

## Armyworm Damage to Bromegrass

### The Situation

For Eastern Kansas bromegrass producers, 2021 will be long remembered for fall armyworm damage. High numbers of fall armyworm larvae, coupled with the onset of post-harvest drought stress, resulted in significant damage from stand defoliation. This damage resulted in long-term losses in production and is still felt across bromegrass production areas.

### What We Did

From the onset of feeding until armyworms migrated south, Extension Agents fielded *extensive* requests for producer assistance. Our farmers needed information on everything from the insect's life cycle, to control options, to post feeding recovery. Extension agents paired with specialists to launch consistent information and outreach efforts. In addition to hundreds of individual consultations, it was important to be proactive in our outreach efforts. These efforts included the development and publishing of 7 news columns, 4 news releases, 2 district newsletter articles, 8 radio segments, 8 Facebook posts, 3 videos and 6 emails directed to crop producers across eastern Kansas.

As the result of growing season consultations and outreach efforts, dormant season educational efforts were undertaken to help farmers navigate the 'what is next for brome stands?'. Five meetings (*NEK Brome Recovery* and *Brome Roundtables*) were held for farmers to hear about existing damage and management options moving forward. Two handouts were developed by Extension agents for the meetings, entitled *Bromegrass Hay Response to Nitrogen Fertilizer* and *Reseeding Decision Costs – Fertilizer and Seed Prices*. In addition, two videos were produced and posted on Facebook by the Frontier and Marais des Cygnes Extension districts entitled *Identifying Fall Armyworm Damage and When and What Happened, and Why*. Four K-State Agronomy eUpdate newsletter articles were written detailing research results and management tactics moving forward. Numerous newspaper columns, radio programs and Facebook posts were also utilized to help farmers understand future brome management strategies.

In addition to outreach efforts, the fall armyworm infestation provided an opportunity for research efforts. K-State entomologist Jeff Whitworth conducted an armyworm foliar treatment efficacy trial and shared results with agents.

### Outcomes

Because of the educational efforts of the Extension agents during the growing season, farmers were able to identify the fall armyworm and better understand the fall armyworm lifecycle. Also, farmers were able to make informed decisions on controlling the insect in their brome fields and when to scout for the need for additional control measures.

During the dormant season educational efforts, 29 farmers attended the *Brome Recovery* meeting and 130 farmers attended the *Brome Roundtable* events. These attendees learned to assess their brome stands, about the economics of fertilizer applications and about other forage alternatives. At the conclusion of the *Brome Roundtable* events, **90% of respondents said they could dig up plants and determine if the crown was alive or dead** and **75% had an idea about what they were going to do with a stand that appeared dead**. For the Agronomy eUpdate articles, there were over 300 unique hits and the articles were shared on social media pages. These posts were retweeted 13 times and liked 33 times.

## Success Story

Because of the combined efforts and outreach activities, farmers throughout eastern Kansas were better able to understand the fall armyworm pest, its control and its long-term effects on brome grass stands. This was not a planned effort, but was an effort that was responsive to our clientele's immediate needs. K-State specialists and agents with expertise on forages, brome production, and entomology taught others (K-State personnel and our clientele) about this crop, this pest and the long-term implications of this infestation.

## Contact

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