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RESIDUAL TOXICITY OF FUNGICIDE TO *Iphiseiodes zuluagai* DENMARK & MUMA, 1972 (ACARI: PHYTOSEIIDAE) IN LABORATORY

TOXICIDADE RESIDUAL DE FUNGICIDAS PARA *Iphiseiodes zuluagai* DENMARK & MUMA, 1972 (ACARI: PHYTOSEIIDAE) EM LABORATÓRIO

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Fungicides can affect the performance of the predatory mite *Iphiseiodes zuluagai* in citrus. We investigated the effect of fungicides on the survival rate and reproduction of *I. zuluagai* in laboratory. Valencia citrus leaves were sprayed in Potter tower (deposition of 1.8±0.1µL.cm^{-2}) using the highest dose of the fungicides Amistar WG, Score, Folpan, Kocide WDG, Neoram 37.5 WG, Metiltiofan, Cuprozeb, Comet, Flint 500 WG, Nativo and Kumulus DF. As a control treatment was used distilled water. After spraying, discs of 4.5 cm diameter were cut and placed in Petri dishes containing a water-agar 2% solution not yet gelled. Then, 10 newly emerged females were transferred to each leaf disc. As food source, a small amount of taboa (*Thypha angustifolia* L.) pollen was offered on glass slides and cotton yarns for oviposition. The experimental design was completely randomized with 12 treatments and 10 replications. The mortality of females and the number of eggs laid were recorded every 24 hours in estereomicroscopy. Eggs obtained from each disc were transferred to new Petri dishes and checked the hatching rate. Among the fungicides evaluated, only Cuprozeb negatively affected the survival rate of *I. zuluagai* (44% of mortality, 96 HAA). The other fungicides caused mortality of less than 8% being equivalent to the control treatment. However, when we evaluated the effects on reproductive parameters, most fungicides reduced fecundity and/or fertility of the mite. Cuprozeb and Score fungicides reduced fecundity in more than 70%, but did not affect fertility. Reduction in the number of eggs from 34 to 50% was registered in females exposed to Folpan, Neoram 37.5 WG and Cuprozeb residues. The other fungicides did not significantly affect mite fecundity and fertility. Considering the total effects of the fungicides, Amistar WG, Kocide WDG, Comet, Flint 500 WG, Native and Kumulus DF were considered innocuous, while Folpan, Neoram 37.5 WG, Metiltiofan and Cuprozeb were moderately harmful and Score harmful to predator. In general, most of the fungicides evaluated are compatible with the predator *I. zuluagai*.
Keywords: predator, selectivity, sublethal effects.
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