

**SURVEY OF EUSCEPES
POSTFASCIATUS
(FAIRMAIRE) IN THE
IPOMOEA POTATOES
CROP**

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Abstract: Sweet potatoes (*Ipomoea potatoes*) are one of the most consumed foods in the world, occupying 5th position in the ranking, with a production of 90 million tons in an area of 8.06 million hectares. With such production, it is natural that there are several insect pests associated with the crop, among which *Euscepes postfasciatus* (Fairmaire) stands out, a coleoptera found in all regions of Brazil. *E. postfasciatus* is considered the main pest of the crop. Therefore, in 2015, a population survey of *E. postfasciatus* was conducted at the UFPI Center for Agricultural Sciences with the aim of quantifying the size of the beetle's population in fields cultivated with *Ipomoea potatoes*. The survey was carried out in the 1st half of that year, from January to June. The traps with attractive pheromones were placed in the field in a zigzag pattern and collected every 7 days to count the insects. The objective of the work was to initially carry out a quantitative survey of the aforementioned pest, to take measures based on Ecological Pest Management (MEP). Some other species were found throughout the experiment, namely: *Megastes pusialis* and *Megastes grandalis*, which are Lepidoptera Crambidae; *Diabrotica speciosa* (Germ.) and *Sternocolaspis quatuordecimcostata* (Lefèvre), both coleopterans belonging to the Chrysomelidae family. These four species totaled 20%, including ants and termites, with 80% of the insects collected being *E. postfasciatus*. As a result, the experiment allowed us to survey the quantity of *E. postfasciatus*, in addition to enabling the monitoring of the insect's life cycle. Edaphoclimatic factors such as high temperatures and low rainfall present in Piauí did not significantly affect the insect's development. It is concluded that *E. Postfasciatus* has great adaptive capacity, with rapid spread and serious economic damage to the crop, requiring MEP measures for control.

Keywords: Management; Pests; Control.

INTRODUCTION

Sweet potatoes (*Ipomoea potatoes*) are one of the most consumed foods around the planet, occupying 5th position in the ranking, with a production of 90 million tons in an area of 8.06 million hectares (FAO, 2018). With just over 800 thousand tons, Brazil is one of the largest producers of *Ipomoea potatoes* in the world, reaching around R\$886.6 million in production value, establishing itself as the largest producer of sweet potatoes in Latin America (IBGE, 2018).

With such production, it is natural that there are several insect pests associated with the crop, among which *Euscepes postfasciatus* (Fairmaire) stands out, a coleoptera found in all Brazilian regions. *E. postfasciatus* is considered the main crop pest due to the serious socioeconomic damage caused to the crop (EMBRAPA, 2021).

In 2015, with the aim of carrying out a quantitative survey of the population of *E. postfasciatus*, in fields cultivated with *Ipomoea potatoes*, work was carried out at the Entomology Laboratory, of the Agricultural Sciences Center (CCA) of the ``*Universidade Federal do Piauí*`` (UFPI).

The survey took place in the first half of that year, from January to June. The traps with attractive pheromones were placed in the field in a zigzag pattern and collected every 7 days to count the insects.

By knowing the size of the insect pest population and consequently whether or not it was causing economic damage to the crop, we could take measures based on Ecological Pest Management (MEP), formerly called Integrated Pest Management (IPM).

Some other species were found throughout the experiment, such as: *Megastes pusialis* and *Megastes grandalis*, representatives of the Lepidoptera Crambidae; *Diabrotica speciosa* (Germ.) and *Sternocolaspis quatuordecimcostata* (Lefèvre), both coleopterans belonging to

the Chrysomelidae family. These four species totaled just 20%, including ants and termites, with 80% of the insects collected over the six months being *E. postfasciatus*.

The life cycle of *E. postfasciatus* occurs inside the branches and roots of the crop, with the complete cycle lasting approximately 40 days, with variations caused by temperatures or the amount of food available to the insect. Approximately 8 to 10 days after emergence of adults, mating begins, which can last up to three hours, with eggs being laid between 10 and 12 days after emergence of females and the pre-oviposition period varies from 10 to 15 days (WANDERLEY et al., 2003).

The branches of the crop are the places chosen by the females to carry out laying,

especially the region of the buds (nodes) or the tuberous root itself, approximately 2 to 3 centimeters from the soil surface (WANDERLEY et al., 2004).

As a result, the experiment allowed us to survey the quantity of *E. postfasciatus*, in addition to enabling the monitoring of the insect's life cycle in the field in culture.

It is concluded that *E. postfasciatus* has great adaptive capacity, since edaphoclimatic factors such as high temperatures and low rainfall, in the form of rain, present in the State of Piauí, did not affect the development of the insect in a significant way, and the It even presented rapid spread and serious economic damage to the crop, requiring MEP measures to control the coleoptera.

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