



2015 Sorghum Headworm (Corn Earworm)  
Insecticide Efficacy Trial –  
Dickinson Co., KS.

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- Pest: Sorghum Headworm (corn earworm), *Helicoverpa zea*
- Crop: Sorghum; 11 treatments
- Location: Dickinson Co., KS
- Growth Stage: Between flowering and milk stage (double cropped after wheat)
- Plot Size: 4 rows x 30 ft.
- Experimental Design: Randomized Complete Block; 4 Replications
- Information: Sprayed with hand sprayer delivering 15 gal/acre at ca.30 psi. Treatments 1&2 treated on 25 August at bloom initiation - 83°F with no wind. Treatments 3-11 on 31 August at threshold - 87°F with wind SSE 8mph.
- Phytotoxicity: None noted
- Evaluation: Pre-treatment counts conducted on 31 August using 1 gal. white bucket and shaking heads into bucket, averaged 4.6 CEW/10 heads. Evaluations consisted of ten randomly selected heads sampled per plot on 7 September (7 DAT) and 14 September (14 DAT). No larvae were counted 21 September as sorghum was in the dough stage and larvae had pupated.

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**Treatment Date:** 25 or 31 August, 2015

| No. | Treatment/Product Name                               | CEW/10 heads (Mean ± SE) |                      |
|-----|--|--------------------------|----------------------|
|     |  | 7 Sept.<br>(13 DAT)      | 14 Sept.<br>(20 DAT) |
| 1   | Fastac 100SC @ 3.8 fl.oz./a<br>(at bloom initiation) | 0.3 ± 0.3d               | 2.0 ± 0.8bc          |
| 2   | Mustang Maxx @ 4.0 fl.oz/a<br>(at bloom initiation)  | 2.3 ± 0.3b               | 2.3 ± 0.6b           |
|     |  | <b>(7 DAT)</b>           | <b>(14 DAT)</b>      |
| 3   | Belt SC @ 2.0 oz/a                                   | 0.8 ± 0.3cd              | 0.3 ± 0.3d           |
| 4   | Belt SC @ 3.0 oz/a                                   | 0.0 ± 0.0d               | 0.5 ± 0.3d           |
| 5   | Fastac 100SC @ 3.8 fl.oz./a                          | 0.3 ± 0.3d               | 0.3 ± 0.3d           |
| 6   | Mustang Maxx @ 4.0 fl.oz/a                           | 2.0 ± 0.4b               | 0.3 ± 0.3d           |
| 7   | Diamond @ 9.0 fl.oz./a                               | 0.8 ± 0.3cd              | 0.0 ± 0.0d           |
| 8   | Vulcan @ 1.0 pt./a                                   | 1.8 ± 0.6bc              | 1.0 ± 0.6bcd         |
| 9   | Lorsban Advanced @ 1.0<br>pt./a                      | 1.8 ± 0.6bc              | 0.8 ± 0.5c           |
| 10  | Diamond @ 6 fl.oz./a +<br>Vulcan @ 1.0 pt./a         | 0.3 ± 0.3d               | 0.0 ± 0.0d           |
| 11  | Diamond @ 9 fl.oz./a +<br>Vulcan @ 1.0 pt./a         | 0.5 ± 0.3d               | 0.5 ± 0.3d           |
| 12  | Untreated  | 8.5 ± 0.3a               | 4.3 ± 0.6a           |

Means within a column followed by the same letter are not significantly different ( $P>0.05$ ; PROC ANOVA; Mean comparison by LSD [SAS Institute 2003]).

Reference to specific products is provided solely for informational purposes. Experiments with pesticides on non-labeled crops or pests is part of the insecticide registration process, it does not imply endorsement or recommendation of non-labeled uses of pesticides by Kansas State University. All pesticide use must be consistent with current labels.

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