The Hindu 03-11-18, P-20

'Coconut oil more effective than insect repellents'

Study identifies fatty acids that have strong repellency

PRESS TRUST OF INDIA

Compounds derived from coconut oil are better than DEET) at preventing disease transmission and discomfort associated with insect bites, according to a study.

For more than 60 years, DEET has been considered the gold standard in insect repellents – the most effective and long-lasting available commercially, said researchers from the U.S. Department of Agriculture.

The study, published in the journal *Scientific Reports*, identified specific coconut oil fatty acids that have strong repellency and long-lasting effectiveness against multiple insects – mosquitoes, ticks, biting



Coconut oil fatty acids provided over 90% repellency against mosquitoes.

flies and bed bugs – that can transmit diseases to humans and animals.

A team of scientists led by Junwei Zhu found that the coconut oil compounds were effective against biting flies and bed bugs for two weeks and had lasting repellency against ticks for at least one week in laboratory tests.

The coconut oil-derived free fatty acid mixture — lauric acid, capric acid and caprylic acid as well as their corresponding methyl esters — provides strong repellency against blood-sucking insects.

Against bed bugs and ticks, DEET lost its effectiveness after about three days, while the coconut oil compound lasted for about two weeks, the study found.

Coconut oil fatty acids also provided more than 90% repellency against mosquitoes -- including *Aedes aegypti*, the mosquito that can transmit the Zika virus, according to Mr. Zhu.