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An aqueous pod extract of *Capsicum frutescens*– as a potential botanical for controlling *Aphis craccivora*

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Aphis craccivora Koch, is an insect pest on economically important crops causing damage by sucking the plant sap and transmitting viral diseases leading to heavy yield losses. In this investigation, the effect of aqueous pod extract of *Capsicum frutescens*on survival of nymphs and females and reproduction of females of *A. craccivora*on Yard-long bean plants was determined by directly spraying the extract on the aphids and exposure of the aphid to the pre-sprayed Yard-long bean leaves. The nymphal and female mortalities, and number of nymphs produced by the females were recorded at 24, 48 and 72 h after spraying the extract. The aphids sprayed with distilled water served as controls. Ten replicates were used for the treatment and control, and arranged in complete randomized design. Student t test was used for the comparison of mortalities and nymphal production by female aphids.

When aphids were sprayed directly, percentage cumulative mortality of treated nymphs and females were significantly higher (p<0.0001) compared to non-treated aphids, with the maximum values, 95% and 52%, respectively. Nymphal mortality was greater than the females at all the time periods observed. The mortalities recorded after 24 h was significantly lower compared to 48 and 72 h; however, no significant differences were observed between 48 and 72 h. Treated females produced significantly lower number of nymphs (p<0.0001) compared to non-treated ones. Nymphal production of treated females showed significant increase (p<0.0001) over time. The findings showed that the aqueous pod extract of *C. frutescens* affected the survival of nymphs and females of *A. craccivora*as well as reproduction of females through its direct contact toxicity. Nymphs were more prone to the toxic effect of the extract than the females. Hence, this extract has a potency of controlling *A. crassivora.*

Keywords: *Aphis craccivora, Capsicum frutescens, contact toxicity*

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