Gannett

This insect-repelling lantern from ThermaCELL, is advertised as creating a 15-foot mosguito-free zone that won't harm people or pets.

Itching to stop mosquitoes? Zoom in on the options

By Jonathan Shorman USA TODAY

When it comes to stopping bites, not all repellents have equal might.

The quest to find the perfect insect repellent attracts not only campers and hikers, but just about anyone who goes outside on a summer day. A variety of products, from sprays to creams to lanterns - even smartphone apps — promise to keep insects away and mosquitoes from biting. But not all products are created equal.

Bug repellents containing the chemical DEET are generally considered the most effective. The higher the concentration, the longer the repellent effect

will last, the EPA says. Products with concentrations of less than 10 percent usually offer one to two hours of protection. the Centers for Disease Con-

Urvashi Rangan, director of technical policy at Consumer Reports, says you don't need repellents with more than 30 percent DEET, which offer several hours of protection.

In tests, Rangan says, products containing picaridin or oil of lemon eucalyptus were found to be viable alternatives to DEET. The EPA characterizes DEET and picaridin as conventional repellents, while oil of lemon eucalyptus is a "biopesticide repellent," meaning it is created from natural materials.

Though oil of lemon eucalyptus is not the only naturally derived repellent available, it is considered one of the more effective. Citronella oil, another naturally based repellent, has been found to not be very effective. Devices such as candles and torches that use citronella oil were found to not work as well, Rangan says.

If you don't want to spray yourself, several devices claim to create a mosquito-free zone. A study at Louisiana State University in 2004 determined that ThermaCELL and Off! brand lanterns were effective at repelling mosquitoes.