ARBOR IMAGE TREE CARE

THE TOP TEN VISUALLY IDENTIFIABLE TREE AFFLICTIONS

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Tree health involves monitoring and preventative treatments to ensure healthy trees. Discolored leaves, dead branches, or early leaf drop are symptoms that may require the advice of a certified arborist. Sometimes the cause of concern is a minor issue, other times it may be more complex. If the ailment(s) remain undetected for too long, removal may become the only or most cost effective option.

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Beautiful, flourishing trees, for life...

Koree Vanzant, Owner &
Certified Arborist

Arbor Image Tree Care

A WORD FROM THE OWNER

We strive to help our clients maintain the tree health and vitality. The key is being able to identify symptoms of potential concerns before they become major issues. As the property owner, you likely see your trees almost every day. So, we have created this simple guide to help you identify several common, and easy to diagnose ailments before they have an adverse impact on your trees.

While this isn't an exhaustive list, it's a great place to start. Although some ailments are easily treated, others require more extensive measures. In any case, we are eager to help you attain beautiful, flourishing trees, for life.

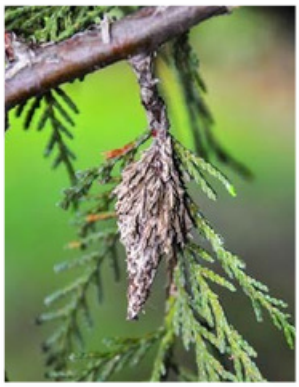
WEBWORMS

Fall webworms overwinter as pupae and emerge as adult moths in late April through May. A female moth can lay up to 500 eggs which are deposited in masses on the underside of leaves. Larvae hatch in early June and immediately begin to form a silken tent, in which they feed for about 40 to 50 days. All larvae within a single web are from the same female. The larva can vary in color, but usually have two rows of black spots down their back and are sparsely covered with long white hairs with either black or brown heads. While there are only two generations per year, it may appear that there are more generations because the brown-headed and black-headed varieties may occur in staggered times. They can feed on nearly 90 different species of trees, including sweet gum, various fruit trees, cottonwood, hickory, and black walnut.

While webworms don't really cause long-term damage, they ruin the appearance of the tree. If control is needed, there are a number of chemical products designed for the elimination of webworms. Any spray should be applied with sufficient volume to penetrate the webbing. Best control is achieved when applied to small larvae.

Small trees are usually treatable by the property owner. Webworm treatment on large trees is usually best left to a professional company with the proper equipment, protective wear and experience to manage the infestation effectively and safely.

BAGWORMS



After mating, the female lays several hundred white eggs inside her pupal case, then drops from the bag, and dies. The eggs in the bag begin to hatch in late April or early May and the young larvae begin to feed and construct their own bags immediately. There is one generation per year.

The first evidence of an infestation is normally a small bag, about 1 /4 inch long, standing almost on end. As larvae grow, silk and fragments of the host plant foliage are added to the bag until it reaches 1 1/2 or 2 inches long. When mature in mid-August, the larva wraps silk around a branch, hangs from it, and pupates head down. The silk is so strong that it can strangle and kill the branch it hangs from, if not treated, over the course of several years as the branch grows.

The bagworm has a voracious appetite and is considered a serious pest. Bagworm larvae damage their host tree by feeding on the foliage. Heavy infestations can completely defoliate small trees. Defoliation usually kills hosts such as red cedar and other junipers. Broadleaf hosts will become weakened and be more susceptible to diseases over time.

On small trees, if caught early, the bags from the previous year can be picked off by hand before the end of May. They are easiest to detect in the fall after their cases have turned brown, especially on evergreen trees.

On larger trees, treatment is best applied by a professional company with the proper spray equipment strong enough to reach and penetrate the bags. The application is best applied to eliminate young larvae in mid to late June to be effective.

PEAR RUST

The rust on pear trees is caused by different fungi that alternate between two different hosts - junipers and broadleaf trees. When the fungi are active on junipers, the fungus produces spores that travel in the wind to broadleaf trees. Spots will develop, enlarging in the spring and early summer. By May, bumps develop on the underside of the leaves developing spore bearing tube structures. Spores fall from these tubes and are blown back to juniper hosts. The orange gelatinous stage of the disease is visible annually on junipers in the spring. Pruning infected juniper branches in winter and early spring can help reduce the spread. In some cases, you may opt to remove junipers near pear trees.

If pear rust has been a problem in the past, preventative fungicide applications are recommended.The first application should be applied as leaves and blooms are emerging from buds. Subsequent applications are suggested 7 to 14 days later. Shorter intervals are used when new growth is rapidly developing or rainfall has occurred. To protect junipers, fungicide applications should begin in late May with repeat applications through July.

Pear rust can cause varying levels of defoliation that can devastating pear trees. Due to the complex and systematic process of Pear Rust, it is best to receive an assessment from a certified arboriculture professional for the proper course of action and treatment.

CEDAR APPLE RUST

Cedar-apple rust is incited by several species of fungus and requires two host trees to propagate, typically cedar and apple. Cedar apple rust impacts the health of apple trees by causing defoliation and reducing fruit quality. If severe infections occur for several seasons, the fruit tree may die. Some backyard conditions result in the disease killing both trees.

On the apple tree, small brightly colored yellow/orange spots appear on the leaves upper surface in April to June and will enlarge in rings of reddish-orange. Eventually black dots appear on the orange spots. In late summer, tube-like structures develop on the undersurface of the leaf. Infected leaves may drop prematurely, particularly during drought or other stress. On the cedar tree, the fungus produces reddish- brown galls ¼" to 1" in diameter. Growing quickly, by fall, they may reach diameters up to 2". At about ½" in diameter, small round depressions form in the spring and eventually elongate into orange gelatinous spore bearing horned protrusions. Swelling during rainy periods in April and May, spores are released and are carried by wind to infect apple trees within several miles.

Protective fungicide sprays applied 4 times in 7-10 day intervals are highly effective and protect the fruit tree from spores. However, once cedar apple rust is diagnosed, it is far too late to spray. Curative fungicides exist but they must be applied before symptoms develop. Systemic fungicides are available, requiring fewer sprays, however, they cannot be used on trees intended to produce edible fruit.

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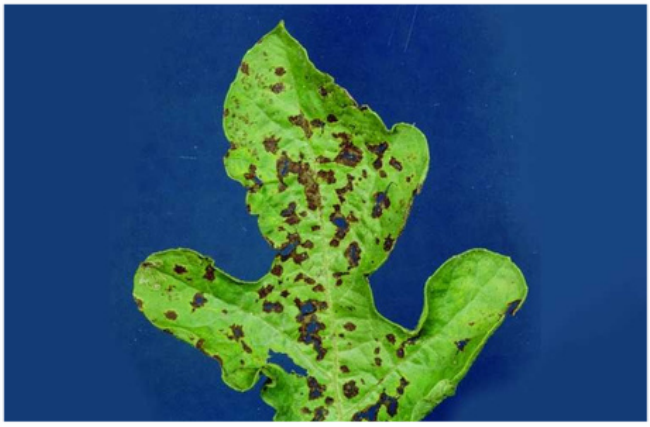
PLANT GALL

Most plant galls are formed from abnormal vegetative growth produced by a plant under the influence of mites and insects, especially gall wasps. Bacterium, fungus, and nematodes can also cause plant gall. Insect produced galls contains hundreds to thousands of eggs that will eventually emerge when grown to attack surrounding plants potentially causing serious damage.

Although visually unappealing, gall infestations rarely kill the plant. The most effective control is to prune out infested plant parts and destroy them in the fall. Insecticide can be effectively used when adults are actively laying eggs in the early spring.

Applications have to be thoroughly applied 2 to 3 times over the course of a couple of weeks. The wide variety of gall origin may require different treatments to prevent an infestation. Consult with your professional plant health care provider for the best course of action.

ANTHRACNOSE



Anthracnose is a fungal leaf disease of deciduous hardwood trees that can be identified by irregular dead areas on leaf margins, between and across and/or along veins, often moving onto the shoots and small twigs of the tree resulting in early leaf drop.

Sometimes whole leaves are engulfed, withered or dead. A tree that has been impacted and defoliated over a number of years as a result of anthracnose can result in the death of the tree.

Anthracnose can be controlled by gathering and destroying fallen, infected leaves. Blighted shoots and branches should be pruned out. Avoid irrigation methods that wet the lower canopy of the tree. Thin the canopy to allow for greater air circulation for leaves to dry quickly and reduce fungal growth.

A spray fungicide treatment may also be effective. This will not restore the affected foliage, but will prevent further development. During rainy springs when anthracnose can become severe, 2 to 3 fungicide applications are needed. Begin when the leaves first unfurl from the buds. Again when the leaves are half grown, and once more when the leaves are fully developed.

Trees that have been affected several seasons should be properly fertilized during dormancy. Consult with a tree health care professional for a proper water and fertilizing regimen to restore tree health.

DUTCH ELM DISEASE

Dutch elm disease (DED) is one of the most destructive shade tree diseases in the world. DED is caused by a fungus carried externally by several species of elm bark beetles from infected to healthy elms. Bark beetles attack trees for feeding and breeding. Beetles feed primarily in healthy elms and breed in dying or dead elm trees with intact bark. The DED fungus can also spread through root grafting which occurs between elms of the same species growing within 35' to 50' of one another.

The first sign of infection is usually an upper branch of the tree with leaves starting to wither and yellow in summer.This progressively spreads to the rest of the tree with further dieback. Eventually, the roots die, starved of nutrients from the leaves. Often, not all the roots die and can repeatedly put up suckers, flourishing for years, after which they too will eventually die.
The primary emphasis in a community-wide DED management program is a 4 pronged approach: Inspect regularly for early signs of DED; Isolate root grafts between infected and healthy trees; Remove all dead and dying elm material with intact bark; Dispose of material by burning, chipping, burying or debarking.
Other management techniques include thoroughly pruning out early infections, insecticide and fungicide applications, and planting resistant varieties of trees.
Due to the severe nature of DED, an inspection of the suspected tree by a certified arborist is of the utmost importance. Depending on the advancement of the disease, various techniques can be attempted to save the tree, but in most cases, removal is the most cost effective option.

IRON CHLOROSIS

Chlorosis is a condition in which leaves produce insufficient chlorophyll which is responsible for the green color. Chlorotic leaves are pale, whiteish-yellow. New leaves near the ends of branches or the tops of the plant yellow first and may have a symptom known as inter veinal chlorosis. The veins running through the leaves will be green, but the areas in between turn yellow. As the deficiency becomes severe, the veins will begin to lighten and brown spots begin to appear on the leaves. The brown spots will spread and eventually the leaves will die.

This can be the result of an iron deficiency in the soil affecting the plants ability to create carbohydrates through photosynthesis. The tree will likely die unless the insufficiency is treated.

Soil pH can affect how well plants can take up iron. Other soil factors also limit plants ability to take up iron such as high clay content, depleted organic matter, overly wet soils, overabundant phosphorus, and more.

There is not a “go to” answer for determining the cause of Chlorosis. Thorough soil testing and site evaluation is required. Based on soil results, a restorative nutrition plan for the tree(s) can be devised.

The determination of the cause and resolution to chlorosis is a biological process and should be assessed by an experienced arboricultural health & nutrition professional.

HYPOXOLYN CANKER

Hypoxylon canker (HC) occurs on many oak species and in forest areas and home landscapes. The disease is usually associated with stresses caused by drought, heat, wound or chemical injury. Healthy trees are more resistant to the disease.

HC is a weak fungus that negatively affects growth and eventually leads to the death of the host trees. Although the fungus is found on the majority of tree bark in an infested area, it only harms the tree when it is stressed or injured becoming easier to infect. When stress occurs, the fungus will begin living off the nutrients of the tree.
Leaves of trees infected turn yellow and wilt, and entire branches die. The bark sloughs off, exposing the stroma, the connective tissue of the tree. The stroma may appear dusty brown, black, silver, or white depending on it's age.

There is no known cure for HC, but proper management practices can reduce potential problems. Maintaining tree health is the best way to avoid the HC. Preventing physical injuries to the trunk, limbs, or roots is important as these injuries can disrupt growth processes. Soil disruptions, such as landscaping, around the tree should also avoided. Proper herbicides, pesticides, and fertilizers should be used to further protect the tree. Adequate propagation along with good drainage is important in sustaining tree health. Regardless of preventative measures, the tree will eventually die once infected. Removal is typically the most cost effective solution. Due to the extremely sensitive nature of managing HC, consult a certified arborist with a strong tree health and nutrition background.




To learn more please visit www.thearborimage.com.
Contact us at 405-815-7959 or solutions@thearborimage.com.

SIRIDIUM CANKER

Seridium canker (SC) is condition caused by fungal infection primarily impacting certain evergreens. Symptoms include browning of individual branches which is called flagging. Often, only a couple of limbs will exhibit symptoms, but eventually. the disease will spread.

SC is often not observed near the shoot tips. Near to the trunk where the branch intersects, you will often find a resinous oozing canker. These cankers may also be observed on branches that have not yet show the flagging symptom because the canker has not yet girdled the entire branch allowing it remains green. However, these branches will typically discolor in a few weeks. There are no treatments available for SC. Infected limbs should be removed and discarded, do not compost. Severely affected plants should be removed from the landscape to prevent spread. Consult with a certified arborist to choose varieties naturally resistant to SC.