The last couple of weeks have seen a dramatic increase in the activity of the Fall Armyworm (FAW), Spodoptera frugiperda (J.E. Smith), moths. Dr. Pat Porter, Extension Entomologist at Lubbock, has trapped an exceptional number of moths at the Texas A&M AgriLife Research and Extension (see graph page 2). Moth trap catches from June 13 to June 19 reached an all time high of 900+ compared to trap catches for 2011 and 2013, which were well below 100. Even before these high numbers he reported finding FAW egg masses and whorl feeding damage (see photograph, page 2).

This early FAW activity has also been noted in Mississippi and Arkansas (Be Watchful for Fall Armyworms in Grassy Beans) where fall armyworms are moving from grassy fields to soybeans.

Moth trap catches for FAW have also begun to increase in many of the corn producing county across the Texas High Plains (see graph, page 3). Moth numbers have steadily increased from the first sample period from May 27 to June 2. Some counties or trap location within a county have not had much of a FAW moth activity. But, moths have been active in Hale, Hartley, Lipscomb, Moore, Randall, and especially in Parmer. If this moth activity continues to increase or becomes more widespread across the region, we could begin to see whorl feeding activity in non-Bt refuge fields, refuge non-Bt strips, refuge-in-bag plants, grain sorghum, and on forage grasses and range pastures. This early moth activity could be a springboard to multiple generations this year.

Fall armyworms are generalist feeders and are known to feed on 80 different host species. The females are active at night laying egg masses on host plants and light-colored surfaces, such as fence posts and other objects. An egg mass is light gray with grayish fuzz and can contain just a few to hundreds of eggs. The eggs hatch within 2 to 4 days. The newly hatched larvae will disperse away from...
2014 fall armyworm pheromone trap captures (moths per week) at Lubbock. 2011 was a high fall armyworm year.

Whorl feeding damage from early FAW egg lay in non-Bt plants, Texas A&M AgriLife Research and Extension Center, - Lubbock. Photo credit: Pat Porter.
the egg laying site to other plants and will feed on exposed leaves for a few days (instars 1 to 3). As the larvae becomes 1/4 to 1/2 inch long they will move to the whorl when plants are in the vegetative growth stages. The larvae will continue to develop in the whorl from the mid-size (4th instar) to the last large larval stage (instar 6) before pupating. The last larval stage will be about 1 1/2 inches long. During this time in the whorl a caterpillar will consume 98% of all plant material eaten. The symptoms of ragged-edge chewed holes and frass can be seen in the whorl, but become more noticeable when leaves unfold out of the whorl. This damage can look substantial, but may not be as damaging as it appears. Research has shown that late whorl stage infestations of corn were less susceptible to feeding damage and yield losses than early to mid-whorl damage and pre-tassel growth stages. However, feeding damage to grain sorghum is most severe during the mid- to late whorl stages (5 leaf to boot) when the panicle is developing. Although studies have identified when corn and sorghum are most susceptible to whorl stage infestation, we still do not have any established thresholds based on economic losses from feeding damage to the whorl. Therefore, there are many different recommendations from state to state. For example, Purdue recommends treating corn if 75% of the plants have whorl damage and larvae are less than 1 1/4 inch long. Kentucky’s recommendation is when egg masses are found on 5% of the plants or when 25% of the plants have whorl damage and live larvae are present. For us on the Texas
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High Plains, economical control of FAW whorl infestations in corn is seldom achieved. And, for grain sorghum, our guide states “Insecticide application may be justified if larval feeding reduces leaf area by more than 30 percent or is damaging the developing grain head or growing point within the whorl.

So, will these high moth trap catches mean we will have damaging whorl infestations. Dr. Potter has a great deal of experience with FAW infestations. He stated “Non-Bt corn should be scouted but I do not expect any of the fields to reach the treatment threshold of 30 percent of leaf tissue removed. All of the types of Bt corn currently sold will do a good job of killing fall armyworm larvae. My biggest concern is the higher overall numbers of fall armyworms in the system. This could mean more yield loss in corn and sorghum down the road, but we will have to watch and wait”, (20, June, 2014, Focus on South Plains Agriculture, Vol. 53, no. 4).