Public Tick IPM Working Group
December 14th, 2016

Send additions, omissions or other corrections to flaufenberg@ipminstitute.org or afreund@ipminstitute.org

The Working Group meets via conference call on the second Wednesday of each month at 1:00PM CT (2:00PM EST). The following notes are from December 14th, 2016.

Roll
- Alina Freund, IPM Institute of North America
- Jill Auerbach, Hudson Valley Lyme Disease Association
- Frank Laufenberg, IPM Institute of North America
- Tom Green, IPM Institute of North America
- Rick Ostfeld, Cary Institute
- William Nicholson, CDC--Atlanta
- Tim Fox, Madison Lyme Support Group
- Joellen Lampman, New York State IPM Program
- Bob Maurais, Mainely Ticks
- Tom Mather, University of Rhode Island
- Kirby Stafford, Connecticut Ag Experiment Station
- Jody Kaufman, NYS IPM Program
- Chris Przybyszewski, US BIOLOGIC
- Ted Ling-Hu, US BIOLOGIC
- Kerry Padget, California Department of Public Health
- Alicia Cashman, Madison Lyme Support Group
- Holly Gaff, Old Dominion University
- Hwai-Chen Guo, U. of Massachusetts
- Anne Kjemtrup, California Department of Public Health
- Karla Lehtonen, New York State Coalition of Lyme
- Melissa Yoshimizu, California Department of Public Health
- Neeta Conway, California Department of Public Health
- Karl Malumud-Roam, Public health IR-4 USDA
- Pat Smith, Lyme Disease Association
- Kathy White, Lyme Association of Greater Kansas City, Inc.

Agenda
1. Grant renewal submission went smoothly, thanks for your help!
2. Update on the 21st Century Cures Act – Jill Auerbach and Pat Smith
3. Tick Project (Cary Institute of Ecosystem Studies) – Dr. Rick Ostfeld
4. Additional updates, comments, announcements, questions

1. **Application submitted**
   a. Thank you for your letters of support and comments on objectives!
   b. We will find out whether our renewal application is accepted in February.

2. **Update on the 21st Century Cures Act**
   a. Good news from Jill A. (Tick language in 21st Century Cures Act restored)
   b. The bill has been passed by house, senate and signed by Obama
      i. Lyme disease language.
      ii. WG will be formed under Secretary of Human Services (Tom Price).
      iii. They originally removed Congressman Gibson’s language completely.
      iv. We worked to get language reinstated. Successfully was incorporated.
      v. Page 118 (See attached section 2062) talks about members of WG (Federal WG). Consisting of representatives CDC, food and drug, national institute of health, health secretary office.
      vi. Letter went to Secretary of Health and Human Services (who could add a member of USDA to WG).
      vii. Without doing something about ticks, vaccines will only be minor patch.
      viii. Contacts and who you know is how this work got done!
      ix. Members of IPM must start making contacts with congressional people to move forward with IPM, entomology and tick services.
      x. Who made those last minute changes? --Not certain/many people.
      xi. Pat Smith: Multiple houses changed the Gibson bill (Senate didn’t want lyme language on the Bill at all) but it got watered down/scaled back. Committee should work transparently through FACA.
      xii. Contact people in positions of power who have personal problems with TBDs! (anyone who you know)
      xiii. After 48 hours of work.
            1. Little word changes, may/shall, TBDs vs. All TBDs. Diverse view points on the problem.
            2. Bob helped with Senator Collins
      xiv. TF: Who lobbied? Pat smith: Health majority leader’s office and Congressman Smith and energy and commerce. Lobbying for the language – not done by $250,000 lobbying firm it was done with officials and lot of hardwork from Pat Smith and LDA.
      xv. Stay on your toes with legislation – lots of hardwork after Thanksgiving to get the language added again before becoming a law.
            1. Tests for LD and other TBDs
            2. Ecology and Cure
            3. Stop incursion of Ticks
3. **Tick Project**
   a. Rick Ostfeld presentation on an upcoming tick ecosystem study.
   b. View Attached PDF for additional information.
   c. Hinckley study: Abundance of questing ticks and new tbds
      ii. 63% reduction of questing ticks
      iii. No statistical reduction of TBDs!
          1. Why?
   d. Is 63% reduction too modest--->Nonlinear relationship tick abundance or treating individual lawns
   e. New study looking at neighborhood scale: affordable, effective
      ii. Microscopic fungus: Metarhizium anisopliae (Met52)
      iii. Fungus attacks and kills various life stages of ticks
          1. Strain is commercially available Met52
      iv. TCS Bait boxes \(\rightarrow\) kills ticks on small mammals (host targeted acaricide)
      ii. Why small mammals? High reservoir competence of infection of lyme disease bacteria.
      iii. TCS Bait boxes reduce the amount of mice with ticks first year and bring it to nearly zero after 2 years.
          1. Met 52 is aerial spray in the environment.
          2. TCS designed towards reservoir hosts
   f. Small residential areas with high incidence of lyme disease for study location
   g. Interventions at neighborhood level. About 100 homes.
      ii. 6 replicates of both, 6 each treatment separately (with placebo), and 6 of both placebos
      iii. Completely double blind placebo – no one doing the study knows about treatments or placebos.
      iv. Further information on study design and pursuit of information is included in the attached pdf including covariates. Potential non-target effects with met-52 will be included in the research.
   v. **Hypothesis:** Two interventions will be more powerful than one
   vi. Longer duration (spray twice, boxes all season) more effective
   vii. Reservoir-targeted acaricide will reduce infection prevalence as well as abundance
   viii. Treatment of neighborhoods more effective than single yards
   h. Questions: Presuming the same intervention is in the same neighborhoods? Correct.
   i. ?: The different animals of reservoir competence data? From Rick’s lab, a published research from Dutchess County. Has been repeated elsewhere – evidence is consistent. (maybe different in southeastern US, same with CA). But most likely the same for eastern US and upper Midwest.
j. Deer as source? Not a competent reservoir for infection – but are an important host for adult ticks. Also influence risk of exposure based on population. Deer could also be moving the ticks around. Plausible for deer to influence population and efficacy of treatment, but not giving the ticks the infection.

k. 50% Compliance, is that good or bad? – Rick is excited just to get 50%. Lots of cooperation needed for participants, so it’s hard to get many more than 50%.

l. Do non-participants still give you access to land? During the study the question will be posed as: Do people who are not participating still benefit from treatments?

m. How does White Footed mice habit change the treatment selection? White footed mice are not territorial, but they do have home ranges (less than an acre→¼ or ½ acre) but overlapping.

n. Entire neighborhood gets treatment.

3. Additional updates, comments, announcements, questions (THESE WILL BE ADDED TO NEXT MONTHS AGENDA SINCE WE RAN OUT OF TIME).
   a. Thank you to those of you who sent me articles regarding our priority list. If you know of any articles or references that address our Working Group priorities, please let me know (flaufenberg@ipminstitute.org). Our priorities are listed here: https://tickipmwg.wordpress.com/priorities/
   b. Tick Pest Alert Sharing
      a. Did Frank’s instructions for sharing the document online make sense?
      b. Please notify me if it has been spread to any new places so we can keep track of our outreach efforts! (include url).
   c. The Working Group helped find and analyze an article that connected Deer Keds to Lyme Disease (TM, Jill, KS). It lead to this retraction: http://danielcameronmd.com/swarming-deer-flies-quickly-expose-people-lyme-disease-anaplasmosis/
   d. If you come across articles that would benefit members of this group feel free to share them by sending an email to the PUBLIC_TICK_IPM_WG@LISTSERV.URI.EDU

The next conference call will take place on January 11th. Future calls will continue to fall on the second Wednesday of each month at 1 PM Central time. Please send Alina or Frank updates, announcements or other agenda items for January’s call.