

Down the Garden Path

March 17, 1998

Plant & Pest Diagnostic Laboratory

Number 127



In This Issue...

GARDEN

- Mild Winter Leads to Precocious Bulbs

YARD

- It's Spring Cleaning Time!

OVER THE BACK FENCE

- Peach Leaf Curl and Plum Pockets

UPCOMING EVENTS

- Programs from the Department of Forestry and Natural Resources

THE GRAPE VINE

- Why Hire an Arborist?



GARDEN

Mild Winter Leads to Precocious Bulbs

B. Rosie Lerner, Extension Consumer Horticulturist

Hardly a year goes by that I haven't received dozens of calls asking what to do when spring flowering bulbs send up some leaves in winter. In general, the answer to that question is to do nothing, once the growth has begun.

In Indiana, we usually have plenty of freezing and thawing of the soil and it is during the thaws that bulbs start to grow. This winter has been particularly mild, causing many bulbs to send foliage and perhaps even flower buds up earlier than usual. Gardens in protected locations or those close to a warm building are likely to have flowers more advanced in their development.

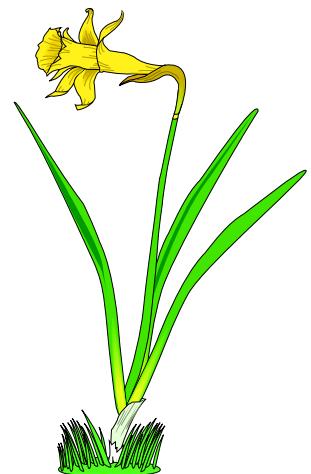
Once the foliage has broken through the ground, the leaf tips may be damaged by hard freezes if and when temperatures drop again, causing browning of the affected foliage. The parts of the plant that are still below ground should be fine.

Most bulbs need to receive at least ten weeks of cold temperatures before the flower buds are even formed. After flower buds have been initiated, they are still safely tucked away inside the bulb below until temperatures warm enough to cause those flower stalks to emerge. Because of the mild winter this year, flower buds are up and may even be open in some parts of the state, especially on daffodils.

While bulb flower buds are frost tolerant, they can be damaged if temperatures drop well below freezing. In most cases, the flowers do recover. The more open the flower bud is, the more susceptible it is to damage. If temperatures drop low enough to damage the flowers, they will likely wilt or turn brown rapidly as temperatures rise. But even if the flowers are damaged, the plant will survive.

Dedicated gardeners could temporarily cover emerged flowers to protect them from a hard freeze. But often the weight of the cover does more damage to the flowers than the cold weather. Use stakes or cages to form a frame of support for the plant cover.

Applying winter mulch to keep the ground cold after the ground freezes may help prevent the frequent thawing action caused by fluctuating temperatures. But if the weather remains warm for several days or longer as it did this winter, the bulbs will poke through anyway. Applying mulch after the bulbs have started to come up will not provide adequate protection for the foliage and may actually encourage disease by decreasing air circulation and increasing moisture retention. ☺



YARD

It's Spring Cleaning Time!

Peggy Sellers, Director, Plant and Pest Diagnostic Laboratory

Think back to last fall, when you were sitting in your recliner, enjoying your favorite television show, thinking that you should get out in the yard and get busy. Perhaps you never did take the time last fall to do all of the yard chores that you meant to do. As spring approaches, we tend to get anxious and excited about working in the yard and garden. Now is the time to consider some preventative measures for plant disease management, some of those same things we could have done last fall. Many of the microorganisms that cause plant disease overwinter in plant debris. Therefore, getting rid of last year's debris can help to decrease the severity of some diseases as the season progresses. Spring-time is also the time to consider the use of fungicides for the management of some diseases. Following are some suggested sanitation practices for your yard.

Remove annual vegetables and ornamentals (if not done last fall). After removing as much debris as possible, plow or till the garden.

Rake fallen leaves and fruit from apple and crabapple trees. Prune out any dead branches and thin to promote good air circulation.

Remove last year's iris leaves and remove dead stems and leaves from peonies before the new shoots emerge. Rake and destroy fallen rose leaves.

Prune out hard, black swellings or galls on plum and cherry branches caused by the black knot fungus. Also, remove any mummies or shriveled fruits from the trees and rake fallen fruits.

Prune out dead or diseased raspberry canes to ground level.

When pruning, prune at least six to eight inches below visible diseased areas. It is always a good idea to disinfect pruning tools in 70% denatured alcohol or Lysol between cuts to avoid spreading disease-causing organisms.

Composting of disease-infested plant material is okay if you compost correctly so that internal temperatures reach 150 -180 degrees Fahrenheit. Most home compost piles do not generate enough heat to kill disease organisms. If your waste pile fits this description, it's better to burn or bury infested plant wastes, have them hauled off, or pasteurize as described in ID-182 (see below).

The use of sanitation is only one of the many ways that plant diseases can be managed. Using an integrated approach is the most effective way of reducing plant diseases. Besides sanitation, other approaches to plant disease management include plant resistance, chemicals, and other cultural practices.

For more information, refer to the following Purdue University Extension publications, available from your local county Cooperative Extension Service Office.

BP-1 Apple scab

BP-26 Rose Diseases

BP-30 Fire Blight

BP-39 Scab of Flowering Crabapples

BP-45 Brown Rot of Stone Fruits

BP-53 Raspberry Anthracnose

ID-182 Managing Yard Wastes: Clippings and Compost ©

OVER THE BACK FENCE

Q: Last year I sent samples of my distorted plum fruit and peach leaves to the Plant and Pest Diagnostic Lab and they were diagnosed as having plum pockets and peach leaf curl. Would you please tell me more about these disease problems and how I can prevent them from reoccurring this year?



A: Peach leaf curl appears on the new growth of peach leaves. Symptoms are distinctive and look like portions of the leaf have "ballooned" out. Distorted leaf portions are often bright pink to red in color and may be thickened, puckered, and curled. The leaves often look as if a gathering string had been run along the midvein and pulled tight. Depending on the severity of the infection, a few or nearly all of the leaves on an affected tree may fall, lowering tree vitality and fruit production. Diseased fruit becomes distorted and irregular in shape, with swollen areas on the surface. These areas are without peach fuzz and have a polished appearance.

The foliage of plums may fasciate (grow together as one) and twist. Stems may become thickened and distorted. Plum fruits may swell to up to five times their normal size. They lack seed, develop a leathery surface, and are hollow (hence the name of the disease- plum pockets.)

The fungal organisms which cause these two diseases are fairly host specific. *Taphrina communis* causes plum pockets on American plums. Since most garden plums are of foreign origin they are not susceptible to the American species of *Taphrina*. *Taphrina deformans* causes a leaf curl on peach as well as on nectarine and almond, however, not on apricot.

I am glad that you asked your questions now, rather than later in the season, since these diseases can only be controlled with a fungicide spray applied BEFORE THE BUDS BEGIN TO SWELL IN THE SPRING!! After the buds have started opening, it is too late to control these diseases for this season. Bordeaux mixture, lime sulfur, Kocide 101, Ferbam and chlorothalonil can be used according to label instructions. Be sure to cover the limbs and twigs thoroughly and to apply only when the temperature is above 40 degrees Fahrenheit at the time of application. -- Gail Ruhl ☺

UPCOMING EVENTS

Programs from the Department of Forestry and Natural Resources

Tree Identification Workshop
March 31, Indianapolis, \$50

Arborist Certification Conference
April 28-29, West Lafayette, \$160

Hazard Tree Evaluation Workshop
May 14, Ft. Wayne, \$75

Hazard Tree Evaluation Workshop
May 15, Columbus, Indiana, \$75

For more information about any of these programs, contact Rita McKenzie at 765-494-3625. ☺

THE GRAPE VINE

Why Hire an Arborist?

Rita McKenzie, Urban Forester

What is an arborist? An arborist is a specialist that cares for individual trees. Arborists are knowledgeable about the needs of trees and are trained to provide proper care. Hiring an arborist is a decision that should not be taken lightly. Proper tree care is an investment that can lead to substantial returns. Well cared for trees are attractive and can add considerable value to your property. Poorly maintained trees can be a significant liability.

A good arborist will offer a wide range of services such as pruning, fertilizing, cabling/bracing, and pest control. An arborist can determine the type of pruning necessary to maintain or improve tree health, appearance and safety. Pruning may include eliminate rubbing branches, or removing limbs interfering with wires, gutters, roofs, or obstructing streets or sidewalks. Arborists also remove dead or weak limbs that pose a hazard or lead to decay.

When necessary, an arborist can help decide whether or not the tree should be removed. Arborists have the skills and equipment to safely and efficiently remove trees. Removal is recommended when the tree is: dead or dying, considered irreparably hazardous, causing an obstruction that cannot be corrected through pruning, unsuitable for the location and is to be replaced, crowding and causing harm to other trees, or to be removed for new construction.

An arborist can also help with emergency tree care. Storms may cause limbs or entire trees to fail, often landing on homes, cars, other structures or trees. The weight of storm-damaged trees is great and they can be very dangerous to remove or trim. An arborist can assist in performing the job in a safe manner, while reducing further risk of damage to your property.

An arborist makes proper species selection based on site conditions. The wrong tree in the wrong location could lead to future problems such as: limited growing space, insect and disease problems, poor growth and utility obstructions leading to topping.

There are a variety of things to consider when selecting the right arborist. Look for an ISA Certified Arborist. Ask for proof of insurance. Ask for references. A good arborist will only perform accepted tree care practices. For instance, some practices such as topping, removing excessive wood, and using climbing spurs on live trees are not recommended. Get the estimate in writing and you may want to get estimates from more than one arborist.





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

Down the Garden Path is published 17 times a year by the Plant and Pest Diagnostic Laboratory. For subscription information and comments, write to:

DOWN THE GARDEN PATH
Purdue University
1155 LSPS
West Lafayette, IN 47907-1155
Tel: (765) 494-7071
Fax: (765) 494-3958

RETURN SERVICE REQUESTED

Membership in one or more of the following professional organizations demonstrates a willingness to stay current with latest techniques and information.

International society of Arboriculture (ISA)

Local chapters ñ Indiana Arborist Association (IAA)

National Arborist Association (NAA)

American Society of Consulting Arborist (ASCA)



What is a Certified Arborist?

An arborist by definition is an individual who is trained in the art and science of planting, caring for and maintaining individual trees. ISA Arborist Certification is a non-governmental, voluntary process by which individuals can document their base of knowledge. It operates without mandate of law and is an internal, self-regulating device administered by the International Society of Arboriculture.

Certified Arborists have achieved a level of knowledge in the area and science of tree care through at least three years experience and have passed a comprehensive examination developed by some of the nation's leading tree care experts. They must continue their education to maintain their certification.

This article was adapted from *Why Hire an Arborist*, a publication by the International Society of Arboriculture. For more information contact Rita McKenzie (765) 494-3625. ☺



Purdue University
Cooperative Extension
Service

The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by the Purdue University Cooperative Extension Service is implied. Any person using products listed in this publication assumes full responsibility for their use in accordance with current direction of the manufacturer. Purdue University is an equal opportunity/equal access institution.

