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PERFORMANCE OF COTTON APHID *Aphis gossypii* GLOVER UNDER TRANSGENIC COTTON Bt-Cry1Ac AND RR

Antonio Chamuene
Marcelo Coutinho Picanço
Laboratório MIP-UFV
chamuene@gmail.com

Introdução

- The management of non-lepidopteran pests remains a requirement for the sustainable deployment of Bt-cotton.
- Varieties of Bt cotton provide highly effective and selective control of major lepidopteran pests.
- However, these varieties may have a differential impact on cotton aphid, *Aphis gossypii* Glover (Homoptera: Aphididae), one of the most important non-lepidopteran pests in cotton.
- Field studies about the impact of the Bt cotton on the biological performance of *A. gossypii* can contribute to the development of appropriate management strategies.

Introdução

- Hypothesis
  - ✓ Bt cotton does not affect the natural mortality of *A. gossypii.*
- Objective
  - ✓ Evaluate the impact of Bt cotton Cry1Ac and RR on the biological performance of *A. gossypii.*

Material & methods

- Field experiment
  - ✓ UFV Experimental Station
  - ✓ Growing season 2012-2013

- Experimental design
  - ✓ RCBD, 12 replications
  - ✓ Treatments: NUOPAL (Bt) and FM910 (non-Bt)

Material & methods

- Evaluation
  - ✓ *A. gossypii* and its mortality
  - ✓ Reproduction
  - ✓ Development
- Data analysis
  - ✓ Anova

Results

Table 1: Biological performance of *A. gossypii* between Bt and non-Bt cotton varieties.

Biological parameters of *A. gossypii*	$F_{1;22}$	P < 0,05
Mortality of adults (%)	0.91	0.226
Total nymphal instar (%)	0.07	0.798
Nymphs produced / female	1.56	0.226
Winged produced	1.08	0.301
Duration of life cycle	0.23	0.633
Longevity of adults	1.73	0.202

Conclusions

- The performance of *A. gossypii* on both Bt and non-Bt cotton was similar.
- Therefore, the management of *A. gossypii* must be similar in both Bt and non-Bt transgenic cotton.

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