

GENERAL:

Weather conditions across the area have remained wet over the last two weeks, creating a favorable environment for stripe rust, powdery mildew, and other fungal diseases like tan spot and Septoria. Fields in the area range from just entering the boot stage to heads emerging from the boot with some heads in a few fields already flowering. Leaf rust is on the move our direction with the closets reports of leaf rust being in the Thrall area, and as temperature start staying in the 70s could become a problem and stripe rust issues should begin to slow down. Powdery mildew is still present in a few fields in the area but like stripe rust, as our temperatures increase the development of new powdery mildew infections should slow down. Moth activity in and around wheat fields have increased over the last 10 to 14 days with true armyworm moths being present, and if weather conditions remain mild and wet, we could see true armyworms becoming an issue in area wheat fields.

WHEAT:

Stripe became more common in area wheat fields over the last 7 to 10 days and many producers were good about getting a fungicide out on fields where it was starting to show up. Weather conditions look to remain favorable for stripe rust over the next 7 to 10 days, but as our temperatures being in the 80s to end this week (3/25-3/27) slowed stripe rust development down, but activity will bounce back as next week our temperatures are predicted to drop back into the upper 60s°F to middle 70s°F.

Leaf rust will soon become an issue in the area, and currently the closest reports of leaf rust in wheat is in Thrall. I and other crop consultants in the Blacklands have observed some flecking in area fields which is a sign that the plant is fighting infection with leaf rust. Leaf rust pustules are round to slightly oblong and are dark orange to brown in color. Unlike stripe rust, pustules of leaf rust will be randomly dispersed across the leaf blade (Figure 1). Now is probably the most critical time to be scouting wheat as the flag leaf is responsible for producing roughly 70 percent of the carbohydrates that will be used to fill the kernels and should be kept as disease free as possible. Leaf rust will be a concern from here until we reach the hard dough stage of development, and current weather forecast show that our weather should stay in the optimum range for leaf rust development of 60°F to 80°F.



Figure 1. Leaf rust of wheat, notice the random disbursement of pustules across the leaf, and pustules that are round to oblong in shape. Photo credit: Xandra Morris.

Powdery mildew is still present in some fields in the area that have dense canopies and fields that have received multiple applications of Nitrogen throughout the growing season. Powdery mildew is favored by high humidity and temperatures between 60°F and 71°F, and development slows as the daily higher average 75 or higher. Looking at the weather forecast, powdery mildew development should start slowing and luckily the fields with it still active they are not severely infected with powdery mildew.

Moths in and around wheat fields have increased over the last 10-14 days. Of the moths being found flying around wheat, the true armyworm moth is of most concern. The true armyworm moth is light reddish brown in color with small faint black dots on its fore wings (**Figure 2A**) and the larva is roughly 1 ½ inches long when fully grown and varies in color from green to brown with lighter stripes running the length of the body (**Figure 2B**). Outbreaks of true armyworms is favored by damp cool weather, and the larvae do not develop well once the daily high temperature averages 88°F or higher. I have not seen any true armyworm larvae in any of the scouting program's wheat fields, and this could be due to both natural mortality of newly hatched larvae and predation from the beneficial insects present in area wheat fields. If you have recently sprayed your field with chlorpyrifos (Lorsban and/or its generics), these wheat fields need to be monitored closely as the application of chlorpyrifos killed both the insect pest and beneficials present in the field. Infestations of true armyworms is usually first seen by leaf defoliation, beard clipping and head clipping. Larvae of the true armyworm hid in the lower canopy near the soil surface during the day and will move up the canopy during the late afternoon, at night and during periods of cloudy weather. Texas does have an established economic threshold for true armyworm and is four to five larvae per square foot, with extensive feed on lower leaves.

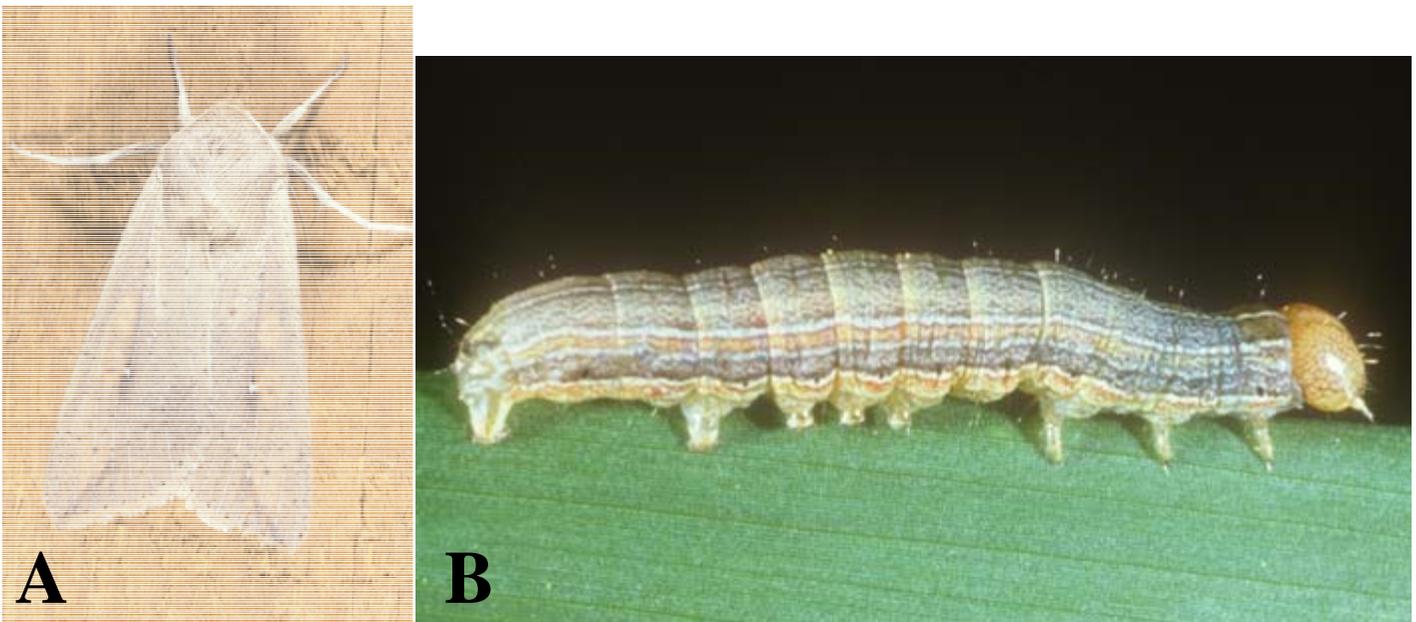


Figure 2. A– true armyworm moth. Photo credit, John L. Capinera University of Florida. B– true armyworm larvae showing the green to brown coloration with lighter stripes running the length of the body. Photo credit John L. Capinera, University of Florida

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Authors:
Tyler Mays, Extension Agent-IPM Hill & McLennan Counties
Zach Davis, County Extension Agent-AG/NR

126 South Covington Street
P.O. Box 318
Hillsboro, Texas 76645
Phone: 254-582-4022
Fax: 254-582-4021
Mobile: 979-482-0111
Email: Tyler.mays@ag.tamu.edu