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Pest Management News

News About integrated pest management for producers in Runnels-Tom Green Counties

Richard Minzenmayer

Extension Agent-IPM

613 Hutchins Ave., Room 302

Ballinger, Tx 76821

Phone (325) 365-5212 Fax (365) 365-5212

TPMA Website: <http://www.tpma.org>

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E-mail: r-minzenmayer@tamu.edu

Website: <http://ipm.tamu.edu>

Mobile (325) 365-1292

Runnels County Website: <http://runnels-tx.tamu.edu>

I am sure many of you have heard but I am retiring after 30 years as a Texas A&M AgriLife Extension Agent-IPM. I have enjoyed and cherished the friendships that I have developed with you over the years. I am thankful for the opportunities I have been given and am looking forward to seeing you in the future. Thanks for all you have done for me. God Bless.

GENERAL SITUATION

Wheat is progressing rapidly and is in need of a good rainfall event. Much of the wheat has been sprayed the past month for leaf and stripe rust. Growers are encouraged to continue monitoring for rust. Remember, protecting the flag leaf is very important.

Several wheat diseases have shown up due to unusual weather conditions. Dryland Foot Rot and Wheat Streak Mosaic Virus is present in a number of fields in both Runnels and Tom Green Counties. Although many of these fields were infested last fall and winter, the symptoms have just now become evident.

Wheat Streak Mosaic Virus

SYMPTOMS: Initial spring symptoms of wheat streak mosaic virus usually shows up in April on edges of fields near volunteer wheat. Infected plants are stunted and tiller poorly. Tillers of infected plants are sometimes prostrate on the ground. As the temperature warms, symptoms become more severe. Leaves on infected plants turn yellow from the tip down, but usually the leaf veins remain green longest. This gives the leaves a yellow and green striped appearance. Often, leaves fail to unfurl completely. This is due to the microscopic wheat curl mite which carries the virus. You can look for curl mites with a 10X magnifying lens under the curled portion of the leaf. Curl mites look like tiny white rice grains.

LIFE CYCLE: Wheat streak mosaic is carried to wheat plants by the wheat curl mite. There is no other known vector. Typically, the source of both mites and virus is volunteer wheat. The most severe wheat streak mosaic is found where volunteer wheat provides a “green bridge” through the summer between successive wheat crops. That’s why we encourage destroying volunteer wheat early.

CONTROL: The first and most important control is to break the bridge created by volunteer wheat. **“Be a Good Neighbor: Control Your Volunteer Wheat.”** Volunteer wheat should be killed at least 2-3 weeks prior to the emergence of the new crop. It may be killed by cultivation or by herbicides, but it must be a thorough job because just a few plants can harbor a lot of mites. Since mites travel in the wind, volunteer must be killed within 1/4 to ½ mile of the new field. Coordination of volunteer control is a community effort which requires good cooperation between neighbors.

The second control is to avoid early planting. Early planting allows the mites plenty of time to move into the field, reproduce, and spread.

The third control is to plant a variety with resistance to the virus or the curl mite. Although many varieties have partial resistance, none are highly resistant to wheat streak mosaic. There are no chemicals which are effective or labeled for curl mite control.

Dryland Foot Rot/Fusarium Crown Rot

I have not seen this disease for at least 15 years. Back in the late 80's and early 90's it was present in varying degrees each year. It can be found in many fields this year. WHY??? Who knows..... Generally, it is isolated into small areas of the field.

Symptoms include dark brown to black lesions on roots, subcrown internodes, and stem bases. Infected plants may be stunted and/or chlorotic and occur randomly or may be seen in irregular patches in the field.

The most common symptom of dryland foot rot is a dark brown lesion around the node of mature plants. In dry areas, the whole stem base may become girdled by a dark brown lesion. Scattered pockets of dead and dying plants may be seen in affected wheat fields. Poor tillering and yellowing of plants is pretty common.

Dryland foot rot is favored by drought and intermediate to warm temperatures. Stress caused by dry seedbeds, loose seedbeds, wind, freezing, or damage from Hessian flies also predisposes wheat plants to the disease. Disease severity is higher in no-till and continuous wheat cropping systems.

Cultural control methods would include: Sanitation, including plowing under or burning of infected stubble, straw, and weed grasses help reduce primary inoculum. Crop rotation with broadleaf crops will reduce inoculum buildup and also help decompose residues.