

August 31, 2007 No. 27

Time To Control Volunteer Wheat

As wheat producers prepare to plant wheat it is once again time to consider controlling volunteer. Volunteer wheat is an unintended consequence of producing wheat. We cannot avoid it but we can manage it so that it will not help nurture many of our common wheat pests. Volunteer wheat can act as a nursery for most of our traditional pests such as Hessian flies, Russian wheat aphids, wheat curl mites, bird cherry oat aphids and greenbugs, both of which can vector a virus that causes barley yellow dwarf which also uses volunteer wheat as a host reservoir. Even chinch bugs benefit from uncontrolled volunteer.

Controlling volunteer wheat is not an easy task, especially since a new batch may germinate with each new shower. However, the general rule is to make sure all volunteer patches are dead at least two weeks prior to planting. Thus, any pests utilizing the volunteer as a host will have to leave in search of a live host and if not successful in finding any will simply perish before your planted wheat is available.

Controlling volunteer is especially important this year as we had considerable acreages abandoned or lodged prior to harvest due to the April freeze. These fields have provided more suitable habitats for the above mentioned pests to oversummer. We also saw greater densities over a larger statewide distribution of bird cherry oat aphids last spring which means the potential problems caused by these pests is increased.

This is a good time to become neighborly. Controlling your volunteer wheat is imperative but to adequately protect your fields your neighbors need to destroy theirs also. Hessian flies have wings as do the aphids and all of these pests are small and light and thus can be carried considerable distances by wind. Thus, neighbor cooperation is important for at least a ¹/₂ mile around all planted wheat fields.

Take care of your volunteer so that you are not responsible for infesting/infecting all of your neighbor's fields. It doesn't make for a good relationship if you are identified as the grower responsible for a Hessian fly or barley yellow dwarf outbreak.

Jeff Whitworth

Leaf scorch, or what?????.....

Questions are being asked regarding the burned/scorched appearance of some trees. During periods of hot and dry conditions, normal leaf loss in some tree species occurs as a measure used to conserve moisture (i.e. fewer leaves = less transpiration = less water loss). In these instances, leaf drop occurs as evidenced by leaf litter on the ground. Leaves do not appear "scorched" but rather have a yellowed or dried brown appearance.



Cottonwood Leaf Litter

Various other factors can be used to explain the appearance of certain tree species. In Kansas Insect Newsletter #'s 24, 25 and 26, mimosa webworms, elm leaf beetles and twig girdlers, respectively, were cited for the damage they cause. Additional examples are as follow:

Under heavy bagworm populations, evergreen species --- especially eastern red cedar and juniper, but not to exclude spruce --- may have a burnt appearance.



Line of Junipers



Eastern Red Cedar

Elm trees afflicted with Dutch elm disease [the fungus is transmitted (primarily) by European elm bark beetles, and also native elm bark beetles] have progressively declined throughout the summer. Initially, most leaves are retained on dead branches, but they too eventually drop to the ground.



Dutch Elm Disease



Leaf drop slow to occur

The early-season transmission of pinewood nematodes by "pine sawyer" beetles is responsible for the current "early signs" of pine wilt disease which is becoming increasingly apparent in Scotch pine plantings in Christmas tree plantations and windbreak and landscape settings.



Pine Wilt in Christmas Tree Farm



Pine Wilt in Tree Line



Pine Wilt in Landscape Setting

Trees rapidly take on a scorched appearance in successive weeks.



Pine Wilt Progressive Decline

Another disease, Botryosphaeria canker, is highly visible as scorched leaf clusters at the ends of branches of oak trees



Botryosphaeria canker

Although bot canker is not insect-related, Kermes scale are often blamed for the discolored terminals. This is because when scorched terminals are closely examined, Kermes scale may be present. If examined more closely, the Botryosphaeria canker is readily detectable at the juncture between healthy and dead tissue.



Gall-like Kermes Scale



Insect Damage

In fact, Kermes scale which had the misfortune of having "settled" on branch terminals afflicted with Bot canker do not survive (starvation) after branches die and no longer carry "life juices".



Dead "starved" Kermes scales

Further vindication of Kermes scale as causing "scorched terminals" is that terminals under heavy Kermes infestation remain green and healthy.



Gall-like Kermes Scale

Bob Bauernfeind

Insect Diagnostic Report for August 16 – August 29

- 8/16 Saline Co; Delphacidae planthopper
- 8/16 Shawnee Co; brown lacewing
- 8/20 Jackson Co; 'Red-Spotted Purple' butterfly
- 8/20 Jackson Co; black swallowtail butterfly
- 8/20 Geary Co; sticky traps w/ various insects Indian meal moth, psocids, springtails, sawtoothed grain beetle, fungus gnats, and small diptera
 - 8/21 Geary Co; Blattelid cockroach
 - 8/21 Grant Co; Ponera ants
 - 8/21 Grant Co; Blapstinus spp. beetles in sunflowers
 - 8/22 Riley Co; broad-faced sac spider
 - 8/23 Shawnee Co; caterpillar frass
 - 8/23 Neosho Co; lace bugs on oak
 - 8/23 Decatur Co; soldier beetle in alfalfa
- 8/24 Montgomery Co; Tortricidae (leaf-roller) and Lycaenidae (hairstreak) caterpillars
 - 8/27 unknown Co; horsehair worm in grasshopper
 - 8/27 Riley Co; lace bugs and obscure scales on oak
 - 8/27 Harvey Co; Euphoria sepulcralis scarab beetle on tomato
 - 8/27 Harvey Co; phorid fly in home
 - 8/28 Johnson Co; stinging rose caterpillar (from SE KS)
 - 8/29 Pratt Co; two-spotted spider mites on butterfly bush
 - 8/29 Labette Co; obscure scale on oak
 - 8/29 Riley Co; lace bugs on oak

8/29 – Neosho Co; lone star tick8/29 – Saline Co; lone star ticks on human

Elizabeth Murray

Sincerely,

Robert J. Bauernfeind Extension Specialist Horticultural Entomology phone: 785/532-4752 email: <u>rbauernf@ksu.edu</u>

Jeff Whitworth Extension Specialist Entomology (Crops) phone: 785/532-5656 email: jwhitwor@ksu.edu Elizabeth Murray Entomology Diagnostician phone: 785/532-4739 email: <u>emurray@ksu.edu</u>