

Device targets mosquitoes with deadly nectar

May 6 2009, By GREG BLUESTEIN , Associated Press Writer

(AP) -- The ProVector Bt may not look too much like a real flower, but the artificial device sports bright, finely tuned colors and sweet nectar that can lure and kill mosquitoes that potentially carry diseases.

The ProVector uses sugar, chemicals and a biopesticide called *Bacillus thuringiensis* to attract and kill the bugs. The insects feed on the deadly nectar through a metal screen on the artificial flower.

Results are so far encouraging. Studies conducted by a Walter Reed Army Institute of Research laboratory found the contraption killed half to all of the insects it attracted within days.

Georgia Southern University professor Thomas Kollars, a former U.S. Army entomologist stationed in southeast Asia, began the project 11 years ago after pondering over the shortcomings with traditional, pesticides-based approaches to fighting mosquitoes.

"Why don't we feed an anti-malarial right to a mosquito?" he wondered.

Kollars concluded the best way to do so was target their food source, as mosquitoes feed on sugar sources 10 times more often than blood. He also had to find a way to use Bt, a pesticide that has long been used to kill mosquito larvae, to strike down mature adults.

He spent years developing a deadly concoction that mosquitoes would actually eat.

Almost as challenging was finding a color scheme that could attract the different species of mosquito that carry the deadly diseases.

The malaria-carrying anopheles species, for example, is attracted to red and black while the culex species - which carries the [West Nile virus](#) - likes gold and yellow. But the colors had to be precise.

"I had to be an artist," said Kollars. "We had to get the exact wavelength, because the flowers look a certain way to mosquitoes."

He ultimately came up with a six-color scheme - black, white, red, green, yellow and blue - aimed at attracting an array of the pests.

Kollars is now looking to market the devices where mosquito-borne illnesses thrive. He said the ultimate design is expected to cost between \$7 and \$10.

Although the ProVector alone won't halt a disease that has been waging war on humanity for centuries, Kollars hopes it could at least slow down the disease cycle.

"One man can't defeat [mosquitoes](#)," he said. "They have killed more people than all wars combined. But I can start being part of the team that defeats them."

On the Net:

<http://www.georgiasouthern.edu>

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