Delivering Disease Prevention

Public/Private Tick IPM Working Group
March 11, 2015
Integrated Pest Management

- Disease Prevention
- Vector Control
- Mating Host Control
- Education
- Behavioral
- Landscaping
US BIOLOGIC LymeShield Solution

**Before LymeShield**
1. Mice and ticks exchange Lyme *Borrelia* in the wild.
2. Ticks transmit Lyme *Borrelia* to humans and pets.
3. Lyme *Borrelia* causes Lyme Disease.

**After LymeShield**
1. Mice ingest LymeShield vaccine and pass it to ticks.
2. Ticks are cleared of the Lyme *Borrelia* bacteria.
3. The transmission cycle of Lyme Disease is broken.

A disease prevention platform that can address multiple diseases.
CDC-Sponsored Field Trials Reported a 76% Reduction in Infected Ticks

Complete Study Results are Published in the *Journal of Infectious Diseases*. 
Two Recent Studies of Note

• Between 1997-2012, the USAPHC measured Lyme disease in ticks in three military bases in MN, PA, and WI. The authors note in a December 2014 study that “the prevalence of infection of B. burgdorferi was robust (20%-38%) at all three locations.”

• A February, 2015 article by the Johns Hopkins Bloomberg School of Public Health reported the annual medical-only cost of Lyme disease in the U.S. to be $1.3B. These results were well-aligned with the CDC’s previous $3B total cost projection which included both medical and associated Lyme disease costs.
Progress: State Partnerships

• Strong reception in each of our initial Focus States: CT, DE, MA, NY, VA, WI

• Of particular note, Virginia has introduced a budget item that would instruct the state’s Secretaries of Agriculture & Forestry and Health & Human Resources to plan and execute a “point of disease” transmission prevention program in wildlife.
Progress: DOD Partnerships

1 dot placed randomly within county of residence for each confirmed case.

Source: CDC
Progress: Production Process

1. Pellets
2. Vaccine
3. Coating
4. Product

LymeShield Production Process & Partners

US BIOLOGIC

Spray Dynamics
US BIOLOGIC Technology Recognition

Winner of $1 Million Global Food & Health Innovation Challenge

Top Memphis Innovation

National Media Recognition
Delivering Disease Prevention

For Additional Information
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