

**MICHIGAN MOSQUITO CONTROL ASSOCIATION  
2014 WILLIAM J. LECHEL, II  
MEMORIAL SCHOLARSHIP STUDENT PAPER COMPETITION**

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**Title:** Efficacy of an Ingestible Vitamin/Garlic Supplement as a Mosquito Repellent

**Student Biography:** Courtney is majoring in entomology at Michigan State University, she hails from Jenison, Michigan. She is currently working with MSU's Arthropod Research Collection and hopes to pursue a Master's in Aquatic Entomology.

**Abstract:** The goal of this study was to determine the efficacy of an ingestible vitamin/garlic supplement as a mosquito repellent using both lab tests and field trials. For the lab tests, we calculated the landing rates for volunteer human subjects that placed their arm in a cage of approximately 100 *Aedes triseriatus* females before and after taking the supplement. We conducted four separate field trials consisting of paired human subject volunteers. For each trial, one subject would take the supplement at least an hour prior to the trial, as recommended by the manufacturer, with the other subject serving as an untreated control. Subjects reversed roles the following evening. Each pair sat in a wooded area for 10-20 minutes and attempted to collect all mosquitoes that landed on them using a manual aspirator. The mosquitoes were then stored at -20°C and later identified and enumerated. Data from the lab tests showed slightly increased average landing rates after taking the supplement but this was not statistically significant. Field trial landing rates also showed no significant effect of treatment, with individual and date of trial accounting for most variation. Additionally, the types and relative abundance of mosquitoes collected were nearly identical from treated or non-treated individuals. In conclusion, this supplement appears to be completely ineffective as a mosquito repellent against nuisance and vector species found in Michigan.