PHAGODETERRENT EFFECT OF TRICHILIA PALLIDA EXTRACT AGAINST RHOPALOSIPHUM MAIDIS

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Intending to find new botanical pesticides showing repellent action on aphids, we used Electrical Penetration Graphic Technique to assess the phagodeterrent effect of a hexanic sub-fraction of Trichilia pallida extract against Rhopalosiphum maidis. Thus, each individual aphid was starved for 1 hour and placed on the youngest leaf of the plants 30 min previously treated with 0.5 ml in an extract concentration of 2% and other plants sprayed with water plus adhesive spreading were used as control. Both treated and control treatments had 15 replicates, and the probing behavior was recorded for 5 hours. The parameters evaluated were: non-probing; pathway activities; number of pathway activities; phloem salivation; number of phloem salivation; phloem ingestion; number of phloem salivation; xylem ingestion; number of xylem indestion: intracellular punctures; number of intracellular punctures; time to first intracellular puncture; total time of penetration; time to reach the first phloem ingestion. Analyzing the averages of the variables, we observed a feeding behavior alteration of aphids on treated plants with the hexanic fraction when compared to feeding behavior of aphids on untreated plants. The parameters: time of non-penetration, intracellular puncture, number of intracellular punctures and time to reach the first phloem ingestion showed that the insects had more difficulty to feed on plants sprayed with hexanic extract. Besides that, the parameters phloem salivation and number of phloem salivation were higher on the treatment with hexanic than untreated treatment. Another characteristic of insects on untreated plants was the non-success of keeping a normal feeding because the phloem salivation was interrupted before the phloem ingestion beginning.

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