



West Texas cotton product could save soldiers' lives

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By Christie Post - bio | email

LUBBOCK, TX (KCBD) - A West Texas cotton product is helping to keep the US military safe from chemical and biological warfare agents. It's called Fibertect.



KCBD first told you about the product last year during the Gulf oil spill. Back then, the absorbent wipe with activated carbon core showed it could absorb 50 times its weight in oil while also absorbing cancer-causing vapors.

"Things that the cotton textile industry felt unusable in cotton, for oil applications they are finding use," said Dr. Seshadri Ramkumar.



But its original purpose was to protect our troops from chemical warfare.

The initiative began when The Texas Tech Institute of Environmental & Human Health was approached by Admiral Elmo Russell Zumwalt. He wanted to engage them to do counter-terrorism research. That evolved into the Zumwalt National program for Countermeasures and Biological Threats.

"One of the top priority needs was a decontamination system for human skin and for the cockpits of fighter aircrafts, believe it or not," said Ron Kendall, director of the Institute.

The military did once have a similar product, but they phased out their original chemical wipe because it didn't work properly. Seeing the need, Ramkumar, who had spent years developing chemical suits, decided to shrink his technology.

He invented a fiber that protects, hence the name Fibertect.

"First it wipes off and removes the excess chemical from the skin or on the surface. But it also with activated charcoal holds the toxic vapors that are associated with that chemical," said Steve Presley of the Zumwalt National Program.

Now anything from anthrax to mustard gas can be off in seconds, saving time and lives.

"For the military, that decontamination wipe has to be carried around in a very hostile environment, rolled up or folded up or wadded into a pack, get exposed to moisture, heat," said Presley.

The cloth is made from low-grade cotton, a product that typically had a limited use.

"You see the different trash parts or maybe even bark or leaf," said Steve Verett of Plains Cotton Growers.

And it's made at the Reese Technology Center.

"Reese was the premiere air training facility and it's got a great history in defense," said Bill Miller, Executive Director at the Reese Technology Center.

After years of developing, it takes only minute to make.

"The process here is a non-woven process and uses a needle punch that just tangles the fibers," said Verett.

The product has now gone from mind to market, and eventually it could be in your own home. Going forward, the scientists plan to develop this product into water and air filters.

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