Wolbachia field trials as a biopesticide against mosquitoes important to Public Health

Stephen Dobson

September 24, 2015
IR-4 Biopesticide Workshop
Chicago, IL
Acknowledgments:

Steve Mulligan

Robert ‘Bob’ Rose, PhD
Aedes aegypti detections in California Counties, June 2013-October 2014
Initial detections of *Aedes aegypti* in the City of Clovis, Fresno County June-July, 2013
Expansion of *Aedes aegypti* detections in Fresno County through November 2014
Wolbachia are gram-negative bacteria that form intracellular inherited infections in many invertebrates (estimated >50% of all insects being infected).
Regulatory Consideration – Wolbachia Microbial Pesticide

http://www.epa.gov/oppbppd1/biopesticides

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<thead>
<tr>
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Not for sale to, or use by, any person other than a participant or cooperator in accordance with the terms and conditions of the EPA-approved Experimental Program. Read safety directions before using.

FOR USE ONLY IN THE STATES OF CALIFORNIA, FLORIDA, KENTUCKY AND NEW YORK. This label must be in the possession of the of the user at the time of application.

**Wolbachia pipiensis, ZAP Strain**

EPA Experimental Use Permit No. 89668-EUP-R

**ACTIVE INGREDIENT:**

*Wolbachia pipiensis, ZAP Strain*..........................100.00%

**OTHER INGREDIENTS:**...........................................0.00%

**Total:**......................................................................100.00%

*The Active Ingredient is Wolbachia pipiensis, ZAP Strain, intracellular, obligate, and naturally-occurring bacteria in male Aedes albopictus mosquitoes (includes egg, larval, pupal, and adult life-stages).

Net contents: Approximately 6.7 g maximum adult male *Aedes albopictus* mosquitoes containing approximately 0.001% *Wolbachia pipiensis*, ZAP Strain.

Batch/Lot Identification: 89668-EUP-R, Lot # 
Expiration of male mosquito batch date: 24 hours after receipt of shipping container, except if males are put in cages and fed sucrose, then they may be kept for up to 3 days prior to release.

EPA Est. #: 89668-KY-1 or 88877-KY-1

MosquitoMate, Inc.
1122 Oak Hill Drive
Lexington, KY 40505
http://www.mosquitomate.com
Phone: (859) 488-1125
E-mail: contact@mosquitomate.com

**CAUTION**

**KEEP OUT OF REACH OF CHILDREN**

**ENVIRONMENTAL HAZARDS STATEMENT**

Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.