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ALLEN'S Tree Service INC

Branchin' Out

Insect Control

Insects and other animals have the potential to kill trees. Often they act as part of a stress complex. A tree that has been stressed by an injury or environmental condition such as construction injury or drought injury, planted in an unsuitable site, etc, becomes more susceptible to pest damage since its natural defense mechanisms are weakened by the stress.

There are more species of insects than any other group of living organisms. A relatively small portion of insects are pests, in fact, most of the insects found on trees and shrubs are not pests. Insects that do injure the plant can be present in small numbers, not causing enough damage to be considered a pest.

For all these reasons it is important to remember that the mere presence of an insect on a plant does not necessarily indicate a pest problem or require a control treatment such as a pesticide spray.

Control depends on the type of insect on the tree or shrub. The insect must first be correctly identified to determine the most effective type of control to apply.

Cultural Controls: This is the manipulation of the environment to make it less favorable for the growth and survival of pests. It can include a number of tree maintenance practices.

Proper mulching around the base of a tree reduces the chance of lawn mower injury: schedule pruning to avoid periods when pests are active can help to reduce the chance of infection and infestation.

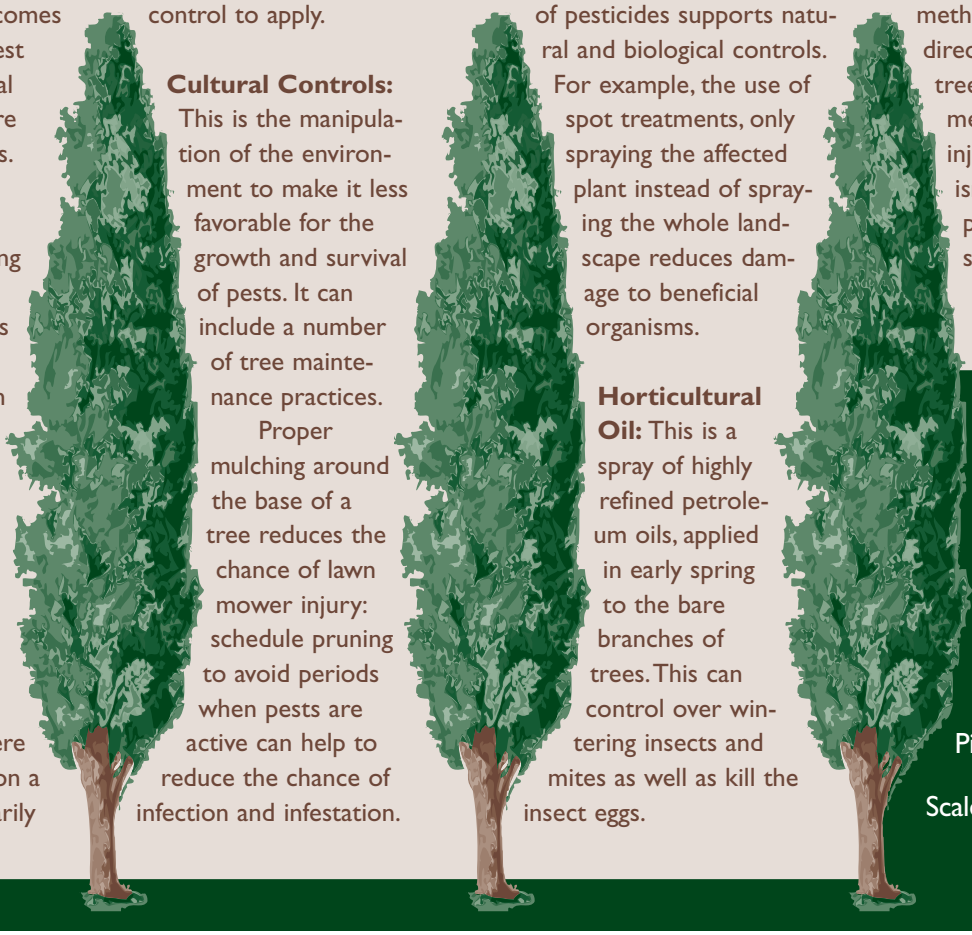
Physical Controls: Direct removal or destruction of the insect or mite pest with non-chemical methods is also an option: hand removal of pests: pruning to remove egg masses.

Pesticides : Conservative use of pesticides supports natural and biological controls. For example, the use of spot treatments, only spraying the affected plant instead of spraying the whole landscape reduces damage to beneficial organisms.

Horticultural Oil: This is a spray of highly refined petroleum oils, applied in early spring to the bare branches of trees. This can control over wintering insects and mites as well as kill the insect eggs.

Active Sprays: These sprays are made from many different materials that are harmful to pests. They are used when damaging pests are discovered in the growing season.

Injections: Injections are the method of applying pesticides directly into the trunk of the tree. This is an effective method that helps limit injury to non-target organisms. It also eliminates the potential for pesticide sprays to drift off target.



In this Issue:

News from the Top

News & Advice from Gary Allen,
President of Allen's Tree Service

Here at Allen's Tree Service Inc. we want to help you, our client, to be able to provide the best possible care for your landscape, plants and trees. In this issue of "Branchin' Out", we have included a few articles on some insect pests and common diseases associated with landscape trees in our area.

We use many resources to keep up to date on the newest in technology and treatments for the landscape trees. We attend educational seminars, arborist meetings, we read and review the periodicals from the International Society of Arboriculture (ISA) and the Tree Care Industry Association (TCIA). This enables us to convey the most up to date options on treatments and controls for most insect and disease problems in our area.

We hope that you find these articles informative and educational. If any of your questions or concerns aren't covered in these articles you can call the office and talk to one of our Certified Arborist or you may visit us on the web at allenstreeservice.com.

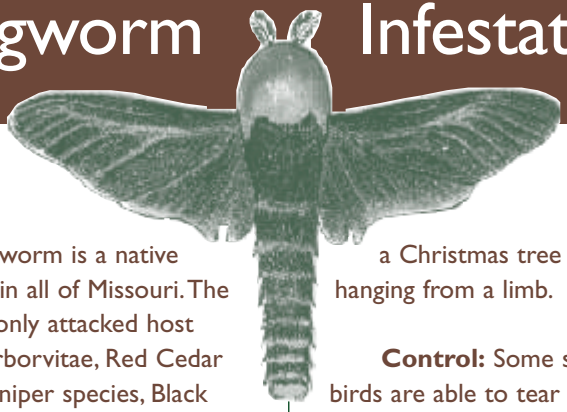
Dieback and Decline of Shade Trees and Ornamentals

The decline of a large tree commonly seems sudden to the casual observer. However, in most cases, it can be traced back to a series of environmental stresses. Tree and shrub decline is a progressive deterioration on the health of a tree or shrub that is attributed to a combination of factors which may include environmental stress, extremes in temperature or moisture, site problems such as soil compaction, extremes in soil pH, poor soil texture for pH requirements, mechanical injuries to trunk or roots, insect infestations and diseases such as defoliating leaf diseases, root rots and wilt diseases. While each of these factors alone may not be that detrimental to the plant, in combination they may cause the decline and death of the plant. Symptoms may include branch dieback, leaf drop or browning, bark peeling, oozing sap and a number of other, equally disturbing abnormalities. The plant, in order to compensate for this stress, will decrease the amount of top growth to restore the delicate balance between the branches and roots.

Primary Hosts In Missouri: Sugar maples and many species of oaks are commonly affected, but other trees and shrubs may also decline. No plant species is completely immune to the problem.

Symptoms/Diagnosis: There is an overall loss of vigor. Early fall coloration of leaves, late leafing in spring, production of foliage in clumps, decrease in twig growth, heavy seed crop production, and twig dieback are all symptoms. These visible

Bagworm Infestation



The bagworm is a native moth found in all of Missouri. The most commonly attacked host plants are Arborvitae, Red Cedar and other Juniper species, Black Locust, Maple and Sycamore. Bagworms reportedly feed on 128 plant species.

The bagworm can be a constant threat to evergreen and deciduous shrubs used for landscaping. Attacked plants usually are partially defoliated, weakened and rendered unsightly. It is not uncommon for complete defoliation to occur.

The most noticeable or visible sign of a bagworm infestation is the presence of silken bags attached to a branch. The bag somewhat resembles a Christmas tree ornament hanging from a limb.

Control: Some species of birds are able to tear open the bags and feed on the larvae. Natural enemies seldom control large bagworm populations until after extensive damage has occurred. The cheapest method of controlling bagworms on small trees and ornamentals is to handpick the bags. Be sure to pick off all bags and destroy them. For larger plants where hand picking is not practical, the bagworm can be controlled chemically. Once the bags are sealed sometime in late August, sprays are ineffective.

symptoms may not occur until the tree or shrub is severely stressed. A declining plant will also be more susceptible to other disease and insect problems.

Integrated Management Strategies: Prevention and early detection is the key to keeping trees and shrubs healthy. Plant in favorable environments and avoid stresses. Avoid unnecessary injury. Water deeply during dry periods. Mulch over the root system to maintain an adequate level of soil moisture and to promote root growth. Use fertilizers high in phosphorus and low in nitrogen to stimulate root growth. Prevent serious recurrent defoliating disease with fungicide treatments and treat serious insect and mite infestations when needed.

"Many old treatments have hurt the tree system. Many adjustments to old practices must be made now. I hope you will give trees a fair chance. Learn about them. Touch them."

– Alex L. Shigo

Pine Wilt Disease

Pines have earned a secure niche in America's urban landscape thanks to their diversity, adaptability and beauty. A disease called Pine Wilt has now killed many pines in the Midwest – especially Scots, Austrian, and occasionally White Pine. Caused by the Pinewood Nematode, it is transmitted by the Pine Sawyer Beetle.

The symptoms for pine wilt usually appear from August – December. The trees wilt and die rapidly. The first symptoms appear three to four weeks following infestation by the Pinewood Nematode. Needles show a light grayish-green discoloration, and then turn yellow and brown.

Another symptom is the reduction of resin production. On a diseased tree, resin may be absent, so branches and twigs will become dry and break easily.

It is important to remember that rapid death is usually not the case with other pine problems, like fungal diseases, insects or environmental stress. Pines yellowed from winter burn seem similar in appearance to trees infected with pine wilt, but the branches will be flexible on the winter-damaged trees.

Pine Sawyer Beetles emerge in May or June from infested and non-infested pine trees, and fly to new host trees, where they feed under the bark of young pine shoots. As the nematode carrying beetles feed and deposit eggs within the tree, the nematodes move to the water-conducting tissue of the pine. Their populations increase rapidly, and block the resin canals. Within four to five weeks, the nematodes will spread throughout the tree. Infested trees will die within three months. Even after the tree dies, the nematodes continue to reproduce for several months as they feed on fungi that invade the dead tree.

If you suspect that pine wilt caused the death of a tree, get confirmation quickly to prevent the spread of the pinewood nematode to neighboring pines. In late summer or early fall, take a branch sample at least two inches in diameter, collected near the trunk of the tree, or take a wedge of wood from the lower portion of the trunk. Place the sample in a plastic bag as soon as it is collected and take it to your County Extension Office.

To control the spread of the disease, you must remove affected trees and properly dispose of the wood. To prevent the disease, keep pines stress free by controlling insects and other diseases and providing, good drainage and water during extended dry periods.

SCALE INSECTS: Common Pests of Trees & Schrubs

Scale insects, common pests of many trees and shrubs, can be difficult to control. Scales are often over looked since they remain immobile for most of their lives and do not resemble other insects.

Heavily infested plants are often covered with small, dislike or waxy covering, and underneath each covering is the scale organism feeding on the juice of the plant.

Arborvitae, Azalea, Birch, Box Elder, Euonymus, Honey Locust, Juniper, Magnolia, Oak, Pine, Yew, and many other trees can be infested with scale.

Damage: Trees heavily infested with armored scale often look water stressed. Leaves turn yellow and drop, twigs and limbs may die and the bark cracks and gums. While armored scale can kill trees, soft scale reduces plant vigor, but usually not enough to kill trees. The main problem with soft scale, unlike armored scale, is that they produce large amounts of honeydew that can cover leaves and fruit and act as a growth medium for black, sooty mold. Honeydew also attracts ants, flies, wasps, and bees, whose populations around infested plants can become a nuisance.

Control: Keep your trees and shrubs well watered and fertilized. Scales thrive on plants that are under stress. Natural enemies, such as Ladybird Beetles (Ladybugs) and small parasitic wasps, can play a major role in controlling many scale species.

When natural enemies are not abundant enough to provide effective scale control, insecticide applications are sometimes needed to prevent further plant injury. Many scale species on deciduous trees can be effectively controlled with horticultural oil sprays or insecticidal soaps. Oils and insecticide soap work by smothering the insect, both adults and crawlers. In addition, such alternative pesticides are less harmful to natural enemies than conventional insecticides.

Topping Trees

What it is and what it does to trees.

Topping, also called crown reduction, tipping, and other terms, is the cutting back of tree branches to stubs or lateral branches. Used to reduce the size of trees, topping is not a proper method of height reduction.

Topping stresses, starves, and creates hazardous trees.

Topping removes fifty percent or more of the leaf-bearing crown. Stressed trees are more vulnerable to insect and disease infestations. Trees may lack sufficient energy to chemically defend the wounds against invasion. Insects are attracted to stressed trees by chemical signals. The leaves are the "food factories" of a tree; this can temporarily "starve" trees. Trees may produce multiple shoots below each topping cut, which comes at great expense to the tree. Shoots grow quickly and are very prone to breaking. Ironically, while the goal was to reduce the tree's height for safety, it has been made more hazardous than before.

Our company has been serving both residential and commercial clients in St. Charles and St. Louis County for more than 27 years!

We are members of the St. Louis Arborist Association, the Tree Care Industry Association, the International Society of Arboriculture, the St. Charles Chamber of Commerce, and the Lake St. Louis Chamber of Commerce.

Some of the services we offer include:

- Tree/limb Removal
- Selective Pruning
- Dead Wooding
- Deep Root Fertilization
- Power Stump Grinding
- Insect/Disease Control
- Emergency Storm Service

ALLEN'S Tree Service INC

APPLYING MULCH

If applied wisely, mulch is one of the best things you can do for your trees and plants. The mulch should be 2 to 3 inches deep, at least 1 to 2 inches away from the trunk of the tree and at least 2 feet out from the trunk.

Mulch mounded up against the trunk of the tree, may stay too moist, attracting insects and possibly causing root rot.

We offer double and triple ground premium wood mulch, making our mulch one of the highest grades of mulch available in this area. We also offer decorative mulches in red and brown.

ALLEN'S Tree Service INC

2755 W. Pearce Blvd.
Wentzville, MO 63385-3218

(636) 332-5535

"Branchin' Out" is published quarterly to bring you information that will make your life easier and more enjoyable. We would appreciate it if you would pass this newsletter along to friends and relatives who might be in need of any of our services. If you have any questions, comments, suggestions, or would like to request an additional issue of "Branchin' Out" please call or visit us online.

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