

**It's Not Necessary or Effective**

# The LBAM in New Zealand: Over 100 Years of History

- **What is its impact?**
- **How is it controlled?**

Dr. Michael R. Butcher  
November, 2008

See the Speiers and Butcher letters at  
<http://www.speier.house.gov/lbamletters.pdf>

California Congressperson Jackie Speier sought information from New Zealand scientists in November, 2008 about how the LBAM moth is controlled there and about its impact on commercial and native plants.

New Zealand scientist Dr. Michael R. Butcher responded as follows:

Critical Points:

- We do not practice eradication but rather LBAM is successfully managed by its natural predators.
- In the 1980s when NZ used organophosphate insecticides to control LBAM, up to 30% crop loss occurred in unsprayed trees because these insecticides had destroyed natural predators of the moth.
- The only reason NZ growers apply management practices for LBAM is because of the Category A quarantine status LBAM received from the USDA.
- LBAM is not a major damaging pest of fruit crops in NZ, but is a quarantine pest for export to the US. Any damage to fruit is cosmetic, as the **larva binds only to a leaf**, which may also touch the outside of the fruit.
- Eradication of LBAM in California would be an extremely optimistic goal.

LBAM in New Zealand: Over 100 Years (Continued)

- pheromone application is untested for management, let alone for use in eradication, and should remain on the experimental list.
- LBAM pheromone products are not, by themselves, efficacious enough to meet nil tolerance.
- New Zealand native forests are only minor habitats for LBAM. I am unaware of loss or damage.

# **Integrated Pest Management Practices for the Light Brown Apple Moth in New Zealand: Implications for California**

**By Daniel Harder, Ph D. Executive Director The Arboretum,**  
University of California at Santa Cruz, and  
**Jeff Rosendale,** Grower, Horticultural Consultant, Watsonville, CA  
March 6, 2008

Complete 14-page Report at:

[http://www.lbamspray.com/00\\_Documents/2008/HarderNZReportFINAL.pdf](http://www.lbamspray.com/00_Documents/2008/HarderNZReportFINAL.pdf)

## **Critical Points:**

- Following an extensive research trip to New Zealand, where the LBAM has been for 150 years, Dr. Harder determined that the **eradication of the introduced pest (LBAM) may not be possible** and is **probably unnecessary**.
- Dr. Harder says that the primary damage in New Zealand occurred prior to 2001, when agricultural authorities used organophosphate pesticides in order to comply with USDA requirements that no trace of LBAM be found. He explains that these pesticides eliminated all the LBAM's predators, but **once the pesticide applications were stopped, the natural predators returned, and the LBAM population dwindled to its present "insignificant" level.**

**CDFA's Fraud and Deception:  
Call for an Independent Investigation  
by Professor Glen Chase**

October, 2008

Complete 14 page report found at:

<http://lbamspray.com/Reports/R3Ed2CDFAMgmtfraudOct908.pdf>

Critical Points:

**CDFA's false announcements misled the public**

(1) Assertion that damage had been occurring from LBAM.

• **No Damage**

Reputable independent scientists in the agriculture and university communities and two different superior courts in Santa Cruz and Monterey Counties found that NO damage had occurred due to LBAM, anywhere in California, and that the "emergency" LBAM eradication program was in violation of California law.

(2) Pictures that CDFA displayed implied LBAM damage in California

• **False pictures**

These were NOT pictures of LBAM in California and the California Department of Food and Agriculture (CDFA) has not yet responded as to where these pictures were actually taken. None of the pictures appear to be in any agricultural setting.

(3) CDFA claimed that LBAM was a recent arrival, therefore the damage is still coming, and eradication is an "emergency", thereby an EIR must be avoided.

• **No threat during 30 years**

The sciences of Entomology and Invasive Pest Biology indicate that 30-50 years is the *minimum* time the moth has been in California to reach the current spread and density, and meanwhile has caused no damage.

LBAM has been in Hawaii and New Zealand for over 100 years where it is an insignificant pest. It causes no crop loss and is managed by normal farming techniques, not pesticides.

**CDFA supplied false and biased information:**

**(1)** CDFA said that the smallest particle in the spray was 25 microns, a size that can be expelled by the lungs. ***(Under 10 microns is dangerous and can penetrate deep into the lungs where it cannot be expelled.)***

- **9.8 microns is true size, not 25**

The average median size was in fact 9.8 microns. The actual size in microns was found in the CDFA's own documents! The importance of this is that at least half of the particles were small enough to enter the bloodstream through the lungs, which can cause myriad problems including death.

**(2) CDFA repeatedly reported to the media that the pesticide was non-toxic.**

- **NO documentation that it is safe. Severe health reactions seen.**

Consensus statements even by the DPR and OEHHA identified the pesticide as toxic.

People were sickened: 643 actually reported illness but estimates go into the tens of thousands. Over 200 sought medical care. Children who had never experienced respiratory problems ended up in the hospital and one 11 month old previously healthy baby went into respiratory arrest immediately following the spray.

Not a single scientific document concludes that any application method of this pesticide used by the CDFA is safe, therefore its use on humans is an experiment performed by CDFA.

**(3) In 2007 CDFA claimed that the window to eradicate the moth was *only months*.**

- **That supposed "window" is long past**

CDFA has never explained why they are still, in 2009, going for eradication when that "window" is long past. However as long as they continue the emergency "eradication" program CDFA continues to fraudulently access \$90 million or more per year of emergency funds, an increase to their budget of 40%.<sup>1</sup>

**CDFA supplied false and biased information:**

**(4) CDFA repeatedly said that aerial spraying was the only way to eradicate LBAM.** However when public pressure and the courts halted the aerial spraying, CDFA immediately announced a breakthrough in sterile moth release. When asked by CBS what that breakthrough was, their representative "didn't know".

- **Sterile moth release is not effective on widely dispersed LBAM.**

Sterile insect release only works on a very small infested area, a concentrated location. These criteria are not met by LBAM.

**Call for an independent investigation of CDFA's LBAM eradication program.**

- **The truth will come out**

The scientists in the CDFA will unlikely commit perjury in a court of law, even though they have been under pressure to produce the results that CDFA needs to continue accessing the "emergency" funds. Some CDFA scientists have privately said that the LBAM eradication program "lacks integrity".

(1) See Professor Chase's earlier report at <http://www.hopefortruth.com/Prof2nd ReportCDFALBAMfraud8 19 08.pdf>

**About Glen Chase:**

Glen Chase is a Professor of Systems Management specializing in Environmental Economics and Statistics. He has taught at The Monterey Institute of International Studies, The Naval Post Graduate School, and at California State University, Monterey Bay. As an Associate Professor he taught graduate level students at USC for eight years. He is also a Management Consultant.

## **Exotic Moth Policy Must Change**

from California Farmer magazine

**by Len Richardson**, Editor

May, 2008

Complete 1-page Editorial at:

<http://www.stophespray.org/resources/science/CalFarmerLen%20Richardson.pdf>

Critical Points:

- Richardson refers to the LBAM Eradication Program as a **"sham"**. He says that instead of supporting it, our "ag friends" should be calling for declassification of the LBAM as a federally quarantined pest.
- He goes on to say that this is all about money. It's easier to take federal money for **eradication** of LBAM (\$90 million so far) than to adopt a **control/containment trade and pest policy** (which would be entirely appropriate for the LBAM, but which doesn't bring in as much money to government agencies).

# **Formal Petition to Reclassify LBAM as a Non-actionable Pest - Submission to CDFA and USDA**

**by Dr. Dan Harder, Roy Upton, Ken Kimes**

September 12, 2008

Available at <http://forum.stopthespray.org/viewtopic.php?f=5&t=1973>

Excerpts from letter and petition to A. G.Kawamura, Secretary of Agriculture, California Department of Agriculture:

- Petition submitted as a formal request to reclassify the LBAM from an actionable to a non-actionable pest. **This request is supported by the preponderance of scientific information** and independent expert opinion and was supported by many of the findings presented at the recent scientific symposium on LBAM convened by the USDA in July 2008.
- The findings and recommendations utilized by USDA for its LBAM eradication program were based on reviews of data and experiences from the year 2000 and before, an era of heavy organophosphate use, which caused many pests to reach levels of injuriousness far greater than if more sustainable agricultural practices had been deployed.
- As far back as 1937, the scientific literature on LBAM clearly reflects a profile of LBAM as a minor pest, problematic only when very poor agricultural practices or anomalous conditions arise.
- Post-2000 data and experience show that LBAM should be handled as a crop quality issue, not as a quarantine-able pest.
- The literature definitively shows that LBAM constitutes absolutely no threat to native forests anywhere in the world, either where LBAM is endemic or has been naturalized.
- Public opposition is guaranteed to continue.
- Our petition shows that numerous experts support the reclassification of the LBAM. Letters expressing their opinions and

Formal Petition to Reclassify LBAM (Continued)

endorsements of this petition are attached.

- The same controls that are used for other leaf-rollers and insects (such as the orange tortrix, omnivorous leaf-roller, and codling moth) also control for LBAM. While each of these insects require monitoring and varying levels of control, none of them constitute a level of threat warranting eradication. It is our contention that LBAM similarly does not warrant its current status as a pest in need of eradication.
- More than 1,200 native tortricids in the US are part of domestic bio-systems. A Category A rating should be questioned for any superficial leaf-roller, as most of these do not cause damage of economic significance and are easily controlled.
- We formally request that a change in classification to Class C be considered by CDFA, and that USDA consider harmonizing its classification with CDFA. We further request that this petition and any other up-to-date and comprehensive reviews of LBAM biology and management be used in negotiations with international trade partners.

**cc:** CDFA Secretary Ed Schafer, Governor Arnold Schwarzenegger, Congressman Sam Farr, Assemblyman John Laird, Senator Carol Migden, Assemblyman Jared Huffman, Senator Mark Leno

## **LBAM Not Eradicable**

### **Invasion Biology of the Light Brown Apple**

**Moth** - Presentation to Assembly California Legislature, Committee on Agriculture

**by Dr. James Carey**, entomologist at UC Davis with specialties in invasion biology, demography, and population dynamics.  
March 12, 2008

Complete 3-page Presentation at:

[http://www.lbamspray.com/00\\_Documents/2008/JCareyReportAssemblyAg\\_Committee\\_LBAM2.pdf](http://www.lbamspray.com/00_Documents/2008/JCareyReportAssemblyAg_Committee_LBAM2.pdf)

#### **Critical Points:**

- Dr. Carey states that eradicating the LBAM from California is impossible. In his presentation, he says: "This thing (the LBAM) is so widespread that there's no way they're going to eradicate it." Carey also talked to *eight highly statured entomologists* within the UC system about the LBAM problem, and he found that **"not one of them believes that the LBAM can be eradicated."**
- In his presentation before the Committee on Agriculture, Carey offers his scientific views of the LBAM problem and then makes specific suggestions for actionable steps for both the short and long term.

# **Testimony to Senate Environmental Quality Committee Re: bill Number SCR 87 - "Relative to the Light Brown Apple Moth"**

**by Derrell L. Chambers, Ph.D in Insect Physiology**

April 28, 2008

Complete testimony at:

[http://www.lbamspray.com/00\\_Legal/TestimonyDerrellChambers.pdf](http://www.lbamspray.com/00_Legal/TestimonyDerrellChambers.pdf)

Critical Points:

Derrell Chambers retired from the USDA in 1994. For nearly 40 years he was devoted to developing pheromones and hormones as new opportunities to avoid the use of pesticides.

In this letter to the Senate Environmental Quality Committee he states that **"no eradication of a pest species with only mating disruption has ever been accomplished"**.

He goes on to say, "We learned in San Jose (Medfly Emergency) that justification, appropriate technology, safety and proven efficacy must be convincing. I believe the LBAM project should be challenged on all these issues, but I am particularly concerned that the **issue of efficacy has not been sufficiently questioned"**.

## **Fruit Not at Risk**

### **Light Brown Apple Moth (LBAM) 101**

by **Jeff Rosendale**, Grower, Horticultural Consultant,  
Watsonville, CA

May, 2008

Complete 2-page report at:

<http://www.lbamspray.com/Reports/Light%20Brown%20Apple%20Moth.pdf>

Critical Points:

- Rosendale describes briefly the trip to New Zealand he took with Dr. Daniel Harder in early 2008 and their findings about how LBAM is managed there.
- Rosendale says that because LBAM is an opportunistic feeder, **it does not require fruit.** The larvae feed more easily on leaves than fruit, and they don't feed for long-enough or in a manner sufficiently extensive to effect defoliation as does the California Oak Moth. **The LBAM does not defoliate.**
- He agrees with Dr. Harder that **LBAM is a minor pest that is naturally kept in check by natural predators.**

# **Sustainable Agriculture vs. Industrialized Agriculture**

**P.A.C.T. compilation**

February 2009

## **Industrialized Agriculture Degrading Our Environment**

**Agriculture**, upon which we depend for sustenance, is actually poisoning us and our environment. (Silent Spring. Rachel Carson, 1962.)

U.S. agriculture has almost **doubled** its use of **pesticides** since Carson's work.

**Ecological wisdom** inherent in integrated animal & crop farming has been discarded by U.S. agriculture. **(1)**

"The industrial approach, coupled with substantial government subsidies, made food abundant and cheap in the U.S....but through its emphasis on high production, the industrial model has degraded our environment and driven more and more acres into the hands of fewer and fewer farmers, crippling rural communities." **(2)**

Wholesale reliance on **chemical pesticides** has triggered the development of insects, weeds and diseases that are resistant to chemical controls.**(3)**

## **Sustainable Agriculture**

Structure and functions of **natural ecosystems** guide the "farming with nature" approach of sustainable farmers. "Sustainable Agriculture" manages crops by supporting the resources upon which agriculture depends: **healthy soil, clean water, natural predators of pests, and plant vigor**. Crop yields are not dependent on synthetic fertilizers or pesticides. **(3)**

The steps toward building this sustainable approach are being taken by farmers, researchers, and government agencies in incremental programs around the world. For now, however, **sustainable agriculture**, as a set of commonly accepted practices, **is still in its infancy**. **(2)**

## **Mainstream & Sustainable Farmers - Common Issues**

All American farmers face **common issues**: soil degradation and erosion, surface and ground water quality problems, pest resistance to chemicals, and public health and environmental concerns associated with pesticide use.

According to the Northwest Coalition for Alternatives to Pesticides (NCAP), "the differences between mainstream and sustainable farmers are more a matter of degree, the extent to which they apply particular practices and the degree of reliance on chemical pesticides and fertilizers. The distinction between the two groups is likely to become narrower. **Sustainable agriculture is simply one way of finding solutions to these common issues.**"(3)

## **Profiles of Successful Sustainable Farming**

**Winter Green Farm:** <http://www.pesticide.org/FarmerReport.pdf>  
page 14

**Stahlbush Island Farms:**  
<http://www.pesticide.org/FarmerReport.pdf> page 21

Grossman, D., **Bugging out: Beyond pesticides** - vintners who see insects as vineyard helpers, 4/18/2008  
[www.stophespray.org/resources/science/BuggingOut.pdf](http://www.stophespray.org/resources/science/BuggingOut.pdf)

## **References:**

- (1) Warner, Keith Douglass, **Agroecology in Action, 2004**  
<http://itrs.scu.edu/kwarner/AgroecologyInAction-Warner-intro&1.pdf>
- (2) Earles R., and Williams, P., **Sustainable Agriculture: An Introduction, 2005**  
<http://www.attra.org/attra-pub/PDF/sustagintro.pdf> 2005

Sustainable Agriculture vs. Industrialized (Continued)

- (3) Northwest Coalition for Alternatives to Pesticides (NCAP),  
**Fact Sheet: Sustainable Agriculture - meeting the  
needs of present and future generations**  
<http://www.pesticide.org/AqLenderBrochure1.pdf>