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CHEMICAL FREE METHOD FOR THE DETECTION AND ELIMINATION OF HEAD LICE

*Barbara L. Thorne

Department of Entomology, University of Maryland, College Park, Maryland 20742

Head lice have become a significant issue for children and their families. Millions of cases are reported each year in the United States, and lice infestations are a problem worldwide. Insecticidal shampoo and crème rinse products used to treat head lice represent one of the last vestiges of applying pesticides directly to human skin, and because of the demographics of these cases, it is mostly young children who receive such treatments. Parents are increasingly reluctant to treat their children with pesticides, and are especially frustrated because many strains of lice are resistant to one or more of the chemicals used in these applications. This is also a difficult problem for schools, camps, daycares, and other institutions eager to recommend pesticide free alternatives.

This paper presents results using a special hexagonal comb that provides a simple, effective, non-chemical option for the detection and control of human head lice. The objective of this combing approach is to diagnose and curtail head lice infestations without direct scalp exposure of children (and adults) to pesticides. The technique first detangles hair, then enables easy removal of lice at all stages of development after hatching. The comb targets the lice themselves, not their eggs ("nits"). By removing the lice, one removes egg-layers, and catches newly hatched lice before they mature. With attentive combing over time an infestation can be eliminated. The method can also be used to inspect for head lice, with the capability of detecting lice at an earlier stage in an infestation than possible with the current, traditional inspection method (visual searching for nits). The inspection procedure can be followed to screen individuals for lice (such as students in a school nurse's office), or it can be used to periodically monitor previously infested people to confirm that the lice treated with this or any other method were indeed eliminated.