

MENTH-RID-RAT

Mohamad Jamil, Nur Arifah

Miswan, Muhammad Imran

Miswan, Imran

Recent study showed that peppermint oil is capable to repel rats. The main purpose is to reduce the spread of contagious disease caused by rats. It is eco-friendly because it was made from natural substances and less harmful chemical contain. Steam distillation method was used to obtain the peppermint essential oil and the peppermint extract. The analysed data of the Gas Chromatography Mass Spectrometry (GCMS) reveals that *Mentha Piperita* are mainly comprised of R-(-)carvone. The experiment was done by using a three compartment experimental box, A,B and C. The average reading for 10 replicate was taken to get the data of repelling efficiency. The highest yield percentage between different portion of the plants product is the powder ,90%. The results in the 1st treatment shows that comparisons of effectiveness between the type of materials results in the highest percentage of repelling efficiency for the peppermint, 86%, Plus, the 2nd treatment for the different parts of the plant, established the highest percentage of repelling efficiency for the peppermint's essential oil by 86%.The result conducted in our 3rd treatment focused on the effectiveness of the oil dissolved in different volume of ethanol, shows the highest percentage on 60% of the volume of ethanol dissolved, which is 92%.Our 4th treatment shows that the neutral pH form of the oil is the most suitable to use. On our 5th treatment, the product was tested in a palm oil farm to test its effectiveness in a larger scale. It reveals that the estimated population size of the rats decrease.