

EFFECTS OF NATIVE PLANTS EXTRACTS FROM CÓRDOBA-ARGENTINA OVER FORAGING ACTIVITY OF THE “CUTTING ANT” *ACROMYRMEX LUNDI* (GUÉRIN)

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In the search for new alternatives for insect pest management, natural products from plants are an option currently studied for being substances of low toxicity and biodegradable. The leaf-cutting ant *Acromyrmex lundii* is a very important herbivorous species in the Argentine Chaco phytogeographic region as it can cut various parts of plants and attack almost all cultivated species. The objectives of this study were: 1. determine the effect of plant extracts native of Córdoba-Argentina on the foraging activity of *A. lundii* in an artificial nest. 2. evaluate the crude extract with highest activity in foraging activity field tests. Extracts were prepared with aerial parts of plants belonging to 28 botanical families. In the laboratory, an artificial nest was installed, which consisted of a main chamber where the queen, the immature and the fungus remained, and smaller chambers that operated as dump and foraging areas. The work was carried out under controlled conditions (27°C, 12:12 hs light/darkness and H° 25± 3). In free-choice tests, 8 discs of rose leaves of 1 cm of diameter were impregnated with 10µl per cm² of a 1% solution (10 ug / ul) of each extract or solvent (control). The Inhibitory Dose 50 (ID₅₀) was determined for all the extracts that showed 100% repellency. *Aristolochia argentina* Griseb. showed the lowest ID₅₀ values, for what it was chosen for field trials. Rose leaves treated with *A. argentina* extract (1% and 5%) and others with acetone (control) were placed on either side of an actively foraging path of six active nests of *A. lundii*, 50cm from the nest opening. The percentage of removed material was registered within two hours of observation and on two consecutive days, ending the trial when removed 50% of the total substrate provided. Also, foraging activity was determined by counting at a fixed point and for a period of three minutes, the number of workers who went towards the mound charged. In field trials, the 1% extract of *A. argentina* (n = 6) did not affect foraging activity (P > 0.05), whereas the 5% dose (n = 5) showed significant differences between treatments (P < 0.05). From these preliminary results, future studies arise to deepen different effects of the compound oriented to leaf-cutting ants management.