidden parts. Encourage the child to add those details. Explain and show the child how to use a pencil to shade in darker areas.

11. Next, have the child draw her favorite part of the selected item.

12. If colored pencils are available, child can add color to the drawing or make a second drawing in color.

13. Continue until child is satisfied with the drawings. Discuss and help the child label the drawings.



Child drawing an item collected outdoors. Photo: Melissa King

Child using colored pencils to draw a rock. Photo: Melissa King

Connecting with objects discovered outdoors nurtures children's curiosity about plants and the natural world. Providing pleasurable experiences for children to interact with nature helps to "sow seeds of gardening joy." Encouraging children to record observations helps to sustain their interest, build confidence, and motivate continued engagement with horticulture.

Resources (for drawing and observing nature):

Lara Call Gastinger artwork for reference (Renowned Charlottesville Artist)

The Art of Drawing (Bernard Chaet, Yale University Press, 1983)

Featured Photo: Melissa King

How to Grow Melons

By mking | June 2022-Vol.8, No.6

Tasty, nutritious fresh melon slices. Photo: Pixabay

Melons are a delicious summer treat – sweet, juicy mouthfuls of refreshing goodness! With their high water content and good supply of vitamins A and C, plus potassium, low-calorie melons do a great job of keeping you hydrated while supporting healthy blood pressure. They are also rich in vitamin C, folate, and fiber. The nutritional value of melons makes them a good choice for your edible garden, but keep in mind that in order to thrive, they need some tender loving care. This article offers helpful tips and suggestions.

What's a Melon?

Melons, *Cucumis melo L.*, belong to the Cucurbitaceae family, along with gourds, pumpkins, and squash. Cucurbit crops grow on long vines with tendrils, and their fruits are a

type of berry with tough skin. Each melon plant has separate male and female flowers, which are usually yellow. Melon plants are self-pollinated or cross-pollinated by bees. Melon leaves come in many shapes, and their stems have ridges. Note that melons and watermelons represent two separate species which require slightly different care. This article focuses on melons, not watermelons.

Melon Types

Several types of melon may be familiar to you, and each of these includes many varieties.

Muskmelon has coarse skin netting, sweet orange flesh, and strong aroma. Muskmelons are often called cantaloupes in the U.S., but true cantaloupes (sometimes called European cantaloupes) are smooth-skinned.

Mouth-watering muskmelon can help keep you hydrated. Photo: Pixabay

Honeydew melon has smooth white skin, light green flesh, and very sweet flavor.

Ripe honeydew melon with seeds inside. Photo: Pixabay

Charentais are smaller French melons with blue-green netted rind and dark orange flesh.

Charentais melons are small with netted skin. Photo: Pixabay

Crenshaw melon has rough yellow rind, light green or pink flesh, and sweet aromatic flavor.

Crenshaw melons. Photo: Pixabay

Important Background and Site Preparation

Melons love warm, sunny days and need 80 – 100 days from seed sowing to harvest. For abundant production, melons must have 3 – 4 months of warm weather, along with a steady supply of water (until just before the fruit ripens). In the garden, melon plants also need good air circulation, so leaves and fruit can dry fairly quickly after rainfall. When selecting a site to grow melons, be sure there is ample space; allow 2 – 4 feet (or more) per plant. If your garden area is limited, consider creating a dedicated melon patch in a separate place where the vines can roam freely without entangling other edible plants. To help prevent the spread of disease, be sure to rotate crops and avoid growing melons where other cucurbits were planted in the previous year or two.

Melons tend to thrive in well-drained sandy-loamy soil. They also do well in clay soil that has been enriched with organic matter, such as compost, seaweed, or rotted manure. Soil pH must be in the neutral range, and 6 – 6.5 is optimal for healthy melons and a robust crop. Plants will be more productive and better able to manage dry periods if roots grow deeply into the soil. Drip irrigation is recommended to encourage this development.

Starting Seeds and Transplanting

Melons are a bit fussy in their early stages of growth, but given a strong start, they are likely to produce luscious fruit. By carefully following the appropriate steps to start seeds and plant or transplant seedlings outdoors, you might be rewarded with a successful melon harvest. You can opt to sow melon seeds directly in your garden, but seeds need soil temperatures of 80 – 90° F to germinate. Try sowing melon seeds indoors, if you can, to ensure the right temperature.

Three weeks before the last frost date predicted for your USDA hardiness zone, put 2 – 3 melon seeds in potting soil at a depth of ½ inch in 3-inch pots. Albemarle County is in zone 7a, with an approximate last frost date of April 25. Germination should occur in a few days, and then the temperature should be adjusted to 75° F. Keep the soil moist and observe daily. When seedlings have reached two inches in height, remove the weakest and smallest ones by snipping them off at soil level, leaving only one seedling per pot. When the first true leaves appear, lower the temperature to 65° F and reduce watering for a week.

Harden off the young plants 1 – 2 weeks before you set them into the garden. To do this, place them outside in a shady area on warm days, gradually increasing the time outside each day from one hour to two hours, to three, and so on. Reduce watering a bit, in order to slow plant growth during this time. Remember to check local weather predictions to ensure that young melon plants are not subject to chilly, windy conditions when they are outside. Before transplanting, check soil temperature; garden soil must be at least 70° F for melon survival. One way to hasten soil warming is to cover the area with black plastic sheets for 1 – 3 weeks beforehand. If you choose that method, try cutting x-shaped slits where you want to grow melons and anchor the edges of the plastic with bricks or stones. Be aware that melon vines exposed to temperatures which are cooler than recommended might not set fruit later on.

When outdoor conditions, soil temperature, and timing are right for transplanting, take great care in handling young melon plants. To help reduce transplant shock, avoid disturbing the roots when placing them into the garden. Young vines should be planted in small hills, with only one or two transplants per hill. Water the soil thoroughly. If you are not using black plastic, spread organic mulch (straw or chopped up dry leaves) around the melon vines. Depending on soil quality, you may want to add liquid fertilizer, such as fish emulsion, to promote growth.

Care and Harvest

Keep the soil around melons evenly watered (1 – 2 inches per week) up until the last week or two before harvest. Withholding water during that period generally leads to improved melon taste. If weeds appear through the mulch, pull them carefully, as melon roots near the surface can be injured rather easily. Watch where you walk in the garden, to avoid stepping on the vines. As melons ripen, put straw or cardboard under the fruit to help prevent rot on the ground. Toward the end of summer, pinch off new blossoms to encourage the plant to put energy into fruit that is already ripening on vines.

For most melon varieties, all the fruit on a particular vine may ripen at approximately the same time. For some varieties (but not all), if gentle pressure is applied to the base of the stem, and the stem separates from the vine, the melon is ready. When the skin color beneath the "netting" of a muskmelon changes from green to tan, this also indicates ripeness. A honeydew melon will turn a light yellow-white color when it's ripe.

Storage time for melon depends on the type. Muskmelons will last a couple weeks at 40° F; honeydew and casaba can be stored up to three weeks at 50° F. Relative humidity should be about 90 percent for best results.

Pests and Diseases

Like most cucurbits, the striped cucumber beetle is a big threat to melon plants. These pests chew on plants and spread diseases, such as bacterial wilt and mosaic virus. Try using Neem oil or manually capturing those pesky beetles from leaves and inside flowers. It's best to do your search in the morning, when beetles are more slow-moving. Watch for aphids in the garden, as they can also spread viruses. You can usually hose off leaves or apply an insecticidal soap to kill aphids before they inflict too much damage. In warm, humid climates like ours, melons are subject to powdery mildew, which can wipe out a melon crop if not caught in time. Look for melon varieties that are disease resistant.

Ripe muskmelon on vine. Photo: Pixabay

Now that you've learned about growing melons, explore some new recipes with this tasty, nutritious fruit. Here's one from the Mayo Clinic to get you started.

Fresh Fruit Smoothie

- 1 cup fresh pineapple
- ½ cup muskmelon or other melon
- 1 cup fresh strawberries
- Juice from 2 oranges
- 1 cup water
- 1 tablespoon honey

Chill ingredients in the refrigerator before use. Remove rind from pineapple and melon. Cut into chunks. Remove stems from strawberries. When you're ready, place all ingredients in blender. Puree until smooth and serve cold.

Print References

The Garden Primer. (Damrosch, Barbara, 2008) Workman Publishing

The Melon. (Goldman, Amy, 2019) City Point Press

The Vegetable Gardener's Bible. (Smith, Edward, 2009) Storey Publishing

Online Resources

Featured Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org

A quick guide to harvesting and storing melons, squash, and pumpkins | UMN Extension

Cantaloupe and Specialty Melons | UGA Cooperative Extension

Growing melons in the home garden | UMN Extension

Hardening Off Vegetable Seedlings | University of Maryland Extension (umd.edu)

How to Grow Melons (tamu.edu)

How to grow melons (msu.edu)

Melons | University of Maryland Extension (umd.edu)

Melon Production (okstate.edu)

Melons pack a nutritional punch – Mayo Clinic Health System

Eleven Common Garden Pests: Identification and Management

By Ralph Morini | June 2022-Vol.8, No.6

It’s June. We’re in the heart of the gardening season and plant- damaging garden pests are active. This article discusses common pests, what they attack, how to identify them, and options to manage them. It takes an Integrated Pest Management (IPM) approach, focusing on non-chemical-based tactics and lower impact chemicals approved for use by the USDA Organic Program. Links are provided that identify synthetic pesticides for gardeners who see no other option.

If you are unfamiliar with different treatments, review the references at the end of the article that explain what the different substances do and how to apply them.

In all cases, follow use directions on the product labels, for your and our environment’s sake.

Japanese Beetles

Japanese beetle on pole beans. Photo: R Morini

Adult Japanese beetles feed on the foliage, flowers, and fruit of 300 plant species, edible and ornamental. In addition, their larvae are white grubs that feed off the roots of turfgrass and can cause browning out of patches of lawn. The larvae look like other white grubs but are identifiable by v-shaped hairs on the underside of their abdomen. Detailed information on beetle and grub control is available in the publication White Grub Management in Turfgrass from the Clemson University Cooperative Extension.

As the photo shows, adult beetles eat the foliage between leaf veins. Weak plants are most susceptible to serious harm. Flowers are ruined.

Control actions include:

- Avoid plants that are most susceptible.
- Hand pick beetles off plants. Squish or knock them into a bucket of soapy water. They are easiest to catch in the cool morning or evening when they are sluggish. Since they tend to congregate, removing beetles reduces the attraction of others to join them.
- Pyrethrin-based insecticides work when sprayed directly on the beetles. *Bacillus thuringiensis* (Bt) can work when sprayed on the foliage and ingested by the pests.
- Various neonicotinoids can kill beetles but are non-selective and can harm pollinators.
- Pheromone-based beetle traps are commercially available, but research shows that the traps attract more beetles than they kill. They are not recommended.

The publication Japanese Beetles from the West Virginia Extension provides more detail.

Cabbage Moths

Two cross striped cabbage worms (top) on kale leaf. Photo R Morini

A variety of moth larvae attack plants from the brassica family including cabbage, cauliflower, broccoli, kale/collards, rutabaga, radishes and turnips. The moths deposit eggs on the underside of leaves. When they hatch, the larvae strip the plant leaves between veins. Common varieties are the imported cabbage worm, cabbage looper, diamond backed moth larva and cross striped cabbage worm. They are active from mid-May through frost.

To manage damage:

- Since susceptible plants don't need pollination, row covers can be used to keep moths from laying eggs on the plants.
- Regularly inspect leaves of susceptible plants. Look for eggs on the underside, holes in the leaves, green/black excrement, and worms. Just-hatched worms are tiny, so look closely.
- Hand pick worms off leaves regularly. Squish or drop them in soapy water to kill them.
- Create a diverse environment around the garden. Parasitic wasps and birds can help control cabbage worms.
- Effective organic insecticides include:
    - Bacillus thuringiensis, spinosad, or neem oil that are sprayed on foliage. They affect worms in different ways but ultimately kill them. Avoid spraying spinosad and neem oil on flowers to protect pollinators.
    - Pyrethrins can be sprayed directly on the worms.

The article Caterpillar Pests of Brassica Vegetables from the Utah State University Extension summarizes pests and treatments.

Cucumber Beetles

Striped cucumber beetles on cucumber. Photo: R Morini

Striped and spotted cucumber beetles feed on the foliage of cucurbits, including cucumbers, melons, pumpkins, and squash plants, causing leaf browning. The bigger issue is that the beetles transmit a bacterial wilt that kills plants and can infect surrounding plants. Infected plants should be immediately removed and destroyed.

Control actions include:

- Plant in June or later to avoid peak early season feeding
- Cover plants with row covers until flowering occurs
- Organic chemical control options include killing beetles with direct spraying of pyrethrins and spraying plants with kaolin clay to discourage feeding.

Deeper explanation of cucumber beetle management is available in the publication Cucumber Beetles in Home Gardens from the University of Minnesota Extension.

Colorado Potato Beetles

Both the larvae and adult Colorado potato beetle feed on the leaves of potato, eggplant, and to a lesser degree, tomato and pepper plants. Severe infestation will also damage fruit. Active period is May through August.

Colorado potato beetle adult. Photo: of MN Extension

Management options include:

- Plant fast-maturing varieties later in the summer to avoid peak early season activity
- Keep garden weed- and debris-free to deny the pests alternate food sources
- Scout the underside of plant leaves for orange-red eggs. Crush them.
- Hand remove larvae and beetles, drowning them in soapy water

- Encourage beneficial predators including birds, predatory stink bugs, parasitic flies, and lady beetles.
- Bt (Bacillus thuriengensis) can be effective against larvae
- Neem and spinosad are somewhat effective organic pesticides
- This pest has successfully developed resistance to numerous synthetic pesticides. If synthetics are used, rotate them to reduce the chance of increasing resistance.

Colorado potato beetle larva. Photo: U of MN Extension

Detailed treatment of potato beetles is offered in Colorado Potato Beetles in the Home Garden from the University of Minnesota Extension and Colorado Potato Beetles from the University of West Virginia Extension.

Stink Bugs

Stink bug pests, U of Maryland Extension

Stink bugs use their sucking mouth parts to damage many plants, but are noted for damage to beans, corn, tomatoes, and okra. There are about 50 species that are pests and a group that are beneficial, including the spined soldier bug. The beneficials are identifiable by their sharp shoulder tips vs rounded edges on the pests.

Signs of stink bug damage include:

- Light colored spots on leaves
- Pimply growth on beans
- Circular depressions on peppers and tomatoes
- Collapsed corn kernels on corn.

Management tactics:

- Remove weeds, mulches, and ground covers that provide cover

- Insecticidal soap and pyrethrins can be effective on young nymphs. Adults are resistant to all insecticides.
- Hand pick eggs and bugs. Bugs drop when startled. Catch them in soapy water to drown them.
- Encourage natural predators and avoid systemic insecticides that harm beneficial predators
- Fruit damage can be cut out and fruit eaten. Damage is not a health risk.

Further detail is available from Stink Bugs- Vegetables and Fruits, University of Maryland Extension.

Aphids

Aphids and predatory lady beetles on rose. Photo: R Morini

Aphids are small soft-bodied insects of many colors that suck fluids from plant leaves, causing browning and distortion. They secrete a honeydew that encourages sooty mold, and they can transmit viruses. They are attracted to tender young leaves and show up early in spring when new growth begins. They are also a common year-round houseplant pest.

Control measures:

- Keep plants healthy to avoid more serious plant damage. Prune off damaged foliage.
- Use slow-release organic fertilizers to avoid bursts of growth that attract aphids
- Spray plants with water to physically knock aphids off plants

- Spray plants and aphids thoroughly with insecticidal soap, an effective low-toxicity insecticide, which suffocates the aphids. Spray outside plants thoroughly before bringing them inside.
- Catch and kill them with yellow sticky traps
- Encourage natural predators like lady beetles and green lacewings by building a diverse natural environment and minimizing broad spectrum pesticides

For a deeper dive into aphid control check out Integrated Pest Management for Aphids from the Clemson University Extension.

Hornworms

Tomato hornworm with parasitic wasp cocoons. Photo: R Morini

Tomato hornworms are large green caterpillars with horn-like tails that feed on the foliage and green fruit of nightshade family plants: most commonly tomato but also eggplant, potato, and pepper. Moths lay eggs on leaves in spring, the caterpillars feed for 3 or 4 weeks, then drop off plants, burrow into the soil, and pupate. A second generation emerges in mid-summer.

Control measures include:

- Inspect plants regularly, looking for eggs, damage to foliage and the hornworms themselves. Pick them off and destroy them.
- If caterpillars are cocoon-covered, as in the photo, leave them alone. Best to allow the beneficial braconid wasps to propagate while eventually killing the hornworm.
- Encourage a diverse ecology in the garden area. Numerous other beneficial insects, including lady beetles and lacewings, attack eggs and young caterpillars.

- Insecticides generally are not necessary. See the publication Tomato Hornworms in Home Gardens from the University of Minnesota Extension for further guidance if needed.

Squash Bugs

Squash Bug Adults and Nymph on Cucumber. Photo: R Morini

Squash bugs over-winter as adults and feed on cucurbit vegetation from early June through mid-summer. Females lay batches of about 20 copper-colored eggs on leaf undersides. Eggs hatch in 10 days and nymphs mature over 4-6 weeks. They hide under leaves when disturbed. Their feeding causes leaf wilting. They are not disease carriers.

Control measures include:

- Look for eggs on leaf undersides, crush them when found.
- Hand pick bugs and drop them into soapy water to drown.
- Trap them by laying a board on the soil overnight, lift it and catch the bugs sheltering there in the morning.
- Best to keep the soil clean, no mulch, to minimize hiding places. Remove plant debris in fall.
- Spinosad can be used on nymphs early in the season when young plants are endangered by squash bugs. Mature plants generally don't require insecticides.
- Further information is available from Squash Bugs in Home Gardens from the University of Minnesota Extension.

Squash Vine Borer

Squash vine borer and damage. Photo: Jim Jasinski, Ohio State University Extension, Bugwood.org

Squash vine borers are the larvae of a wasp-like clear wing moth that lays eggs at the base of squash plants. The larvae burrow into the vines, feeding on the vine center, blocking the flow of water through the plant, causing wilting. They are typically active from June through August.

Control:

- Signs include wilting in the mornings and an entry hole with rotting vegetation at the entry point as per the photo.
- Inserting a sharp wire up the center of the vine can kill the larvae.
- The vine can be slit along its length to find and remove the borer(s). After borers are removed, heap soil over vines at stem joints to allow new roots to form to strengthen the plants.
- Spray kaolin clay at the plant base, repeated every few days to prevent larval entry.

Additional information is available from Squash Borers by the Cornell Extension.

Leaf Miners

Leaf miner damage to greens. Photo University of Minnesota Extension

Leaf miners are flies whose larvae, white carrot-shaped legless worms without a visible head, tunnel inside leaves, leaving white patches. They attack numerous edible and ornamental plants, typically not harming plant health but damaging leafy vegetables.

Controls:

- Promote a diverse environment to enable beneficial insect assistance.
- Remove and destroy damaged leaves
- Rotate crops.
- Row covers can prevent egg-laying on plant leaves if there hasn't been a prior infestation in the covered area.
- Spinosad applied regularly per package directions can help control miners.
- Find further information in Leaf Miners from the Penn State Extension.

Flea Beetles

Flea beetles are tiny black beetles that create holes in leaves of many plants, including radishes, broccoli, and cabbage, turnips, eggplant, peppers, tomatoes, potatoes, spinach, and melons. Severe damage can stunt or wilt plants.

Flea beetle damage to turnip leaves. Photo: University of Minnesota Extension

Controls:

- Keep beds clean to reduce food sources in spring, plant crops later when they will grow faster and reduce chances of severe damage.
- Beetles are jumpers and are not catchable by hand. Yellow sticky traps can be effective.
- Row covers can be effective when deployed prior to infestation.
- Promote a diverse chemical-free environment. Braconid wasps are beetle predators.
- Spinosad is an effective organic insecticide when applied per directions.

More information is available in Flea Beetles in Home Gardens from the University of Minnesota Extension.

More on Low Toxicity Insecticides

Helpful information on some of the insecticides mentioned is found in these publications:

- Less Toxic Insecticides, Clemson University Extension and
- Diatomaceous Earth from the National Pesticide Information Center.

Takeaways

The eleven pests noted here have all visited my gardens. I hope they are relevant choices for you as well and that the measures noted are effective.

Comments welcome.

Additional Sources:

Japanese beetles:

Japanese Beetles | Extension | West Virginia University (wvu.edu)

The Japanese Beetle and Its Control (tennessee.edu)

Japanese beetles in yards and gardens | UMN Extension (adult and grub damage control info)

Colorado potato beetles:

Colorado Potato Beetle Management | Entomology (uky.edu)

Stink bugs:

Brown Marmorated Stink Bug (psu.edu)

Managing Pests in Gardens: Vegetables: Invertebrates—Stink bugs (ucanr.edu)

Aphids:

How to control aphids with less toxic methods | OSU Extension Service (oregonstate.edu)

Hornworms:

Hornworms2017 (1) (vt.edu)

Squash bugs:

Squash Bug: Management in Home Gardens (colostate.edu)

Leaf Miners:

Leafminers in home gardens | UMN Extension

Cover photo: Wheelbug attacking Japanese Beetle. Photo: R Morini

The Edible Garden in June

By Ralph Morini | June 2022-Vol.8, No.6

As we enter June, gardening tasks include harvest of spring crops and continued planting of warm weather crops. Weed and pest management become important, and moisture management requires vigilance as temperatures rise and rainfall typically decreases.

Lettuce and kale interplanted. Photo: R Morini

If you follow the planting schedule for Hardiness Zone 7a in Extension Publication 426-331, "Virginia's Home Garden Vegetable Planting Guide," you should be harvesting a nice crop of spring vegetables. June is planting time for beans, cucumbers, eggplant, melons, okra, peppers, pumpkins, winter and summer squash, sweet corn, sweet potato, and tomatoes.

Garden trellises. Photo: R Morini

To maximize production in your garden space, change from row planting to Intensive Gardening Methods.

Planting in raised or in-ground beds that are 3 or 4 feet wide, rather than single rows, allows denser plant spacing. Using trellises or other climbing structures for vining crops can be a great space saver. Be sure not to shade lower sun-loving crops with your trellises. On the other hand, shading lettuces and some greens during the hot weather can delay bolting, so manage shade strategically.

Successive plantings of beans and corn can extend the harvest season. Time planting and harvests to open garden space in late August for planting fall crops. The *Garden Shed* article Plant Partnerships in your Garden offers advice on planting a diversity of plants together for soil enhancement, pest control, and other benefits.

Water Management

Water is becoming an increasingly valued resource. We are all wise to work to minimize water waste:

- **Now that the ground has warmed, apply organic mulches** such as leaves, straw, and clean grass to conserve water while also suppressing weeds and enriching soil as it decomposes.
- Vegetables require about an inch of water per week during the growing season. Soaker hoses or drip irrigation make the most efficient use of water during dry spells.
- The soil surface dries quickly in summer heat. **Put your finger a couple of inches into the soil** to determine whether it is truly dry. You should be able to feel moisture. Moist soil also tends to be darker and stick together better than if it is dry.
- **Water in the mornings and avoid splashing water and soil** on plants to minimize the risks of mildew and soil-borne disease transmission. Remove lower leaves on tomato plants to prevent inadvertent soil contact.

Other suggestions for garden management this month:

Rotate crop locations, preferably on a 3-year cycle**.** Planting the same item in the same space in consecutive years invites the proliferation of pests and diseases.

It is better to **plant corn in blocks than rows**. Corn is wind- pollinated, and bunching plants together results in more complete pollination.

Cool mornings are the **optimum time to pick vegetables** for best texture and taste.

Stop harvesting asparagus when spears become thin, usually around mid-June.

Delay lettuce bolting in summer heat by shading it with taller plants or floating row covers. Also, try planting bolt-resistant varieties such as **Muir**, **Sierra,** and **Nevada**.

Mound soil up around **potato vines** when vines are about 12” long. New potatoes grow on thin stems called stolons. Longer underground main stems produce more potatoes. Hilling also prevents the tubers from being exposed to the sun and turning green. Repeat once or twice during the growing season, adding 6-8” of soil or mulch to the original soil level.

Two cross striped cabbage worms (top) on kale leaf. Photo: R Morini

By June, our **cole crops (cabbage, broccoli, kale, collards etc.) will be invaded by a variety of cabbage worms,** including loopers, imported cabbage moth worms, and the dreaded cross-striped cabbage worm. They are tough to control but can be managed. Holes chewed in leaves and dark excrement piles on leaves are the signs of attack. If hand picking, look for yellow eggs on the undersides of leaves as a start. Pull the caterpillars off leaves regularly; they do fast damage when uncontrolled. They can also be managed with row covers or with the organic pesticide *Bacillus thuringiensis* (Bt), available at garden centers. For more details review OMG What's Eating the Broccoli from the June 2018 issue of *The Garden Shed* and 2022 Pest Management Guide: Home Grounds & Animals/VCE.

It's always good to have some compost cooking. If you've saved some leaves and/or yard trimmings from last fall, combine them with grass clippings and kitchen fruit/vegetable cuttings to generate compost that you can apply to your beds prior to winter. If you are short of "brown" inputs, torn up chemical-free papers including paper towels, napkins, pizza boxes, and corrugated boxes are good replacements. I find that roughly equal volumes of grass clippings and mulched leaves is about right to achieve a hot compost batch.

Compost batch. Photo: R Morini

If your compost doesn't get hot, add more grass and kitchen scraps. If it is slimy or gives off an ammonia smell, add leaves, wood chips, sawdust (not pressure treated) or another carbon source. Keep the pile moist but not dripping and turn it every week or so to keep it aerated. A second heap can take regular additions of materials as they become available throughout the summer. It decomposes more slowly and less uniformly than the hot pile, but still produces a beautiful product in the end. It's worth the effort! For more detailed guidance, look at the Garden Shed article Backyard Composting with Practical Tips from the Pros.

People often ask if it is okay to include **citrus peel** in compost. The answer is that if you are "vermicomposting" — where the decomposition is done primarily by special "red wiggler" earthworms — don't include them. But if you are composting outdoors and the initial decomposition is done by bacteria and fungi before the worms move in, it is fine to add them.

Herbs planted in average soil need no fertilizer. Too much fertilizer may reduce flavor and pungency.

The **best time to harvest most herbs** is just before flowering, when the leaves contain the maximum essential oils. Cut herbs early on a sunny day.

Basil, a summer favorite herb, is susceptible to downy mildew. It is a fungal disease that can come from infected seeds, transplants or via wind blown spores from other infected plants. If your basil leaves turn yellow-brown and curl up, with a purplish fuzz on the leaf underside, remove and dispose of the plant to prevent spreading. Resistant varieties are available and work well. Look for them when purchasing seed. For more information on growing and using basil check Garden Shed article Basil: Beautiful and Aromatic.

Thin overloaded fruit trees; this will result in fewer but larger and better quality fruit at harvest time.

If birds are threatening your strawberries, consider covering plants with netting or row cover after plants are pollinated and berries are set. Hanging aluminum pie tins or CDs above the plants may also deter birds.

For information on fruit growing in your home garden check out "Selecting Plants for Virginia Landscapes" from the VA Cooperative Extension.

Sources:

"Strawberries in the Home Garden," NC State Extension, NC State.edu

"Vertical Gardening Using Trellises, Stakes and Cages," VA.Coop.Ext. Pub.HORT-189

"Growing Potatoes in Home Gardens", University of Minnesota Extension.

The Ornamental Garden in June

By Patsy Chadwick | June 2022-Vol.8, No.6

Timing is critical to keeping your ornamental garden looking interesting, particularly during the hot summer months. The garden is in full bloom now in June but think ahead to what the late summer or fall garden will look like. Although planting season is basically over, it's not too late to **plant annuals and perennials that will provide plenty of color up until frost.**

Routine gardening chores this month

By now, we're largely done with our spring chores, such as bed preparation, seeding, dividing, transplanting, and mulching. It's now time to switch to maintenance mode to keep the garden looking fresh and inviting. Some routine maintenance tasks include:

Deadheading — As annuals become established, deadhead spent flowers to encourage the plant to produce another round of flowers. A few minutes spent deadheading each week will keep those annuals blooming well into the growing season. TIP: Many of the newer varieties of annuals are self-cleaning and don't need to be deadheaded.

Pinching – The objective of pinching back annuals, such as petunias and coleus, is to keep the plants bushy and prevent them from becoming leggy. Pinch back the stem to just above a leaf node.

Propagating – Late spring to early summer is a good time to propagate stem cuttings of woody ornamental plants such as camellia, cotoneaster, viburnum, deutzia, and lilac. Take softwood cuttings from tender new growth on woody plants, just as it begins to harden. To learn more about propagating plants, refer to Virginia Cooperative Extension (VCE) publication 426-002 on Propagation by Cuttings, Layering and Division.

Staking – Install supports for plants that tend to collapse or flop over. **Stake** taller plants, such as foxglove, yarrow, and delphiniums, and **cage** mounding plants, such as peonies or chrysanthemums. This is particularly critical if your garden is in a windy site.

Weeding – With the onset of warmer weather, stay on top of the weeds in your flowerbed. Pull weeds at least once a week or more often if you have the time and the inclination. For help with identifying weeds, try Weed Identification Photos/Maryland Ext

Watering – Water trees and shrubs deeply and infrequently at the root level to help them get through the summer heat. This is particularly important during the first few growing seasons after a tree or shrub is planted. It's also important for all plantings during drought conditions. If you use a sprinkler system for your annuals and perennials, water them in the mornings so that foliage can dry off during the day.

For **containerized plants**, keep close tabs on their water requirements. This is particularly critical if you're planning to go away on vacation. Group containerized plants together near a hose or other water source so that it will be easier for your neighbor or other helpful person to water your plants for you in your absence. Place the plants where they will be out of the afternoon sun. This will help them conserve water.

Collecting and saving seeds – Given the rising costs of seeds these days, collecting and saving your own is both rewarding and economical. Collect seeds after flowers have faded and seeds are dark brown or black. Spread the seeds out and allow them to dry thoroughly so that they don't become moldy. Place the dried seeds in paper envelopes or air-tight glass jars and label and date them. Store the seeds in a cool, dry, dark place over winter. Some people like to store seeds in their refrigerators. Important: While open-pollinated species will come back true from seeds, hybrids will not.

Dividing daffodils – After daffodil foliage has died back, use a shovel or garden spade to dig up the bulbs. Dig several inches away from the clump to avoid damaging the bulbs and their offsets. Lift the clump of bulbs from the ground, being careful not to damage the roots. Gently twist the bulbs apart with your fingers. Discard any that look damaged or diseased. Re-plant the bulbs in a sunny spot with good drainage. Mix in a good amount of compost or other organic matter before you replant them. Plant them three times as deep in the soil as the circumference of the bulb. In other words, if the bulb measures two inches around its middle, plant it six inches deep.

Removing spent rhododendron blooms – Now that rhododendrons have finished blooming, carefully remove the old blooms within 2 to 3 weeks after they have faded. This will promote better blooming next year, give the plant a tidier appearance, and help prevent insect infestations. The technique is simple: Grasp the spent blossom cluster (called a truss) and carefully pinch it off or push it aside with your thumb. This will reveal the developing flower buds for next year's flowers. Be careful not to injure those as you remove this year's dead flower clusters.

Monitoring plants for signs of powdery mildew – Garden Phlox (*Phlox paniculata*) is one of the classic mainstays of the sunny perennial border. But powdery mildew can devastate the foliage of this native plant and turn it into an ugly, unsightly mess. To combat this disease, plant garden phlox in full sun. Space the plants about 18 to 24 inches apart to allow for good air circulation. Thin out established clumps by snipping out the weakest stems, leaving only 5 or 6 sturdy stems. Water well, particularly during dry weather, with a soaker hose at soil level and avoid wetting the foliage. Mulch around the roots to help retain moisture in the soil.

Powdery mildew on Phlox paniculata. Photo: Mary Ann Hansen, Virginia Tech Plant Problem Image Gallery, CC BY-NC. 4.0

Training vines, climbing roses, and other twining or climbing plants. Vining plants normally go through a growth spurt in early summer. As they grow, train them onto supports before they become unmanageable. As you tie them up, spread them out to the extent possible to cover trellises better and to provide better air circulation.

Monitoring houseplants to keep them from sprawling. The move outdoors into brighter light and fresh air provides just the jump start that many houseplants need for a growth spurt. Jade plant is an example of a houseplant that tends to sprawl. To keep it under control, pinch off the side shoots to keep the plant growing upright. Don't toss the side shoots that you pinched off. Pot them and start new plants.

Gardening Projects To Consider

Considering designing and installing a Rain Garden? A rain garden is an environmentally responsible way to capture rainfall and storm-water runoff. If you're in the process of planning one, choose plants that can tolerate both occasional flooding and long periods of dry weather. VCE Publication 426-043 on Rain Garden Plants recommends one plant species for every 10 to 20 square feet. In the example given, a 140-square-foot garden should have 7 to 14 different plant species consisting of a mix of tall, medium and low growing species. Some plants recommended for rain gardens include:

- **Trees**: Black gum (*Nyssa sylvatica*), Carolina silverbell (*Halesia tetraptera*) and hornbeam (*Carpinus caroliniana*)
- **Shrubs**: American beautyberry (*Callicarpa Americana*), spicebush (*Lindera benzoin*), and winterberry (*Ilex verticillata*)
- **Perennials**: Beard tongue (*Penstemon*), black-eyed Susan (*Rudbeckia*), and blue lobelia (*Lobelia siphilitica*)
- **Ferns**: Cinnamon Fern (*Osmunda cinnamomea*), holly fern (*Crytomium falcatum*), and royal fern (*Osmunda regalis*)
- **Grasses**: Feather reed grass (*Calamagrostis acutiflora*), switchgrass (*Panicum virgatum*), and foxtail grass (*Alopecurus pratensis*)

Thinking about creating a butterfly garden? If so, check out Virginia Tech's publication HORT-59NP, Creating Inviting Habitats for Birds, Butterflies, and Hummingbirds. You'll find guidance on which host plants to grow, depending on the life cycle of the butterfly. Adult butterflies require nectar, whereas caterpillars require leaves or other plant parts. Native plant species support more butterfly and moth species than introduced plants. Incorporate a wide range of plants that bloom throughout the growing

season. Also, group plants of the same species together to form a mass of color or fragrance. A mass planting makes it easier for pollinators to spot your garden and encourages them to swoop in for a closer inspection. If they like what they see, they'll happily make your garden a regular stop on their daily food-foraging expeditions.

Pests, Wildlife, and Other Aggravations

Japanese beetles – The grubs of this devastating landscape pest pupate in the soil in spring and emerge as adults in June and July with voracious appetites. The best strategy for managing these beetles is prevention and early detection. When they first appear in the landscape, immediately remove them from affected plants. The logic in doing this is that the presence of the beetles on a plant attracts more beetles. A quick "organic" way to dispense with them is to pick them off plants by hand early in the morning when they are sluggish and drop them into a bucket of soapy water. VCE Publication ENTO-97NP, Japanese Beetle, provides information on this pest and strategies for controlling it. University of Kentucky Cooperative Extension Service Publication ENTFACT-451, Japanese Beetles in the Urban Landscape includes lists of landscape plants that are seldom damaged by Japanese beetles as well as plants that are likely to be attacked by them.

Mosquitos — As the weather grows warmer this month, mosquitos make their appearance on the scene. It only takes a tablespoon or so of standing water to provide a potential breeding place for mosquitos. Monitor all potential mosquito breeding places such as birdbaths, drainpipes, or saucers under potted plants and remove standing water immediately.

Rabbits – Our first impulse is to blame deer for damage to our gardens, but rabbits tend to like the same plants. Organic deer repellent sprays containing rotten eggs and hot pepper should repel both animals. The downside to repellents is that most of them need to be re-applied after heavy rains. **A better solution is to install a 3-foot tall physical barrier** constructed of chicken wire or other small gauge wire with openings no more than one inch wide. Rabbits can tunnel, so bury the bottom of the fence about 6 inches deep into the soil. If it's not possible to install a physical barrier, then use plants that are rabbit resistant. Penn State's Cooperative Extension offers some suggestions in its publication on Rabbit-Resistant Garden and Landscape plants.

Poison Ivy – "Leaves of three, leave them be" is an easy way to help you identify **poison ivy.** It takes about 2 to 3 weeks on average to recover from the itchy rash caused by contact with urushiol (pronounced u-ROO-she-ol), the active ingredient in the plant's sap. To remove this vine safely from your landscape, loosen the soil around the roots so that they will be easier to pull. Slip a plastic trash bag over your gloved hand, grasp the plant, and pull it out by its roots. Pull the trash bag up over the plant, securely tie the bag, and place it in the trash. DO NOT COMPOST OR BURN THIS PLANT. If, however, you are one of those lucky people not bothered by poison ivy, then consider leaving it alone. The berries are an important food source for many of our birds. In fact, a Pennsylvania State University source suggests that more than 60 bird species consume poison ivy berries.

Invasive Alert: **Mile-a-minute vine** (*Persicaria perfoliata*, formerly *Polygonum perfoliatum*) gets its common name from its ability to grow 6" a day and 25' in a single season. Tiny, sharp, recurved barbs line the veins on the backs of the leaves and on the stems, which inspired its other common name of Tearthumb. This invasive annual vine forms dense mats of foliage and scrambles over other plants blocking out light and killing them. Tiny white flowers begin blooming in June, followed by showy bright blue fruits that are dispersed by birds and by waterways (because the fruits float). The plant produces flowers and fruits continually from early summer until frost. Shallow roots make the plant easy to pull up, but the recurved barbs can easily pierce skin. So be sure to wear protective gardening gloves when manually pulling this vine. **Both manual pulling and herbicide treatments should be done before seed setting in mid to late June.** For large, infested areas, apply preemergent herbicides to the soil in early to mid-March.

Mile-a-minute vine (Persicaria perfoliata). Photo: Leslie J. Mehrhoff, U. of Conn., Bugwood.org.

For information on other invasive species to watch out for in June, see the Invasive Plant Control Calendar in the May 2022 issue of *The Garden Shed*.

SOURCES:

Featured Photo: Butterfly weed (*Asclepias tuberosa*) by Pat Chadwick

Monthly Gardening Tips/June, Piedmont Master Gardeners/Gardening Resources

The Well-Tended Perennial Garden: Planting & Pruning Techniques (Tracy DiSabato-Aust, 2006)

Stinky, Fuzzy, or Toxic?

By Cathy Caldwell | June 2022-Vol.8, No.6

For those of us who garden in areas with high numbers of deer, it's easy to get discouraged. A new approach seems to be in order. After studying which plants have survived in my highly deer-pressured gardens, I decided that this year I will add only plants that are either smelly (to deer at least), fuzzy, or poisonous (preferably to deer only). Also allowed: grasses, in which deer have so far expressed no interest.

There are the usual suspects — fuzzy lamb's ears and rose campion, toxic milkweed, and plants with needle-y foliage and milky sap like blue star (*Amsonia hubrichtii*), all of which are pretty deer-resistant. Were there other plants that fit my new criteria? I was curious about plants that are toxic, so I looked into that category first.

I have to admit that the toxicity element makes me nervous, but through some research, I learned that **most plants have some level of toxicity** — an adaptation that aids survival. If you doubt this, take a look at the long list of plants identified in Poisonous and Injurious Plants of the United States: A Bibliography and in Safe and Poisonous Garden Plants/ Toxic Plants/Univ.California . Many plants in our gardens can be found on that list, including rhododendron, mountain laurel, elderberry, pieris, elephant ears, oleander, daffodils, autumn crocus, jack in the pulpit, lily of the valley, and the list goes on and on. You'll probably want to be familiar with the most toxic of the plants you or your family might encounter, and for that, I highly recommend The Socrates Project: Poisonous Plants in Virginia.

Common milkweed and a pollinating visitor. Photo: Cathy Caldwell

One garden plant well known for its toxicity is **common milkweed *(Asclepius syriaca)***, a delightful native, which almost never gets even a nibble in my yard. I was surprised to discover that milkweed has only a medium level of toxicity and is often browsed by both deer and rabbits, though it can be fatal to horses. Rabbits apparently only try a few bites of the stems late in the growing season, when the toxicity wanes. Deer are ruminants, which means they have specialized rumen microbes which degrade or inactivate many toxic substances in plants. Now I understand how deer can feast on cherry laurels despite the laurels' high toxicity. To learn more about this and some fascinating animal adaptations to toxic plants, check out Cornell CALS/Plants Poisonous to Livestock and Other Animals.

I had high hopes for **mountain laurel** after reading about its high level of toxicity to animals and humans. Amazingly, "if honey bees feed heavily on these plants, they are known to produce 'mad honey' that can be toxic for human consumption." NC State.edu/Kalmia latifolia. But as was the case with milkweed, deer can manage to eat mountain laurel, thanks to their specialized rumen microbes. In fact, many poisonous plants are not particularly toxic to deer. Why deer avoid some toxic plants but not others remains a mystery, one that scientists are still exploring.

My criteria was beginning to seem awfully limiting, but new frontiers opened up as I examined the aromatic herb category a bit more closely. In the past, I've sowed a few culinary herbs into my cutting garden, and some were quite pretty. Dill, for example, has beautiful flowery seed-heads, but has never been munched by deer, probably because of its odor. Why not expand its territory beyond the one little patch and let it take the role of "ornamental" in my beds? Surely there were other herbs that were attractive to humans — but not deer! A bit of research confirmed which common herbs were smelly enough to repel deer, and for that element, take a look at the list below.

Herbs Rarely Damaged by Deer*

*This list was compiled by UVA's Blandy Experimental Farm
"from several sources over the years including much of our own experience."

Agastache sp.	anise hyssop
Alliums sp.	chives, garlic
Anethum graveolens	dill
Lavandula sp.	lavender
Mentha sp.	mint
Origanum sp.	oregano
Rosmarinus sp.	Rosemary
Santolina chamaecyparissus	lavender cotton
Thymus sp.	thyme

Blandy Experimental Farm/Arboretum/Planting Resources/Deer Resistant or Not

Smelly but Pretty Herbs

Some herbs are strong candidates for the ornamental garden, and the first one on the list above has long been part of my ornamental beds; I even wrote an article about it: Anise Hyssop/The Garden Shed/2021. A public garden in my former home town, Salt Lake City, is employing dill as an ornamental; check out the photo below. Most herbs came from the Mediterranean region and traveled to North America with the earliest settlers, so they're not native. But since many are easily grown from seed, gardeners can quickly and inexpensively populate their ornamental gardens with attractive plants that deer will in all likelihood avoid — and with no worries about accidentally introducing an invasive. Just remember that if you let culinary herbs flower, they won't be as flavorful. For the basics on growing herbs, check out How to Grow, Harvest and Preserve Culinary Herbs/The Garden Shed as well as Herbs That Taste and Smell Like

Lemon/The Garden Shed, which suggest a number of possibilities for ornamental herb gardening.

Dill flowering in Red Butte Gardens, Salt Lake City, Utah. Photo: Andrey Zharkikh, CC-BY-2.0

Dill (*Anethum graveolens):* I should not have been surprised that dill's specific epithet (species name) is *graveolens,* which means strong-smelling. Deer tend to avoid strong-smelling plants, and research soon revealed that more than one of the plants that fit my new criteria share that species name.

Sage (*Salvia officianalis*): Culinary sage has somewhat fuzzy, slightly gray leaves, plus the smelly factor, all of which probably make it less popular with deer. If you keep a culinary sage plant going long enough, it will flower. My old sage has overwintered in a pot for many years on the deck. When the blue flowers appeared, it was a wonderful shock. Worth a try out in the garden, right? No less an authority than Missouri Botanical Garden has commented on sage's "excellent ornamental qualities."

Sage. Photo courtesy of Missouri Botanical Garden Plantfinder

Mint holds the hillside. Photo: Cathy Caldwell

Mint *(Mentha suaveolens*): Due to its reputation for acting like an invasive, most of us keep mint confined in a pot. I have a "passalong" mint that produces white blooms in summer and which appears to fall in the category of apple mint or perhaps pineapple mint. My mother-in-law referred to it as "Winterthur mint." Being a fairly aggressive spreader, it makes a reasonably attractive hillside soil-holder.

But there are the newly-popular **mountain mints (*Pycnanthemum)*** which seem to have it all: they're native, they're beloved by pollinators, deer avoid them, and they make a lovely addition to the garden. Their secret ingredient is **pulegone**, which gives their leaves a highly aromatic "minty but medicinal" smell, repelling both deer and mosquitos.

There are four species of mountain mint that are native to our area:

- Hoary Mountain Mint (*Pycnanthemum incanum*)
- Short Toothed or Clustered Mountain Mint (*Pycnanthemum muticum*)
- Narrow Leaf Mountain Mint (*Pycnanthemum tenuifolium*)
- Virginia Mountain Mint (*Pycnanthemum virginianum*)

Mountain mints are good candidates for the back-of-the-border position in sunny beds. To learn more about mountain mints, read Mountain Mint — Truly a Gardener's Mint/Rutgers.edu.

Hoary mountain mint. Photo courtesy of Missouri Botanical Garden PlantFinder.

When I read that pulegone is also present in pennyroyal, I did some research and learned that the *essential oil* from the pennyroyal plant is highly toxic, causing liver damage and death to humans and dogs when ingested even in small amounts. Of course, the essential oil will be much more concentrated than the pulegone in the plant itself, but I nevertheless decided against adding pennyroyal to the garden.

Rosemary (*Salvia rosmarinus,* formerly known as *Rosemarinus officinallis):* There are several varieties of rosemary, some upright, some spreading; the latter look great cascading over a wall. Rosemary needs well-drained soil and full sun. It tolerates drought, but not wet soil, which can lead to root rot. In fact, a winter in wet soil can kill this plant. My research suggests that my new little rosemary plant will do best at the top of a slope situated among some rocks.

Mexican tarragon or mint marigold (*Tagetes lucida*): I am experimenting with this plant, a native of Mexico and Central America, where it is a perennial. It is recommended as a heat-and drought-tolerant substitute for true tarragon, which is difficult to grow in the South. Its tall habit is what I find appealing. Note that it has low severity toxicity. It needs full sun and well-drained soil. It is grown as an annual in zones colder than Zone 8.

Tagetes lucida. *Photo: Zobro, CC BY-SA 3.0*

Ruta graveolens *Photo: Leonora (Ellie) Enking (wallygrom); CC BY-SA 2.0*

Rue (*Ruta graveolens*) — which has glorious blueish leaves — found its way into my garden when I picked it up in the "Herbs" section at the nursery. I didn't realize it at the time, but this is definitely **NOT** a culinary herb. Historically it was used as a medicinal herb, but it is **quite toxic,** causing contact dermatitis (wear gloves), "stomach pain, vomiting, exhaustion, confusion,

and convulsions and can be fatal," according to NC State Extension. I only recently discovered this fact, so I feel fortunate that none of our dogs or children ever tried a bite. Could the toxins give off a repellent odor? In any event, rue may not be for you if your garden is frequented by children or pets.

Besides being deer-resistant, rue has other admirable traits — it is drought and heat tolerant and supports several species of swallowtail butterflies! I'm not a fan of its yellow flowers, but they're no doubt attractive to many gardeners. Some research suggests that this plant or a similar species may have various medical applications and has potential as a pest repellent A recent article reports that extracts from *Ruta graveolens* "showed good antibacterial and antifungal properties."

Rue combines well with lamb's ears. Photo: Cathy Caldwell

Borage in bloom. Photo: Cathy Caldwell

Borage (*Borago officinalis*): Borage has become one of my favorite plants, mostly due to its ethereal blue flowers. But it has other desirable traits: it is a self-sowing annual and likes sunny, dry areas. Deer have not yet bothered it in my yard, perhaps due to its hairy leaves. Despite its low-severity toxicity, its leaves — when young — can be added to salads for a cucumber flavor. The flowers are attractive to pollinators. Borage has an entry in the Digital Atlas of the Virginia Flora because it escaped cultivation on Wildcat Mountain in Fauquier County in the 1960's and has persisted there ever since.

Chives (*Allium schoenoprasum*) and other onions

Chive Blossoms. Photo: gardenmuse, CC BY-NC. 2.0

Most onions are avoided by deer, so members of this family are naturals for the deer-free ornamental garden. Chives will form beautiful lavender-blue flowers in May or June, but my new favorite is **garlic chives** (*Allium tuberosum*), which has tall stems and beautiful white flowers later in

Garlic chives. Photo: Cathy Caldwell

the season, July or August. This plant can handle a fair amount of shade. Not a single flower has yet been eaten by a deer — and you certainly can’t say that about daylilies! Garlic chives is known for its spreading and self-seeding tendencies; it has self-seeded in my garden, and it fits nicely everywhere!

Globemaster ornamental onion. Photo: Pat Chadwick

Ornamental onions are also on the list. I for one am eager to add them to my garden. Read more about their gorgeous flowers and recommended varieties in Master Gardener Favorites and Allium/The Garden Shed.

It seems I've only scratched the surface of the potential for herbs in the ornamental garden. If you're interested in growing lavender, be sure to read Growing Lavender in Central Virginia/The Garden Shed. Both thyme and oregano seem to have the potential to be ornamentals, so I'm planning to experiment with them next. And then there's the artistic challenge — how best to combine these "ornamental herbs" with other plants in the garden. This little journey has banished my discouragement, and I hope that you, too, will be invigorated by exploring new ways with herbs.

SOURCES

Featured Photo: Anise hyssop and lamb's ears in the author's garden. Photo: Cathy Caldwell

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"Herb Culture and Use," Va. Coop. Ext.

"Mountain Laurel — The Living Legacy," The Deer-Forest Blog (Penn State Ext. 2015)

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"Rue," Roots of Medicine/Univ. of Iowa College of Pharmacy

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"Not Easy Being Mead's: Comparative Herbivory on Three Milkweeds, Including Threatened Mead's Milkweed (*Asclepias meadii*),and Seedling Ecology of Mead's Milkweed," (Thesis by Steven Michael Roels, University of Kansas 2011), kuscholarworks.ku.edu

"*Amsonia hubrichtii*," NC State Extension

Upcoming Events

By Erin Hall | June 2022-Vol.8, No.6

Planting for Pollinators sponsored by Piedmont Master Gardeners

Tuesday, June 7 | 6:30 pm – 7:30 pm | Free: Register

The Center at Belvedere

Growing native plants is one of the best ways to promote biodiversity and create healthy habitat for pollinators and wildlife. Even if you live in an apartment or townhome, you can still support pollinators by growing native pollinator plants on a patio or balcony in pots or in a small flower bed. Learn about the newly planted pollinator beds and pots at The Center and get ideas for creating your own gardens and pots using plants that will attract butterflies, hummingbirds, and other vital pollinators. This in-person program is hosted by the **Piedmont Master Gardeners** and The Center at Belvedere and is free and open to all. Register online.

Tree Identification: Summer sponsored by the Charlottesville Area Tree Stewards (Zoom)

Tue, June 7, 2022 | 7:00 pm – 8:30 pm | Free: Register

The Social Life of Trees sponsored by the Charlottesville Area Tree Stewards (Zoom)

Tue, June 14, 2022 | 7:00 pm – 8:30 pm **|** Register

Note: For more information on June programming by the Tree Stewards, including in-person sessions that are currently full but may become available, see Tree Basics Classes & Tree Walks/charlottesvilleareatreestewards.org

Garden Basics: Maintaining the Perennial Garden sponsored by Piedmont Master Gardeners

Saturday, June 18 | 2:00 pm – 4:00 pm | Free: Register

Trinity Episcopal Church, 1118 Preston Avenue, Charlottesville

Keeping the perennial garden looking its best requires an understanding of each plant's needs. In this session, you will learn about the art of deadheading and grooming, tips and tricks for prolonging bloom times, the best ways to divide perennials, and seasonal care of perennials. Register online to reserve your seat. Registration closes at 5 pm on June 16. Garden Basics is presented by the **Piedmont Master Gardeners** and the Bread and Roses ministry at Trinity Episcopal Church.