



Pest e-alerts



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Cedar-Apple Rust and other Gymnosporangium Diseases

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Over the past two weeks, much of Oklahoma has received abundant rainfall. The predicted forecast includes moderate temperatures over the next few weeks. The disease Cedar-Apple rust should make its appearance in your area soon. Eastern red cedars (also called junipers) will soon be decorated with orange-brown colored galls that are generally golf or soft ball sized (Figure 1). Juniper trees seldom suffer from this disease, but the alternate host (apple, crabapple) may suffer from leaf spot, premature defoliation and reduced yield (Figure 2, 3). Growers may want to treat apple and crabapples with fungicides as indicated in the Extension Agents Handbook.



Fig 1. Eastern Red Juniper with orange-brown galls with Cedar-Apple Rust disease.



Fig 2. Apple leaves with yellow-red leaf spots on upper leaf surface due to Cedar-Apple rust disease.



Fig 3. Apple leaves with projections on underside of leaf surface due to Cedar-Apple rust fungus.

For more information about Cedar-Apple rust, please review any of the following publications.

e-Pest Alert, Vol 9, No 14: <http://entopl.okstate.edu/pddl/2010/PA9-14.pdf>

e-Pest Alert, Vol 9, No 12: <http://entopl.okstate.edu/pddl/pddl/2010/PA9-12.pdf>

e-Pest Alert, Vol 5, No 8: <http://entopl.okstate.edu/pddl/pddl/2006/PDIA5-8.pdf>

OCES Fact Sheet, EPP-7611... Cedar-Apple Rust:

<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1036/EPP-7611web.pdf>

In 2012, another rust disease caused by a related organism (a different *Gymnosporangium* sp.) was common in Oklahoma. This disease is Asian pear rust and it causes leaf spot on pear trees (Figure 4). Some Bradford pear trees exhibited significant leaf spot and defoliation last season. This disease is similar to Cedar-Apple rust because the Eastern red cedar is the primary alternate host. It is expected that the juniper trees will exhibit rust this spring which will spread to nearby pear trees. The Asian pear rust causes twig cankers on juniper and orange colored spores will be observed surrounding the cankers in the spring (Figure 5). Growers may want to treat pear trees with fungicides this spring when these cankers develop the orange color that signifies spore production on the cedars.



Fig 4. Leaf spots on pear due to Asian pear rust disease.



Fig 5. Twig canker on Eastern red cedar due to Asian pear rust disease (Dawn Dailey O'Brien, Cornell University, Bugwood.org).

Other rusts occasionally occur in Oklahoma including Cedar-Hawthorne rust and Cedar-Quince rust (Figure 6). Growers seldom treat the broad-leaved hosts with fungicides for these diseases because they generally cause little damage. However, they cause some concern for clients and the damaged fruit or leaves are brought to the Extension Office for examination. If there is a concern, growers should treat the broad-leaved tree the following spring when the cedar-apple rust galls are visible. Removal of galls from infected cedar trees or complete removal of cedar trees may also be helpful.

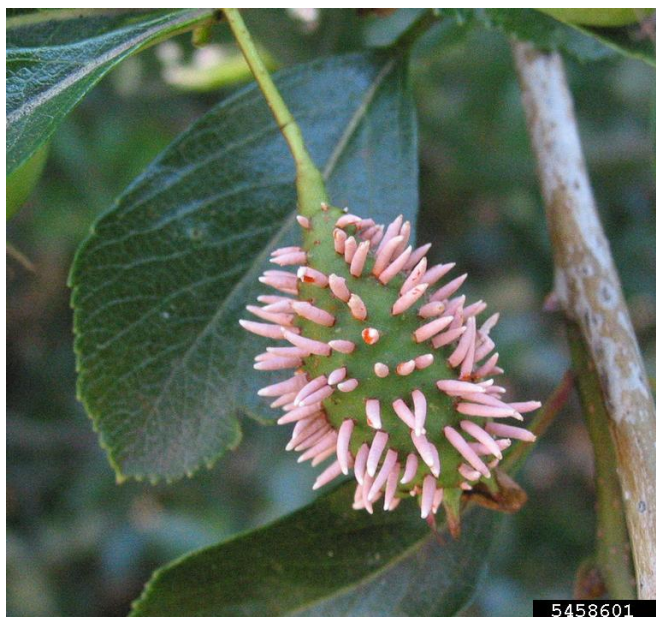


Fig 6. Quince fruit with typical symptoms of Cedar-Quince rust (Dawn Dailey O'Brien, Cornell University, Bugwood.org).

Wheat Disease Update

Bob Hunger, Extension Wheat Pathologist



Not much to report disease-wise in Oklahoma from this past week with the exception of cool/cold temperature and good rainfall over a considerable portion of the state that should favor foliar disease development. One sample via a photo came in from Dr. Jeff Edwards showing tan spot symptoms on wheat in a no-till situation. The circumstances sound the same as what I talked about in my last update (21-Mar-2013), i.e., wheat in heavy residue covered with spore-producing resting bodies of the fungus that causes tan spot. From such samples, I also typically isolate septoria. A field such as this is a prime candidate to be sprayed early to help control the tan spot and septoria. HOWEVER, with the strong freeze about 2 weeks ago, be sure to assess damage from that freeze as Dr. Edwards recently observed and reported severe freeze damage in this area of the state.



As far as I know, leaf and stripe rust are doing fine in far southern Texas and the southeastern U.S. but there still are no reports of rust in Oklahoma. Mark Gregory (Southwest Area Extension Agronomist) indicated to me today that he has seen no rust (leaf or stripe) and only mild powdery mildew. Again, this may change during the next week or so given or weather for this past week.

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