

# Lyme Disease Association's PESP Strategy

## **Describe your Organization's Five-Year Goals Related to Pesticide Risk Reduction**

The Lyme Disease Association (LDA), a non-profit national organization, focuses on Lyme disease education, prevention, and raising research dollars. About ninety-eight cents of every dollar raised by the Lyme Disease Association has been used on programs. In its search for a cure for chronic Lyme, the LDA has already funded dozens of national research projects in world renowned academic institutions and University Hospitals, for the data is well recognized as peer reviewed and scientifically sound.

It is well established in the literature that habitat alterations adversely impact the environment causing an increase in range of tick distribution. This increase in range of vectors carrying pathogens that cause diseases can potentially increase the risk of tick-borne disease to humans. Eradication of ticks is very difficult, so many times, the prudent course may be to affect the environment which is favorable for ticks to make it unfavorable and ensure that exposure by humans and pets to that environment is minimized, by providing proper education to those in need.

LDA incorporates material about personal and property tick reduction strategies into its program components: educational programs, published literature, and even its research projects' agenda. And rather than promoting economically damaging total property applications using chemical controls, LDA indicates judicious, informed use of pesticides -- if one chooses to use them -- including strategies and products that are the least disruptive to the environment and efficacy of the products before use.

One of the goals of the Lyme Disease Association is to reduce the number of people exposed and therefore reduce the risk of disease from a tick carrying the pathogen causing the disease. Many educational tools have been developed that are being utilized around the country, i.e. several pamphlets addressing children and adults, tick identification/ removal bookmarks, and a free online classroom module "How a Tick Can Make You Sick" designed for 6th grade through adult.

Within the next year, LDA will develop additional educational tools which can be used within the school system, to educate children to identify ticks, potential bites, and how to respond if they are bitten. Over the next 5 years, LDA anticipates developing new educational tools, and develop future research initiatives for exposure prevention with its federal partners.

## **What do you envision doing (broadly) to try to resolve your major issues?**

The thrust of this partnership with USEPA is to educate schools and families on the necessity of protection from exposure to ticks which may carry disease causing

pathogens. In fact, according to the just released CDC report 1992-2006, children ages 5 to 14 are developing the most disease--they are the most sensitive subpopulation to be exposed to ticks, due to their activities outdoors and their lack of knowledge of the risk ticks impose.

The methods of education vary depending on goal. This strategy includes educating the elementary school age by developing tools to be used in schools, working with Federal partners to develop educational tools for people who have access to public lands for outdoor uses, i.e. walking, hiking. This strategy also includes using EPA's website as an outreach tool, thereby linking to LDA's website for further information for various pamphlets.

In conclusion, the strategy will include working with our Federal Partners i.e., EPA, USDA, CDC, FDA, DOD, NIH, and CPSC) in an effort to reduce risks to pests, in particular ticks, thereby reducing risks to tick borne diseases. The following individual goals identify areas for these partnerships.

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## **Goal 1 and Tactics**

### **Educating Children in Schools**

Lyme and other tick-borne diseases are a serious and emerging issue in the New York/New Jersey region, especially for 5–14 year old children who are at the highest risk for tick-borne illness. Unfortunately, there is a dearth of engaging educational materials appropriate for this group. While parents are more likely to check younger children for tick bite/attachments and signs of Lyme disease, older children are not as closely supervised and therefore should be educated in appropriate precautions and care, including the judicious and limited use of insect repellents and acaricides. The team who submitted this proposal is experienced in the development of health-related curriculum and outreach to at-risk communities and populations, including a previous PESP grant. For this project, we propose a public education program for 4th to 8th grade students with the objectives of increasing student knowledge of ticks and tick habitats, behaviors and the diseases they may spread; tick avoidance; and the appropriate response to tick bite/attachments or the signs and symptoms of tick-borne diseases (TBDs).

This program will also help parents/caregivers teach children tick avoidance and decrease pesticide/repellent use. This two-part project consists of 1) a 10-20 minute animated video and 2) an interactive internet adventure game that children can view and share with their friends. Using an interesting story line, they will teach the child viewers the key learning objectives. The ultimate outcome is a decrease in the incidence of TBDs in the target population. Intermediate or proxy measures include the number of children who view the materials; visits to the website; number of participants in the game and the scores they achieve as they are tested on the learning objectives while moving through the game.

A tool which could be used to measure success, determine if there were a reduced number of reported cases of Lyme disease within that facility, once the video/game had been released.

Within the five years of this strategy, distribution is expected, nationwide to all elementary schools, if the funding is made available.

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## **Goal 2 and Tactics**

### **Educating Adults as Recreational Users of Public Lands**

Many of the public lands (National Parks, USFWS refuges, conservation areas, etc.) could be improved by instituting the use of signs, or providing educational material on pests carrying disease causing pathogens. This would thereby reduce the chances of families from being exposed. This strategy will include a presentation to the Interagency Integrated Pest Management Team to discuss methods of public communication on a nationwide basis on all public land facilities. Another educational opportunity is with the Department of Interior, which has a clearinghouse of information, whereby LDA could provide brochures for distribution to the public. Measurements of success would be to document the numbers of parks and refuges that added educational material to their facility as standard protocol, or placed signs to promote public awareness on the public lands.

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## **Goal 3 and Tactics**

### **Improve Communication Via EPA's Website**

LDA has an abundance of material that if linked to EPA's PESP website, could be more widely distributed to the public. [http://www.epa.gov/pesp/member\\_pages/lda.htm](http://www.epa.gov/pesp/member_pages/lda.htm)

There is another website that would be available that discusses insect repellent use: <http://www.epa.gov/pesticides/health/mosquitoes/insectrp.htm>

Coordinating with the National Pesticide Information Center would be a useful method of educating families on reducing exposure to ticks which may carry disease causing pathogens.

Measurement of success would be captured by the increase in number of "clicks" on the web site.

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## **Goal 4 and Tactics**

### **Resource for Public Awareness**

LDA has had many queries on effective insect repellents and effective treatments for property, both public and private, to control tick populations. It would be useful if information such as this were provided to LDA so distribution could be made more widely available nationwide.

In addition LDA has experienced hands on, about the various application issues revolving around insect repellents. This goal requires coordination with USDA, CDC, FDA, NIH, CPSC, DOD and EPA. The first step would be to discuss with USDA, appropriate insect repellent research, as part of USDA's 5 year strategy. The work with EPA would be to provide a source for quantity/quality of public awareness for insect repellents, what labels seem to be more understood, distribution of material, etc.