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This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

Herbicide damage

We are getting plant samples from lawns, greenhouses and cold frames with herbicide damage. Many growers do not realize how sensitive growing plants are to herbicides. Some herbicides such as glyphosate (Roundup) can drift over long distances to affect tender plants. Roundup, however, does not have any soil activity. Other classes of herbicides such as the phenoxy herbicides (2-4-d), also kill by direct contact, but have a long residual in soil. Badly affected plants will not grow, flower, or fruit properly even if they survive the initial exposure. Symptoms are leaf curling, twisting, chlorosis, strapping, and stunting.

Impatiens Phenoxy herbicide damage



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Coleus Phenoxy herbicide damage



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Impatiens Phenoxy herbicide damage



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Rose Glyphosate herbicide damage



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Blackberry Glyphosate herbicide damage



Brent Griffin University of Arkansas Cooperative Extension

Dogwood Glyphosate herbicide damage



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Tomato Glyphosate herbicide damage



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Green bean Phenoxy herbicide damage



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Apple Burrknot-abiotic



Allen Bates University of Arkansas Cooperative Extension

Apple

A common genetic disorder of apple is known as Burrknot, and causes differentiated root tissue to grow above the soil line. Rough, raised gall-like structures appear on the trunk and/or branches usually at the nodes. These galls superficially resemble Crown gall but are not caused by a disease organism. High temperatures, low light, and high humidity can stimulate development of these above ground root initials. A few of these growths cause little problems, but severe burrknot can cause trees to become stunted, girdled, or weakened at the site of the burrknot. The galls are also a magnet for borer attacks. Some rootstocks are more susceptible to burrknot than others. Burrknot is common on M7, M9, M26, MM111, and Mark rootstocks. Scion cultivars such as Springdale, Empire, and gala are also susceptible. The optimal solution is to plant rootstocks that are not genetically disposed to burrknot formation. The knots can be removed by surgically cutting them out, or sometimes by painting them with gallex.

Request for help from Dr. Robbins:

Root knot nematode populations are needed for our Arkansas species study. I am a nematologist in the department of Plant Pathology in Fayetteville. My student and I are trying to amass populations of as many species of Root knot nematode (*Meloidogyne* sp.) as possible for species identification using molecular techniques. At present no root knot species in Arkansas have been identified using molecular technology. We are interested in receiving populations from home gardens, shrubs, flowers, trees and grasses. For samples we need about a pint of soil and feeder roots in a sealed plastic bag that is plainly identified by plant host, location (City County, physical address, collector and date of collection). Please send samples to us at the follow address:

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