

June 2021-Vol.7, No.6

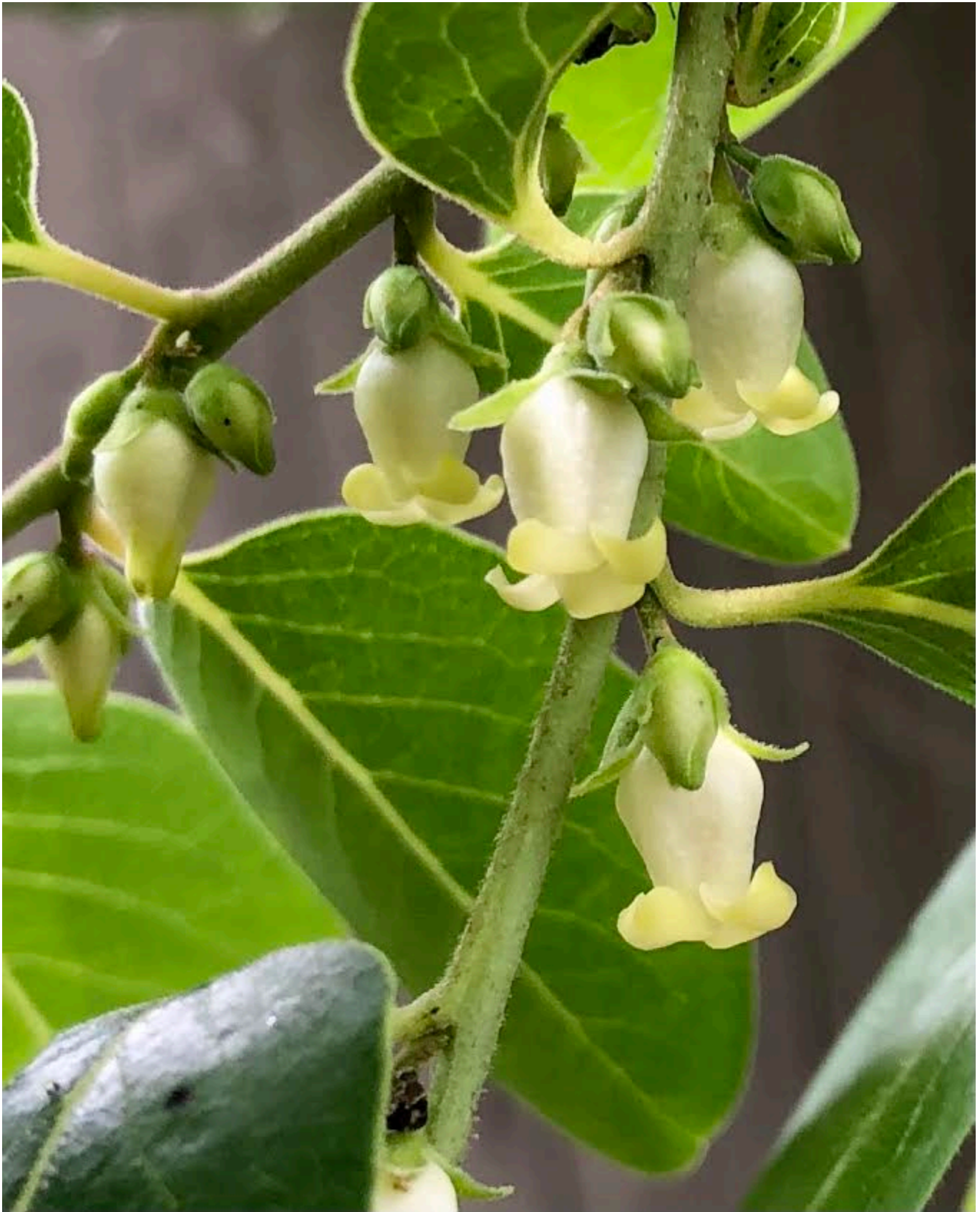


Table of Contents

- Oh No, Something’s Wrong with my Plant! 1**
- The Edible Garden in June 7**
- Growing Fruits and Vegetables in Your Backyard Forest 11**
- Orzo with Spring Greens and Alliums 16**
- Upcoming Events June 2021 19**
- The Ornamental Garden in June 24**
- Online Resources for Ornamental Gardeners 30**
- Master Gardener Favorites 36**

Oh No, Something's Wrong with my Plant!

By Ralph Morini | June 2021-Vol.7, No.6



It is always distressing to notice that a plant is damaged or unhealthy looking. Whether house plant, garden plant, tree or shrub, we want to find the safest, most effective ways to fix the situation. Diagnosing the true cause can be tricky. The goal of this article is to provide readers with resources that can help, from providing a basic framework for analysis to identifying causes and remedies.

Diagnosis

The first step in fixing a plant problem is diagnosing it correctly. The cause can be obvious if insects are visible on damaged leaves, for instance. But often the cause is a mystery and requires a diagnostic process to correctly identify it.

Plant problems are divided into living (biotic) and non-living (abiotic) causes. Non-living factors include environmental and human-caused issues such as light, heat, water, chemical, nutrient and physical/mechanical issues. Living factors relate to insect or animal pest problems and fungal, bacterial, and viral diseases. All require observation to identify, and because symptoms can be similar for different problems, a process of elimination may be needed. The Virginia Cooperative Extension (VCE) publication [Diagnosing Plant Problems](#) provides a good guide to this diagnostic process.

Nutrient Problems

When there are no clear external symptoms or causes of a plant's problem, nutrients may be a factor. We recommend soil tests approximately every three years to provide good guidance on any nutrient deficiencies in garden soil. For edible gardens where crops are grown and harvested one or more times per year, amendment and fertilization are important to replace soil elements that are taken up by the previous crop(s). Basic guidance on fertilizers and their application is summarized in the Garden Shed article [A Fertilization Primer](#).

If you suspect that over- or under-fertilization may be an issue, scroll down to the ["Essential Nutrients for Plant Growth section of the NC Extension Gardener Handbook"](#) for a list of symptoms due to an excess or lack of macro- and micro-nutrients, organized by type of plant.



Lady beetles controlling aphids on roses. Photo: R Morini

IPM: Integrated Pest Management

When a problem is determined to be caused by a natural factor like an insect or disease, best practice is to resolve it by following an Integrated Pest Management process. IPM truly advocates management, rather than attempting to obliterate the pest at the outset. It starts with clear identification of the pest, monitoring the pest's impact, accepting limited damage, taking preventive action where possible, and using chemicals only as a last resort. It acknowledges that chemicals sometimes have a role to play but argues against preemptive, premature, and excessive chemical use. Longer term, it advocates creating a healthy and biodiverse habitat around the gardens to build the population of beneficial insects needed to counter the pest populations. A thorough and easy to understand summary of IPM is presented in the Garden Shed article [Integrated Pest Management](#).

The video [IPM Basics](#) from the University of Maryland Extension, featuring Michael J. Raupp, PhD, Professor Emeritus of Entomology and Extension Specialist, provides another concise summary of IPM, including the key steps:

- Build your knowledge base about specific crop and garden pests and the damage they do
- Monitor your plants regularly for visible damage

- Decide on appropriate action
- Intervene appropriately, with chemical use only as a last resort, preferably with substances judged to be minimally harmful and classified as suitable and safe for organic gardening
- Measure success and keep records.

IPM tactics for pest issues on specific fruits are available on the [MyIPM](#) app. It is sponsored by the Clemson University Extension in collaboration with six other state extension services to promote IPM in the commercial fruit-growing arena. It is available at no cost from the Apple Store and Google Play.

Insects

Insect damage is a factor in all gardeners' lives. Whereas in the past, a variety of chemicals were applied to kill off insect pest populations, the results of this practice are now recognized as environmentally damaging. Non-selective insecticides kill beneficial insects as well as pests, devastating insect populations. This, in turn, affects our equally-damaged bird population, which depends on insects for food. Our efforts today are to reduce chemical dependence and create more biodiverse and balanced environments on our properties.



Foe: Spotted Cucumber Beetle. Photo: Ralph Morini

A short video from the University of Georgia Extension titled [Garden Insects: Friend or Foe](#) provides a nice summary of IPM as well as common beneficial and pest insects. The Xerces Society offers a video presentation on beneficial insects, titled [Your Insect Allies: Meet the Beneficial Insects Controlling Pests in your Garden](#). It identifies beneficials and provides a lot of good information on their habits and habitats. It can be helpful in building a diverse ecosystem that attracts and helps beneficials thrive and provide natural pest control.



Friend: Wheel (Assassin) Bug. Photo: Ralph Morini

If you can't find help in the above sources or want further information, try the Cornell Extension's [Resource Guide for Organic Insect and Disease Management](#). This is a nearly 200-page reference document aimed at commercial organic growers. It presents information by crop, insect, disease, and approved organic treatments. It also includes many references for folks who want to dive even deeper into the topic.

Diseases

There are numerous on-line resources to assist in identifying, preventing/reducing, and treating plant afflictions that aren't insect pest-related. Here are a few:

- A very useful database for identifying and treating disease issues on plants ranging from garden vegetables to trees is the VA Cooperative Extension [Plant Problem Image Gallery](#). It includes name, type, description, and photos of different diseases and disorders for many different plants. Once the problem is identified, treatment options can be found in [VCE's Home Grounds and Animals Pest Management Guide](#). Definitely worth checking out.
- [Plant Diseases and Disorders](#) on the Missouri Botanical Garden (MBG) website defines six types of issues: bacterial, fungal, viral, nematodes, nutritional, and environmental. The site breaks each category down further, illustrates specific problems with photos, and provides sound advice on treatment. The MBG website contains a wealth of information on many gardening topics and is worth getting to know.
- [Plant Disease Diagnosis Tips](#) is a video from the University of New Hampshire Extension which presents some helpful information for determining the nature of plant problems.
- A detailed catalog of various diseases and disorders is available in the [Diseases and Disorders chapter of the NC State Extension Gardeners Handbook](#). It provides detailed descriptions of different types of plant problems, many including photos, along with advice on how to deal with them. It is a great resource for gardeners who want to go deeper into understanding their plants.
- A couple of more narrowly-focused sites can help with specific common problems. I have found the Missouri Botanical Garden's [A Visual Guide: Tomato Foliage, Stem and Root Problems](#) to be a helpful resource in diagnosing and treating tomato issues.
- Similarly, the VCE video [Downy Mildew on Basil](#) offers help in identifying and dealing with a common problem on this popular herb.

Websites and Apps

A broad-based website titled [What's Wrong With My Plant](#), is maintained by the University of Minnesota Extension. It includes information on problems affecting fruits, vegetables, lawns, annuals, perennials, shrubs, and trees. It is thorough, easy to use, and supported by a very credible organization.

And, there are apps... My experience with photo-driven apps is pretty mixed. It is easy to get a wrong plant identification and go down the wrong path. So care must be taken to validate results. That said, apps will no doubt become more prevalent in the future, and there is a lot of useful information on some existing products. Please note that all references to commercial products or trade names do NOT imply endorsement by Piedmont Master Gardeners or the Virginia Cooperative Extension or bias against those not mentioned.

VCE recently held a webinar titled [There's An App For That?](#) presented by Pam Bennett, the State Master Gardener Coordinator at the Ohio State University Extension. It covers the selection and use of apps on various gardening topics. Ms. Bennett talks specifically about some available apps that may be worth acquiring. The presentation is about an hour but is a worthwhile time investment for folks who would like some coaching on app selection and use.

Some apps mentioned in the presentation above and noted in other extension-based references I've reviewed include:

- 3 inexpensive apps supported by the Purdue University Extension which are reported to be good reference and learning tools are:
 - **Purdue Perennial Doctor**
 - **Purdue Annual Doctor**
 - **Purdue Tree Doctor**
- For vegetables, the free app **VegDr** was created by the University of Georgia Extension with funding from USDA. It currently covers cucumbers, watermelons, squash, cantaloupe, pumpkin, tomato and pepper plants. Georgia is its research base, but its information has broader geographic applicability.



Veg Dr Cover Page

Other Gardening Apps and Sources



Some other Apps

While this article focuses on diagnosing plant problems, I ran into some other gardening and nature-based apps that may be of interest:

- **Vtree** is a free tree identification app for iPhone and Android, developed by Virginia Tech. It has a huge collection of photos and information on trees from around the world. You can download them all, limit the download to local area trees, or simply download the one you are asking about. The app asks questions to lead the observer to photos of potential answers, and even offers the option of sending a photo to an expert at Tech for an answer.
- **IDWeeds** is a free app from the University of Missouri that helps identify weeds through a series of questions and then presents photos of possible solutions to the user.
- **Picture This** is a highly-regarded plant identification app that references thousands of species worldwide. It costs about \$30 per year to download.

Finally, if you prefer to do your investigations using the web but get frustrated with all the non-relevant

search results you get, read the VCE document [The Right Answer: How to Find Unbiased, Research-Based Answers to Horticultural Questions](#). This publication offers many helpful definitions, hints, and practices that will help narrow and legitimize search results.

In Summary...

The amount of information that is available to us is both amazing and frustrating. The sheer quantity of data and the competition among many sources to climb to the top of search lists can make finding the best answers elusive. I hope the information contained here is helpful in narrowing and shortening your searches. Comments are welcome.

The Edible Garden in June

By Ralph Morini | June 2021-Vol.7, No.6



As we enter June, my vegetable garden is going strong. I trusted the long range weather forecast and put my tomatoes in during the last week of April and they are growing well. Our last frost this year was on April 3, very early by any measure. With staggered plantings of summer crops, I am angling for a record harvest this year. I hope you have similarly positive prospects.

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.

To maximize production in your garden space, try **intensive gardening techniques**. 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. Finally, time your planting and harvests to open garden space in late August for planting fall crops. Extension publication [Intensive Gardening Methods](#) offers more information on these topics. The recent *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.



Vertical gardening can save bed space. Photo: Ralph Morini

Water Management

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

- **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.
- **Monitor soil moisture.** As a general rule, 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 dried out.
- **Water in the mornings and avoid splashing water and soil** on plants to minimize the risks of mildew and soil-borne disease transmission. For the same reason, remove lower leaves on your tomato plants to prevent inadvertent soil contact.
- If you are concerned with water usage and want to **know how much water you need for your garden**, you can **estimate it with some simple math**. It takes .623 gallons of water to provide one inch of water to one square foot of garden. For example, if you have a 4×8 foot raised bed (32 sq ft), you will need .623 gallons/sq ft x 32 sq ft of garden space or about 20 gallons to apply an inch of water to the bed. If you are lucky, rain will provide some or all of that. A rain gauge is handy for measuring rainfall.

Other suggestions for garden management this month:

Remember to **rotate crop locations**. Planting the same item in the same space in consecutive years invites the proliferation of pests and diseases. A 3-year rotation cycle is commonly recommended.

In backyard gardens, 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.

Growing **lettuce** under a **shade screening material** will slow bolting and extend the harvest season. Also, try planting bolt-resistant varieties such as **Muir, Sierra, and Nevada**.

Continue to mound soil up around **potato vines** to prevent the tubers from being exposed to the sun and turning green. You can also add a layer of straw or leaf mulch to help control weeds.



Cabbage worm damage to kale. Photo: Ralph 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 [2021 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.

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 article [Backyard Composting with Practical Tips from the Pros](#) in the January 2018 issue of *The Garden Shed*.



Compost batch. Photo: Ralph Morini

People often ask if it is okay to include **citrus peelings** 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.

To control **earworms on corn plants**: apply several drops of **mineral oil** to the corn silk

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

Renovate the **strawberry patch** after harvest. Mow the rows or cut back bed plants, thin out excess plants, and apply mulch for weed control.

For more tips on a variety of gardening topics, check out the Monthly Gardening Tips for June, listed on the PiedmontMasterGardeners website under [Gardening Resources/Monthly Tips/June](#).

Sources:

Virginia's Home Garden Vegetable Planting Guide: Recommended Planting Dates & Amounts to Plant, [VA.Coop.Ext.](#)

“Strawberries in the Home Garden,” NC State Extension, [NC State.edu](#)

[PiedmontMasterGardeners.org, Gardening Resources, Monthly Gardening Tips/June/Edible Garden](#)

“Vertical Gardening Using Trellises, Stakes and Cages,” [VA.Coop.Ext. Pub.HORT-189](#)

[2021 Pest Management Guide: Home Grounds & Animals/VCE.](#)

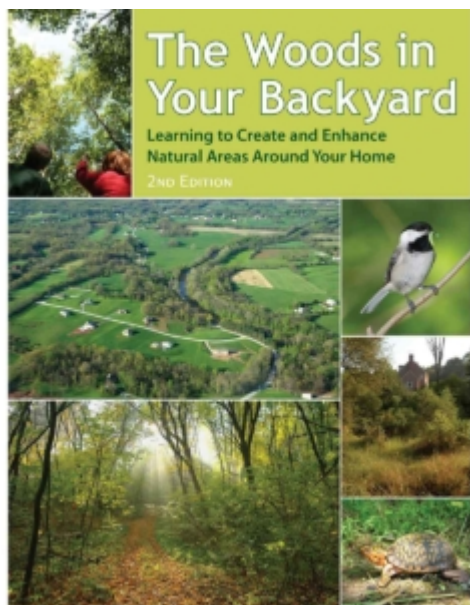
Growing Fruits and Vegetables in Your Backyard Forest

By Liz Sutphen | June 2021-Vol.7, No.6



Growing Fruits and Veggies in Your Backyard Forest

Many homeowners have limited space to cultivate fruits, vegetables, and nuts under full sun exposure. But many have a small woods in their yards, and a backyard forest can be a viable place to have some homegrown fruits, greens, herbs and even medicinal plants to satisfy your gardening desires. The addition of native fruit/nut bearing shrubs and trees to your backyard forest will also support conservation of important bird and insect food webs creating greater ecological function overall in your own backyard.



Front cover of *The Woods in Your Backyard*

Forest gardening - sometimes called “*forest farming*” — is a practice that involves cultivating understory crops within an established forest. As a large-scale forest land management system, this practice is known as *agroforestry*. Agroforestry involves a number of practices, including cultivating crops in the alleys between and under tree farm plantings. But on a small scale, “forest gardening” or “forest farming” can be employed by average home gardeners within their backyard wooded areas.

Assessing Your Backyard Forested Site Features

The deciding factor for growing plants in your backyard forest is an assessment of the amount of shade. Shade in a backyard forest may be dappled shade or full shade which will dictate what can be grown. Deep shade under evergreens or a dense forest canopy is clearly the least desirable for growing edible plants. However, many plants that are grown for their leaves, stems, and fruits can thrive in dappled shade areas depending on the specific requirements of each plant.

Soil type and condition also need consideration for each plant the homeowner desires. A soil sample analysis at the outset will provide important information on soil pH and mineral content that can directly impact plant growth. Soil sample test kits can be picked up outside the Albemarle/Charlottesville office of Virginia Cooperative Extension at the backside of the 5th Street County Office Building at 460 Stagecoach Road, Charlottesville. (<https://albemarle.ext.vt.edu/contact.html>)

Moisture content of the soil is often complex in a forested area. The soil may remain wetter for longer periods under the shade of a thick understory of trees or stay drier if little rainfall permeates the tree cover. Water runoff from other backyard areas may also be a contributor to moisture variability in your backyard forest. The extent of ground covers and other understory plants may be a positive stabilizer for moisture levels in addition to providing critical life cycle requirements for essential insects and birds.

All of these factors will also dictate which plants are currently thriving in your backyard forest. Careful initial inspection of your backyard forest area for obstructions like large tree roots and other plants, including invasive vines, forbs, and shrubs, will give an indication of the growing potential in your backyard forest. Also, through your initial inspection, you can prepare for challenges of invasive plant eradication while growing edibles in your forest garden. An excellent resource on invasives is Blue Ridge PRISM, blueridgeprism.org.

Native Fruits and Nuts

If you want to grow fruits or nuts, you'll want to consider native varieties as your first option. The native varieties offer the advantage of greater pest and disease resistance. Although many cultivars of native plants have been developed to increase yields, it is advisable to compare the positives and negatives of the cultivar versus the native plant prior to purchase. [Native Species or Cultivars: Does It Matter/The Garden Shed](#).

Before choosing any plant for your wooded area, be sure to assess its vulnerability to browsing by deer and other wildlife.

Many gardeners are attracted to blueberry bushes as a forest garden addition. The Highbush Blueberry bush (*Vaccinium* spp.) is native to Virginia and grows in partial shade. Soil, pH and light requirements are important considerations, as is the potential for animal browsing. For more on growing blueberries in our area, see [Blueberry Cultivation in the Home Garden/The Garden Shed](#). Serviceberry (*Amelanchier* spp.) is a highly desirable native for its fruit, which is similar to blueberries. Depending on the species, it can be a small shrub or a medium sized tree; read more about growing it at [Serviceberry/The Garden Shed](#). Elderberry (*Sambucus canadensis*), a multi-stemmed shrub, offers edible flowers and small dark berries for making jellies. The native elderberry provides excellent forage for pollinators and stem nesting habitats for native bees. Read all about it at [Elderberry: An Attractive Native Shrub that Heals/The Garden Shed](#).

Pawpaw (*Asimina triloba*) is a small native fruit tree that grows in colonies and likes wetter soil with dappled shade.

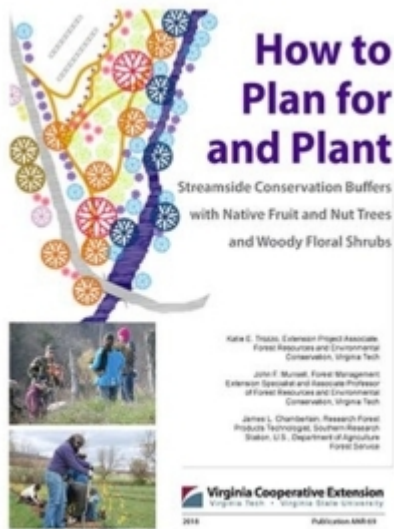
Not only is it well-adapted to forest gardening, the pawpaw is NOT a favorite of deer. In addition to providing a food source for human consumption, pawpaw provides support for pollinators and is host to the zebra swallowtail butterfly. Read all about it here: [Pawpaws/The Garden Shed](#).

American hazelnut (*Corylus americana*) is also a shade-tolerant small tree or shrub worth consideration for your backyard forest, but it probably will need protection from deer. Read more about growing it in [Hazelnuts/ The Garden Shed](#).



Overall, it is best to thoroughly review the growing requirements and features for all natives you might be interested in planting before making the investment. [Native Fruit and Nut Trees and Shrubs of Virginia/vt.edu](#).

Pawpaw tree in the McDaniels Nut Grove at Cornell University. Photo: Catherine Bukowski, CC BY-ND 2.0, Flickr.



If your wooded area adjoins a creek, you might be interested in using fruit and nut trees as a stream buffer garden. If so, you'll find expert guidance at "How to Plan for and Plant Streamside Conservation Buffers with Native Fruit and Nut Trees and Woody Floral Shrubs," [Va. Coop.Ext. ANR-29](#) (2018) and [PDF version](#).

Greens

Many greens can be grown in your backyard forest, including leaf lettuce, arugula, endive, Swiss chard, collards, mustard greens, spinach, and kale. Another green known as *ramps* (*Allium tricoccum*) which is a wild leek, can thrive in cool, moist forested areas, often near streams. Although ramps may take several years to establish themselves and are rather picky about their environment, they have long been prized as a forest food. Learn more at [It's Ramps Season! Grow Them, Eat Them, Sell Them/ NC State Ext](#)

The benefits of growing greens in your backyard forest include less need for water due to the shade offered and less bolting of the leafy greens. Therefore, growing in a dappled shade environment will extend the overall productivity of your leafy greens. If your soil is not conducive to direct planting of your greens due to tree roots, important ground covers, or invasive plants, you can simply use pots or makeshift raised beds for plantings. Using large pots or simple raised beds takes the worry out of trying to create the perfect growing environment for greens on your forest floor. It also prevents elimination of other ecologically important understory plants that are potentially contributing to critical insect and bird survival.



A patch of cultivated ramps. Photo: Jeanine Davis, NC State Extension.

Herbs and Mushrooms

Your backyard forest can be a wonderful place to grow your kitchen herbs. Mint, basil, chervil, chives, coriander, parsley, sage, sorrel, and tarragon can flourish in dappled shade. Again, using pots or makeshift raised beds may be desirable. Some, such as mint, can become very invasive when planted directly in the ground.

Mushrooms are a popular edible for forest gardening. The best procedure for growing shiitakes is now well-established, and some forest farmers are growing many varieties of mushrooms.



Oyster mushroom forest farm. Photo: Catherine Bukowski, CC BY-ND 2.0, [Flickr.com](https://www.flickr.com/photos/catherinebukowski/)

Medicinals

Considerable information is published on the cultivation of two American natives, ginseng (*Panax quinquefolium*) and goldenseal (*Hydrastis canadensis*) in forested areas, and both of these plants are major cash crops. See [Cultivating Native Woodland Botanicals/NC State Ext.](#) Both are reported to provide therapeutic benefits, although the scientific literature varies. Other forest botanicals such as blood root, black cohosh, squaw vine (partridgeberry), and star grub may be grown in a predominately shade forest. Some of these woodland botanicals may be invasive, so research prior to planting is recommended. Also, whether or not a botanical has true health benefits requires careful scrutiny, as does its potential toxicity.

Loving Your Backyard Forest



Bloodroot in bloom in Boone, NC. Photo: Katie Trozzo, CC-BY-ND-2.0.

Your backyard forest can be a wonderful place to satisfy your gardening needs while supporting insects and birds in their quest for an ecologically-balanced coexistence. Careful research on suitable native plants will ensure optimal success for growing fruit- and nut-bearing plants in your backyard forest. Popular kitchen greens and herbs can be easily cultivated for daily enjoyment in the dappled shade of your forest canopy. Growing some of your own food is both an important and fulfilling venture for young and old.

Other Sources

Featured Photo: Goldenseal planting in mid-spring, by Jeanine Davis, NC State Univ. Ext.

Essential Native Trees and Shrubs for the Eastern United States (Tony Dove and Ginger Woolrich, 2018).

“Forest Farming,” [Va.Coop.Ext.](#)

“How to Plan for and Plant Streamside Conservation Buffers with Native Fruit and Nut Trees and Woody Floral Shrubs,” [Va. Coop.Ext. ANR-29](#) (2018) and [PDF version](#).

“The Basics of Hardwood-Log Shiitake Mushroom Production and Marketing,” [Va. Coop.Ext. ANR-102P](#) (2020)

The Woods in Your Backyard: Learning to Create and Enhance Natural Areas Around Your Home. Jonathan Kay, 2016. (VCE Pub./ANR-199) (a video about this book is available at [Va.Coop.Ext.Publications &](#)

[Educational Resources](#), and the book itself is available from the Cornell online bookstore, [Cornell Store.com](#))

[Producing and Marketing Wild Simulated Ginseng in Forest and Agroforestry Systems](#), Va.Coop.Ext. Pub. 354-312 (2009)

Orzo with Spring Greens and Alliums

By Erin Hall | June 2021-Vol.7, No.6



This easy, one-skillet meal pairs orzo with the greens that are abundant in the spring — spinach, kale, chard, etc. It also makes good use of green garlic and spring onions that you might have from thinning the garlic or onion crop in your garden. It makes for a complete meal on its own or would be wonderful as a hearty side dish or starter.

One-Pan Orzo with Spring Greens and Feta

Adapted from [Melissa Clark for New York Times Cooking](#)

Serves: 2 as a main dish or 4-6 as a side or starter

Notes: This one-pan recipe comes together quickly and can be easily adapted for what you might have on hand. You could easily use garlic cloves in place of the green garlic and more diced onion in place of the scallions or more scallions in place of the diced onion. The original recipe called for vegetable or chicken broth which I didn't have and the final result was not lacking. Dill, cilantro, or a combination would be good in place of the parsley. Parmesan could take the place of the feta. Blanched fresh peas or chopped asparagus would be wonderful in place of the frozen peas.



L to R: scallions, spring onions and green garlic. Photo courtesy of Erin Hall.



Photo courtesy of Erin Hall

For the greens, I used a combination of spinach and baby kale and simply chopped all of it. If using mature kale, remove the tough stems and discard. With chard, remove the stems and chop them and add with the onions to sauté before adding the greens.



Photo courtesy of Erin Hall

Ingredients

- 2 tablespoons unsalted butter
- 1 bunch of scallions, trimmed and sliced, divided
- 1/3 cup onion, diced
- 3 heads of green garlic, minced
- 8 cups of greens
- 1 teaspoon Kosher salt
- 1 3/4 cups water
- 1 cup orzo
- 1 lemon, zest only
- 1 cup frozen peas, thawed
- 3/4 cup feta, crumbled, divided
- 1/2 cup parsley, chopped, divided
- Pepper to taste

Steps

1. Heat a 10-inch skillet over medium heat and melt butter. Stir in the onion and about three-quarters of the scallions, reserving some of the green for garnish. Cook for a couple of minutes until softened, stirring frequently, and then add the garlic and cook for another minute.
2. Stir in the chopped greens, adding in batches if needed. Add 1/2 teaspoon of salt and continue to

- cook until the greens are wilted.
3. Stir in water and another ½ teaspoon of salt and bring to a simmer. Stir in orzo and lemon zest. Cover and simmer over medium-low heat until orzo is al dente and most of the liquid is absorbed.
 4. Stir in peas, and about three-quarters of the feta and parsley, reserving some cheese and herbs for garnish. Add 5-6 grinds of fresh pepper and continue cooking for another minute or so until everything is warmed through and incorporated.
 5. Taste for seasoning and add more salt and pepper if needed. To serve, garnish with feta, scallions, and parsley.



Photo courtesy of Erin Hall

Resources

All Photos by Erin Hall and Michael Shveima, used with permission.

“Green Garlic: The Adolescent Allium” by Lindsay-Jean Hard for Food52,
<https://food52.com/blog/6458-green-garlic-the-adolescent-allium>

“Onions, Garlic and Shallots.” VCE Publication 426-411,
<https://resources.ext.vt.edu/contentdetail?contentid=1063>

“Leafy Green Vegetables.” VCE Publication 426-408,
https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/426/426-408/SPES-253.pdf

Upcoming Events June 2021

By Susan Martin | June 2021-Vol.7, No.6

**PIEDMONT MASTER GARDENERS
GARDEN BASICS CLASS VIA ZOOM
"THE CHALLENGES OF SHADE GARDENING"
Saturday, June 19
2:00 - 3:30 PM**

Shady areas can be challenging even for seasoned gardeners, but they can also be the most rewarding part of your landscape. Participants will learn from an Extension Master Gardener how to make the most of shady conditions; how to choose plants that perform well in dry or moist shade; and how to combine shade-tolerant trees, shrubs, and perennials for maximum impact. **To reserve a spot in the program, register by June 14.** An invitation to the Zoom session will be sent a couple days before and the morning of the program. See this [LINK](#) for information and to REGISTER.

**HEARTFLAME GARDEN
OPEN TO VISITORS
650 Sandy Bottom Rd.
Near Elkton, Virginia 22827 (Adjacent to Shenandoah National Park)
Phone: (540) 298-8684
email: inanna@heartflamegarden.com**

This three-season, breathtakingly beautiful garden stretches over 2 acres, and is open to the public free of charge. The garden owners, Inanna and Gabriel Garretson, ask that you call before visiting unless you plan on attending one of the OPEN days where everyone is invited without appointment. Open days for June and July are the weekends of 6/26 and 6/27, and 7/3 and 7/4, from 10:00 AM - 4:00 PM. Please see this [LINK](#) for a list of the open days for fall and look at recent photos of what's in bloom. This garden is amazing!

**VIRGINIA NATIVE PLANT SOCIETY
STATE AND CHAPTER EVENTS**

See this [LINK](#) for a listing of both virtual and in-person June events hosted by different state and chapters of the VNPS.

**BLUE RIDGE PRISM (PARTNERSHIP FOR INVASIVE REGIONAL SPECIES MANAGEMENT)
INVASIVE PLANT WORKSHOPS: IDENTIFICATION AND CONTROL
WORKSHOPS VIA ZOOM**

These seasonally-focused workshops will enable you to learn how to confidently identify and manage invasive plants. The **Zoom workshops contain the same content as in-person workshops except that the outdoor elements will be conducted when it is safe to do so.** See this [LINK](#) for general information on PRISM, research updates, invasive plant factsheets, and more.

**Summer Invasive Species Workshops
Saturday, June 12th (1:00 - 4:00 PM) [REGISTER](#)
Thursday, June 24th (9:00 AM -12:00 PM) [REGISTER](#)**

Free Quarterly Events

July 21 - Invasive Warm Season Grasses - [REGISTER](#)

October 21 - to be announced

CHARLOTTESVILLE AREA TREE STEWARDS FREE CLASSES VIA ZOOM

“Tree Identification by Season: Summer”

Tuesday, June 15

7:00-8:30 PM - [REGISTER](#)

The virtual class is free, but registration is required. After you register, you will receive an email with a **Zoom** link a few days before the class.

Interested in becoming a TREE STEWARD VOLUNTEER? See this [LINK](#) for more information and to register. **COVID permitting, training to become a Tree Steward is being planned for Fall 2021 and will proceed with a combination of online and live classes beginning August 7th.** Registration is expected to open on **June 15** for the fall session.

PENNSSTATE EXTENSION CONTINUING EDUCATION FREE VIRTUAL CLASS “THE SECRET LIVES OF CATERPILLARS”

Thursday, June 17

1:00 - 3:00 PM

What will you learn?

- To identify some common caterpillars which are often misidentified
- A fascinating variety of caterpillar survival strategies
- An appreciation of the complex and incredible environmental importance of caterpillars

To register, see this [LINK](#).

[NDAL](#) - NEW DIRECTIONS IN THE AMERICAN LANDSCAPE HOME GARDENER VIRTUAL SERIES “BROADENING OUR LANDSCAPE VISION: ECOLOGY, CULTURE, AND ART”

“Historical Ecology: Using Plants to Reveal the Past” - [REGISTER](#)

Thursday, June 24, 1:00 - 2:30 PM

“Close Encounters with Nature: Native Design in the Residential Landscape” - [REGISTER](#)

Wednesday, June 30, 1:00 - 2:30 PM

**THE NATURE FOUNDATION AT WINTERGREEN
3421 Wintergreen Drive, Roseland, VA 22967**

June Guided Hikes

For information on guided hikes, difficulty ratings, and to register, please see this [LINK](#) to the June calendar.

**NATIVE PLANTS FOR SALE AT THE NATURE FOUNDATION AT WINTERGREEN GREENHOUSE
725 Beech Grove Road, Roseland, VA 22967**

Phone: 434-325-8169

Email: info@townf.org

The Greenhouse is closed Sunday and Monday; hours vary from Tuesday-Saturday. See this [LINK](#) for more information and to see a **listing of native plants available for purchase**. Plants can also be ordered online and picked up at an arranged time by emailing info@townf.org

ELA - ECOLOGICAL LANDSCAPE ALLIANCE

WEDNESDAY WALKS IN THE GARDEN

FREE WEBINAR SERIES

12:00 - 1:00 PM EDT

ELA is pleased to announce a second season of **FREE** online garden presentations covering a wide range of gardening topics to offer plant tips, gardening guidance, humor, and inspiration. REGISTRATION IS REQUIRED.

[“Native Plants for Bird Friendly Communities”](#)

Wednesday, June 9

[“Fundamentals of Garden Layers”](#)

Wednesday, June 16

MT. CUBA CENTER

VIRTUAL CLASSES, JUNE-AUGUST

“Natural Landscape Design: Meadows, Shrublands, and Woods” by Larry Weaner, FAPLD

Tuesday, June 8, 6:00 - 8:00 PM

“Pondscaping with Native Plants”

Thursday, June 10, 6:00 - 7:30 PM

“Underappreciated Native Plants”

Tuesday, June 15, 6:30 - 8:00 PM

“Fabulous Phlox”

Wednesday, June 16, 6:00 - 7:30 PM

“Great Native Plants for Difficult Sites”

Wednesday, June 30, 6:00 - 7:30 PM

“Native Annuals: An Underutilized Resource”

Wednesday, July 14, 7:00 - 8:30 PM

“Instant Rain Garden”

Saturday, August 7, 10:30 - 12:00 PM

For more information and to REGISTER, see this [LINK](#).

Mt. Cuba Center is a non-profit botanical garden located in Hockessin, Delaware near Wilmington. Its woodland gardens produce some of the most spectacular displays of wildflowers in the mid-Atlantic region. The botanical garden is now open to the public, see this [LINK](#) for info. **See this [LINK](#) for information on Mt. Cuba’s world-famous trial garden and study results.**

BROOKSIDE GARDENS, MONTGOMERY PARKS, MD FREE VIRTUAL CLASSES

“How Climate Change is Affecting Our Temperate Eastern Forests”

Saturday, June 12

10:00 - 11:30 AM

Registration required. See this [LINK](#) to learn more and to register online.

“A New Garden Ethic”

Saturday, July 10

10:00 - 11:30 AM

In a time of mass extinction and climate change, how and for whom we garden matters more than ever. Our built landscapes reflect social ethics and values that guide our response to reviving wildness in and outside the urban environment. How can we recognize and develop compassion for other species? What role do native plants have in opening us to the perspective of others?

Registration required. See this [LINK](#) to learn more and to REGISTER.

MONARCH JOINT VENTURE THE 2021 MONARCH CONSERVATION WEBINAR SERIES 4th Tuesday of the Month * 2:00 PM EST

The Monarch Joint Venture is partnering with the U.S. Fish and Wildlife Service National Conservation Training Center to put on another year full of informative and inspiring webinars on all things monarch. Webinars will be held live on the 4th Tuesday of the month at 2 PM EST. Each webinar will be recorded and for later viewing as well. Check on the session title to register.

Future Webinar Titles:

- **June 22nd** - [Reinstalling Native Habitat on Private Property in the West](#)
- **July 27th** - [Aligning Mosquito Control with Pollinator Protection](#)
- **August 24th** - [Conserving Grasslands for Birds and Monarchs](#)
- **September 28th** - [Protecting and Restoring California’s Overwintering Groves](#)
- **October 26th** - [Recovery of the Monarch Butterfly: Federal and State Legislation that can Provide Hope for this Iconic Animal](#)
- **November 16th** - [The Monarch Butterfly Fund - Supporting Monarch Conservation in Mexico](#)
- **December 21st** - [Eco-literacy and Conservation: The Convergence of Research, Policy and Education](#)

* The November and December dates have been moved to avoid conflicting with major holidays. Please note this list is subject to change. Their [EVENTS PAGE](#) will have the most up to date information on the webinar series, as well as a calendar of additional monarch-related events, and information on recordings of past webinars.

VIRGINIA COOPERATIVE EXTENSION (VCE) VIDEO LIBRARY

VCE offers a variety of **YouTube videos** on topics geared to both beginner and more advanced gardeners. Examples of topics include:

Vegetable Grafting for Home Gardens
Plant Disease Clinic: IDs and Diagnoses
Weed Identification: IDs and Diagnoses
Basic Entomology and Insect ID Lab
Soil Testing Lab: IDs and Diagnoses

For these and many more videos that address specific topics or those of more general interest, see this [LINK](#).

The Ornamental Garden in June

By Cathy Caldwell | June 2021-Vol.7, No.6



It's that time of year when we ornamental gardeners slip into maintenance mode. The time for planting, transplanting, and seeding is about over. Indeed, if the dry weather pattern of May continues into June, it's completely over. Transplants really struggle to get established in hot, dry weather. If you notice a plant that should be moved, simply add it to your autumn to-do list. What's on the list for this month?

For starters, be sure to check the list you'll find under Gardening Resources, [Monthly Gardening Tips — June/PMG](#).

PRUNING PERENNIALS

Pruning perennials? Yes, various types of snipping and pinching fall under the category of pruning perennials. There are a number of reasons why you might prune a perennial: to promote repeat blooming, to delay blooming, to shape a plant, to encourage lush new growth, to increase flower size or numbers, or to prevent excess re-seeding.

Deadheading

Many perennials benefit from deadheading, which is simply removing an old or spent bloom. As soon as plants are allowed to set seed, chemical messages are sent to stop flower production. On many plants (but not all), removing spent blooms short-circuits this message so that the flowers will continue to bloom.

The deadheading rules tend to be species-specific. But if you see new buds or flowers below the old one, it's a sign that deadheading is in order. Snip off the old growth down to the new buds or flowers. Most perennials should be deadheaded down to a lateral flower, bud, or leaf. Popular plants in this group include yarrow, salvia, daisies, coreopsis, and purple coneflowers (*Echinacea*).

With some geraniums, you can simply tug at a flower or leaf, and up it comes, little scape and all. That's what happens when I deadhead my 'Biokovo' geraniums (*Geranium x cantabrigiense* 'Biokovo'). It also needs the occasional "deadleafing" — a term apparently invented by Tracy DiSabato-Aust — the removal of old, tatty foliage as the season progresses. Deadleafing is all that's needed to keep all members of the *Geranium macrorrhizum* clan looking their best.

Flowers with larger blooms can be deadheaded by cutting one spent flower at a time. Such flowers include peonies, daffodils, roses, and zinnias. Another technique is shearing across the top of a plant that has many small blooms. This technique can be used in June and July for either pre- or post-bloom management. Early bloomers such as catmint (*Nepeta*), mountain bluet (*Centaurea montana*), and bellflowers (*Campanula*) can be sheared by about one-third after blooming to encourage a second bloom and to neaten the plant's appearance.

Later-blooming plants with small flowers, such as sneezeweed (*Helenium autumnale*), can be sheared by about 6-8" **before blooming** to encourage strong branching and denser growth.

Pinching back

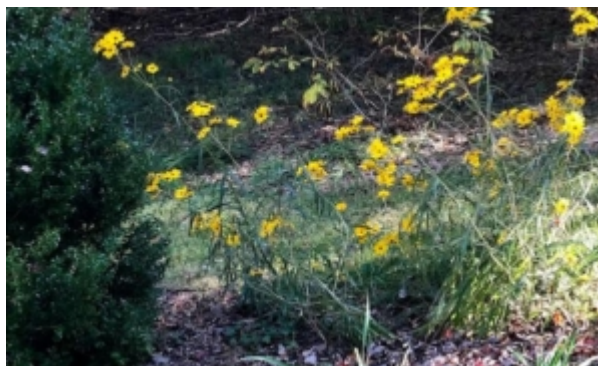
Late bloomers, such as asters, chrysanthemums, and sedums, can be pinched back until mid-July to encourage a fuller, sturdier shape. This term means that you literally pinch out the growing tip and first set of leaves (about ½ to 1 inch) of each stem between your thumb and forefinger.

Pinching back encourages the growth of side shoots; it will delay blooming somewhat, but the fuller plant shape and stronger stems are worth the wait. I'm trying this technique on *Helianthus angustifolius*, a new addition to my garden last year. Its blooms were lovely and so welcome at the end of summer, but it has a rangy habit, as you can see in the photo at right.

Pinching back also allows you to tweak bloom times. If you have a big grouping of asters, for example, you might pinch one group a little earlier and more frequently than others so that the bloom season is extended overall.



"Deadleafing" a Biokovo geranium. Photo: Cathy Caldwell



This *Helianthus angustifolius* (swamp sunflower) was NOT pinched or sheared back prior to blooming. Photo: Cathy Caldwell

PRUNING SHRUBS

Shrubs that have recently finished flowering can be pruned now if they need it. Also, finish pruning any spring-flowering shrubs. Check the [“Shrub Pruning Calendar”](#) at Virginia Cooperative Extension (VCE) for information on which shrubs to prune in June — and **which shrubs not to prune in June**. And for advice on how to prune, take a look at the *Garden Shed* article, [A Pruning Primer](#).

If you have a rhododendron whose lower limbs have been “pruned” by deer, now’s a good time to re-shape it a bit. You may need to prune the lower branches; cut these back to the first live buds and leaves that you see. Remove any dead and broken branches. If you prune off some of the upper part of the shrub, new shoots should emerge from the stems below. See [What’s the best way to prune large rhododendrons that were damaged by deer?](#) This Maine Extension article refers readers to [Tips for Beginners: Pruning Rhododendrons: How and When/VA Tech.edu](#) for detailed how-to guidance, including photos. It’s important to understand how pruning the upper part of your rhododendron will affect its shape and exactly how to do it. Here’s the critical guidance from the VA Cooperative Extension:

There are two basic types of pruning cuts: heading cuts, and thinning cuts. Heading cuts stimulate growth of buds closest to the wound. The direction in which the top remaining bud is pointing will determine the direction of new growth. Make heading cuts selectively to reduce shrub height and retain natural form. Non-selective heading cuts made indiscriminately will stimulate rapid regrowth from buds below the cut. These vigorous shoots are unattractive and make shrubs bushier, but not smaller. . . . For heading cuts, prune 1/4 inch above the bud, sloping down and away from it. Avoid cutting too close, or steep, or the bud may die.

— [A Guide to Successful Pruning/Va.Coop.Ext.No 430-459](#)

Fertilizing is recommended at the time of pruning. It’s possible that a badly-damaged rhododendron might need “rejuvenation” or “renewal” pruning — i.e., hard pruning that is done in late winter before bud-break and which might best be spread out over the course of several years. Read more about this at [A Guide to Successful Pruning/VA Coop.Ext.](#)

WATERING

Last month we had an early period of drought. Was it a foretaste of a dry summer? Anything is possible in this era of climate change — including *too much* rain — but I’m getting out my soaker hoses just in case.

Annuals and Perennials

Monitor your plants for water needs, especially newly-added perennials and annuals. Remember that plants will dry out even more quickly on windy days. The general rule of thumb is one inch of water per week for established plantings. Watering plants more deeply but less frequently encourages them to set deeper roots; this helps plants become more drought resistant. **Mulch perennials** with a 2-inch layer of compost, pine bark, or pine straw to help keep down weeds and conserve moisture. **Avoid overly-heavy mulching that could cause crown rot.**

Containerized plants

Keep close tabs on containerized plants, including the houseplants which are spending their “summer vacation” on the deck or patio. These plants dry out quickly and may even need daily watering in periods of high temperatures and/or drought. 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 handle the watering in your absence. Place the plants where they will be out of the afternoon sun; this will help them conserve water. Don't forget to check all hanging baskets daily, particularly those that are in full sun, and water as needed.

Water trees and shrubs deeply and infrequently 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.

MONITOR FOR PESTS AND DISEASES

Mildews: Ornamental plants are subject to **two common types of mildew that will manifest early in the season**, depending on conditions.

Powdery mildew produces **white, flour-like colonies, usually on upper leaves**. The fungus can cause severe leaf drop, and affects vigor and resistance to stress over time. The fungus can affect many ornamental plants that are favorites in the perennial garden, including: wild bergamot (*Monarda fistulosa*), bee balm (*Monarda didyma*), garden phlox (*Phlox paniculata*), tickseed (*Coreopsis grandiflora*), purple coneflower (*Echinacea purpureum*), and zinnia.



Powdery mildew on foliage. Photo: Elizabeth Bush, VA Tech Plant Disease Clinic, CC NC 4.0, [Plant Problem Image Gallery, VA Tech, CC BY NC 4.0](#)



Downy mildew, lower side of leaf. Photo: Elizabeth Bush, VA Tech Plant Disease Clinic

Downy mildews, on the other hand, are a completely different kingdom of organisms, more closely related to algae than to fungi. Downy mildews **produce grayish, fuzzy looking spores and mycelium on the lower leaf surfaces**. The distinction between powdery mildews and downy mildews can be important, because the fungicides effective against one are not usually effective against the other — although, as with every rule, exceptions do



Downy mildew on upper side of leaf. Photo: Elizabeth Bush, VA Tech Plant Disease Clinic

exist. Preventative controls for each disease are important and include the following steps: selecting disease-resistant varieties and cultivars, providing good air circulation among plantings, and disposing of diseased foliage. If you decide you need a fungicide, see these pages about [powdery mildew](#) and [downy mildew](#) for more information.

Inspect rose bushes for insect damage from aphids, mites, or thrips. Aphids may be eliminated simply by directing a strong water spray from the hose on the rose bush. If ladybugs are present in the environment, they may eliminate aphids without any intervention on your part.

My **bearded irises are covered with spots**, and that's not unusual for irises. The most common type is caused by Heterosporium Leaf Spot. To reduce this fungus next year, remove the old leaves in the fall. Fungicides can be used for control. Refer to specific recommendations in the appropriate Virginia Cooperative Extension Pest Management Guide.



OTHER TASKS

Daffodils: Leave foliage from daffodils and other spring blooming bulbs in place until it turns brown and begins to dry. Do not braid or tie the foliage. Bulbs store food through the foliage for about 6 weeks after blooming is finished. **Not all daffodil leaves will turn yellow at the same time.** The foliage of earlier bloomers will be ready for cutting before mid-to-late bloomers. If your daffodils were done flowering in mid-April, they should turn yellow by early June.

If you want to propagate new plants via stem cuttings from woody shrubs, trees or perennials, now is a good time for many species. As new growth begins to mature, softwood cuttings can be taken from trees and shrubs. For expert guidance, read the recent *Garden Shed* article, [Creating New Plants From Cuttings](#). For more about propagation techniques, see ["Propagating by Cuttings, Layering and Division"/VA Coop. Ext.Pub. No. 426-002](#).

Iris with heterosporium leaf spots. Photo: Elizabeth Bush, Va Tech Plant Disease Clinic, [Plant Problem Image Gallery](#)

WEEDING

Don't let the weeds get ahead of you. To avoid getting overwhelmed, pick one defined area each day; weed that small area, breathe a sigh of relief, and you're done for that day.

Finally, don't forget to bask in the beauty that spreads from all your hard work and cut some blooms to enjoy at the dinner table!

SOURCES:

Featured photo by Cathy Caldwell

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

[2021 Virginia Cooperative Extension Pest Management Guide, Home Grounds and Animals](#)

[What's the best way to prune large rhododendrons that were damaged by deer?](#), Maine Coop.Extension

[Tips for Beginners: Pruning Rhododendrons: How and When/VA Tech.edu](#)

Plant Problem Image Gallery, [Va.Tech.Plant Disease Clinic](#)

“Helianthus angustifolius,” [Wildflower.org](#)

Iris Leaf Spot, [VA.Coop.Ext.Education Resources](#),

Online Resources for Ornamental Gardeners

By Cathy Caldwell | June 2021-Vol.7, No.6



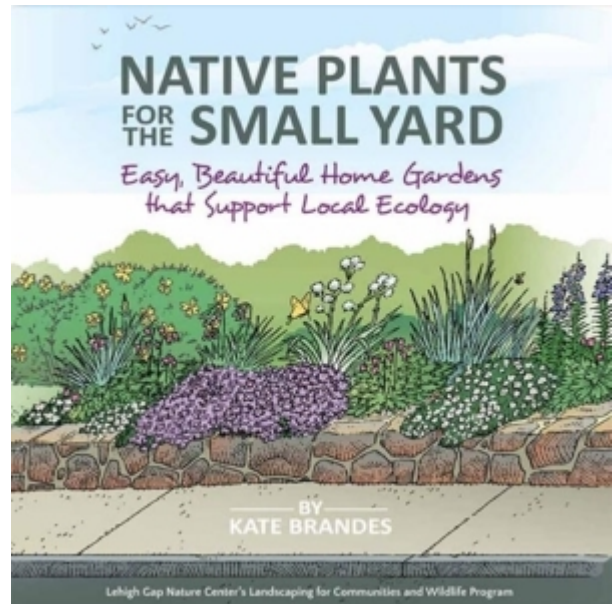
If you haven't yet seen this month's feature article, "Oh No, What's Wrong with my Plant?" I would highly recommend reading it before you continue. It is a comprehensive guide to the kind of online help available to the gardener facing that perennial question (no pun intended): "What's wrong with this plant?" Most of the resources discussed in that article address this question for both ornamental and edible plants. In my own research into apps and online resources, I discovered a few that would be of particular interest to ornamental gardeners, especially those seeking help with garden design.

Most of us are still figuring out how to incorporate natives into our gardens. If you're looking for design assistance for that endeavor, I recommend a downloadable book titled [Native Plants for the Small Yard: Easy, Beautiful Home Gardens that Support the Local Ecology](#), developed by Lehigh Gap Nature Center of Slatington, Pennsylvania, and written by one of its staffers, Kate Brandes, an environmental scientist who's been a Master Gardener with Penn State Extension. There's also a related podcast at [Backyard Ecology.net](#).

For more native plant design templates, check out [RESOURCES/Anne Arundel Watership Stewards](#), which features a **Conservation Landscape Design Tool** with templates in multiple sizes (60 sq.ft., 90 sq. ft., 120 sq.ft., 180 sq.ft) for the following types of designs:

- meadow
- focal tree
- typical kidney
- woody screen
- butterfly

Once you choose a type of design, you'll be presented with soil and sun exposure options, along with detailed plant and materials lists and installation instructions, plus a template like the one pictured below. The Watershed Stewards of Anne Arundel are a very busy group! Read more about their efforts on the website, [AAWSA.org](#).

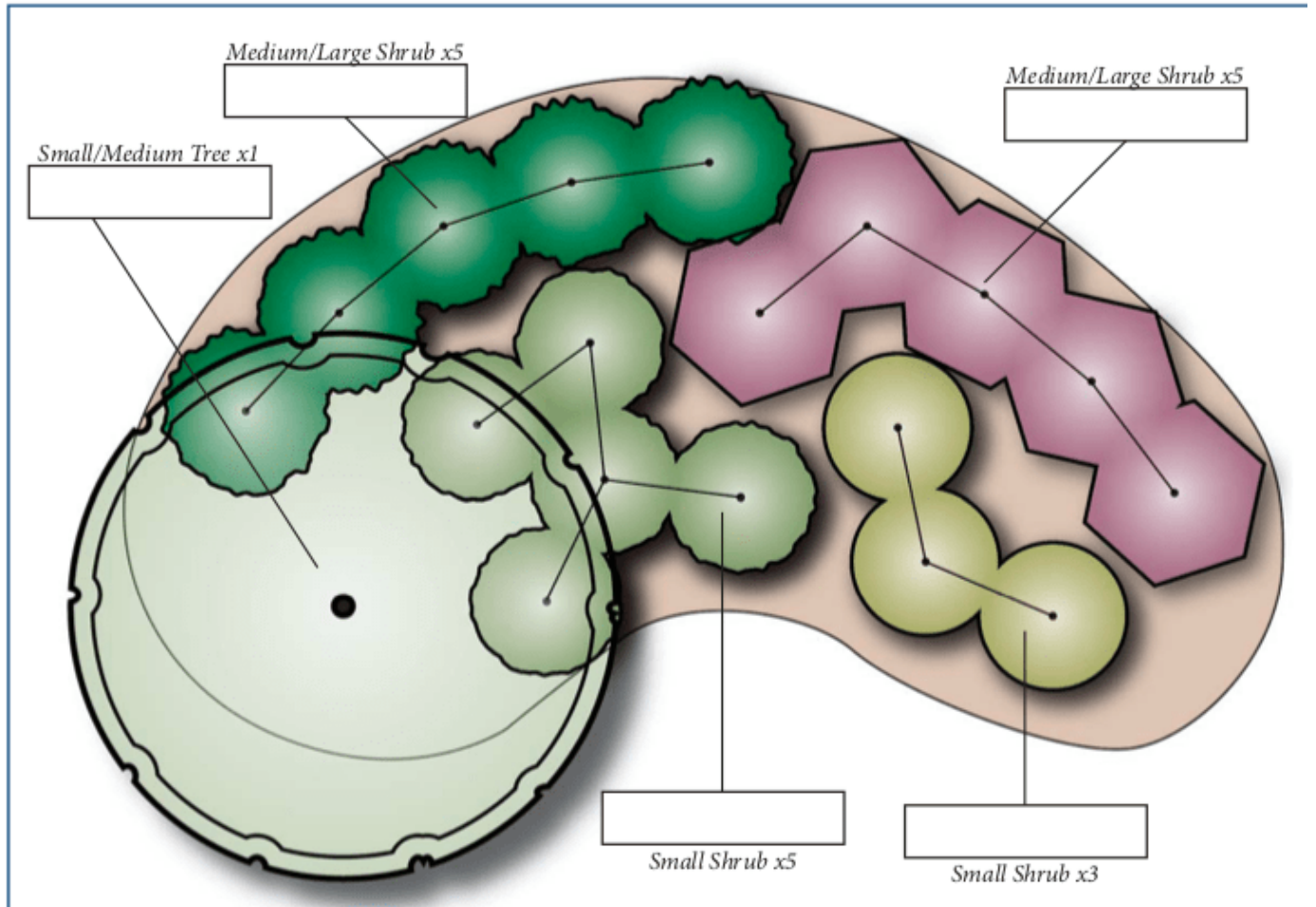


Native Plants for the Small Yard by Kate Brandes.

Woody – 180 square feet

Shady, moderately drained soils

(contained in 21 x 12.5 foot area)



The “Woody Screen” template, AAWS [Conservation Landscape Design Tool](#). Photo: Cathy Caldwell

I discovered the Watershed Stewards while looking for native garden design resources at the Plant Northern Virginia Natives website, a part of the [Plant Virginia Natives.org](#) group. One of the many resources offered there is the [Plant NOVA Natives/Quickstart Guide](#), which, in addition to directing readers to the AAWSA design tool, includes a couple pollinator garden design templates. Be sure to also check out the extensive and well-curated list of resources for native plant landscaping offered at the Plant Virginia Natives website. [The Resources About Landscaping With Native Plants](#) page includes a list of websites, tools, books, videos, and podcasts from highly-regarded experts and organizations. And check out the [Yard Design Tool](#) in that list, which is designed to help property owners in the Chesapeake Bay Watershed create a plan to install a Rain Garden or Conservation Landscape in their yards. It even emails a Planting Plan to you when you finish!

One of my new favorite websites is the [BugGuide.Net](#). That’s mostly because insects are playing a bigger role in my gardens, a development predicted by climate scientists. My coneflowers (*Echinacea*), once a problem-free mainstay of my sunny garden, are raggedy, hole-covered shadows of their former selves — and it seems to be more than just a snail problem. I find myself studying holes in the leaves of many plants and

eyeing unusual insects throughout my gardens. If I don't know for sure that it's a beneficial insect, I get help from the BugGuide — a large online community sponsored by Iowa State University's Department of Entomology. It features a "Clickable Guide" for identification and allows you to post a photo on the "ID Request" page, where a member who recognizes "your" insect can comment. Frankly, it can be fun just to look at the recently-submitted photos under [ID Requests](#); lately there have been some cool close-ups of cicadas.

BugGuide Identification, Images, & Information For Insects, Spiders & Their Kin For the United States & Canada

Home | Guide | ID Request | Recent | Frass | Forums | Donate | Help

Search

Register · Log In

Clickable Guide

Welcome to BugGuide.Net!

Photo © Joyce Gross

All Abuzz About Bugs!

We are an online community of naturalists who enjoy learning about and sharing our observations of insects, spiders, and other related creatures.

We enjoy the opportunity to instill in others the fascination and appreciation that we share for the intricate lives of these oft-maligned creatures.

Our Mission

Using the best resources we have access to, we are creating a knowledgebase to help each other and the online community.

Placed by KenW 34 seconds ago in
▶ [Millipedes \(Diplopoda\)](#)

Placed by antarctica 1 minute ago in
▶ [Erythroneura](#)

Placed by antarctica 3 minutes ago in
▶ [Eratoneura parallela](#)

Home page, BugGuide.net. Photo: Cathy Caldwell

APPS

This was my first foray into the world of gardening apps, which is clearly an expanding field. I should note at the outset that all references to commercial products or trade names do NOT imply endorsement by Piedmont Master Gardeners or the Virginia Cooperative Extension or bias against those not mentioned.

There are several **plant identification apps**. For a detailed review and assessment of these apps by a scientist in the College of Agriculture and Natural Resources at Michigan State, read "Plant identification? There's an app for that—actually several!" at [Michigan State Extension](#). Dr. Hill tests the apps with photos of flowering ornamentals, grasses, and weed seedlings. **Which apps scored highest? PictureThis and iNaturalist.** She encourages all users of apps to confirm the identification with a reputable source, such as government or university sites. The most reliable way to search is by using the scientific name (Latin genus and species).

The **iNaturalist** app ([Android](#) / [Apple IOS](#)) can help you identify both plants and animals. This app is a joint initiative of the California Academy of Sciences and the National Geographic Society. I plan to use it with my phone on hikes and even walks in my own yard. With iNaturalist, you can photograph your observations of living things, share them with others on the app, and get identification help from experts, plus you'll see locations where others have seen the same thing.



Using the iNaturalist app. Photo: Srloarie2, CC BY-SA 4.0, [Creative Commons](#)

If a **mobile garden journal** sounds appealing, you might want to try this free app: **Gardenize** ([Android](#) / [Apple IOS](#)). This app allows gardeners to make notes and add their own photos for each of their plants and gardens. The photos can be annotated, and you can draw on them with a drawing tool. This app also has a Facebook-style social media feature: you can use it to connect with garden friends, share plant information, and view a news feed. I have not tried this app myself.



Crop disease mobile app in development by Penn State and the International Institute of Tropical Agriculture, [CC BY-NC-SA 2.0](#)

I did try the **LeafDoctor** app, hoping it would provide a quick diagnosis of leaf spots. As it turns out, the app is designed to *measure the extent of diseased tissue*, which can help in monitoring the effectiveness of a treatment. In any event, it was trickier to use than I had expected. Then I discovered that the tool I was hoping for — a diagnosis based solely on a photo of a diseased leaf — was still largely in the realm of science fiction. But pioneers in the field of artificial intelligence (AI) and machine learning are busily developing such apps. Check out the article about the high school student who developed a machine learning app called PlantMD to help her mother identify diseases on her roses, [Student Develops an AI App that Diagnoses Plant Diseases](#), University of Georgia News (2019). Then there's the AI app developed by Penn State scientists to help cassava farmers in Africa, who can now “wave their phones in front of a cassava leaf” to obtain a diagnosis and treatment options. Read about it at [PlantVillage/Penn State University](#).

Until these AI apps are more widely available, the best apps currently available for help in diagnosing plant problems are part of the [Purdue Plant Doctor App Suite](#).

Several apps are available for assistance with garden design. The **iScape** app allows you to create a **virtual landscape design**, which sounds like fun. You start by taking photos of your site and downloading them; after that you can add plants and landscape features and move them around. For a brief video showing how it works, go to the website, and hit the “Watch Video” button. This app is not cheap; there's a pared-down version that's free, but to play with more than a few plants and other features, you have to pay almost \$30/month.

Apps and websites can be very valuable tools for gardeners, and they can also provide a fun new way to interact with nature and learn more about what's living in your garden.

SOURCES:

[Pest Management Guide 2021/Va.Coop.Ext.](#)

“Garden Apps,” Clemson Coop.Ext. Home & Garden Information Center, [Clemson HGIC](#)

[Purdue Plant Doctor App Suite](#), Purdue University

[Alliance for the Bay/Design Your Yard Online](#)

“Plant identification? There’s an app for that—actually several!” [Michigan State University.edu](#)

Master Gardener Favorites

By Liz Sutphen | June 2021-Vol.7, No.6



Fran Boninti: Host of highly-enjoyed tour of her home garden in Spring 2021; longtime valued contributor to PMG activities/initiatives.



Viola sororia. Photo: Ansel Oommen, Bugwood.org, CC-BY-NC-3.0

Favorite plant: *Viola ssp.*

Why my Favorite: What's not to like?! They're a beautiful color in blues, violets, whites, yellows, pink, and double/tri colors. They have a sense of humor, looking you straight in the eye with a clown-like face. Superb ground cover, keeping your soil cool in summer as well as keeping many weeds at bay. Host to the larvae of the Fritillary butterfly. No violets, no Fritillary. A patch of violets is breathtaking. There are MANY varieties a collector can choose from. Many just show up = Free! Pollinators adore them. The first thing mason bees head to when they emerge is violets.



Viola striata. Photo courtesy of [Missouri Botanical Garden PlantFinder](#)

Growing Tips: Yes, they can get pretty rambunctious. I apologize to them and yank them out when I need to. They get it. Some are rhizomatous, some are fibrous-rooted. An example of a fibrous rooted violet is *V. striata*. After it blooms in spring with its delicate white flowers, it's best to refresh it by cutting it back down to the ground. A rhizomatous variety is *V. sororia* (most common in your lawn). If you're interested in collecting, a source for unusual violets is the North American Rock Garden Society.

O wind, where have you been,
That you blow so sweet?
Among the violets
Which blossom at your feet.
The honeysuckle waits
For Summer and for heat.
But violets in the chilly Spring
Make the turf so sweet.

- Christina Rossetti

Melanie Feldman, Piedmont Master Gardener Program Assistant

Favorite Plant: Winter Jasmine (*Jasminum nudiflorum*)



Winter jasmine in bloom. Photo courtesy of [Missouri Botanical Garden PlantFinder](#).

Why my favorite? One thing that I do not like about Virginia is our dull, grey winter. The clouds move in and the sky is mostly impenetrable by the sun for three months. In the middle of that dreary season, the yellow blooms of winter jasmine lay signs of life on our landscape. I like to think that Mother Nature is reminding us that winter is almost over and slowly she begins to awaken the various flowering plants. There's hope for the arrival of spring! And we get to enjoy a lovely flowering plant at the dragging end of



Photo: Melanie Feldman

winter. It is also great for people who are sensitive to fragrant blooms. It might be a jasmine, but it does not have a strong scent like other plants in the Olive family. I also think the leaves are just adorable. Small and trifoliate with deep green color that matches the stem. This is a wonderful landscape plant to add year-round appeal to your yard! You can grow them up trellises, shape into hedges or mounding shrubs, and even cascade the plant over walls and structure. It is so versatile!



Photo: Melanie Feldman

Growing tips? Winter jasmine is one of the easiest and happiest little growers. They are great for slopes and areas where you wish to prevent soil erosion. Every spring, prune into shape after flowering and that's all! It is virtually pest- and disease-free!! As I mentioned above, you can get creative with this plant, due to its various growth habits. The only con is that as stems grow out and curl downward, they can re-root very efficiently and will slowly produce plants that can get as large as the mother plant. Stay on top of your pruning and enjoy those lovely winter blooms!