



Pest e-alerts



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Army Cutworms Reported in Some Wheat and Canola Fields

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Sug Farrington, Extension Educator in Cimarron County received a sample of “worms” that were collected by a producer in his wheat field. They turned out to be army cutworms. Heath Sanders and Josh Bushong have also reported army cutworm activity in canola.

Unlike the fall armyworm, this caterpillar overwinters in Oklahoma, tolerates cold and feeds throughout the winter months. Adult army cutworm moths migrate to Oklahoma each fall from their summer residence in the Rocky Mountains. They seek bare or sparsely vegetated fields (like a newly prepared field ready for wheat/canola planting, or a field that was “dusted in” and had not yet emerged) and lay eggs from August through October. The eggs hatch soon after being deposited, which explains why a producer might see different sizes of larvae in a field. Army cutworms feed throughout the winter and molt seven times before they turn into pupae in the soil. Most larvae will be gone by late March and adult moths begin emerging in April and fly back to the Rocky Mountains to spend the summer.

Army cutworms can cause severe stand loss of wheat or canola if not controlled. Cutworm damage often goes unnoticed through the winter because the caterpillars grow slowly and don't get big enough to cause noticeable damage until temperatures warm in the spring. Unfortunately, that is also an indication of poor growing conditions due to drought (which cutworms also like), so it becomes important to check the fields for cutworms. If you notice a field at this time of year with a numbers of starlings or black birds feeding in a concentrated area of your wheat field, they are likely feasting on army cutworms!

Sample a field by stirring or digging the soil to a depth of two inches at 5 or more locations. Also, turn over those dried up cow patties, as they are a favorite hiding place for army cutworms. The cutworms will be “greenish grey”, and will probably curl up into a tight “C” when disturbed. In wheat, a suggested treatment threshold is 2-3 caterpillars per foot of row. The suggested treatment threshold for cutworms in canola is 1-2 per row-foot.



Control suggestions are listed in [CR-7194 Management of Insect and Mite Pests in Small Grains](#). Current recommendations for control of army cutworms in canola are listed in [CR-7667, Management of Insect and Mite Pests in Canola](#). You can also find information for control in both crops in E-832, the 2015 OSU Extension Agents' Handbook of Insect, Plant Disease, and Weed Control.

Wheat Disease Update

Bob Hunger, Extension Wheat Pathologist



The leaf rust I saw around Stillwater in February seems to have “died out.” The cold weather we had from late February into early March killed the lower leaves where leaf rust was active and conditions did not allow spread to younger leaves. Dr. Brett Carver (OSU Wheat Breeder) confirmed this to me this morning as he indicated late last week he did not see any rust (leaf or stripe) around Stillwater or at his nurseries in Lahoma and Marshal. This also is the case for northern and northwestern OK, as well as for KS (see Dr. De Wolf’s observations below). Dr. Tom Royer and I visited variety trials at Cherokee and Alva last week. No foliar diseases were observed but Dr. Royer did find a small greenbug colony on wheat in the field surrounding the Alva trial. However, with mild temperatures and moisture predicted for the coming week and with inoculum to the south of us in Texas and southern Oklahoma, foliar diseases should be increasing in incidence and severity across central and northern OK.

Leaf and stripe rust are active in Texas (see Dr. Ron French’s observations below), and southern and central Oklahoma. Mark Gregory (Area Ext Agron Spec – Duncan, OK) has reported seeing both leaf and stripe rust (but more stripe rust) across much of south-central and southwestern OK – especially around Grandfield, OK located north of Wichita Falls, TX. Similar reports have come from Aaron Henson (Ext Educator; Tillman Co.) and Gary Strickland (Ext Educator; Jackson Co.). Incidence has ranged from scattered to many “hot spots” of stripe rust, and from light to intermediate incidence of leaf rust. Some of these fields (especially if it is a susceptible variety) will merit an early application of fungicide to curtail foliar disease activity (especially the stripe rust). Be aware that applying a fungicide now will not last the entire season, and a second application toward head emergence also may be needed if weather continues to be favorable for foliar diseases. For an early season application I recommend using a full rate (as opposed to a half rate) of a less expensive fungicide because there is so much time left in the growing season. Then a later season application with a more expensive fungicide may or may not be needed. Also be sure to not exceed the maximum amount of fungicide applied. For example, the labels of Tilt and Folicur indicate 4 oz/acre is the maximum amount that can be applied in a season. Hence, if either of these chemical is used early, then no more of that active ingredient can be applied in a subsequent application. Also consider your variety. A variety like Ruby Lee that has good yield potential should be protected from early and late stripe or leaf rust, but a variety such as Duster may show some leaf rust early but still has good resistance to this rust. However, stripe rust on Duster may merit control. ALSO, in no-till fields watch for incidence of diseases such as tan spot, septoria, and powdery mildew as these diseases likely will be more common in fields with wheat residue and may merit an early season fungicide application.



**Stripe rust (above, photo Mark Gregory), tan spot (below, photo Bob Hunger)
Showing pseudothecia and lesions.**



Texas: Dr. Ron French (Ast Prof & Extn Plant Pathologist, Texas A&M AgriLife Extension Service, Amarillo) 9-Mar-2015: “Last week, I was visiting the lower Coastal Bend of Texas (around Kingsville/Corpus Christi) and the Lower Rio Grande Valley of Texas (along the southernmost part of the Texas-Mexico border area). In Weslaco (Hidalgo County, Lower Rio Grande Valley), I visited sentinel plots (21 lines-winter wheat, spring wheat, barley...).”



“In Weslaco (March 4), *Puccinia graminis* f. sp. *tritici*, the causal agent of stem rust, was found on leaf tissue only, at trace levels to 1% severity in six 6 lines including Morocco, Marvelous, Kyto (CI 8250) and Line B (1% severity). Last year, stem rust was first observed on Siouland, Panola, and Morocco but observations were done the week of April 7, 2014.”

“Stripe rust (March 3) on wheat was observed in 5 lines, ranging from trace levels in Siouland to 25% incidence and 40% severity on Sisson. Leaf rust was only observed at trace levels in lines such as Siouland, Panola, and Sisson. Powdery mildew was only present in the lower canopy of barley Hypana, Morex DPH, and Hyproly. Some wheat was already in the boot stage (Morocco, Line B).”

“Last year, dry conditions (little or no rain) were present in this area when stem rust was first observed. This year has seen more rain during the past three weeks, with temperatures ranging from as low as 38° F to as high as 84°F (lower on average for that area). With rain and warmer weather expected this week, disease pressure may be more conducive to seeing more disease development for all rusts.”

“No stem rust was observed in wheat in the lower coastal bend around Kingsville, approximately 110 miles north of Weslaco. Fields did have stripe rust (up to 20% severity) but had already been sprayed with a fungicide and trace levels of leaf rust could also be observed.”



Kansas: Dr. Erick De Wolf (Prof & Small Grains Extn Pathologist, Kansas State Univ) 11-Mar-2015: “We did some scouting for rust diseases near Manhattan (Northeastern KS). We were checking on research plots where rust had been noted last fall but were unable to detect leaf rust in these plots so far this spring. We noted severe tip die-back of the leaf tissue in these plots and suspect that this winter injury has removed much of the leaf rust from this location. Bethany Grabow, Ph.D candidate with KSU detected a trace of leaf rust on wheat in an adjacent field. Incidence of disease was <0.01% with only a few pustules detected. This wheat was planted later than the aforementioned plots and did not experience the winter injury to the leaf tissue. We also noted small colonies of aphids in the research plots with each colony having 3-5 aphids a few winged aphids were also observed near the colonies. We will continue to monitor the diseases this spring and provide more updates soon.”

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

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