



Garden CHECK

When plant catalogs begin to stack up in the mailbox, most gardeners are eager to see what "new" plants are being offered.

Typically the first few pages are dedicated to featured new plants. While poring over the beautiful color photographs, it's fun to imagine how a particular introduction plant will look in one's own garden.

But what actually makes a "new" plant new? This question has many answers, depending on the perspective. For the nursery, a "new" plant may be one never sold before. Dr. Sherry Kitto's tissue culture research at UD has brought a number of great plants like gingers (*Asarum* sp.) and Indian pink (*Spigelia marilandica*) into nursery production.

New also could mean a plant that has not been available for a long time or one that has not been readily available in the trade in recent years. Sometimes plants that were once popular fall out of favor and are thought of as old-fashioned until a resurgence of interest. Deciduous shrubs such as deutzia (*Deutzia gracilis*), hydrangea (*Hydrangea maculatum*) and lilac (*Syringa vulgaris*) are plants your grandmother grew that have recently soared in popularity. So "new" to the nursery may not be new to the industry at large.

Before a garden cen-

ter or nursery decides to sell a particular plant, the operators must determine whether the plant is actually marketable. Typically, the largest percentage of the gardening population tends to purchase certain well-known plants, like azaleas, rhododendrons and yews. As a result, many nurseries cater to this demand.

For homeowners, a "new" plant could mean simply a plant never grown before. Lots of native plants fit into this category. Of course they have been in the woods and fields forever, but they are just now entering the garden. For the avid gardener, it could mean a plant never seen or even heard of before. Plant mail-order catalogs have anything from the beautiful to the bizarre, like Plant Delights' "new for 2002" Voodoo Lily (*Amorphophallus henryi*) that has a flower spike resembling a giant purple carrot, which is covered with dark blue berries. This latter view of "new" opens up a realm of possibilities for new plants.

For a plant to be "truly new," it must never have existed. For this to be the case, a new plant would have to be discovered as consisting of a genetic variation different from its species through vegetative or seedling variation. This might be as simple as a new cultivar with a different flower color, like Abutilon "Canary Bird," a yellow-flowered version of this typically orange-flowered plant. Another way a plant would be considered new is if it was bred on

cultural conundrums:



What does "NEW" really mean?

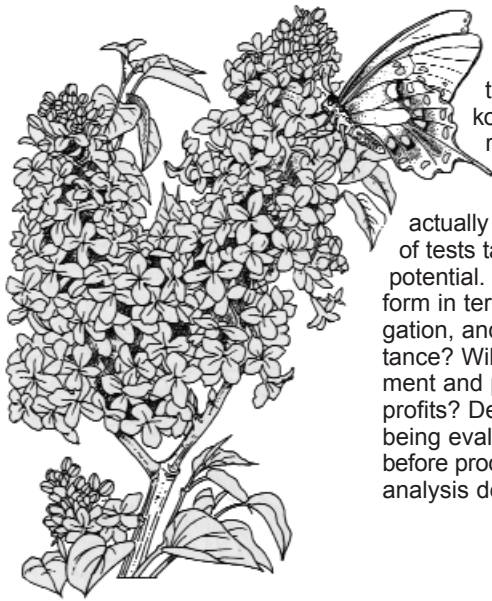
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THINGS TO DO THIS MONTH...

- Keep newly planted trees and shrubs watered. Soak thoroughly once a week.
- To conserve water, use trickle irrigation or soaker hoses.
- Deadhead rhododendrons to increase flowering next year. Remove spent flower heads but don't damage newly expanding leaves.
- Take cuttings of trees and shrubs.
- Check white birches for the second brood of birch leaf miner.
- Remove faded blossoms of annuals and perennials.
- Divide bearded iris if flowers are decreasing in size and number.
- Stake tall perennials.
- Cut back and fertilize delphinium and phlox to encourage a second show of bloom.
- Keep the garden weeded.
- Continue to cut, feed and spray or dust roses.
- Be sure that houseplants are kept away from the cold drafts caused by air-conditioning vents.
- Replant bush beans after first crop is harvested.
- Sidedress your gardens with two cups of 10-10-10 per 100 sq. ft.
- Harvest vegetables frequently to maintain production.
- Pumpkin and squash blossoms are both beautiful and edible. To prepare squash or pumpkin blossoms, pick them after they open. Check for insects and dirt by washing and draining; then dip the blossoms in batter and fry until golden.
- Increase mowing height of your lawn during the dry, hot summer. Dull or poorly adjusted mower blades that shred rather than cut grass can cause brown or grayish cast over lawns.



CULTURAL CONUNDRUMS *(continued from Page 1)*



purpose to create genetic variation.

Rutgers University undertook an extensive breeding program to combine the native flowering dogwood (*Cornus florida*) with the more disease resistant kousa dogwood (*Cornus kousa*), resulting in a series of hybrids called *Cornus x rutgeriensis*.

Before a "truly new plant" actually makes it to market, hundreds of tests take place to determine its potential. How well does the plant perform in terms of growth, ease of propagation, and disease and insect resistance? Will the expense of development and production be earned back in profits? Depending on the type of plant being evaluated, it can take years before production trials and marketing analysis determine whether a plant will

be introduced. For this reason, the total number of "truly new plants" introduced each year is limited.

It's up to you as a gardener to scour the mail-order catalogs, read gardening magazines and visit your local garden center to stay on top of what's new, so you can be the first on your block with the latest, greatest, new specimen.

— Marcia Stephenson and
Susan Barton

NIP INVASIVES IN THE BUD

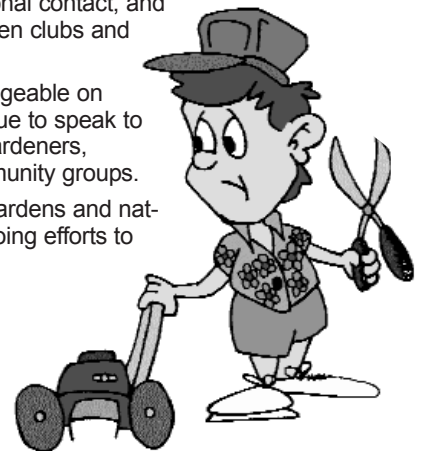
Botanists, nursery professionals, farmers and gardeners are arming themselves to fight back against "plant thugs," the growing invasion of rogue plants that mar yards, fields and even whole ecosystems. Plants that become invasive have a competitive advantage that allows them to out-compete native species, taking over and degrading both gardens and natural areas.

A group of botanical garden representatives, nursery professionals, landscape architects, garden clubbers and government experts recently gathered at the Missouri Botanical Garden in St. Louis to explore new ways of fighting unwanted species. One product of the St. Louis Invasive Plants Species Workshop was a draft of Voluntary Codes of Conduct for the Gardening Public. Key points include:

- Ask for only non-invasive species when you acquire plants. Plant only environmentally safe species in your gardens. Work towards and promote new landscape design that is friendly to regional ecosystems.
- Seek information on which species are invasive in your area. Sources could include botanical gardens, horticulturists, conservationists, Cooperative Extension and other government agencies. Remove invasive species from your land

and replace them with non-invasive species suited to your site and needs.

- Request that botanical gardens and nurseries promote, display and sell only non-invasive species.
- Help educate your community and other gardeners in your area through personal contact, and in such settings as garden clubs and other civic groups.
- Invite speakers knowledgeable on the invasive species issue to speak to garden clubs, master gardeners, schools and other community groups.
- Volunteer at botanical gardens and natural areas to assist ongoing efforts to diminish the threat of invasive species.



—Susan Barton



WONDERFUL WINTER SQUASH

In just a few weeks, Delawareans will start to see local winter squash available at area farmers' markets and produce stands. Winter squash differs from summer squash in that it has thick skin, dryer flesh and can be stored for an extended period. Often grouped in with pumpkins, winter squash has similar growth and cultural requirements. You may want to consider growing some winter squash in your own garden next season.

Winter squash is a good source of fiber, folate, and Vitamins A and C. Winter squash can be put into the following categories according to fruit characteristics:



1) Butternut — A light brown/tan colored, elongated squash (10"-36") with a solid neck portion and a slightly rounded seed cavity at the blossom end. The flesh is fine-grained and color is yellow-orange. Skin is thick and it has extended storage potential (over one year!)

- Standard butternut
- Miniature butternut
- Long neck butternut
- Neck pumpkins (butternuts with long curved "necks")

2) Acorn squash — These winter squash have a typical acorn (ace) shape with ribs. Moderately fibrous, their flesh is sweet and commonly light orange. However, color can range from cream (white types and those picked young) to deep pumpkin orange. The flesh becomes dryer and more fibrous with age. Acorns have a medium storage potential (three to six months). Immature acorns can be cooked like summer squash.

- Black and dark green acorns
(turn partially orange when ripe)
- Multicolored acorns and striped acorns
- White acorns
- Gold acorns
- Acorn/dumpling crosses



3) Spaghetti and noodle squash — These Asian introductions are smooth skinned and elongated with skin colors including white, cream, yellow, golden, and green striped. The fibrous flesh after cooking comes out in spaghetti- or noodle-like strands. Medium storage potential (three to six months).

- Common (cream or light yellow) spaghetti
- Golden (high-carotene) spaghetti
- Miniature single-serving spaghetti cross.

4) "Sweet Potato" squash — These single-serving squashes are elongated (delicata) or round (dumpling) with white-and-green

striped skin. Delicate and sweet flesh is surrounded by a skin thin enough to eat.

- Delicata squash
- Dumpling squash

5) Buttercup, Kabocha, Chestnut, and Turks Turban squash — These squash are orange-

fleshed, dry, fibrous, sweet, and long-keeping. They are six to eight inches in diameter. Some types have distinctive "buttons" on the blossom end. The skin is hard and thick and comes in many colors, including black, green, gray, red and orange.

- Burgess-type buttoned buttercups
- Black and green button-less buttercups
- Japanese Kabocha types and chestnut types
- Orange and red button-less types
- Gray button-less types
- Turks turbans (Mexican hats)

6) Hubbard and Golden Delicious squash — Rough skinned and irregular in shape, these squash are generally bell- or football-shaped, coming to a neck at the stem end. This group includes some of the largest winter squash with weights up to 50 pounds. Many smaller or miniature varieties have been developed over the years. The flesh, which is orange-yellow in color like a pumpkin and sweet and fibrous, is commonly used for pies. The golden delicious types are good for canning.

- Green hubbard
- Blue hubbard
- Golden and red hubbard
- Miniature blue hubbard
- Miniature golden and red hubbard
- Golden delicious squash

7) Large Cheese-Wheel-Shaped Winter squashes —

This is not a true group of related squash, but a grouping described by similar outward appearance. They are large, round but distinctly flattened (like a cheese wheel), ribbed, and come in many colors and appearances. The flesh is commonly yellow-orange but varies from fine grain to fibrous depending on the

variety. Some of the varieties include:

- Rouge Vif D'etampes or Cinderella types (bright orange and shaped like Cinderella's coach)
- Jarrahdale and Queensland Blue - Gray blue skin color, heavy rib.
- Valenciano - an all-white type
- Long Island Cheese - color is the same as a butternut (tan)

8) Banana Winter squash - These squash are much longer than wide (banana shaped) and range in size from 12 to 48 inches with diameter from eight to 12 inches. They come in several colors and sizes. The flesh is yellow-orange, smooth



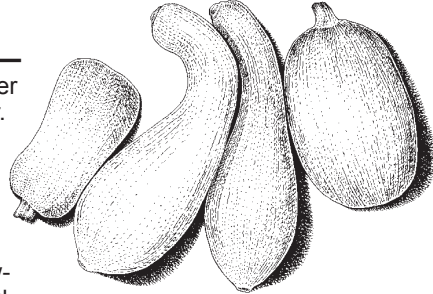
WONDERFUL WINTER SQUASH (continued from page 3)

and sweet.

- a. Blue banana - blue skin
- b. Pink banana - pink skin
- c. Orange banana - orange skin
- d. Giant pink banana - very large pink skin type

9) Calabaza and Cushaw Winter squash —

Calabaza or Cuban is a tropical origin winter squash. They vary in size, shape, and color. Some weigh up to 50 pounds. The most common form weighs about five to 12 pounds, and is round and flattened a bit on the top and bottom. Its colors are mottled green or yellow and buff-cream. Some may have elongated necks. The light yellow-colored interior is firm and meaty, with a fairly large central cavity. Cushaw squashes also are tropical in origin and have very large fruit with long curved necks



and large round bases. They also have light yellow interiors similar to calabaza.

- a. Cuban or calabaza
- b. Green striped cushaw
- c. Golden cushaw
- d. White cushaw

Bush varieties of several winter squash have been bred for and fit well in smaller gardens. However, the majority of winter squash are vining and require considerable space. Winter squash can be planted from mid-May through the middle of July in Delaware.

— Gordon Johnson

MAKING AN ENVIRONMENTAL IMPACT — ONE PERSON AT A TIME

One of the great pleasures of my job as Extension horticulturist at the University of Delaware is speaking at gardening conferences. Whenever I speak, I also get to listen to other speakers talk about horticulture — one of my favorite topics.

In June I had the opportunity to attend the 2002 *Native Plants in the Landscape Conference* at Millersville University. It was a great program and well worth the trip. The keynote speaker, John Cronin, was both entertaining and thought-provoking. Born in Yonkers, New York, Cronin was among the first generation of children banned from swimming in the Hudson River because of pollution. A former commercial fisherman and congressional aide, now he explores the human dimension of today's environmental headlines.

A great storyteller, Cronin explained how a "city kid" got involved in environmentalism. He got hooked when he attended a Pete Seeger concert in the 70s and Seeger solicited volunteers to help rebuild a dock along the Hudson River. Cronin jumped at the chance along with several other enthusiastic people but after several Saturdays, only Seeger and Cronin remained on the job. Cronin said working with Pete Seeger was just what you might imagine. When the going got tough, Pete broke into song.

From that glamorous start, Cronin got involved in monitoring the allowable emission sites from factories along the Hudson River. He documented a case of a tape factory that was allowed two emission sites but had more than 20. Cronin's interest as a streetwise city kid was to see if the "little guy" could get the "big guy." Not really thinking that he could make a difference and half expecting to be

dragged off to jail himself when he showed authorities the evidence he'd collected, Cronin was truly shocked when the tape factory was prosecuted, fined and forced to change its polluting ways. Eventually, he became the "Hudson Valley River Keeper."

Throughout his presentation, Cronin shared story after story of how diligence and luck landed polluters in jail. After the fascinating stories, Cronin asked the audience, "Why do we protect an endangered species?"

The first round of answers included the plant "might be valuable for future drug research;" "might evolve into an economically valuable species;" "looks good;" "economically important." We quickly realized that all these answers were about how the endangered species affected us as humans. After some reflection, the audience realized that the real reason we must protect endangered species is "who are we to decide which species live and which die; therefore we must protect all endangered species."

Cronin believes that in an attempt to make conservation easy, we have trivialized it. Environmentalists must put a deep sense of right and wrong into place. We must find our place in creation. Are we saboteurs who take, use and abuse the gifts of nature? Are we beneficiaries who can sit back and thank nature for its beneficence? Or are we co-creators who have a role in protecting the world we have had a part in creating?

What Cronin told the audience at Millersville is that individuals can make a difference. He is living proof of the power of the individual. Thus, we all have a responsibility to use our power effectively. Wow!

—Susan Barton



BE ON THE LOOK OUT: PLANT DISEASE UPDATE

A vascular wilt disease— **Verticillium wilt** was brought to me for diagnosis recently. Symptoms of this common wilt disease of many shade trees— including maples, yellowwood, tulip poplar and others— often appears around early June. Leaves on infected branches wilt, causing the eventual death of the branch. A tell-tale symptom of this soil-inhabiting fungus disease is the green to olive-green streaking in the wood just under the bark. Pruning out infected branches and watering during drought stress may prolong the life of the tree, but these are not cures. Most infected trees die eventually, from quickly in a season up to five years or more. Plant resistant trees such as oaks or any of the conifers (pine, spruce, Douglas fir, hemlock).

Southern blight was seen recently on the perennial *Chrysogonum* (green and gold). Southern blight rots the stems of susceptible plants, including hosta, bedstraw (*Gallium*) and bugleweed, among others. Plants collapse and a coarse white fungus growth can be seen at the soil line. Roots are not infected. In the later stages of infection, small, round, white fungus structures appear on the infected stems and petioles. These structures, called sclerotia, will turn from white to mustard-yellow to brown, then remain in the soil. Infected plants should be removed as well as any infected plant parts to prevent the sclerotia from contaminating the soil.

Turf— With hot and muggy weather upon us, be on the lookout for **brown patch** caused by *Rhizoctonia*. This fungus disease thrives during periods of hot, humid weather, especially when night temperatures hover around 70 degrees F. This disease is the only real disease problem I see on turf-type, tall fescue lawns, except for some red thread. It also infects the other cool-season grasses, such as Kentucky bluegrass. Look for brown, irregularly blighted leaf blades that sometimes have a thin red border between healthy and diseased tissue. For a preventative fungicide program, treat with Heritage, Banner, Cleary's 3336, Chipco 26019, and Daconil 2787 according to label recommendations when the weather conditions are favorable for disease development.

Once the disease is present the most you can hope for is to slow its spread and protect the uninfected turf. I recommend you call a lawn service to apply fungicides because most homeowners do not have the right equipment to do it correctly and safely. In most situations, the turf will recover on its own when the weather changes and conditions are unfavorable for the fungus. Do not over-apply nitrogen fertilizer, which favors brown patch.

To prevent turf stress, remember to cut the lawn at 2 ½ to 3 inches in height. Short cuts deplete sugar reserves; favor weeds, especially crabgrass; and reduce healthy root growth. Leave the clippings to recycle nutrients in the cuttings. Remember the 1/3 rule: cut to remove 1/3 the leaf area when you mow.

Slime molds are appearing in mulched beds after rains. These colorful (white, buff, cream, pink, or yellow) but sometimes puzzling oddities of the plant world cause no damage to plants. Often if plants are present when the slime molds turn color and produce spores the slime will climb and coat the stems of plants, but this does not infect them. Remove the slime coating with a hard stream of water or break them up with a rake.

Cedar-apple rust on crabapple is very evident now. The bright orange to orange-red spots on the upper leaf surface are easy to spot. We had ideal conditions earlier for rust on junipers, its alternate host, which was common this spring. Most of the time this disease does no harm to the

health of the tree, just its appearance.

Leyland cypress is widely grown in Delaware. It is admired for its columnar habit and adaptability for use as a screen in the landscape. As the tree gains in popularity, we are beginning to notice diseases, especially canker diseases, which can be damaging. **Seridium canker** has been found in all three Delaware counties. Caused by the fungus *Seridium unicorn*, this disease is probably the most damaging disease of Leyland cypress.

Cankers may form on stems, branches and in branch axils of trees of any age, causing twig, branch or stem dieback. Cankers appear as sunken, dark brown or purplish patches on the bark, often accompanied by extensive resin flow. Scattered twigs or branches killed by the fungus turn bright reddish brown, and are in striking contrast to the dark-green healthy foliage. Fruiting bodies of the fungus appear on the bark surface of the cankers as small, circular black dots barely visible to the unaided eye. Spores of the fungus are spread to other parts of an infected tree, or from tree to tree by rain or irrigation water splash. The fungus also can be spread from tree to tree on pruning tools. Long distance spread appears to be through the transport of infected cuttings or plants.

Currently there are no chemical control measures recommended for the disease in the landscape or nursery. Avoiding water stress and tree wounding may reduce infection. Prune out infected branches or twigs, and destroy as soon as symptoms are noted. Prune at least one inch below the canker, and sterilize the pruning tools between cuts by dipping them in rubbing alcohol or in a solution of one part chlorine bleach to nine parts water. Severely affected plants should be removed and destroyed.

— Bob Mulrooney

(Adapted from an article in "Kentucky Pest News" by John Hartman)

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ITCHIN' TO STAY FREE OF CHIGGERS?

Chiggers seemed to have survived our mild winter in good shape. In fact, mites and ticks were abundant this spring, particularly cool-season plant pest mites, clover mites and deer ticks.

Chiggers are the larvae of a family of mites that are sometimes called redbugs. Adults are large red mites that overwinter in soil, becoming active in the spring. They lay eggs on the soil surface. Newly hatched larvae crawl about until they locate and attach to a suitable host. Extremely small (0.5 mm), chiggers occur outdoors in low, overgrown damp places. After feeding on a variety of wild and domestic animals, as well as humans, for about four days, chiggers drop off and molt to a nonparasitic nymphal stage and, ultimately, the adult stage.

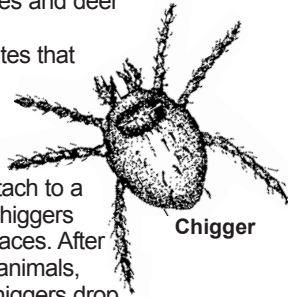
Chigger bites commonly occur around the ankles, waistline, armpits or other areas where skin is tender or where clothing fits tightly. These mites do not burrow into the skin but feed at hair follicles. Most people react to chigger bites by developing an itch within four to six hours. Dome-shaped reddish welts appear within 24 hours. Intense itching accompanies the welts, which may persist for seven to 10 days. Scratching chigger bites may lead to infection of the area.

If you suspect you may have been attacked by chiggers, take a soapy bath or shower immediately after leaving the outdoors. Apply antiseptic lotions or sprays to any welts.

A local anesthetic will provide temporary relief from itching.

If you are walking in chigger-infested areas, protect yourself first by treating clothing (cuffs, socks, waistline, sleeves) and exposed skin with tick repellents.

Regular mowing and removal of weeds and brush make areas less suitable for chiggers and their wild hosts. Chigger populations can be reduced further by treating with residual miticides in an infested, out-of-doors areas. Make applications thorough but restrict spraying to potentially mite-infested areas frequented by humans.



Chigger

—Dewey Caron

TRY A BIO-RATIONAL APPROACH TO INSECT CONTROL

Beneficial insects like lady beetles and syrphid flies are abundant this year and perform valuable garden-pest insect control. But how do we know if an insect is friend or foe? For best results, first identify the plant and the pest. When chemical control is needed in the garden, many gardeners today turn to non-toxic compounds such as biorationals.

Not all alternative chemicals work on all insect pests, so check the label. B.t. (*Bacillus thuringiensis*) is an excellent biorational against caterpillars and a few other pests. The label may read "Caterpillar Killer" (by

Ortho Company) or "Bio-worm killer" (Green Light) or go by the name Dipel (Bonide).

Organic gardeners use B.t. against "worms" in garden plants such as broccoli, cabbage, cauliflower, lettuce, spinach, peas, peppers, eggplants and tomato (not corn or potato). B.t. is not capable of immediate knockdown since the feeding caterpillar needs to eat the material; the bacteria grows in the digestive tract of the caterpillar until there is a physical blockage. Eventually, the insect stops eating and dies.

Another group of biorationals—horticultural oil and insecticidal soap—can be highly effective against soft-bodied insects. The material must cover the pest insect directly since neither soap or oil have residual activity. This also means they can be applied up to day of harvest. Compare this to an insecticide like diazinon, which must be discontinued a week or longer before harvest.

Oil and soap—control aphid, on beans (green, snap or wax); beets; carrots; cucurbits (cucumbers, melons, pumpkins, squash, and watermelons); eggplant; lettuce; peppers; potatoes; radishes; spinach; tomatoes; and turnips. Both can also be effective on spider mites (beans, cucurbits, and tomatoes); leafhoppers; flea beetles; and white flies.

Insecticidal soap, but not oil, can provide aphid control on the cole vegetables (broccoli, Brussels sprouts, cabbage, cauliflower) and peas. Remember that soap and oil do not work at lower temperatures (below 40°F); at higher temperatures (above 90°F) they can burn foliage and set plants back.

Pyrethrin, rotenone and sabadilla are three botanical biorationals sold under a number of brand names. Pyrethrin, which is harvested from chrysanthemum flowers, may be formulated in either dust or spray form. Rotenone and sabadilla can be purchased as dusts. Pyrethrin is commonly included with rotenone in a number of products for a wide spectrum of pest insects to control.

Pyrethrin, rotenone or the mixture of both compounds are used to control asparagus beetles on asparagus; bean leaf or Mexican bean beetles on beans; caterpillars and flea beetles on cole crops; cutworms, European corn borer and flea beetles on corn; cucumber beetles and whiteflies on the cucurbits; caterpillars on leafy vegetables (lettuce and spinach); pepper pests (cutworms and flea beetles); and a host of tomato pests.

Sabadilla works against leafhoppers on beans, and flea beetles on beets, carrots, radishes and turnips.

Synthetic pyrethroids (contained in many garden pest sprays) also are effective on a host of garden pests and not as harmful to beneficials.

Check the label to see if the pest you have is listed, then follow directions.

Moths, the adult stage of yellownecked caterpillars, emerge from a pupa in the ground during June and July. The moths lay eggs on the underside of leaves. Caterpillars start emerging as early as mid July. Because of the initially small size of the caterpillars, they are not

—Dewey Caron



PEST ALERT: BE ON THE LOOK OUT FOR YELLOWNECKED CATERpillARS

likely to be noticed until mid-summer. During August and September, the mature caterpillars crawl down the tree trunk and into the soil to overwinter as pupas. Only one generation occurs a year.

The yellownecked caterpillar has two color phases: a yellow-red stage and a black-yellow stage. In each case, the body is striped longitudinally with the two colors. Mature larvae are approximately one inch long. The body is covered in fine white hairs, which are often not readily apparent. The head is sheer black and the fleshy appendages that look like legs are yellow. The feature that most easily distinguishes the caterpillar is a bright orange-yellow segment behind the head (its "neck"). The caterpillar can also be identified by its behavior; when disturbed it raises its head and "tail" portions, forming a "U" with its body. This gives the appearance that it will strike at an enemy, thus protecting it against would-be predators.

These caterpillars are general feeders, found munching on crabapple, flowering peach, cherry, almond, maple, elm, butternut, walnut, oak, azalea, hickory, chestnut, beech, linden, witch-hazel, birch, locust, sumac and boxwood. The undersides of leaves are targeted by newly hatched caterpillars, which feed in aggregations and skeletonize the leaves. The aggregations start at the tip of twigs and branches and work toward the trunk. Older caterpillars eat the entire leaf except for larger veins. The damage can be extensive in ornamental landscapes.

The natural enemies of the yellownecked caterpillar include predaceous bugs, parasitic flies and birds, which help to keep the caterpillar numbers in check. Artificial control includes scouting trees in July for the white masses of eggs on the underside of leaves. If you find eggs, simply remove them from the tree. If necessary, a number of insecticides will work as a control. When the caterpillars are small B.t. is effective.

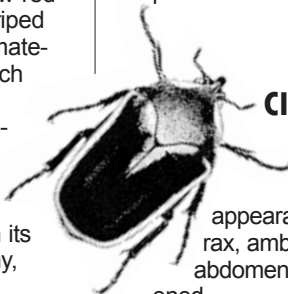
GREEN JUNE BEETLES

Green June beetles, common summer pests, can be identified easily by their dull, velvety green and tan wing covers and iridescent green undersides. They make what may be considered a threatening buzzing sound as they fly about clumsily crashing into objects and people, but they are harmless. —Dewey Caron

Green June beetles have a fondness for very ripe fruit and large numbers of the beetles can accumulate on damaged or rotting fruit or at the ear tips of sweet corn. In general, sevin or malathion will reduce beetle numbers in the garden. Pyrethrins can be used on a wide variety of fruits up to and including the day of harvest. Pyrenone contains natural pyrethrins— not a synthetic pyrethroid. This insecticide offers a quick knockdown effect and degrades very quickly leaving no residual protection. It's a good choice for "cleaning up" beetles.

Regardless of the insecticide used, the odors from overripe fruit will continue to draw beetles, even after applications are

made. This means that beetle pressure will remain high in areas in which the insect is abundant. Removal and destruction of overripe or crushed fruit helps to make sites less attractive to Green June beetles. Sanitation is an important part of beetle management.



CICADA KILLER WASPS

Cicada killers are now flying, attracting the homeowner's attention. Despite their menacing appearance (up to two inches long with rusty red head/thorax, amber-yellow wings, and black and yellow striped abdomen), the wasps seldom sting unless handled or threatened.

Cicada killers do not live in communal nests as hornets or yellowjackets do. They overwinter deep in the soil as larvae within cocoons, emerging as adults during July. —Dewey Caron

The females feed, mate and excavate burrows in the ground about ½ inch in diameter, which results in a series of brood chambers. Excess soil is pushed out of the burrow, leaving a small, U-shaped mound of dirt at the entrance. Each female excavates many burrows and provisions them with adult cicadas which she ambushes, paralyzes with her venom, and stuffs into individual brood chambers. She then lays an egg on top, backs out, and seals the cell behind her. The egg hatches within a few days and the hungry larva devour the offering. These larva will transform into pupae the following spring.

Cicada killers seldom sting, and females generally do not defend their burrows. The males, while incapable of stinging, sometimes dive-bomb passers-by, or hover menacingly nearby, often at the tip of vegetation.

Insecticide treatment may be warranted if the soil burrows become unsightly. Individual burrows can be effectively dusted or sprayed with most yard insecticides or a wasp and hornet aerosol sprays.

Large numbers of nests may need to be treated with a broadcast application to the surface of the turf, the turf disturbed with hoe or rake and then resprayed. As females attempt to reopen burrows, they contact pesticide, which kills them.

—Dewey Caron

RETURN SERVICE REQUESTED

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WEEDING MADE EASY (OR, AT LEAST, EASIER)

Try pulling weeds in dry soil and the roots will stick like burrs in fur. And, when the weeds do come out, the roots take lots of soil with them. Instead, choose a time after a rain or when you have watered your garden well. Water "greases up" roots so that plants pop right out when you pull on them. But if you try to pull weeds when the soil is too wet, the soil will be compacted and will turn rock hard when it dries.

If you don't get the root, you haven't got the weed! Hold each weed firmly and pull up slowly, trying not to break the stalk. Any weed can resprout if you leave enough of the stalk behind, and tough perennial weeds can regrow from the tiniest pieces of root alone. When weeds grow back, their rebranched roots are even tougher to pull out than before.

If you have no time to get the whole weed, just cutting them off at ground level can set them back enough to allow garden crop plants to steal ahead in the competition. The stress of getting their heads cut off just makes weeds less aggressive.

Never ever let weeds go to seed! If you wait too long to dig out these little invaders, in no time the weeds will be already topped with mature seed heads. You must keep the weeds from going to seed. Remove the seed head before it casts its contents to the wind.



*Adapted from an article in Garden Lingo,
Ohio State University Cooperative Extension, 2001.*