



## Armyworms in Bromegrass



With some smooth bromegrass stands currently under attack from armyworms, producers are faced with how to handle this late season pest and try to salvage what they can of their stand. This information is designed to assist you in the decision making process for your particular stand.

Armyworms come in various species and colors but feeding patterns tend to be quite similar. Early feeding signs from small worms include windowpane feeding in which leaf material is scraped off in irregular patches. Armyworm larvae may be too small to be easily observed when they first emerge, however. They hide in or around the base of seedlings. Within a few days the larvae are large enough to destroy entire leaves. Fields with 25 to 30 percent of plants with windowpane injury should be re-examined daily and treated immediately if stand establishment appears threatened. Larvae increase in size at an exponential rate, and so do their food requirements. Later instars do the most damage, sometimes destroying entire stands, and are the least susceptible to insecticides.

### ***Doing An Assessment:***

1. Determine what you have. Most of what we are seeing this fall have been fall or true armyworms. Other species of worms may have little to no affect on our forages, but the armyworm species will do considerable damage - in a short period.



**Fall Armyworm (left)**

*(photos by K-State Research & Extension)*



**Beet Armyworm (right)**

2. Find out where the armyworms are located. If they are only on the margin, focus further evaluation here. If throughout the stand, your next step becomes a little more complicated. One indicator could be where birds are congregating, feeding on the larvae.
3. Determine size. Armyworm larvae will be about 1.25 - 1.50" long at maturity. From hatching to larval maturity takes just over two weeks when temperatures are warm. Cooler temperatures can slow that, though feeding also slows. While there is the potential for another generation this fall, the chances are small. They do not overwinter here.
4. Evaluate the damage. In most years, by the time we notice damage, the worms are nearly grown and little is to be gained by the expense and time associated with an insecticide application. If, there are still young larvae, and damage is severe (more than 4-5 half grown healthy worms per square foot), control may well be warranted. Look for worm carcasses, as well. Various flies and wasps are natural predators and may be doing a good job of controlling on their own.
5. If an insecticide is needed because larvae are young and causing considerable damage, make sure the chosen product is labeled for the forage in question AND armyworm. There is some limitation on what products can be used (Mustang Max and Baythroid XL labels both list armyworm and grass on the label for example).

### ***What Next?***

The timing of this infestation puts us in a real pinch from the standpoint of our grass stands. Bromegrass is currently using available foliage to store energy prior to winter for early spring growth. Grass may well come back from this feeding, but don't be surprised to see 'thinned' stands next spring, particularly where the grass just comes back and then we go in to dormancy. Make sure the grass stand is in good health and that proper fertility levels are maintained to give the forage the best chance of survival.

Stands that need overseeded should be overseeded immediately! The fall planting window (Kansas Crop Planting Guide, KSU Publication L-818, November 1996) for brome ended September 20, making seeding at the date of this writing (September 27, 2010) risky at best. If you cannot 'scratch' seed in this fall, or want to see if you get any regrowth, consider a dormant season overseeding on top of a little snow cover this winter. Spring seedings can be done from mid-February through mid-March. Seeding rate should be at 15 pounds of pure live seed per acre if the entire stand has been reduced.

### ***Other Useful Links:***

- ◆ <http://www.entomology.k-state.edu/DesktopModules/ViewDocument.aspx?DocumentID=4053>
- ◆ <http://www.agronomy.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=3198>
- ◆ <http://www.aces.edu/pubs/docs/A/ANR-1019/>
- ◆ <https://edis.ifas.ufl.edu/in016>
- ◆ <http://www.noble.org/ag/pests/armyworms/attack.htm>
- ◆ <http://www.ento.okstate.edu/ddd/insects/fallarmyworm.htm>
- ◆ This factsheet is located online under the Crops & Soils link at [www.meadowlark.ksu.edu](http://www.meadowlark.ksu.edu)

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