

Hessian Fly in the Rolling Plains of Texas

There has recently been a confirmed infestation of Hessian fly in the Haskell/Knox County area. The damage was apparent in wheat plants that were severely lodged. On inspection of lodged wheat tillers, Hessian fly puparia (often referred to as flaxseed because of their appearance) were found inside the stalk of the plant at the location of the lodging. There have also been confirmed infestations of Hessian fly in North Texas and reports of infestations in other areas.

Many producers may be experiencing lodging in fields and suspect that the damage is due to freezing temperatures. However, a review of weather records would indicate that temperatures did not get low enough to cause this type of damage. In fact, current inspection of wheat fields has not found any noticeable freeze damage in the Rolling Plains. Blank heads can be found in some fields but in most cases have been associated with wheat stem maggot or dryland foot/root rot.

Infestations will likely be associated with fields that were early planted. While there is some varieties resistance to Hessian fly, most if not all varieties planted in the Central and Northern Rolling Plains are susceptible to Hessian fly. Therefore, any variety may have a potential infestation of Hessian fly. The other reason for the infestations is likely due to weather conditions that supported survival of the fly.

Hessian fly infestations can be visually scouted for by looking for the presence of the brown puparia or small white maggots behind leaf sheaths, at the base of individual tillers, and at the nodes on stems. In many cases plants will be stunted or lodged. As mentioned earlier, in the current infested field the brown puparia could be found at the location of the broken stem approximately 1-inch above the base of the plant. Inspection of tillers that were not lodged indicated that pupae could be found 1-inch above the base of these tillers also. This would indicate that eventually these tillers will most likely lodge. In general, the field was stunted and had an overall unhealthy appearance. One key will be for producers to inspect both lodged and un-lodged tillers in several areas of the field to determine

overall damage. However, this may or may not completely estimate the potential yield loss since yield compensation of surviving tillers is unknown.

Unfortunately, there is nothing that can be done to cure the current infestation. However, knowing that the problem exists can help us plan for next year's wheat growing season. Practices that can be used to help manage damaging levels of Hessian fly include: delayed planting, controlling volunteer wheat plants (which is also beneficial for control of many other pest problems), burying infested crop residues to a depth of 4 to 6 inches, seed treatments (Gaucho or Cruiser), crop rotation, and finally resistant varieties (unfortunately these are very limited at this time). For additional information see the publication: Hessian Fly in Texas Wheat under Hot Items (<http://peanut.tamu.edu/todd.htm>). This publication includes pictures to help identify Hessian fly and subsequent damage, information on its life cycle, along with current management strategies. If you have any additional questions or need help in identifying Hessian fly contact Todd Baughman, Agronomist, Texas Cooperative Extension, Phone: 940.552.9941.