



EFFECTS OF RAW METANOLIC EXTRACT OF *Schinus terebinthifolia* raddi ON *Plutella xylostella* LARVESTS

Mayara Barreto de Souza Arantes, Thalya Soares Ribeiro Nogueira, Thalles Alves França, Renata Cunha Pereira, Wanderson Rosa da Silva, Raimundo Braz Filho, Ivo José Curcino Vieira, Gerson Adriano Silva

The products of secondary metabolism have important biological activities for the plant defense system of plants and have been increasingly attracting the attention of researchers in the area of natural products chemistry. In this scenario, the phytochemical study and the potential biological activity of plants of the genus *Schinus* (Anacardiaceae) have been widely studied, since plants of these genera have shown promising results when tested for biological activities in several areas, especially insecticidal activity, due to the presence of flavonoids. For agriculture, the identification of new substances that have insecticidal activity is of utmost importance, because these substances can be used as a model for synthesis of new pesticides, since currently some pests are developing resistance to insecticides traditionally used, as is the case of the moth of crucifers (*Plutella xylostella*), which attacks various crops, including cabbage, its larvae penetrate the epidermis of the leaf and cause destruction of all tissue making the commercialization unfeasible and causing losses. The raw methanolic extract of *Schinus terebinthifolia* Raddi obtained was partitioned with solvents in increasing order of polarity (CH_2Cl_2 , AcOEt and ButOH) and for the preliminary assays the raw methanolic extract was used. The assay was set up in an experimental entirely randomized design (IDC), using second instar larvae of *P. xylostella*. The larvae were fed on cabbage leaves treated with the extract at concentrations of 1% (C1), 3% (C2) and 5% (C3), in addition to the control (water). Mortality was evaluated after 24 hours and 48 hours. There was no significant difference between the mortalities caused by the treatments at 24 and 48 hours. At 24h the mortalities were: control = 0,0%, C1 = $10 \pm 3,16\%$, C2 = $18 \pm 7,45\%$ e C3 = $20 \pm 5,47\%$, at 48h the mortalities were: control = $4 \pm 4\%$, C1 = $16 \pm 2,45\%$, C2 = $26 \pm 6,78\%$ e C3 = $32 \pm 8\%$. Although mortality levels were low, the results are promising, since *P. xylostella* is considered a difficult insect to control, and historical with frequent reports of resistance to synthetic insecticides. It is noteworthy that there is need for further tests and investigations with other species of insect-pests, since the species *Schinus terebinthifolia* raddi is a native plant easily found in the Norte Fluminense region.

Instituição do Programa de IC, IT ou PG: Produção Vegetal - UENF
Fomento da bolsa (quando aplicável): FAPERJ

