

Sudan grass field in Bastrop County

Keep your Eyes Open to Plant Disease



AgriLife Extension Working Together

Written by Sheila McBride

Howdy Ags! I've got a story for you.

In May, I received a phone call from a grower in Bastrop County, who was experiencing a problem with his Sugar Queen variety of Sudan grass. He inquired how to have his crop tested for a possible plant disease. I referred him to our website and helped him with the instructions for submitting a sample. He told me he would be hand delivering it to the lab. The next day he phoned again to tell me he spotted a vehicle with the AgriLife Extension logo and asked if the occupants were heading to College Station. They replied "yes they were" and he politely asked if they could deliver his samples to the lab. Of course they would and they knew the lab's location. I asked him if he had their name and he replied, Ed Smith, yes The Ed Smith. I waited anxiously for his arrival. Ed Smith walked into the lab with 3 seed sacks with soil and Sudan grass in hand. He commented this brought back fond memories of the days when he was a county

extension agent.

I began processing the sample to identify if his problem was due to a plant pathogen. As a diagnostician one must first observe the specimen under the microscope. I detected a small insect borer in the nodal/stem area. I proceeded to cul-



ture the tissue on selective media to recover any possible plant pathogen present. I tested the soil for plant parasitic nematodes and looked for the Cotton Root Rot pathogen both were negative. Meanwhile, the grower called to let me know the Bastrop County Extension agent Rachel Bauer visited his field to further investigate and to take photos. Photos are always helpful. She forwarded me the pictures and forwarded them to Larry Redmon, Extension Specialist in Soil and Crop Science and Extension entomologist, Noel Troxclair from Uvalde for identification of the insect. The insect was de-

termined to be a sugar cane borer.

As I waited for my tissue isolations to reveal any fungal pathogens, I contacted the client to ask if he had ever had his soil tested for nutrient levels, and he indicated he hadn't. I submitted a soil sample to the Soil, Water, and Forage Testing Lab in the Department of Soil and Crop Sciences, a part of the AgriLife Extension family. The results came back with the soil very low in nitrogen. I called the client to inform him of the results prior to him receiving a hard copy report. He indicated that he was experiencing a problem with his fertilizer sprayer the day he applied the fertilizer.

Tissue isolations recovered secondary plant pathogens, *Fusarium* and *Helminthosporium*. It was determined that because of the drought stress, insect pressure, and nutrient levels, the Sudan grass was predisposed to fungal infection. These plant pathogens can cause vascular damage and with the insect damage, the plant was unable to receive the proper water and nutrients for vigorous growth.

Kudos to everyone who was involved! *Photos courtesy of Rachel Bauer*

Oak Wilt in Texas

The Texas Plant Disease Diagnostic Laboratory has been busy this year processing Oak Wilt samples. Submissions have been sent by homeowners, Texas Forest Service, Texas Parks and Wildlife and arborists from around the state of Texas.

As of January, 60 samples were submitted resulting in 12 Live Oaks, 1 Water Oak, and 1 Shumard Red Oak diagnosed positive for the causal fungus *Ceratostoma fagacearum*, 15 samples are still pending results.

Submitters must decide their course of action depending on the results.

Be on the look out for the symptoms of Oak Wilt, in live oaks, typical



Typical venal necrosis of live oak leaf

symptoms are venal necrosis of leaves, sudden discoloration of leaves (flagging), progressive dieback of the crown and potential death of the trees within 6 months to a year. In red oaks, foliar symptoms are less specific, with browning, scorching, and rapid defoliation being common. Red oaks usually die within 4-6 weeks after initial symptoms.

A great source for additional information can be found at the following website: <http://texasoakwilt.org>

To submit a sample for Oak Wilt diagnosis visit our website: <http://plantclinic.tamu.edu>



Flagging foliar symptom of live oak in crown area Photo courtesy of Carrie Burns

What's Up in the High Plains

Rust, Rust, and more Rust!!!

Jason Woodward, Extension Specialist in Lubbock is seeing rust on a wide variety of hosts ranging from corn, safflower, lantana, cotton and vinca.

It will be very important to be aware next year to possibilities of a reoccurrences depending on the weather since there is already an inoculum source.



Common Rust on Corn



Rust on Safflower

Texas Plant Disease Diagnostic Laboratory Goes Main Stream



The Texas Plant Disease Diagnostic Laboratory (TPDDL) is going high tech in the information world. In the era of "fast" information, the Plant Clinic is experimenting which different ways to connect with our AgriLife Extension faculty and personnel through social networking avenues. The Clinic has a page on Facebook that we try to post interesting happenings, news and photos that are seen at the TPDDL. Come check us out and become a fan on Facebook.

Kevin Ong, director of the TPDDL, has just begun tweeting. No! He did not become a bird, but is experimenting with Tweeter. Tweeter is "a service ... to communicate and stay connected through exchange of quick, frequent answers ..." This micro-blogging service is one avenue to get quick blurbs out about interesting plant disease/plant health issues quickly. You can follow the TPDDL tweet at <http://tweeter.com/txplantclinic> or sign up to follow the tweet on your phone.

Central Texas Happenings

Research on Pierce's Disease in a Vineyard near Brenham

Experimental field plots using a mildly virulent strain of *Xylella fastidiosa* found in mulberry for bio-



Planting of inoculated grapevines in field plots near Brenham.

David Appel and Mike Book

control have been planted in at a vineyard near Brenham (Austin County). This strain appears to help

protect grape vines from Pierce's Disease. The grape vines were pre-inoculated in the greenhouse and planted into a very high risk vineyard where Pierce's Disease is epidemic. This application is potentially a breakthrough for commercial grape growers in Texas.

More information can be found on Pierce's Disease at: http://winegrapes.tamu.edu/news/tx_pdnotes.html

Down In South Texas

Greta Schuster, AgriLife Extension Specialist at Texas A&M Kingsville reports incidences of Date Palm Lethal Decline (also referred to as Texas Phoenix Palm Decline), caused by a phytoplasma. The regulated palms are Date Palm, queen palm, canary island date palm, silver or Sylvester date palm, and cabbage or sabal palm. An emergency quarantine was adopted by Texas Department of Agriculture (TDA) for Cameron, Hidalgo, Nueces and Willacy counties.



Symptoms: premature drop of most or all fruit and flower necrosis follows. Discoloration of the foliage beginning with the older leaves.



The spear leaves die when 1/3-1/4 of the older leaves have become necrotic. New growth ceases.

Future Newsletter Suggestions Needed

Hear ye, Hear ye



County Extension Agents and Specialist, this newsletter was created to educate and provide information for you to use and dis-


tribute to your constituents, growers, nurseries, farmers, and home owners. If you would like to see your events, announcements, or more information concerning issues in your area,

please feel free to contact me via email at:

eyesopen@sickplants.org

KEEP YOUR EYES OPEN TO PLANT DISEASE!!

Improving Lives. Improving Texas.





**TEXAS
PLANT DISEASE
DIAGNOSTIC
LABORATORY**

<http://plantclinic.tamu.edu>
979.845.8032

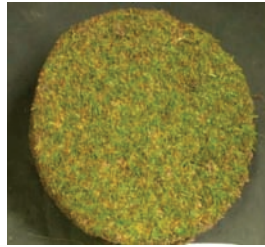
*"Solving plant disease problems
for homeowners and businesses
since 1981."*

Department of Plant Pathology and Microbiology
Texas A&M University
<http://plantpathology.tamu.edu>

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Texas Plant Disease Diagnostic Laboratory



A.



B.



C.

Predominate Diseases we are seeing:

- *Oak wilt of Live Oaks, Red Oaks, Water Oaks*
- *Take all Patch of St. Augustine*
- *Bacterial Leaf Scorch of Sycamore, Oleander, Red Oak*
- *Cotton Root Rot of Apples, Cotton, Grapes*
- *Rust of Ornamentals*
- *Plant Parasitic Nematodes on Golf Course Turf*
- *Hypoxyylon Canker on Trees*

Up and Coming Events

Mark your Calendars!

- "Old and New Threats to Texas Trees"
Presented by David Appel Thursday
October 1, 2009 at 4:15 in Round
Rock Sponsored by the Texas Forest
Service and the Texas Chapter of the
International Society of Arboriculture
- "2009 Turf Grass Disease Clinic and
Field Day" October 27, 2009
12:00pm-3:00pm at The Club at Carl-
ton Woods (Fazio golf course) in the
Woodlands. Co-sponsored by South
Texas Chapter of GCSAA
- Classes at Texas A&M University start
on August 31st

Please submit new ideas
for future newsletters to
plantclinic@tamu.edu

How well do your know you diseases?

Quiz:

**Match the above pictures
with the diseases listed
below them.**

**Answers in the next issue of
"Keeping Your Eyes Open to
Plant Disease"**