

# WHEAT PRODUCTION NEWSLETTER



Oklahoma State University Small Grains Extension  
[www.wheat.okstate.edu](http://www.wheat.okstate.edu)

May 17, 2007  
Volume 3, Issue 14

## Armyworms and Wheat Head Armyworms: How to Tell the Difference

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Oklahoma wheat growers are experiencing a full blown armyworm outbreak, with infestations ranging from 4–5 worms per foot of row to well over 14 worms per linear foot of row. I have heard that most aerial applicators have waiting times of 5–7 days before they can even get to a field to spray it. It is extremely important for growers to check their fields for numbers. We suggest a threshold of 4–5 caterpillars per linear foot of row as a treatment threshold. This is a very conservative threshold, so if your fields are experiencing populations at that level, there is no need to panic.

The armyworms are already at the ½ inch stage, and will probably cycle out and turn into pupae within the next 7–10 days, so a spray applied a week from now would not protect very much yield. I have also been finding the cocoons of a wasp parasitoid known as *Glyptapanteles militaris* in many fields. This indicates that many of the caterpillars that are alive right now have begun to die as the parasitoids mature.

I have also heard reports of **wheat head armyworm** infestations in some areas of the state. I have not yet confirmed the presence of wheat head armyworms, but because of its potential, I believe that growers should be aware of the problem.

The “**true**” **armyworm** will feed on wheat beards and glumes of the seed, and may even feed on very immature developing seed. However, they tend to not feed on seeds that have developed past the soft dough stage.



**The wasp parasitoid *Glyptapanteles militaris* lays eggs in the armyworm caterpillar. As larvae emerge they kill the armyworm caterpillar and form a cocoon as shown in the picture above.**

The soft dough stage is about the time that wheat head armyworms begin to really feed on the wheat heads. They feed on seed from the soft dough stage through maturity. They are difficult to control because they become noticeable so late in the growing season, typically when it is too late to apply an insecticide treatment because of the pre-harvest intervals that most products have.

So how can you tell the difference? Here are some comparisons on the two caterpillars:

### **Armyworm**

**Body Color:** Striped, yellow to brownish green with 3 distinct stripes on each side; the upper stripe is pale orange, the middle one is dark brown and the bottom is pale yellow. Their head capsule is typically smaller of about as wide as their body.

### **Wheat Head Armyworm**

**Body Color:** Gray to greenish with a distinct yellow, white and brown stripes going lengthwise across the body, but no orange stripe. They typically have a larger head relative to their body. They are very active and “wiggly” when disturbed. I sometimes characterize them as an armyworm that has overdosed on caffeine. Because the larvae are so variable in color, the best way to identify them is to take a sample to your County Extension Office for submission to the Plant Disease and Insect Diagnostic Lab at OSU.

Wheat head armyworms typically are found in greater numbers along the margins of fields. There is no established treatment threshold for this pest because it so rarely causes economic damage and the damage goes unnoticed until the grain is harvested. Treating a field now for armyworm will likely eliminate any wheat head armyworms as well. However, if you don't need to treat for armyworms, it is important to check your fields for the presence of wheat head armyworm. Registered controls for wheat head armyworms are the same as for armyworm, and you still need to consider the Pre Harvest Intervals for any product you apply.



**“True” Armyworm**



**Wheat Head Armyworm**

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