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NEEM (Azadirachta indica) OIL USED IN AN OIL BURNER AS INCENSE

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MIRANDA, CHRISTIAN NEEM (Azadirachta indica) OIL USED IN AN OIL BURNER

AS INCENSE MOSQUITO REPELLENT INTRODUCTION Mosquitoes are well-

known pests to the entire human race. Later in the 90s, they discovered that

these arthropods are also carriers responsible for transmission of

devastating diseases to mankind. They transmit diseases by feeding on

blood from vertebrates, including us humans. As years gone by, many

studied: the relationship between the mosquitoes and the diseases they

carry; the possible ways of eliminating or preventing the spread by these

diseases in areas observed to have a large number of victims. Mosquitoes

thrive in moist and relatively warm environments just like what Tropical

Countries are. Tropical Countries are home to most number of species of

mosquitoes. Our country, the Philippines, is among the Tropical Countries.

Culex, Aedes, and Anopheles are among the most common species of

mosquitoes and they carry a vicious disease namely Dengue, Malaria and

Yellow Fever which can kill a human. These diseases are common yet deadly

diseases to us and the number of victims are still drastically increasing. This

leaves some authorities arguing whether mosquitoes are the most

dangerous animals to mankind. The average life span of the female mosquito

is three to 100 days; the male mosquito will survive 10 to 20 days, but we

are not waiting that long for the mosquitoes to die for us to be safe. Neem oil

is a natural substance extracted from the seeds of the neem tree

(Azadirachta indica), an evergreen native to India. Long used in certain

systems of traditional medicine (such as ayurveda), neem oil is thought to

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offer a number of benefits when applied to the skin and/or hair. Neem oil contains several fatty acids thought to be beneficial to the skin, such as oleic acid and linoleic acid. Some proponents also suggest that neem oil can act as a natural insect repellent. Known as "azadirachtins," certain compounds found in neem oil are thought to possess insecticidal properties. (Wong, 2012) In 1994 the the Malaria Research Center of Delhi, India tested whether kerosene lamps with 1% Neem oil can protect people from mosquito bites. For that test they burned the lamps in living rooms, and from 6 pm to 6 am caught the mosquitoes sitting on the walls and those attracted to human bait (i. e. volunteers). Neem oil clearly reduced the number of bites on the volunteers and also the number of mosquitoes caught. The protection was greater against anopheles species (the ones that transmit malaria) than against culex. A 1995 study at a field station at the Malaria Research Centre in Ranipur, Hardwar, India tested a mix of 2% neem oil mixed in coconut oil. They showed that applying that mixture to the skin provided significant protection from various mosquitoes. It worked best against anophelines, offering 96-100% protection. The malaria transmitting anopheles mosquitoes fall into this group. The numbers for other species were 85% for aedes (carries dengue fever), 61-94% for Culex spp. (can carry West Nile virus) and 35% for Armigeres. In 1996 the Malaria Research Center of Delhi, India did another field trial with kerosene lamps in an Indian village. Kerosene lamps with 1% Neem oil were kept burning from dusk to dawn in living rooms. They found that the lamps kept the mosquitoes out of the living rooms and that the malaria incidents of the population dropped dramatically (from about ten cases per thousand people to only one per thousand). Once the lamps were removed, the mosquitoes returned and so did the malaria. As <https://assignbuster.com/neem-azadirachta-indica-oil-used-in-an-oil-burner-as-incense-mosquito-repellent/>

for the safety of this method another 1996 study by the Malaria Research Centre in Delhi, India tested the effects of kerosene lamps with 1% neem oil. Clinical examination of 156 adults and 110 children did not reveal any major adverse effects after one year of exposure to 1% neem oil. This shows that depending upon what species of mosquito you are dealing with, effectiveness of use varies. For malaria protection Neem oil is fantastic. If you combine the 96-100% protection rate of the home made mosquito repellent with burning Neem oil when sitting outside and wearing sensible clothing you are well protected indeed.

A. Statement of the Problem. The number of victims of Malaria, Yellow Fever, and specially Dengue is drastically increasing as PIA or Philippine Information Agency has confirmed.

B. Objective of the Study. This study aims to know if the neem oil used as incense added with herbs and other aromatic flowers will be an effective mosquito repellent. The main objective of this study is to know if our Neem Oil Incense along with other herbs will be enough to repel the mosquitoes from our skins and prevent them from biting us and for how long will it be able to repel the mosquitoes.

C. Significance of the Study. This study is significant in solving problems relating the diseases brought by mosquitoes. The incense will repel the mosquitoes that carry diseases from the citizens living in areas with a large mosquito population. We will observe if the number of victims in a specific community will decrease once the incense is implied and used. Since our research is aiming if our Neem Oil Incense will be enough to prevent the mosquitoes from biting us, this shall help our community lessen victims of the notorious mosquitoes.

METHODOLOGY A. The primary materials needed for this experiment are oil burner and neem oil. Sampaguita and lemon grass will be added to the neem oil to ensure an <https://assignbuster.com/neem-azadirachta-indica-oil-used-in-an-oil-burner-as-incense-mosquito-repellent/>

aromatic scent. The sampaguita and lemon grass does not necessarily affect the properties of neem in repelling the mosquitoes. B. Neem oil is a vegetable oil pressed from the fruits and seeds of the neem (*Azadirachta indica*), an evergreen tree which is endemic to the Indian subcontinent and has been introduced to many other areas in the tropics. You can buy neem oil in Research Agencies like the International Rice Research Institute located in UPLB, Phil. The sampaguita's and lemon grass's juices will be pressed with 1 ml of water until their juices are extracted. The juices of sampaguita and lemon grass will be added to the mixture. This will improve the scent of the neem mixture. The mixture will be placed in the oil burner. We will light the burners for 6-10 hours. There will be 3 cages each having two hours of difference. Cage A's burner will be lit for 6 hours. Cage B's burner will be lit for 8 hours. Lastly, Cage C's burner will be lit for 10 hours. We will observe if the number of hours the burner will be lit has a great effect in the "repellence" of the neem oil. Since we are aiming on how to repel mosquitoes, we should know first how to attract them in order to know how effective our research will be. We will lure mosquitoes by putting on sweet-smelling lotions or creams. Invest in floral-smelling perfumes. To mosquitoes, these products are sweet-smelling like blood. These fragrances cause the mosquitoes to associate their floral scent for a possible blood supply. And then, as said earlier, we will test each cage with different number of hours.

REFERENCES: Ways on how to attract a mosquito. Retrieved from:

(http://www.ehow.com/how_8264153_attract-mosquito.html) Reviews of

Related Literature. Retrieved from: (http://www.terawet.com/Mosquito_Control_by_Neem.html) Diagram of Comparison. Retrieved

from: (<http://www.doh.gov.ph/sites/default/files/2012Den28WMMR.pdf>)

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Information about Aedes. Retrieved from: (<http://en.wikipedia.org/wiki/Aedes>) Information about Anopheles. Retrieved from: (<http://en.wikipedia.org/wiki/Anopheles>) Information about Culex. Retrieved from: (<http://en.wikipedia.org/wiki/Culex>)