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Watch for Armyworms in Wheat

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We have a late-maturing wheat crop that finally received some needed rain. I received a report of armyworms infesting wheat in the Vernon, Texas area. Armyworm infestations typically occur in late April through the first two weeks of May, but the cooler spring we are experiencing this year may have delayed their development.

Armyworm infestations occur more frequently around waterways, areas of lush growth, or areas with lodged plants. These areas should be checked first to determine the size of the infestation. Early signs of an infestation include leaves with ragged margins that have been chewed. You may find "frass" i.e. the excrement from armyworm caterpillars, around the base of wheat stems. They sometimes clip heads from developing wheat plants. The head clipping in winter wheat is usually restricted to secondary tillers with very small, green heads that normally don't contribute much to yield.

Scout for armyworms, at 5 or more locations looking for "curled up worms". Armyworm caterpillars tend to feed at night, so a good strategy is to bring a

flashlight and look at fields after dusk when they are feeding up on the plant stems. The suggested treatment threshold for armyworms is 4-5 unparasitized caterpillars per linear foot of row.



Treatment threshold of 4-5 armyworms in a linear foot

Armyworms have a number of natural enemies that help keep populations in check, if given a chance. If you find small white cocoons littered on the ground that are about ¾ the size of a cotton cue tip, the natural enemies have already taken care of the problem.

Parasitized armyworm caterpillars



Wheat heads clipped by armyworms

If wheat is past the soft dough stage, control is not warranted unless obvious head clipping can be seen and caterpillars are still present and feeding. Worms feeding on the awns when plants are past soft dough will not cause enough yield loss to justify the expense of an insecticide application that is solely intended for armyworm control. When choosing to spray, keep in mind that some insecticides require a 30 day waiting period for harvest.

Consult <u>CR-7194 Management of Insect and Mite Pests of Small Grains</u> for information on insecticides registered for control of armyworms.

Got Sick-amores?

Jen Olson, Plant Disease Diagnostician

Cool and rainy weather is favorable for fungal and bacterial diseases. The most common disease this spring (based on phone calls, emails, and sample submission) is sycamore anthracnose, a fungal disease caused by *Apiognomonia veneta*.

Sycamore anthracnose appears in early spring as the new growth unfolds from the buds. The shoots exhibit tip discoloration which is sometimes confused with frost damage (Fig 1). Older leaves may show brown, angular spots on the leaves that are close to the mid-vein (Fig 2). Spots are occasionally observed on leaf petioles. When examined from the underside, the leaf spot is usually associated with a discolored vein(s) (Fig 3). As the infection spreads, half of the leaf may develop an off-green to brown color while the other half appears normal (Fig 4). With time, the entire leaf browns and may drop to the ground. The fungus will invade the twigs and cause cankers resulting in additional branch dieback (Fig 5).



Fig 1. Sycamore anthracnose causes death to young shoots in some springs with cool, wet weather.



Fig 2. A typical angular sycamore anthracnose lesion on the upper surface of a leaf.



Fig 3. The vein discoloration caused by sycamore anthracnose is most obvious on the underside of the leaf.



Fig 4. The right side of the leaf is the normal green color while the left side is gray-green and dying from sycamore anthracnose.



Fig 5. The fungus survives during unfavorable periods in twig cankers.

Some trees show heavy amounts of leaf drop and overall thinning of the canopy. Trees vary in their susceptibility to anthracnose, so it is not uncommon to find a single planting with varying levels of disease (Fig 6). Trees that have been under stress usually show more damage than healthy trees.

Sycamore anthracnose is controlled with an integrated pest management approach. It is important to rake up and discard fallen leaves throughout the growing season. This debris harbors spores of the pathogen and are one source of new infections. Maintain overall plant health and vigor. Avoid stress including drought, nutrient, and injury-related. Trees should be watered on warm days during dry winters, 1-2 times per month.

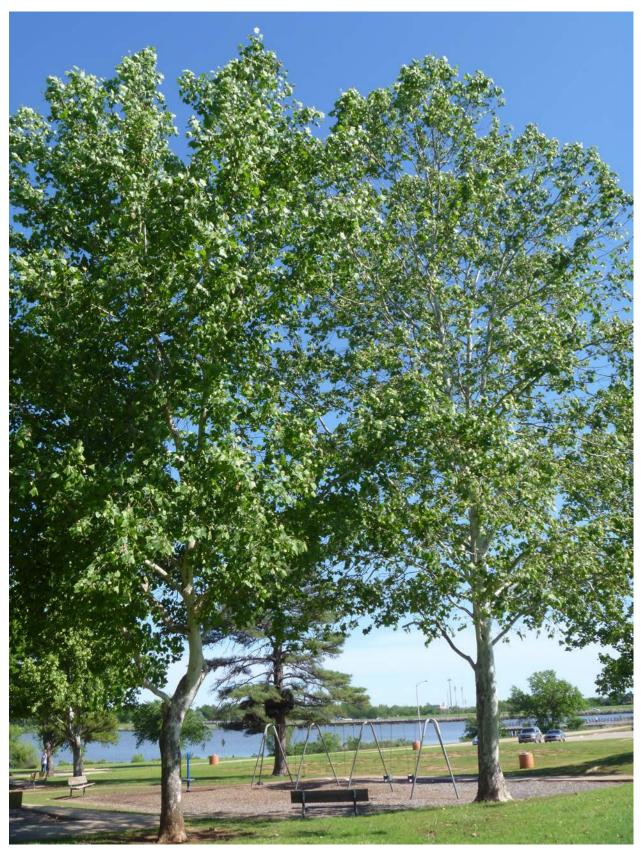


Fig 6. Trees vary in susceptibility to sycamore anthracnose. In this image, the tree on the right is more susceptible and shows a higher amount of defoliation and thinning than the tree on the left.

Whenever possible remove dead and dying twigs and branches. Pruning tools should be disinfected between cuts with a disinfectant such as 10% household bleach. Diseased material should be discarded in the trash. It is helpful to remove branches to improve air circulation through the canopy.

Fungicides are available for sycamore anthracnose, but home gardeners can seldom treat trees themselves. Large trees will require the services of an arborist. Most labeled fungicides are preventative, so they are not effective once leaves are infected. In Oklahoma, fungicide applications are seldom needed because this disease is not a problem every year.

Some species and cultivars of sycamore are resistant to anthracnose, but still show disease symptoms in some seasons (such as this spring). American sycamore (*Platanus occidentalis*), London plane tree (*P. x. acerifolia*) and Oriental plane tree (*P. orientalis*) are all susceptible to sycamore anthracnose. London plane tree cultivars 'Bloodgood', 'Columbia', and 'Liberty' are less susceptible, but are troubled by the disease in some years.

Encourage clients to have patience. In a few weeks, our normal hot and dry weather will return. Trees will improve and most trees will put on a flush of new (healthy) growth. Clients may want to test soil to determine if any fertility treatments are needed to reduce stress around affected trees.

Dr. Richard Grantham - Director, Plant Disease and Insect Diagnostic Laboratory

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