

# Bidara Vape (The Potential as a Mosquito Repellent)

Zailan, Muhammad Danial (School: Sekolah Menengah Kebangsaan Palong Timur)

Mosquito borne diseases such as chikungunya, jaundice, malaria, and dengue are common in my country. Therefore, we have to be alert of its breeding grounds especially in our neighborhood. The Botanical name of this ancient Sidr Tree or Bidara tree is *Ziziphus spina-christi*. The Bidara leaves were examined in this experiment. It is hypothesised that the life span of mosquito larvae is shortened against the bidara oil. This experiment was carried out with two types of solutions namely, Sidr or bidara oil solution and abate solution on mosquito larvae. The mosquito larvae are placed on the surface of a solder plate filled with water of 10 milliliters. Then, two drops of bidara oil and abate solution are placed on the surface on the larvae of each solder plate and observed for 30 minutes. Data and findings were recorded. The abate solution took 7 minutes to kill the larvae while the bidara oil took only 5 minutes to kill the larvae. Hence, bidara vape can kill more effectively and efficiently. The presence of geraniol, saponin and citronellol in bidara oil caused larvae to die quickly. The result for bidara vape showed that it repelled mosquitoes from spreading. It can also reduce serious illness such as dengue fever and zika virus. Therefore, the use of the bidara vape is very effective and recommended for daily use. In addition, this bidara vape also has a high commercial value and is used as aromatherapy oil and provides a wonderful fragrance to calm down people down.