First register of occurrence of *Frankliniella schultzei* (Trybom, 1910) (Thysanoptera: Thripidae) in Cowpea (*Vigna unguiculata* (L.) Walp.) in the state of Piauí, Brazil

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Cowpea (*Vigna unguiculata* (L.) Walp.), known in the Brazilian northeast as "Feijão-de-corda" is a rustic Leguminosae with great productive capacity, cultivated mainly by small and average farmers in northern and northeastern Brazil. In these regions, this food constitutes the main source of protein for the population, thereby constituting great social importance. Cowpea is susceptible to many pests, which can cause considerable losses in its productivity.

Among these pests are thrips (Thysanoptera), which still remain unknown by most of the producers and are responsible for floral abortion, causing losses in farming (Freire Filho et al, 2005). These insects have become important pests in Cowpea in the last few years, mainly in drought periods (Andrade Junior et al., 2002), especially by the middle of the year, when the weather is hot and the humidity rate is low in the Brazilian northeast. Thrips attack flowers more often, provoking floral abortion. In high numbers, they can also attack leaves and branches. However, attack on flowers causes greater damage and, as they hide inside the petals, the action of insecticides can be made difficult (Freire Filho et al., 2005).

Throughout the world, 6000 species of thrips are known (Mound and Morris, 2007). Five hundred and twenty of them are recorded in Brazil (Monteiro et al., 2001). There, the 41 thrips species in the genus *Frankliniella* and the 4 of the genus *Thrips* comprise the biggest number of thrips pests, causing damage to vegetal tissues while feeding and/or through the transmission of phytopathogens, specially viruses (Monteiro et al., 2001). From these, about 24 species are considered to cause damage in cultivated plants in Brazil (Monteiro, 2002).

However, there is a lack of information in Brazil about thrips species identification and their association with plant species, whether spontaneously growing or cultivated, native or exotic (Pinent et al., 2006). The state of Piauí, for example, even being the second largest producer of cowpea in Brazil, has no knowledge of this pest which attacks the culture. So far, no species have been identified in Piauí, though Chagas (1993) mentions the record of *Frankliniella schultzei* in Cowpea flowers in the state of Rio Grande do Norte, in the Brazilian northeast. The aim of this research was to identify thrips species in cowpea in Teresina, Piauí, Brazil.

Thrips collections were made during October and November, 2005, in the experimental field of Cowpea in "Embrapa Meio-Norte" (area of 2.7 ha), located in an area of transition between "Caatinga" and "Pre-Amazon", in Teresina-PI (05° 05' 21" S; 42° 48' 07" W), 72 m altitude.

The technique used was based on individual sampling of the plant through simple sacking, adapted from Waquil et al. (1986). Flowers from Cowpea with thrips were withdrawn, put in plastic bags and taken to the Entomology Laboratory of the Department of Biology, Universidade Federal do Piauí, Teresina, Piauí, Brazil.

In the laboratory, the insects were separated from the flowers using brushes with fine bristles (size 00 or 000). Under a stereoscopic microscope, the thrips were transferred to eppendorfs with alcohol 60%. Then they were set up in microscopy slides according to the technique proposed by Mound and Marullo (1996) and Mound and Kibby (1998), identified and photographed.

Twenty specimens of thrips were found in the experimental field of cowpea in Embrapa Meio Norte. From these, 18 were females and 2 were males of the species *Frankliniella schultzei*.

During these collections, there were not many individual thrips, although in warmer periods of the year, they can reach a higher number and become a significant problem in Cowpea (Freire Filho et al., 2005).

F. schultzei is distributed between the latitudes 40° north and 40° south (Vierbergen and Mantel, 1991) and is a species that can transmit *Tospovirus* to their host-plants (Whitfield et al., 2005). Although this has not been verified in Piauí yet, it can become a problem in the future. Nevertheless, *F. schultzei* can also be a mite predator.

Even with the identification of this species in Cowpea, more studies are required for a better understanding of which species of thrips are occurring in Cowpea in Piauí. Identifying more specimens will help to improve the handling techniques of this insect in the culture.

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