

vector-borne diseases are the major public health problems in developing countries particularly in tropics. Essential oils from plants can provide the safe and biodegradable alternatives to synthetic repellents, but plant-based repellent formulations available in the market are not effective. The purpose of the study was to investigate mosquito repellent activities of Sweet Basil (*Ocimum basilicum*), Neem (*Azadirachta indica*) and Lemon Eucalyptus (*Eucalyptuscitriodora*) extracts.

Different concentrations of the extracts were tested for mosquito repellency on rabbit skin as the host of *Aedes aegypti*. Laboratory reared starved females were used for the tests and data collection was done by observational parameters based on frequency of mosquito landing and blood engorgement.

Synergised Crude oleoresin extract of Pyrethrum and Ballet mosquito repellent® were included as positive test controls and Vaseline pure petroleum jelly® as a negative test control. The results showed that synergised Pyrethrum oleoresin showed complete protection at 0.1% as compared to Lemon Eucalyptus oil and Sweet Basil oil at 2% and 3% respectively ($p < 0.05$). Neem oil and Ballet did not provide complete protection. The mean percent repellency of 5% Neem oil was 84.21 and that of Ballet was 66.84 ($p < 0.05$). Sweet basil and Lemon Eucalyptus oils can be alternative to Pyrethrum as natural mosquito repellents from plant origin.