

clothing had 93 percent fewer tick bites than those using standard tick bite prevention measures (e.g., repellents applied directly to the skin).

Based on results of that study, Meshnick and Vaughn received a \$1.2 million, four-year grant from the U.S. Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health to fund a double-blind, randomized controlled study, "Preventing Exposure to Ticks and Tick-borne Illness in Outdoor Workers." The study has enrolled more than 120 state forestry and park rangers and wildlife workers who sent their uniforms to Insect Shield LLC but don't know whether they are among the half whose uniforms were treated. Researchers will follow workers to get accurate counts of tick bites and tick-borne disease.

"We think this will work, but we want to prove it," says Meshnick. "We believe this is a fairly cost-effective way to protect people from tick-borne disease because it kills the tick before it can bite in the first place."

Meshnick, who also conducts research in developing countries, says that if this study proves the efficacy of Insect Shield® clothing for preventing tick bites, the next step will be to test whether it works against mosquitoes. "In the long term, we want to see whether [the treated clothing] can prevent other insect-borne diseases, such as malaria, which is found in many developing and poor countries."

– Michele Lynn

Above, North Carolina-based Insect Shield LLC developed clothing that protects against ticks and other insects through 70 launderings.

At right, N.C. Wildlife Resources Commission employees attend a recruitment meeting in March 2011.



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