

Down the Garden Path



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Plant & Pest Diagnostic Laboratory

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GARDEN

Preventing Fruiting in Woody Plants

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In This Issue...

GARDEN

- Preventing Fruiting of Woody Plants

YARD

- Shrews

OVER THE BACK FENCE

- Applying Lime or Gypsum to Lawns
- Crabgrass Germination
- Discouraging Squirrels

THE GRAPE VINE

- Managing Diseases and Insects in Home Fruit Plantings

UPCOMING EVENTS

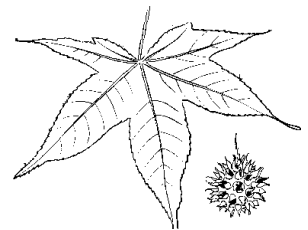
- Spring Fest - April 18-19

Although most gardeners aim to bring in a good fruit crop on their plants, there are a few situations where a barren plant is preferred. Some homeowners would love to find a way to keep certain landscape plants from dropping their fruits onto driveways and sidewalks. Where tree fruits are concerned, some folks love to see their spring blossom show but don't want to be bothered with regular spray schedules to produce a healthy crop.

There are a few methods that can help reduce the amount of fruit production on both ornamental and fruit trees. Hand removal of faded blooms or young fruits works great for small plants but is not very practical for large trees or numerous shrubs.

Some plants can be sprayed with a solution to reduce the formation of fruits, but homeowners should be cautioned that the results are rarely 100 percent effective and not without risk of plant damage. When sprayed, different plants will have varying degrees of success; even different cultivars of the same species may react differently. And some of these products may actually promote fruit set if applied at the wrong rate or time.

With these reservations in mind, there are a number of commercial products available if you want to give this method a try. A relatively new product on the market, Florel Fruit Eliminator, contains a not-so-new chemical called Ethephon, which can reduce fruit set when properly applied. Other products include Naphthalene acetic acid (NAA) which is often sold as Fruitone N or App-L-Set. Home growers may find this chemical difficult to find in small-sized packages. The insecticide carbaryl, often sold as Sevin, can also be used to prevent fruiting in apples and crabapples, but it is generally less effective than the hormone type sprays. One must also be careful to not apply carbaryl during full bloom as this insecticide is quite toxic to bees.



Some variation in effectiveness may be due to the how the chemical is applied. The rate of application must be carefully adjusted. Too low of a concentration can actually increase the number of fruit that are set. Too much can cause plant injury. Timing of the application is crucial to be sure fruiting is prevented. Depending on the specific product and plant combination, application may be recommended when flower buds are just beginning to open, or during full-bloom, or in some cases, after blooms have faded and fruits are just beginning to set. Weather can also greatly influence the



effectiveness of these sprays. When using any chemical, be sure to read and follow the label directions.

Of course the best way to prevent unwanted fruiting is to select appropriate plant materials for your landscape. Choose a species of tree or shrub that does not have objectionable fruit where possible. Some woody plants including ginkgo, mulberry, and ash, have male and female flowers on separate plants and males will not bear fruit. Ask for named male or non-fruiting cultivars at the nursery as this is the only way to be sure of the sex until flowering begins, which could be several years after planting. ☺

YARD

Shrews

Judy S. Loven, *State Director USDA/APHIS/ Wildlife Services*

Shrews are members of the mammal family Soricidae. These small, mouse-size animals are insectivores. Shrews are voracious eaters that feed primarily on grubs, worms, and insects, but may also consume small birds, mice, even other shrews plus a small percentage of seeds or other vegetable matter. The salivary glands of shrews contain a toxin which is probably used to subdue prey. Some shrews consume three to four times their body weight in food over a 24-hour period in order to maintain their high metabolic rate. Unlike moles, shrews do not make extensive tunnels and burrows, although they may use the tunnels and burrows of other small mammals. Shrews rarely cause any damage and are generally considered to be either environmentally neutral or beneficial. However, shrews can become a nuisance around some homes.

There are several alternatives for shrew control. Frequent mowing disrupts the habitat and food sources for shrews. Shrews can be trapped using the small, mouse-size snap traps, or captured live using small box traps or a pit-trap. There are no registered chemical products for shrew control.

The Short-tailed shrew is the most abundant of the four species of shrew commonly found in Indiana. These small, dark gray animals are only three-four inches long and weigh less than an ounce. Unlike mice, the Short-tailed shrew has no visible external ears and eyes so small you can barely see them. Shrews also can easily be differentiated from mice by 1) their front feet (shrews have five toes on the front feet, most mice have four toes on the front feet,) and 2) their front teeth (shrews have pointed, carnivore-like teeth, mice have chisel-like front teeth). Beginning as early as March, Short-tailed shrews may produce two to three litters of five to eight young per year. Short-tailed shrews are found in various habitats throughout Indiana. ☺



OVER THE BACK FENCE

Q: Is crabgrass germinating early this year?

A: Crabgrass germinates when minimum soil temperature reaches about 55 or 60 degrees Fahrenheit. With the February weather, it was conceivable that soil temperature could have reached these levels by mid-March in some areas. However, the blast of Arctic air that entered Indiana the second week of March brought the soil temperatures back down and we don't expect crabgrass to germinate much earlier than normal this year. In addition, frosts will typically occur into late April and will kill any early germinating crabgrass. The bottom line is that there is no need for panic if you don't have your preemergence herbicides applied yet, but be sure to apply in the next week or two. -- Zac Reicher ☺

Q: Should I apply lime or gypsum to my lawn?

A: Do not apply either of these products without a soil test that recommends applying these products. Lime is recommended to raise the pH of soils, but most Indiana soils under turfgrass do not need liming. However, there are isolated pockets of low pH soils or a new lawn on former cropland that may benefit from lime, so take a soil test to make sure.

Gypsum is often recommended to improve the soil structure of clay soil. This is simply not true. This only works in soils common in the western United States where there is much more sodium than calcium. In Indiana, there is far more calcium than sodium in our soils and applying gypsum will have no effect on the soil structure. Instead of gypsum, consider aerifying every spring and fall to reduce compaction and improve plant health. For more information on aerification, refer to *AY-8 Mowing, Thatching, Aerifying, and Rolling Turf*, available from your local county Cooperative Extension Office. -- Zac Reicher ☺

Q: I would like to put together a system of copper wire, a coil or capacitor and a 9 volt battery to attach to the pole my bird feeder to discourage squirrels from climbing the pole. How can I do this and where can I buy the components? Can the voltage be controlled?

A: Squirrels can be quite a problem for those of us who feed birds. Bird seed is an extremely attractive food source for the squirrels, and they can become such gluttons that the birds wind up with very little of the food we put out for them. I do not have any information on a homemade hot wire system, but there are a variety of alternatives out there to help ensure that the birds get the seed and not the squirrels. A squirrel "baffle" can be installed over your pole. This is made from a 3-4 foot length of 6" PVC pipe (the smoother the surface, the better). An end cap or a metal cross-bar is attached at one end of the pipe and then placed over your pole. Be sure that the top end of the pipe is sealed over. Your bird feeder will sit on top of the cross-bar at the top of the pole. Squirrels may try to climb the pole, but they cannot grip the slick PVC pipe to climb to the feeder. If they try to climb inside the pipe, they will run into the sealed cross-bar end. If your feeder is at least 6 feet off the ground, the squirrels should not be able to jump up from ground level. If your feeder is next to lawn furniture, a fence, or tree, the squirrels may use these to boost themselves onto your feeder. I have heard that there are some commercially available bird feeders with electronic squirrel repelling features. I have not tested any of these and cannot give an opinion on their effectiveness. Remember, many cities do not allow low voltage hot wires to be used outdoors, so check with your city before investing in this type of equipment. -- *Judy S. Loven*, USDA/APHIS/ Wildlife Services ☺

THE GRAPE VINE

Managing Diseases and Insects in Home Fruit Plantings

*Peggy Sellers, Director, Plant and Pest Diagnostic Laboratory
and Rick Foster, Entomologist*

Most of the fruit crops grown by homeowners in Indiana are attacked by one or more insect and disease pests. Fire blight, a devastating bacterial disease of pears and apples, is most often seen on the succulent shoots which have just emerged, or can even be seen destroying flower clusters before they have had a chance to set fruit. Fireblight is difficult to control. Watch for the first symptom of blight--blackening and wilting of leaves. Immediately, prune out the affected branches, cutting eight to twelve inches below the diseased area. Disinfect pruning tools with 70% denatured alcohol between cuts to avoid spreading the disease organism to healthy tissue. Refer to *BP-30, Fire Blight* for more information.

The most critical time to apply fungicides for control of apple scab is in the spring (April to early June). Apple trees should be sprayed on a regular schedule starting shortly after bud break, when one-half inch of green leaf tissue is visible. Continue spraying on a seven- to ten-day schedule until petal fall. After petal fall, if dry weather persists, a two- to three-week spray schedule is adequate. Refer to *BP-1, Apple Scab* for more information.

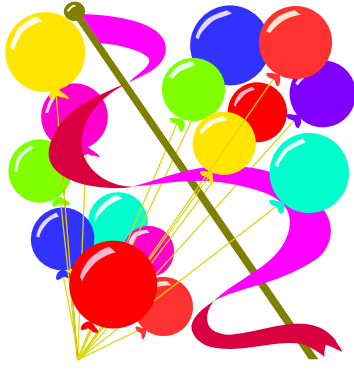
Note: Fungicides act as a protective coat of "paint" on the leaf surface. Where possible, apply fungicides just before a prolonged wet period occurs, not after. Two readily available fungicides for control of apple scab are captan (also sold as Orthocide) and benomyl (sold as Benlate). General purpose fruit sprays sold as "Home Orchard Spray, All Purpose Fruit Spray, one Package Fruit Spray, etc. may be used in place of the specific fungicides recommended above. However, do not spray with general purpose sprays during bloom; they are toxic to honey bees.

For most homeowners, controlling insects in fruit crops can be a puzzling task, because it is not uncommon that you will never see the pest until it is too late. A good example is the codling moth, the larval stage of which is the common "worm in the apple." Female adult codling moths lay their very tiny eggs on or near developing fruit. When the eggs hatch, the young larvae immediately bore into the fruit. The first indication you may have that there is a problem may be when you bite into the apple.



As a result, it is often preferable to spray fruit plantings according to a schedule rather than when you see a problem. Purdue Extension Publication *ID-146, Managing Pests in Home Fruit Plantings*, provides complete insect and disease spray schedules for apples and pears, peaches, plums and cherries, grapes, strawberries, and raspberries. This publication also contains drawings of developmental stages for these crops, as well as tips on cultural practices you can use to reduce insect and disease problems, how to use pesticides, and lists of fruit varieties that are resistant to various diseases. In addition to the other publications mentioned in this article, ID-146 is available for \$2.00 at your local county Extension office or the Media Distribution Center (765-494-6795). Most Purdue extension publications are also available via the internet (www.agcom.purdue.edu/AgCom/Pubs/menu.htm).

Editor's note: Some of the information on diseases was adapted from an article written by John Hartman, University of Kentucky. ☺



UPCOMING EVENT

Spring Fest

Peggy Sellers, Director, Plant and Pest Diagnostic Laboratory

Come join the fun at Spring Fest on Saturday and Sunday, April 18 and 19 at Purdue University's West Lafayette campus. All events are free and open to the public. Parking also is free in Purdue parking garages and lots. Spring Fest hours are 9 a.m. to 4 p.m. Saturday and 10 a.m. to 4 p.m. Sunday. Spring Fest is sponsored by the schools of Agriculture, Veterinary Medicine, and Consumer and Family Sciences. You can visit the following events and many more!

Peggy Sellers, Editor
Janet Whaley, Subscriptions

Timothy Gibb, Entomology
B. Rosie Lerner, Horticulture
Rita McKenzie, Forestry
Karen Rane, Plant Pathology
Zac Reicher, Turfgrass Management
Gail Ruhl, Plant Pathology

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Bug bowl
Hort Show
Plants, Soils, and Microbes in Action

Boiler Barnyard
Wildlife and You
Trees are Fun

You might want to plan your trip in advance by calling 1-888-EXT-INFO or visit the Spring Fest Website at www.anr.ces.purdue.edu/anr/sfest/sfest98.html. Or when you arrive you can get a Spring Fest map by visiting the information tent, located next to the Agricultural Administration Building.

One of Spring Fest's new events is a scavenger hunt which is being promoted in area schools. First, obtain a list of questions at the information tent or via the internet at <http://anr.ces.purdue.edu/anr/sfest/scav.html>. Then, visit various event sites to find the answers to the questions. Visitors can also qualify for prize drawings by having a special passbook stamped at each of the event sites. ☺

RETURN SERVICE REQUESTED



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