

## In vitro pediculicidal and ovicidal activity of an extract and oil from fruits of *Melia azedarach* L.

Carpinella, María Cecilia , Miranda, Mónica, Almirón, Walter C., Ferrayoli, Carlos G., Ludueña Almeida, Francisco  and Palacios, Sara M. (2007) *In vitro pediculicidal and ovicidal activity of an extract and oil from fruits of Melia azedarach* L. *Journal of the American Academy of Dermatology*, 56 (2). pp. 250-256. ISSN 0190-9622

El texto completo no está disponible en este repositorio.

### RESUMEN

Head louse infestation is difficult to control because of increasing lice resistance to synthetic pediculicidal drugs. Objective: To test the activity of extract and oil obtained from fruits of *Melia azedarach* L. against the head louse *Pediculus humanus capitis*. Methods: A filter paper diffusion bioassay was carried out in order to determine the pediculicidal and ovicidal activity of extract and oil from *M. azedarach* L. fruits. Results: Both vegetable products, tested either individually or in combinations, showed high levels of mortality on adult lice, with values ranging between 62.9% and 96.5%. The highest mortality rate was obtained with a combination of 20% ripe fruit extract with 10% ripe fruit oil. A formulation made with both extract and oil at 10% plus the addition of emulsifier and preserving agents showed 92.3% pediculicidal activity. The products were also successful in delaying or inhibiting nymph emergence, with the formulation being the most effective, with a complete inhibition of emergence. Limitations: Because adult lice are sensitive to starvation and therefore control mortalities are often higher than 20% in tests with field specimens, the results may not reflect the direct effect of the extract. Conclusions: These results demonstrate the possibility of using *Melia* products for controlling head lice, which are difficult to control because of their resistance to the currently used anti-lice agents.

**TIPO DE DOCUMENTO:** Artículo

**DOI:** <https://doi.org/10.1016/j.jaad.2006.10.027>

**PALABRAS CLAVE:** Emulsifying agent. *Melia azedarach* extract. *Melia azedarach* oil. Plant extract. Preservative. Unclassified drug. Vegetable oil.

**TEMAS:** Q Ciencia > Q Ciencia (General)  
Q Ciencia > QD Química  
S Agricultura > SB Cultura de la planta

**UNIDAD  
ACADÉMICA:** Universidad Católica de Córdoba > Facultad de Ciencias  
Químicas