Repelling What Bugs You: Creating an All Natural, Antiseptic, Safe, and Effective Biopesticide Mosquito Repellent

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The project “Repelling What Bugs You” is an extension of a project started in 2015. In that project, an all natural and antiseptic mosquito repellent base was composed by researching and testing safe naturally occurring substances with properties that allowed them to serve as both repellents and antiseptic applications. After testing these properties of each substance, a repellent was composed using cedar wood, peppermint, lavender, cinnamon, and wormwood extracts with alcohol and water to serve as fillers. In this years project of “Repelling What Bugs You,” the repellent developed through previous experimentation was tested and compared to three different conventional mosquito repellents, which represent the three most commonly purchased types of repellents in the United States. These types are highly DEET concentrated, moderately DEET concentrated, and biopesticide mosquito repellents. Each of these and the project repellent were tested with ten individual mosquitoes in separate trials, where the repellent was applied onto a net at the end of a chamber, and the mosquito’s reaction to that repellent was recorded and scored. After all testing was complete, the project repellent performed as predicted in the hypothesis, which was comparable to commonly store bought mosquito repellents. The repellent received a seventy three percent efficiency rating, which ranked second best when compared to the three other repellents tested. When factors like the hazards of DEET, cost, efficiency, and public health are taken into account; it is easy to conclude that the repellent developed through this project can accomplish what it was developed for and compete with other repellents on the market.

Awards Won:

Fourth Award of $500