

# Neotropical brown stink bug (*Euschistus heros*) in soybeans: what insecticides have maintained effective field performance?

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## Introduction



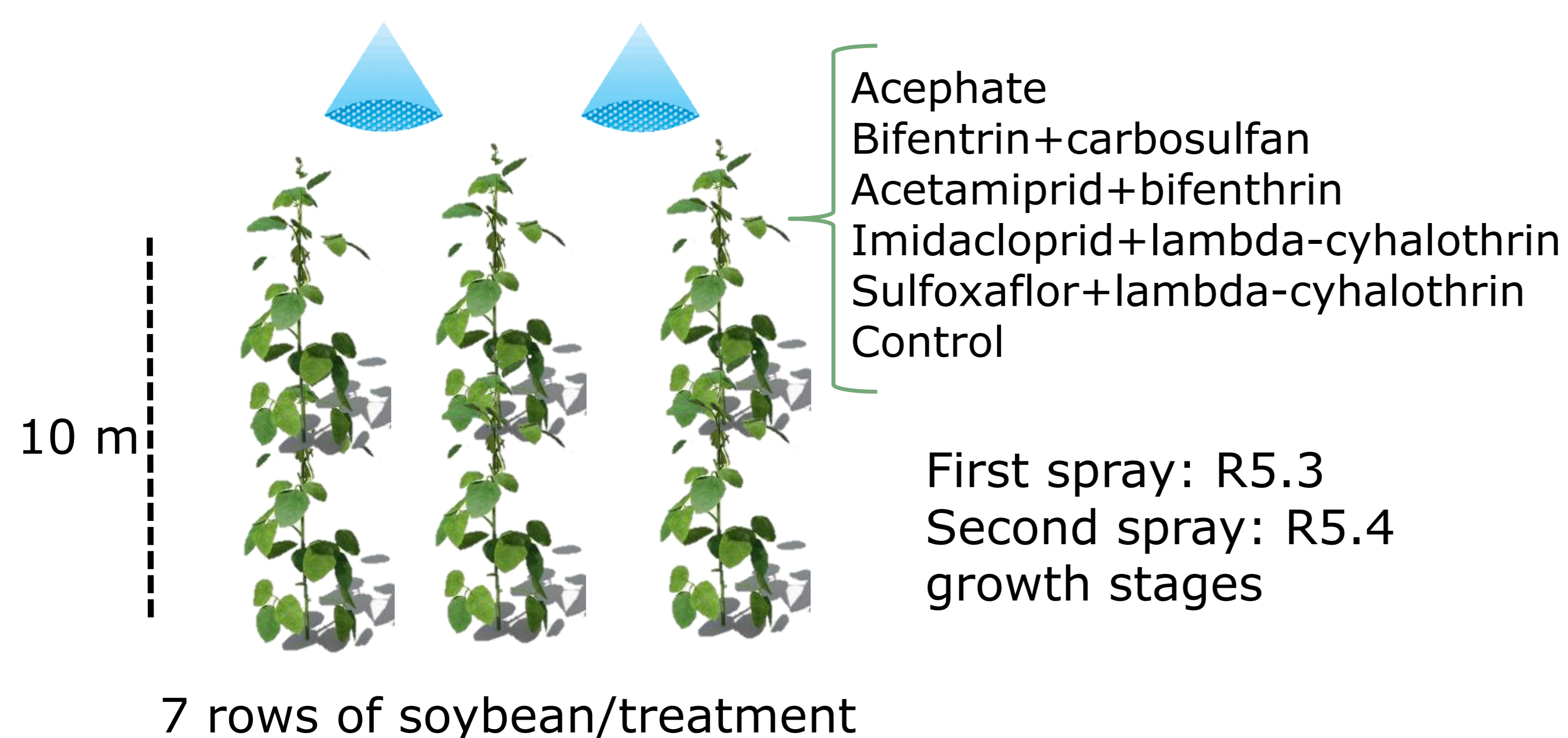
*Euschistus heros*

High-yield soybean (*Glycine max*) fields are needed to supply the world's demand on soybean products, but insects like *Euschistus heros* (Hemiptera: Pentatomidae) often reduce the soybean quality and productivity, particularly in neotropical fields of South America. There, chemical control of *E. heros* populations is needed almost every growing season, so that selection of insecticide resistance leading to control failure is a concern.

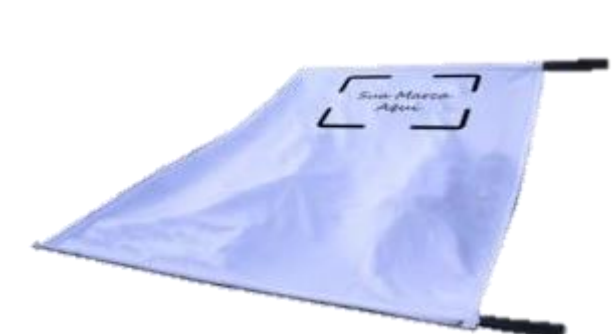
We assessed the performance of conventional synthetic and new insecticide mixtures against *E. heros*.

## Materials and Methods

2018/2019 growing season in Maracaju, Mato Grosso do Sul, Brazil.



Before and after spray the treatments:

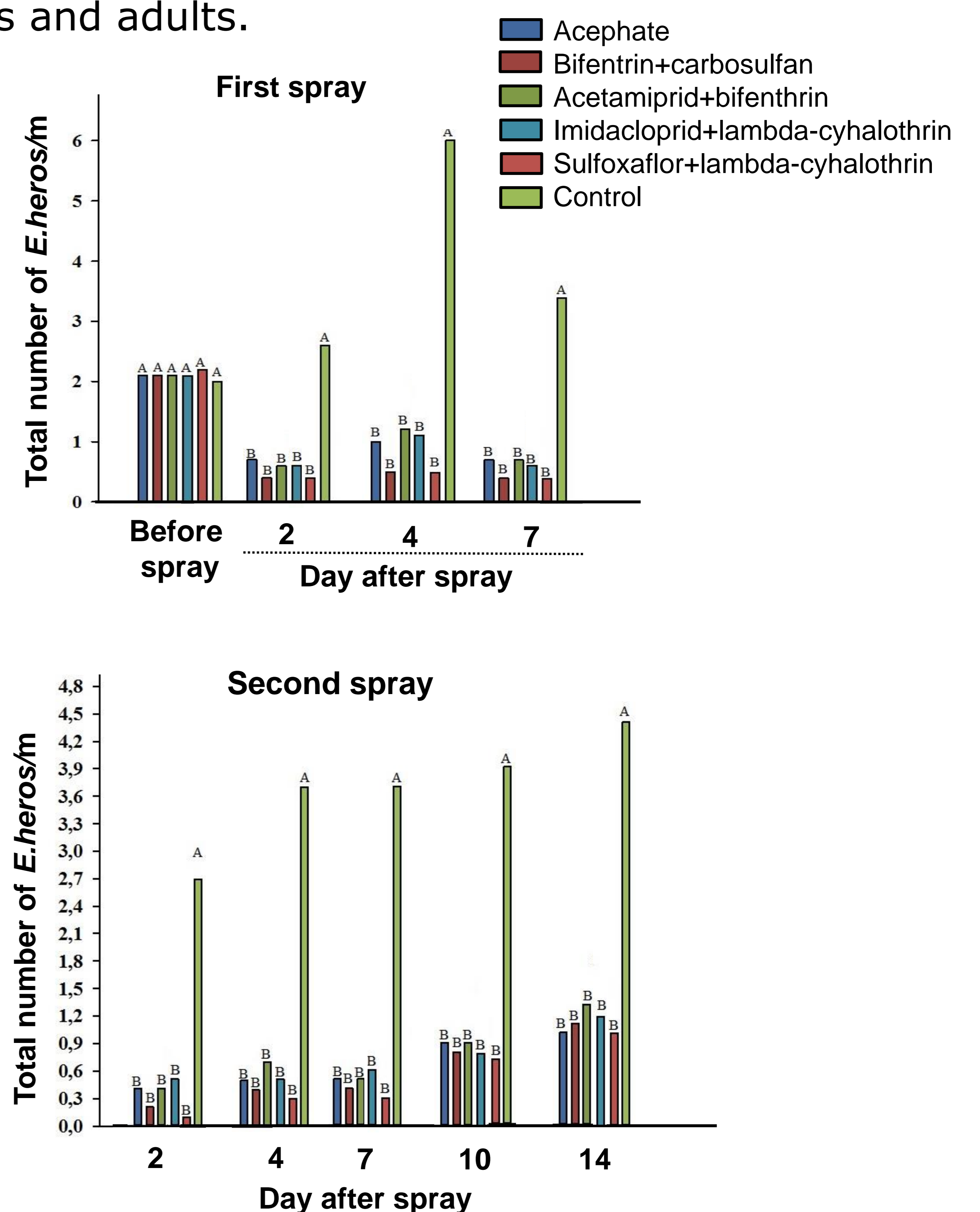


Assessment in 1-m soybean row with beat cloth in four representative areas of each experimental plot

Number of nymphs and adults of *E. heros* were recorded.

## Results and Discussion

Before the first insecticidal application, there no significant difference in the total number (nymphs+adults) of stink bugs, which averaged 2/m. All the insecticidal treatments were efficacious until 14 days after the second application, maintaining 0.3–1.4 stink bugs/m. In the control, the stink bugs number were 3–6/m, significantly higher than those in the insecticidal treatments. Therefore, the insecticides effectively reduced the population density of *E. heros* nymphs and adults.



**Fig 1.** Assessment of the total mean number (nymphs + adults) of *Euschistus heros* in 1-m soybean row under the effect of different insecticide treatments.

## Conclusion

All the insecticides effectively reduced the population density of *E. heros* nymphs and adults. These results are useful for soybean pest managers, indicating that the soybean stink bug populations can be reduced when using the insecticides properly.