

THE GARDEN PATH,
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Extension Master Gardeners



PLANT OF THE MONTH By Marty Finkel

Primula spp., or primroses, is a huge group of plants that in one form or another are native to North America, South America, Europe, and Asia. Different varieties thrive under widely differing weather, soil, and climate conditions. They are found in and around bogs and wetlands, or in semi-arid, rocky areas and hillsides, and some are native to woodlands and meadows. The one thing they all have in common is **that they like cool weather**. Invariably, they are found in nurseries and garden centers soon after the poinsettias finish, and they add brilliant color to the remaining dull, grey winter days. When planted in our gardens, these descendants of *Primula vulgaris* (a native yellow Old World primrose) and *P. veris* (English cowslip) seldom last more than a year.

We got lucky, though, when Dr. Clifford Parks, internationally known camellia breeder and Professor Emeritus in botany and biology from UNC, became interested in breeding primroses when he moved to NC in 1967. His work with primroses was on a limited basis and he wasn't very successful. However, on a trip to northern Turkey in June 1992, he collected seeds of a different species, *P. vulgaris* subsp. *sibthorpii*, brought them home and planted them that fall. They all survived and grew well, but they didn't bloom until the next season, and the colors were limited. On a trip to Australia in 1996 he visited Paradise Nursery near Sydney, where there was an extensive *Primula* breeding program using several species. The results were primroses with a spectacular range of colors and patterns, and he brought some home to use for breeding. His most important objective was hardiness and plant vigor with a great color range in large flowers on taller stalks. *Some of this history is summarized from an article by Pam Beck in the Jan./Feb. 2008 issue of Carolina Gardener magazine.*

Dr. Parks' line of heat tolerant primroses is very floriferous because the original plant develops side shoots and makes a clump. Heat Tolerant Primroses is a Camellia Forest Introduction to the nursery trade. The colors are white, yellow, red, maroon, purple, and blue, and variations within these colors. The photos are of these primroses in this correspondent's garden after three years' growing in less than optimum conditions.



CHECKLIST By Mary Jane Bosworth

- ✓ Sow the seeds of hardy annuals such as: annual phlox, bachelor buttons, calendulas, larkspur, moss roses and sweet alyssums. Just scatter the seeds directly where you want them to grow.
- ✓ Apply pre-emergent herbicides to prevent spring germinating weeds.
- ✓ Trim ornamental grasses close to the ground before new growth starts. Depending on the type of grass, you may need to use a saw or even a chain saw. Be careful of the types of grasses that have sharp edges....wear heavy gloves and long sleeved shirts.
- ✓ Water new plantings if the weather is dry.
- ✓ Deadhead spring flowering bulbs to prevent seed formation but leave the foliage intact until it is dry.

- ✓ Divide and prepare new plantings. Established perennials may be divided to enlarge your garden or to share with neighbors.
- ✓ Move shrubs while they are dormant to reduce the risk of transplant shock.
- ✓ Mulch beds.
- ✓ Fertilize fig trees when buds swell.
- ✓ Spring flowering shrubs such as forsythia may be trimmed as soon as they are done flowering. To keep them young looking, prune out one-third of the oldest canes to the ground each year.
- ✓ Repot houseplants. First scrub out pots with detergent and water or a 10% solution of Clorox solution before reusing. Then repot in good potting soil. Do not fertilize the first month.
- ✓ Plant ground covers in areas of erosion and for low maintenance.

GARDEN TO DO By Carl Shafer

*NCSU Extension Publications for Lawn and Garden can be found at:

<https://www.ces.ncsu.edu/lawn-and-garden-publications>

For March: Finish pruning fruit trees. (1)

Start your fruit spray schedule before bloom. Do not spray during bloom – protect the bees!

Contact the County Extension Center for a comprehensive spray guide. For a small number of trees it is easier to use a Home Orchard Mix which contains an insecticide, a fungicide and a miticide. Follow the label instructions.

Continue to plant cool season vegetables. In addition to *Central North Carolina Planting Calendar* see *Planting and Harvesting Guide for Piedmont Vegetables and Herbs* (<http://growingsmallfarms.ces.ncsu.edu/growingsmallfarms-plantingguide/>) for planting dates. The last guide gives expected harvesting dates and times when season extension steps will be needed. This guide also has *Crop Notes* at the end and in the *How to Use This Guide* section a *Vegetable Variety List* which gives some recommended varieties, a link to very useful season extension information, plus other useful links. Also consider recent All-America selections. You can find complete lists of the selections at their web site (www.all-americaelections.org). A more recent extensive listing of recommended varieties is available from the University of Kentucky. It is “Vegetable Cultivars for Kentucky – 2013” at (<http://www2.ca.uky.edu/agc/pubs/id/id133/id133.pdf>).

Set out broccoli, cabbage and cauliflower plants about mid month or when you can get them.

For interesting salads, try a Mesclun mix. Sow a short wide row every week or so and shear off when they reach about 3 inches tall. It should regrow so that you can get several cuttings. The mix may include varieties of some of the following in addition to lettuces: Arugula, Cress, Asian Greens, Pac Choi, Mustard, and other greens. Some of these are harvested by cutting off individual leaves rather than shearing.

The last frost date is late April, so wait to put warm season crops in the garden.

For April.

Maintain your spray program for apples, nectarines, peaches, and plums. Follow label instructions and observe waiting times before harvest. See above.

Apples, nectarines, peaches, and pears need to be thinned to produce the best crop of full sized fruit. Fruit should be thinned by the time they are nickel size so that they are spaced 4 to 8 inches apart along the branch.

If you have blueberries, cherries, or strawberries, have bird netting ready unless you want to share your crop. If you are thinking of starting or expanding small fruit plantings, it is getting late for bare root plants, but local retailers have many container grown plants. Before buying, check that varieties are appropriate for this area. Everbearing and day neutral strawberries are not recommended for this area because of the summer heat.

Avoid working in your garden when the soil is wet. A late planting of cool season vegetables can be tried this month. As long as we do not have an early hot spell, you will get a late harvest. Try to provide partial afternoon shade by planting on the east or north side of tall plants or by using shade cloth on hoops or other frames.

If possible avoid planting related vegetables in the same location more often than once every three years. This will help prevent the buildup of insect and disease problems.

“Warm weather” vegetables (Green beans, sweet corn, cucumbers, melons, squash, and tomatoes) can be planted after the average last frost date in late April. If you cannot wait, make only a small planting and have frost protection handy. Also, look for varieties that are recommended as having good germination in cool soil. Wait until May to plant “Hot weather” vegetables (Lima beans, eggplant, okra, southern peas, peppers, and sweet potatoes). See *Home Vegetable Gardening* AG-06 for fertilizing and pest control recommendations.

The average high temperature in our area goes from about 56° F March 1st to 67° F April 1st to 75° F May 1st. The corresponding low temperature goes from about 29° F March 1st to 37° F April 1st to 46° F May 1st. To get the range in which 2 out of 3 years are expected to fall; for high temperatures, add and subtract 11° F for March and April and 9° F for May, for low temperatures use 9° F for all three months.

A fairly new NCSU Extension web site is “Gardening” at (<https://gardening.ces.ncsu.edu/>). Take some time to check out the many informative links.

THE TYROS' CORNER By Eileen Novak

Compost! It's the gardener's Holy Grail, the epitome of reuse, the saving of the landfills! All that organic matter that could be relegated to the town dump, never to enrich another landscape, is instead, in the hands of a truly masterful gardener, turned into the nourishment of future harvests. I wanted to do my eco-friendly part, so I explored the mysteries of organic black gold. If you go to Amazon and limit yourself to searching for books, there are maybe 1200 offerings (100 pages, 12 items per page) discussing the composting of everything organic. Or about using compost as fuel for wildly diverse applications. I didn't go into it quite that deeply. I found one book on clearance at Biltmore when my husband and I visited there and that's the extent of my investment.

My first attempt at composting was a pile of kitchen scraps that I corralled with some broken cinder blocks that we found in various trash dumping sites around the property. That worked well for a year, then I started adding freshly pulled weeds in the heap to give it some nitrogen (because I am not about to rake the 5 acres of lawn to give grass clippings to my compost pile.) At that point I needed to expand from one approximately 3 foot by 3 foot pen to three of them, with brand-new cinder blocks. Then, of course, the old broken blocks looked trashy so I re-did the entire setup and put the broken blocks at the rear. We must keep up appearances, you know. The second attempt was a composting barrel, complete with stand and handle and gears for ease of turning to facilitate composting in the garden. It was said to produce viable compost in as little as 6 weeks. Either the product was faulty or the way I used it was incorrect but the thing never rolled easily when I cranked it, the handle snapped about the 4th week and after the requisite 6 weeks, the resultant product was less like compost and more like dried, brown weeds.

Last year, as I was prepping the garden in spring for the growing season, I had LOTS of weeds in the garden, the result of rampant neglect from about September on. When the tomatoes gave up, so did I. I remembered reading in the compost book about composting in plastic bags. (The Complete Compost Gardening Guide by Barbara Pleasant and Deborah L. Martin – which, of course, can't be complete because as I said at the start, there are approximately 1199 other books on the subject). I procured for myself a box of the big, black, contractor plastic trash bags, and filled them to the brim with a mixture of brown, dried weeds and green, sprouting weeds. Then in a stroke of absolute ingenuity, I placed those bags down where I just weeded, giving myself a nice heavy mulch layer that would do its part to keep MORE weeds from growing.

This spring, I got to see the results of my efforts. Sadly, it doesn't seem to have worked. I have black bags full of brown weeds. And the black bags didn't appear to withstand the solar heat, since the bags have cracked and are disintegrating. Thus I will have MORE work to do, collecting all the plastic and then doing something with the piles of weeds from last spring's cleanup and the piles of weeds that I grew when I abandoned the garden in mid-summer last year. Of course, getting TO the bags to clean up will be the next challenge. The wild blackberries that invaded that corner of the garden were delighted to find something keeping the moisture even (black plastic bags weighted down with pounds of weeds) and they grew in profusion, surrounding each bag with living fence that seems intended to keep Sleeping Beauty and her castle quite safe. It appears that in my quest to turn straw into gold (black gold – compost) I haven't yet found the Rumpelstiltskin method.

Don't think that I will abandon the garden back to the elements. I still have some of the spaghetti sauce I put up last year, as incentive to garden again this year. And of course, there are all those seeds I have been binge-buying. But that's a topic for another time.

For all the details on composting, visit <http://content.ces.ncsu.edu/backyard-composting-of-yard-garden-and-food-discards>

INTERESTING TID-BITS By Marty Finkel

- Are the “baby-cut” carrots in supermarkets mini-carrots grown for that purpose or have they been cut down from normal-size carrots? The answer is found in the Science section of the Dec. 28, 2015 N&O in an article by Marla Broadfoot resulting from her interview of Dr. Kay Cooksey, Professor and Chair of Food, Nutrition and Packaging Sciences at Clemson University. Cooksey says they are made from full-grown carrots. They are cut from the lower 2/3 of the carrot, and their sharp edges are ground off using equipment similar to a lathe. The rest of the carrot is used for juice concentrate, added to processed food, or used in animal food. The whitish appearance of some of the bagged carrots is called “white blush” and is a result of dehydration, which occurs despite packaging designed to prevent water loss that helps slow dehydration. The removal of the carrots’ skin allows dehydration to occur, and when light strikes water on the resulting rough surface, it scatters differently from that on a smooth, fully hydrated carrot. To reduce the white appearance, put the carrots in icy water for about 15 minutes. Store them in the refrigerator in cold water and it will disappear.
- What is a mayhaw? It is a hawthorn (*Crataegus aestivalis*) found mostly along the sides of creeks and rivers and in swamps from NC to Florida and west to Arkansas and Texas. It has ½ inch to 1 inch diameter fruit with a delicious taste similar to cranberries or small cherries – hence, it is better used processed into jam, pie filling, syrup, wine, and its most famous product: mayhaw jelly, popular in the South for centuries. It is also a highly desirable ornamental tree, 20 to 30’ tall covered in white flowers in February and March. How did it get its name? From May, when fruit ripens, and from **haw**thorn. In the past farmers would pilot boats on rivers overhung by the trees, shake the trees, and the fruit practically harvested itself by falling into the boats. Fruit that fell into the water was scooped up by nets. Interest in mayhaws fell off during the past 50 years as much of their habitat was lost to development. Farmers have established commercial orchards of mayhaw, though, in Arkansas, Louisiana, and Texas. Annual festivals celebrating the ever-popular mayhaw jelly are held in El Dorado, Arkansas and Hull-Daisetta, Texas. According to Texas A&M University Extension horticulturists Marty Baker and George McEachern, most mayhaw fruit ripens over a 10 to 30 day period, but in some varieties 80 percent ripens at one time.
- Bees that bite back? Varroa mites are one of the major threats to honeybee colonies throughout the United States. If bees were human size, the *Varroa* mite that sucks their blood and transmits disease would be about the size of a balled-up fist, says Dr. Greg Hunt, entomologist at Purdue University. It’s deadly, and scientists at Purdue, led by Hunt, have been breeding special bees since 2007 that remove mites from themselves and chew their legs off. The mites can’t crawl around to find hosts and typically die within 48 hours. Hunt reports that selectively breeding for this special grooming trait has resulted in an increase from an average of three percent to forty-five percent chewed mites. In an October 28, 2015 article from WBBA (Pittsfield, Ill.) radio by Sarah Fentham, Hunt is quoted as saying they no longer have to treat their colonies to kill the mites.

Purdue makes the genetic material from the mite-biter queens available to serious beekeepers during its annual “Artificial Insemination Fest.” These beekeepers then breed and distribute their own hygienic honeybees – among them is the Heartland Honey Breeders Cooperative, a group of queen honeybee breeders from 8 states led by Dan O’Hanlon. Susan Cosier, in a November 2015 article in OnEarth magazine, reports that breeders from the co-op have been traveling to Hunt’s lab every June since 2013 with their virgin queen bees for insemination by Purdue drones. The number of queens producing biters is increasing, with O’Hanlon alone producing more than 500 queens from the Purdue lineage in 2014. Dr. Hunt has shared some queens with a couple of commercial breeders, who need thousands, but since the university facility can’t produce them fast enough, he is reluctant to give out too many queens.

"Bees are fighting back. They're getting rid of the mites themselves," said Hunt, whose findings were published in two papers in *PLOS ONE*. "We can select for these traits now, but it's tedious. If we can identify the genes that influence these traits, we could develop better methods to screen for these genes and speed the process." This quote is from Purdue University News, Nov. 8, 2012.

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