

Quality

Fabric

Of The

Month

By
Rachael S. Davis,
Executive Editor

CONTACTS:

For more information about Lymeex gaiters, contact John Patton, +603-795-4424; jpatton@lymeex.com; lymeex.com.

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Lymeex® arm gaiters



Ticks are intrigued by the 3D mesh fabric featured in the gaiters (inset), which slows their climb and exposes them to the repellent for longer.

Ticked Off

Lymeex 3D Mesh Tick Gaiters offer effective tick protection by confounding and repelling ticks.

Tickborne illnesses, including Lyme disease and Rocky Mountain Spotted Fever, are on the rise in the United States according to the Atlanta-based Centers for Disease Control, which pose a health risk to outdoor enthusiasts. While treatments are successful against such diseases, diagnosis can be difficult and symptoms unpleasant. Cases of Lyme disease were reported in all 50 states in 2017, the most recent year for which the CDC reported data.

Bedford, N.H.-based Lymeex LLC introduced a product to help protect outdoor workers and outdoor recreationists marketed using the motto “Outside More, Worry Less!™” No company can guarantee complete prevention of tick bites, but the Lymeex® 3D Mesh Tick Gaiters for the legs and arms offer effective built-in tick protection by “confusing” a tick with its Confounding™ 3D Air Mesh fabric, which exposes it to an embedded permethrin repellent for a longer time, according to the company.

Lymeex creators were aware that the most common questing height for ticks is from 12 to 18 inches. “Ticks do not fly or jump,” said John Patton, founder and CEO, Lymeex. “This aspect of tick behavior guided us in the original design of the product, that is, a leg gaiter. We also knew ticks are negative geotropic, meaning they have an instinct to climb up.

“We looked for properties in multilayer mesh that would intrigue, entangle, or slow down ticks, specifically a middle layer with the right fiber spacing and

size,” Patton said. “Our previous product was a 2D mesh, and we noticed that ticks were fascinated by the open holes. We realized if we could find a better, stiffer mesh with an intriguing middle layer, we could improve the results of this phenomenon.”

An Active Release™ microencapsulated permethrin repellent is bound to every fiber in the 3D fabric, according to Lymeex. “We realized that microencapsulated permethrin offered a superior approach,” Patton said. “First, it doesn’t degrade unless being actively worn. In other words, a product left untouched is not losing repellency. Second, when released the permethrin is potent. Third, it is only released through the friction of wearing. Fourth, the microcapsules protect the permethrin from ultraviolet-A degradation, so they are very long lasting in effectiveness compared to sprays.”

The patented Lymeex 3D Mesh Tick Gaiters — patent number US 9,828,707 BS — are designed to protect the foot and lower leg, while the arm gaiters are designed to cover a gardener’s forearms. The embedded repellent remains active for the expected life of the product, which is 50 washes. The gaiters are breathable, lightweight and durable; and the repellent also is effective on mites, fleas and mosquitoes.

“Preventing Lyme disease starts with making prevention a regular habit — just as you always wear a seatbelt, always wear tick bite protection when heading outdoors!” Patton recommends. **TW**