



Overcoming Disease Spread By Mosquitoes

A Practical Mosquito Traps

This trap's idea takes into account the attractiveness of mosquito, other than the frequency of mosquitoes produced by female mosquitoes, and carbon dioxide production. Through the finding, mosquito tends to reach out to black clothing rather than bright clothing. Moreover, this happens in areas that are moist and less exposure.

Therefore, black color has been chosen as a puller in the innovation of the mosquito trap. Horizontal Fan Trap is designed to control mosquito-borne diseases. The intention of this innovation is to preserve our the environment and ecosystem while keeping us save working through our days. Most mosquito trap and repellent does not meet all these demands. DEET contain aerosol, fogging, and CO2 emitting trap has effect to our the respiratory system, health, and green house. The usage of UV light otherwise afflicts many other insect especially flies, bees, and moths whereby, little do we know that these insects have major contribution to human and environmental needs like honey-production and pollination.

Invention on Controlling Dengue Fever

According to Associate Prof Dr. Fadhil Din, as the inventor, this invention is mainly to develop a practical mosquito trap for the control of Dengue Fever, Chiqun Gunya, Malaria, West Nile fever and other diseases caused by harmful mosquitoes. On the other hand, Horizontal Trap are also designed specifically to prevail the traps for the control of these diseases as a contribution to the world, based on the collaboration of government-academic-industry (New Academia).



Product Features

Horizontal Fan Trap has been built using steel grid bipolar black polycarbonate sheets connected to fan power (12V, 1A and 12W) with the overall size of 400x400mm to be a magnet for mosquitoes. The surface of the steel grid is connected to a circuit unit which is capable of producing high enough voltage (100V-240V) to kill mosquitoes.

During operation, the surface of the black grid will draw attention to approaching mosquitoes. When the mosquito touches the surface of the grid, it will receive electrical shock which will lead to its death. To ensure the devices operate efficiently, especially in terms of electricity consumption, the device is equipped with a sensor that controls the unit "ON" and "OFF" operation. When the sensor is wet, it will send a signal to the circuit to stop operations until the surface of the sensor is dried. This method is very suitable to be used in countries such as Malaysia, based on the rainfall rate factors that occur throughout the year. This product is designed with black color to attract a huge amount of mosquito. By having black grid as attractant, mosquitoes approaching the trap will be electrocuted by a high voltage from power supply through the grid.

Target Market

Target markets for this mosquito trap are in Malaysia such as school, hospital, camping area and recreational parks, industrial estate, residential and commercial area as well as other affected country around South East Asia.

Endorsement: Ministry of Health

- Promotion Strategies
- Promotion and advertisement through medias
- Appointed distributor in each major city of the country
- Quality control only by company member
- Outsourcing manufacturing company

Business Model

Patent (IP) application for mosquito trap has been made in Japan and Malaysia

IP Filing No:

1. PI 2012002092
(Mosquito Attracting Apparatus)
2. PI 2012002095
(Mosquito Extermination Method)
3. PCT/JP2011/067067
(Mosquito Attracting Trap)
4. PCT/JP2011/067068
(Mosquito Exterminating Apparatus)

Investor: Takeda Co. Ltd., Japan

Establishment: Spin-off Company @ UTM ICC

Launching Market: City Council and Government Establishment

Targeted Future Market: South East Asia

Mosquito-Trap (M-Trap)

Product of “Mosquito-Trap (M-Trap) for Controlling Diseases”, joint-venture with TAKEDA Co. Ltd, Japan and NIT, Japan won a GOLD medal (with special complementary of jury) during the exhibition. This product is designed with black color to attract a huge amount of mosquito. By having black grid as attractant, mosquitoes approaching the trap will be electrocuted by a high voltage from power supply through the grid.



Anugerah Inovasi Negara (2013)

The selected booth and products displayed at the entrance of the exhibition. The finalist was chosen based on their commercialization activity, secured IP and copyrights, fundings, global networking and marketability.

Associate Prof. Dr. Fadhil Din, as inventor explaining the product “M-Trap” for Preventing Borne Diseases to the judges.



This is the flyers for three products are distributed to the visitors during the Seoul International Invention Fair. Besides that, pamphlets, posters and videos are also prepared for the exhibition.

Award

1. Won a GOLD medal (with special complementary of jury) at Malaysian Tehnology Expo (MTE) 2013. The MTE 2013, held at the Putra World Trade Centre (PWTC) Kuala Lumpur from 21 to 23 February 2013, saw a total of 440 research and development products from local and abroad displayed.
2. Won a Gold Medal at Seoul International Invention Fair (SIIF) 2013 The Largest Annual Invention Fair in Asia at November 29th – December 2nd, 2013 at Hall A – Coex, Seoul.