



## Bloom 'N' News

All the seeds that are fit to sow.



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*"I go to nature to be soothed and healed, and to have my senses put in order." John Burroughs*

### **Creating Attractive Wildlife Habitats**

Susan Schneck, Master Gardener Coordinator, Penn State Cooperative Extension - Bucks County

As winter sets in, isn't it nice to sit with a cup of coffee or tea and watch the winter birds through the window? Many of us feed the birds during the winter months; but there is more to survival than just bird food. Try looking at your yard as a complete habitat. In addition to food, birds also need shelter and a clean source of water. Attracting birds to your yard throughout the year is possible by following a few simple principles.



Finch  
{Photo – UNC}

**Shelter** is more than a nesting box. It's a place for wildlife to find cover from predators and adverse weather. Shelter can be provided with evergreen and deciduous shrubs and trees. If you choose shrubs and trees that bear fruit or berries, you can accomplish two habitat objectives; food and shelter. Viburnums, hollies and dogwoods are three good 'woodie' choices. They also add beauty to your landscape. If you have a large property, consider an area for a wild thicket to grow with native grasses, milkweed and brambles.

Wildlife also need a clean source of **water** for both drinking and bathing. You can provide this with birdbaths, a seasonal pond or stream, a water garden or a wetland. Even a small puddling area is useful. If using a heated birdbath to provide water during winter, place a screen just below the surface to prevent birds from bathing during winter. In very cold weather, birds have been known to bathe, and then freeze when they fly away.

The National Wildlife Federation has a Backyard Habitat Certification Program whose goal is to increase wildlife-friendly, earth-friendly and naturalized yards. You can find more information from their website at [www.NWF.org/backyard](http://www.NWF.org/backyard).

Penn State School of Forestry has a great series of Wildlife publications that can help guide you in enhancing your wildlife habitat, including:

- \* *Landscaping for Wildlife: Trees, Shrubs and Vines*
- \* *Neighborly Natural Landscaping: Creating Natural Environments in Residential Areas*
- \* *Winter Bird feeding: The Basics*
- \* *Water for Wildlife: Birdbaths and Backyard Ponds*
- \* *Attracting Hummingbirds*
- \* *Gardening for Butterflies*

Many of these publications are available on the web at <http://rnrext.cas.psu.edu/Wild/wildpubs.htm> or order a free copy by calling Montgomery County Cooperative Extension at 610-489-4315 or emailing [MontgomeryExt@psu.edu](mailto:MontgomeryExt@psu.edu).

### **Competition Between Tree Roots and Understory Plantings**

Mary Concklin, Extension Horticulturist, Penn State Cooperative Extension - Montgomery County;  
USDA Forest Service – Red Maples  
Penn State’s Solution Source  
K. Sparks & M. Meyer, U. of Minnesota Cooperative Extension

Have you ever experienced problems growing shade loving plants under certain trees? Surface roots are a natural and important part of a tree's development. They provide mechanical support as well as nutrient and water uptake for the tree. Some species naturally produce more surface roots than others, such as maples, spruce and poplar. Other species develop surface roots due to compacted soils or improper watering. Trees with extensive surface roots can be particularly frustrating. Even mowing under these trees can be difficult. The roots are primarily horizontal and form in the upper 8 to 12 inches of soil. With Red Maples after germination, a taproot develops until it is about 1 to 2 inches long, then it turns and grows horizontally. As the woody roots extend sideways, nonwoody fans of feeder roots extend upward, mostly within the upper 3 inches of mineral soil. Roots grow where water, nutrients and oxygen are found. Because the greatest supplies of these materials usually are located in the surface layer of soil, the largest concentration of feeder roots exists in this area. The woody roots may be more than two times the height of the tree.



{Photo – U of Minnesota}

Planting under many trees is possible when care is taken. Always leave surface roots in place. Cutting roots creates entryways for harmful insects and diseases and can eventually cause the death of the tree. Avoid damaging tree roots by not adding soil on top of them. Burying roots interferes with important root functions. Even if the tree survives the treatment, it is only a temporary solution as the roots will grow up in the new soil layer.

Gently plant between roots without amending the soil. Amended soil encourages feeder root development making it difficult for the understory plantings to compete for water and nutrients. The feeder roots also invade the root systems of hostas and other plantings. Another point to keep in mind, the dense canopy of these trees acts like an umbrella reducing water to the understory plantings. Water these plantings thoroughly. Finally, use a layer of mulch no deeper than 2 to 3 inches thick.

Trees such as oak and ash have few surface roots making them easier to plant under.

*“Gardening is a matter of your enthusiasm holding up until your back gets used to it.”  
~Author Unknown*

## **Foolproof No Goof Plants for Sun**

Peggy Rastiello, Master Gardener Volunteer, Penn State Cooperative Extension - Montgomery County

Got Sun? Try these fool-proof perennials for a sunny area! If you've got a full sun area, try a few of these plants for long-blooming color and low maintenance. You'll need to deadhead most of these plants to keep them looking good but they're not fussy about our soil or zone.

Rose Campion (*Lychnis coronaria*): Seeds freely, deadhead for continued bloom. 18-24 inches tall, has fuzzy gray leaves & magenta flowers. (Try 'Angel's Blush' for white/pink color)

Lavender: blue blossoms, 18-24 inch tall. Long summer bloom, deadhead occasionally for repeat bloom. Tolerates drought. Zone: 3-8

Meadow Sage, 'May Night' (*Salvia nemorosa* 'May Night'), Meadow Sage 'Purple Rain' (*Salvia verticillata* 'Purple Rain'): 12-18 inch tall. Upright Purple spikes of flowers for Hummingbirds and bees – also drought-tolerant. Zone: 4-9

Catmint 'Walker's Low' (*Nepeta faassenii*, 'Walker's Low'): 10-12 inches tall, likes dry sun. Shear occasionally to continue bloom. Zone: 3-9

German Iris (*Iris germanica*): Tall, 24-48 inch sword-like foliage. Blooms in late spring/early summer. Reblooming cultivars include 'Champagne Elegance', 'Harvest of Memories', 'Sugar Blues.'

French Hollyhock, 'Zebrina' (*Malva sylvestris* 'Zebrina'): Purple-striped blossoms. Re-seeds freely, blooms forever. 36-48 inches tall. Zone 4-8.

Coreopsis 'Moonbeam' (*Coreopsis verticillata* 'Moonbeam'): Very dense lemon yellow flowers. Long flowering daisy-like perennials are easy to grow and drought-tolerant. Fern like foliage. Shear to deadhead and extend bloom. Zone: 3-10

Carefree Wonder Rose (*Rosa* 'Carefree Wonder'): Will grow in clay soil and part shade. Repeat blooms, can cut back to 18-24 inches in the spring (April) if it gets too tall. Zone 5

Meidiland Roses: Use as a groundcover, most grow to 12 inches tall and spread. Zone 5-9

Black-eyed Susan 'Goldsturm' (*Rudbeckia fulgida*): Maryland State flower & best known as a roadside weed. Guaranteed to grow, 20-24 inches tall.

Cone Flower (*Echinacea purpurea*): 24-36 inches tall, pink curved petals. Leave seedheads for finches. Try 'White Swan' – good, but not as reliable. Will take part sun.

New England Aster 'Purple Dome' (*Aster novae-angliae*): 18-24 inches tall, adaptable for most soil, but NOT reliably drought-tolerant.

Goldenrod 'Fireworks' (*Solidago rugosa*): Graceful goldenrod that grows 3'-4' with long arching golden yellow sprays. Slowly spreading rhizome produces large clumps for easy division. Tolerant of wet soils. Full sun, part shade.

Helen Flower (*Helenium autumnale*): The buds and immature flowers are attractively striped and the flowers last up to two weeks. Colors are yellow, gold, tan, rust and terracotta.

Joe Pye Weed (*Eupatorium purpureum*, maculatum or rugosum): tall butterfly-attracting plant with silver-pink blooms. Clump forming plant. Seed from cultivars will often revert to the wild.

Hardy Argeratum (*Eupatorium coelestinum*): 12 inches tall, bright blue flowers, will grow anywhere, can't get rid of it. Blooms late summer til early fall. Spreads in a clump.

For more information on perennial care and selection, here are a few resources:

Websites:

Great Plant database for pictures & information: <http://www.extension.umn.edu>

Perennial pictures for great color combinations: [www.perennialresource.com](http://www.perennialresource.com)

Great database for pictures & information: <http://www.bhg.com/bhg/plantfinder/>

U of Connecticut Plant database: <http://www.hort.uconn.edu:591/search.html>

Perennial All-Stars: The 150 Best Perennials for Great-Looking, Trouble-Free Gardens; Jeff Cox

Perennial Combinations: Stunning Combinations That Make Your Garden Look Fantastic Right from the Start; C. Colston Burrell

Perennials for Every Purpose: Choose the Right Plants for Your Conditions, Your Garden, and Your Taste (A Rodale Organic Gardening Book); Larry Hodgson

Caring for Perennials: What to Do and When to Do it; Janet Macunovich, Steven Nikkila

Well-Tended Perennial Garden: Planting & Pruning Techniques; Tracy DiSabato-Aust



### **Gardening with Kids: Try Fast Germinating Seeds**

Mary Concklin, Extension Horticulturist, Penn State Cooperative Extension - Montgomery County

Gardening with kids is fun and rewarding as you watch their excitement when the plants poke out of the soil. Since many kids are impatient (and I know some adults like that!), keeping them interested is easier with fast germinating seeds. Some you may

want to use include:

#### **Vegetables**

Cantaloupe, 4-6 days til germination

Cucumber, 4-6 days til germination

Lettuce, 3-5 days til germination

Tomato, 6-10 days til germination

Squash, 4-6 days til germination

Watermelon, 4-6 days til germination

#### **Flowers**

Ageratum, 5-8 days til germination

Aster, 8-10 days til germination

Balsam, 6-8 days til germination

Celosia (Cockscomb), 6-10 days til germination

Cornflower, 6-10 days til germination

Cosmos, 5 days til germination

Dianthus, 5-7 days til germination

Marigold, 5-7 days til germination

Pansy 6-10 days til germination

Petunia, 6-12 days til germination

Phlox, annual, 6-10 days til germination

Portulaca, 6-10 days til germination

Salpiglossis (Painted Tongue), 8-10 days til germination

Scabiosa 8-12 days til germination

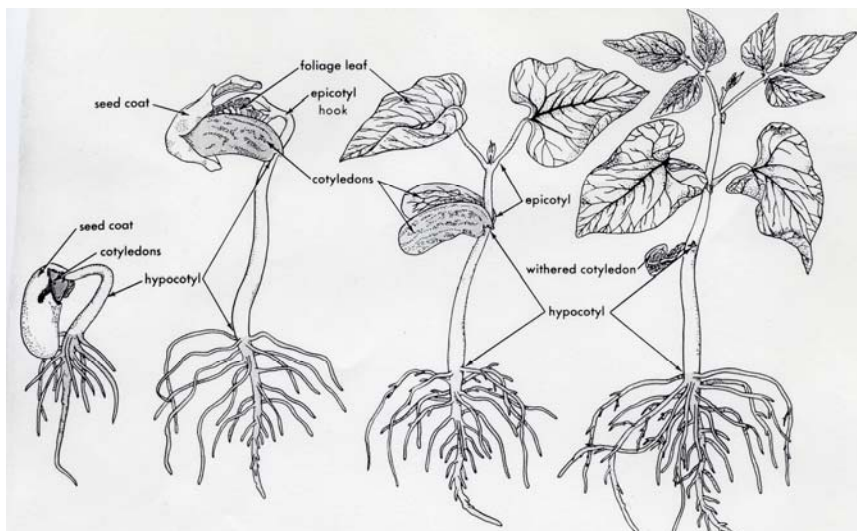
Snapdragon 7-12 days til germination

Sweet Alyssum 4-8 days til germination

Violet, 6-10 days til germination

Zinnia, 5-7 days til germination

This is also a wonderful opportunity to teach them the different parts of the plant. The picture below is of a germinating bean, *Phaseolus vulgaris*, and shows the first plant parts that will be seen.



The hypocotyl is the portion of the recently sprouted stem located between the top of the root and the cotyledon. The cotyledon is the modified leaf that comes out of the seed or embryo. In monocots there is a single cotyledon and in dicots there are two. Examples of monocots include grasses, lilies, orchids, amaryllis, iris, corn, wheat, sedges, garlic, bromeliads, asparagus and palms. Examples of dicots include deciduous trees, flowering bushes and vines,

broccoli, cabbage, peas, beans, carrots, celery, parsley, rosemary, thyme, tomato, potato and pepper. First true leaves are smaller versions of the adult leaves and appear after the cotyledons.

### **Master Gardener Volunteer Training**

Montgomery County will be training volunteers for their Master Gardener Volunteer program during the fall of 2007. We are looking for individuals who love to work with people in a volunteer role. The training runs from mid August through mid-December after which 50 hours of volunteer time are required in 2008. If you are interested in additional information or be placed on the waiting list, please contact our office at 610-489-4315. A detailed letter will be sent in April to those on the waiting list. If you live in another county or state, please contact your local Cooperative Extension office.



### **Companion Planting - Why it is a Good Idea**

Mary Concklin, Extension Horticulturist, Penn State Cooperative Extension - Montgomery County National Sustainable Agricultural Information Service

We have no snow, the temperatures are moderate, the seed catalogs are coming in and thoughts of spring are dancing in our heads. (We won't think about the snowstorm that will probably clobber us in the near future.) Plants influence other plants in ways that are mutually beneficial, detrimental or provide something positive such as protection or improved growth. Utilizing any of the positive attributes may help you produce better quality produce, reduce pesticide usage.

Some of the benefits include nitrogen fixation. Legumes—such as peas, beans, and clover—have the ability to fix atmospheric nitrogen for their own use and for the benefit of neighboring plants via symbiotic relationship with Rhizobium bacteria. Forage legumes, for example, are commonly seeded with grasses to reduce the need for nitrogen fertilizer. Likewise, beans are sometimes interplanted with corn.

Sometimes, a neighboring crop may be selected because it is more attractive to pests and serves to distract them from the main crop. An excellent example of this is the use of collards to draw the diamond back moth away from cabbage

Some plants exude chemicals from roots or aerial parts that suppress or repel pests and protect neighboring plants. The African marigold, for example, releases thiopene—a nematode repellent—making it a good companion for a number of garden crops. The manufacture and release of certain biochemicals is also a factor in plant antagonism. Allelochemicals such as juglone—found in black walnut—suppress the growth of a wide range of other plants, which often creates a problem in home horticulture. A positive use of plant allelopathy is the use of mow-killed grain rye as a mulch. The allelochemicals that leach from rye residue prevent weed germination but do not harm transplanted tomatoes, broccoli, or many other vegetables. Instead of leaving your garden bare for the winter, consider planting a rye covercrop, and then mow it in the spring and plant through the cut rye.

Physical spatial interactions provide synergistic benefits for different plants. For example, tall-growing, sun-loving plants may share space with lower-growing, shade-tolerant species, resulting in higher total yields from the land. Spatial interaction can also yield pest control benefits. The diverse canopy resulting when corn is companion-planted with squash or pumpkins is believed to disorient the adult squash vine borer and protect the vining crop from this damaging pest. In turn, the presence of the prickly vines is said to discourage raccoons from ravaging the sweet corn.

Beneficial habitats—sometimes called refugia—are another type of companion plant interaction that has drawn considerable attention in recent years. The benefit is derived when companion plants provide a desirable environment for beneficial insects and other arthropods—especially those predatory and parasitic species which help to keep pest populations in check. Predators include ladybird beetles, lacewings, hover flies, mantids, robber flies, and non-insects such as spiders and predatory mites. Parasites include a wide range of fly and wasp species including tachinid flies, and Trichogramma and ichneumonid wasps.

Table of Companions, Allies and Enemies

Companions refer to those vegetables and fruits that, when planted together, are mutually beneficial. Allies are the herbs and flowers that provide protection or improve the growth of certain vegetables. Enemies are other vegetables, herbs and flowers that can cause detrimental effects when planted near certain vegetables.

<b>Vegetable</b>	<b>Companion</b>	<b>Ally</b>	<b>Enemy</b>
Asparagus	Basil, parsley, tomato	Pot marigold deters beetles	
Beans	Beet, cabbage family, carrot, celery, chard, corn, cucumber, eggplant, pea, potato, radish, strawberry	Marigold, nasturtium & rosemary deters bean beetles; summer savory deters bean beetles, improves growth & flavor	Garlic, onion and shallot stunt bean growth; gladiolas
Beets	Bush beans, cabbage family, lettuce, onion	Garlic improves growth & flavor	Pole beans & beets stunt each other's growth
Cabbage family	Beets, celery, chard, cucumber, lettuce, onion, potato, spinach	Chamomile & garlic improve growth & flavor; catnip, hyssop, rosemary & sage deter cabbage moth; dill improves growth; mint deters cabbage moth & ants, improves flavor; nasturtium deters bugs, beetles, aphids; thyme deters cabbageworm	Kohlrabi & tomato stunt each other's growth; pole beans
Carrots	Bean, lettuce, onion, pea, pepper, radish, tomato	Chives improve growth & flavor; rosemary, wormwood & sage repel carrot fly	Dill retards growth
Celery	Bean, cabbage family, tomato	Chives & garlic deter aphids; nasturtium deters bugs & aphids	
Chard	Bean, cabbage family, onion		
Corn	Bean, cucumber (is offensive to raccoons so plant them near corn), melon, parsley, pea, potato, pumpkin, squash Cucumbers	Odorless marigolds & white geranium deter Japanese beetles; pigweed raises nutrients from the subsoil to where corn can reach them	Tomatoes & corn are attacked by the same worm
Cucumber	Bean, cabbage family, corn, pea, radish, tomato	Marigold deters beetles; nasturtium deters aphids, beetles & improves growth & flavor; oregano deters pests in general; tansy deters ants, beetles, bugs, flying insects	Sage is generally injurious to cucumber; aromatic herbs reduce cucumber growth; potatoes
Eggplant	Bean, pepper	Marigold deters nematodes	
Lettuce	Beet, cabbage family, carrot, onion, radish, strawberry	Chives & garlic deter aphids	

Melons	Corn, pumpkins, radish, squash	Marigold deters beetles; nasturtium deters bugs & beetles; oregano provides general pest protection	
Onions	Beets, cabbage family, carrot, chard, lettuce, pepper, strawberry, tomato	Chamomile & summer savory improve growth & flavor; pigweed raises nutrients from subsoil & makes them available to onions	Onions stunt beans & peas
Parsley	Asparagus, corn, tomato		
Peas	Bean, carrot, corn, cucumber, radish, turnip	Chives deter aphids; mint improves health & flavor	Garlic & onion stunt growth of peas
Peppers	Carrot, eggplant, onion, tomato	basil	
Potatoes	Bean, cabbage family, corn, eggplant, pea	Horseradish, planted at corners of potato patch, provides general protection; marigolds deter beetles	Tomatoes & potatoes are attacked by the same blight
Pumpkins	Corn, melon, squash	Marigold deters beetles; nasturtium deters bugs & beetles; oregano provides general pest protection	
Radishes	Bean, carrot, cucumber, lettuce, melon, pea	Chervil & nasturtium improve growth & flavor	Hyssop
Spinach	Cabbage family, strawberry		
Squash	Corn, melon, pumpkin	Borage deters worms, improves growth & flavor; marigold deters beetles; nasturtium deters squash bugs & beetles; oregano provides general pest protection; icicle radishes planted in each hill prevent insects	
Tomatoes	Asparagus, carrot, celery, cucumber, onion, parsley, pepper	Basil repels flies & mosquitoes, improves growth & flavor; bee balm, chives & mint improves health & flavor; borage deters tomato worm, improves growth & flavor; dill, until mature, improves growth & health. Once it matures it stunts tomato growth; marigold deters nematodes	Corn & tomato are attacked by the same worm; mature dill retards tomato growth; kohlrabi & other cole crops stunts tomato growth; potatoes & tomatoes are attacked by the same blight
Turnips	pea		



All issues of the Bloom 'N News and an index of topics are available on-line at:  
[http://montgomery.extension.psu.edu/Horticulture/BloomNews\\_Archive.html](http://montgomery.extension.psu.edu/Horticulture/BloomNews_Archive.html)



## Classes and Plant Sale



### Gardening Series at Lower Gwynedd Township's Penllyn Woods Community Building

*Tune Up Your Garden for the Spring* with Connie Damon. Tuesday January 16, 6:30 - 7:30 pm.  
Contact Sandi Freight at 215-646-5302 for additional information or visit the Lower Gwynedd Township website at <http://www.lowergwynedd.org/parks/programs.aspx>. Cost: \$5 per participant

*Just the Dirt* with Karrie Hontz. Tuesday January 23, 6:30- 7:30 pm.

Everything you wanted to know about soil. This session will teach you how to prepare your soil for planting in the spring. You'll also learn how to test and amend your soil to optimize its nutritional and moisture potential for a variety of plants. Contact Sandi Freight at 215-646-5302 for additional information or visit the Lower Gwynedd Township website at <http://www.lowergwynedd.org/parks/programs.aspx>. Cost: \$5 per participant

*Successful Plant Selections* with Karrie Hontz. Tuesday January 30, 6:30 – 7:30 pm.

As you scan the tempting garden catalogs this winter, you'll need to know what to consider when selecting plants for your garden. Learn when to use annuals, perennials and other ornamentals and how to choose from the vast selections we find in our region. Contact Sandi Freight at 215-646-5302 for additional information or visit the Lower Gwynedd Township website at <http://www.lowergwynedd.org/parks/programs.aspx>. Cost: \$5 per participant

*Attracting Butterflies and Hummingbirds* with Marc Radell. March 8, 7 pm.; Warminster Presbyterian Church, Madison Ave & Maple St, Warminster. Offered by the Gardeners of Crooked Billet. To register, contact Margie Pitrone at 215-956-9797.

*Gardening with Raised and Vertical Beds* with Mary Concklin. Saturday March 31, 9:30 – noon, Montgomery County 4-H Center in the Universal-Accessible Garden. To register, contact Sheila at 610-489-4315. Free

*Natural Pest Controls for Fruit, Vegetables and Ornamentals* with Mary Concklin. April 18, 7-9 pm  
Learn about natural pest control methods – what works and how to attract beneficials. To register, contact Sheila at 610-489-4315. Free

*Montgomery County Master Gardener Volunteer Annual Plant Sale & Auction*, Saturday May 19, 9am – 3 pm in the parking lot of the Montgomery County 4-H Center, 1015 Bridge Rd (Rt. 113) in Skippack.

### **Written and Edited By:**

Mary E.C. Concklin

Horticulture Educator, Penn State Cooperative Extension - Montgomery County

A handwritten signature in cursive script that reads "Mary E.C. Concklin".

This publication is available in alternative media on request.

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