I thought it would be appropriate to tell you what I know about LBAM. I’m presently serving as the Light Brown Apple Moth Task Force facilitator and have been involved since LBAM was considered for eradication. I think it is appropriate to lay out the time line and the reasoning behind some of the key decisions. I have a tendency to editorialize and will try to contain myself. There are some great websites that have all the information you might need. These are the California Department of Food and Agriculture http://www.cdfa.ca.gov/phpps/PDEP/lbam/lbam_main.html, UC Extensions Service http://cesantacruz.ucdavis.edu/, and Assemblyperson John Laird’s http://democrats.assembly.ca.gov/members/a27/moth.htm. My perspective is from the purview of a concerned citizen, an agriculture advocate and a person with an inherent penchant for honesty. I need to say from the start that in the U.S. there is more unknown about LBAM than what is known.

When LBAM hit the radar in mid 2006 after being found in a black light trap in Berkeley, it started a series of actions that have change our collective lives. LBAM had been known for quite awhile, it was one of the reason why there were quarantines in place in other countries and Hawaii years prior to the quarantine in the U.S. It was classified years earlier because of claims by scientists in Australia and New Zealand about the potentially devastating feeding habits on an extensive host range. LBAM is endemic to Australia and is an exotic pest with high population counts in New Zealand. There are other countries that are quarantined as well but these are less significant. In 2005, trap counts showed no LBAM in the presently infested areas.¹ This is an important point that has created concern among local entomologist. LBAM could have been here longer than suspected making it substantially more difficult, or impossible to eradicate.

The term eradication represents a series of events that need to take place to achieve a level of comfort for both California trade partners and the USDA. Trade partners primarily include Florida, Canada and Mexico. Unbelievably China has also registered complaints. This may give you some notion as to

¹ It is not clear whether the LBAM pheromone was specific at that time and it is not clear that the trap density provided an accurate assessment of populations.
the environment that USDA and CDFA are presently working in. This environment is part retaliatory and part genuine concern for agriculture. Parenthetically it starts with trade negotiations and hammers the hell out of small communities. (editorializing). More on trade negotiations later. As mentioned above, the pheromone applications are one part of a series of events that are aimed at eradication. CDFA and USDA have not committed to what the future holds beyond pheromone applications other than some experimental biological control. It is because of this that many stakeholders are concerned. You have to remember that US Quarantine Law is extremely powerful and rests on the premise that the whole is more important than the individual.

So, it started with identifying LBAM and quickly moved to quarantines from trade partners forcing the USDA to enact an Emergency Quarantine Order which led to a hastily crafted and drafted California State Interior Quarantine. What this means is that the USDA had to respond to trade partner concerns and was obligated to place a quarantine on the entire state of California² if California did not implement an effective plan that met USDA guidelines. On May 15, 16 and 17, 2007 a Technical Working Group (TWG) under the auspices of the federal government, began to sort through LBAM facts and suppositions. Made up of 10 scientists from around the world and required under Federal Quarantine Law, this body determined after a day of visiting the infested areas that LBAM could and should be eradicated. This was a shock to those of us present. The TWG decided that the consequence of not dealing with LBAM would create a significant monetary loss to California’s $32 billion dollar Farm Gate and could, in addition, potentially affect a considerable chunk of the rest of U.S. agriculture. Even though the potential damage was speculative, there was one aspect they were sure of and that was trade related boycotts. With this knowledge, the TWG brilliantly decided to run two parallel tracks. One was to eradicate the pest immediately before it spread and the other was to take the years necessary to biologically assess LBAM and find sustainable bio-rational modalities to bring LBAM under control. The chasm left by this decision has been the incubator of all the logical and heartfelt questions we are now left with. Many legitimate questions have no answers because this is basically an experiment. In the meantime suing USDA and CDFA is a diversion and for the politically astute, it was politically correct. The acumen

² Federal quarantine law is limited in its scope. It only applies to states as a whole, not areas within the state. It also sets parameters that must be met.
of local politicians bubbled to the top and many postured themselves in the best light. Unfortunately in this arena some lost sight of what their real responsibilities were. In my opinion some chose not to lead, they instead ran with the pack. The approach by many local politicians was contrary to the approach of Assemblyperson John Laird. He has been respectful, piercing and adroit. John Laird was right to ask about the California Environmental Quality Act (CEQA) and the changing of an urgent declaration under the Light Brown Apple Moth Act to an emergency declaration.\(^3\) This was a question based on what we do know rather than the rhetoric that is flowing hot and heavy. In regards to the switch in declarations, it is this simple change that has contributed to the atmosphere of distrust, even though this is an understandable course in the fight against LBAM when you consider what the TWG had suggested. Other equally important questions regarding efficacy and human health were raised by him. Unfortunately the answers to some of his questions reside under an experimental blanket and cannot be answered.\(^4\) It is understandable to find few answers in this present environment especially when you realize that most stakeholders are backed into a corner and that discussions involving government, a chemical company (Suterra), that makes the pheromone, a hysterical public that fears most anything falling out of airplanes especially if it is labeled as a pesticide and a threatened agriculture community, have little prospect of finding acceptable answers to key questions. It is at this juncture that we find ourselves today and it is unfortunate that the hysterical have led the charge and those charged with leadership have generally not chosen to do so.

LBAM has many folds and as you educate yourself about the subject you realize that much is going on behind the scenes.

Early on in spring of 2007 the Santa Cruz County Farm Bureau organized

\(^3\) Both legislative houses of state government were told that LBAM was an urgent matter. CDFA changed that designation to an emergency to adhere to the parallel track suggested by the TWG. This designation also allowed for the CEQA process to be done as a co-committed process, i.e., LBAM eradication could proceed to assuage Federal Quarantine Law and get an upper hand on LBAM before it spread to other areas, while still performing the CEQA process. In a perfect world CEQA should precede action.

\(^4\) Pheromone applications in less populated areas and within the Organic Farming community have been successful and have not caused any health problems. The fact that an application this large has never been performed has been interpreted by some to mean it must be bad. Scientific data in smaller areas suggests otherwise.
informational meetings to address concerns surrounding LBAM. At this point the public was not engaged, even though the press publicized the meetings widely. An indefatigable attempt by the local Ag Commissioner, Ken Corbishly, President of the Santa Cruz Farm Bureau Steve Bontadelli, Local nurseryman Jeff Rosendale and yours truly to try to bridge the gap between Santa Cruz County concerns and the iron will of USDA and CDFA took place at these meetings. This still continues today. Shortly after the first meeting a meeting between Senator Able Maldonado, Secretary of Agriculture A. G Kawamura and upper echelon CDFA officers took place in Sacramento to try and make sense out of the draconian regulations placed on the local nursery industry. The area of most concern was the aspect of LBAM nursery regulations that required both retail and wholesale nurseries to blanket spray with chlorpyrifos\(^5\). It was during this meeting that we were exposed to the resolute dedication of CDFA to adhere to USDA concerns. The outcome and experience was valuable and helpful. We planted the first seed of change\(^6\) and because of early success’ are hopeful that in the future, reason will prevail. Unfortunately wholesale nurseries are still required to use this pernicious chemical when LBAM is found. It is because of this situation that the Farm Bureau supports the use of safe pheromones. Reductions in LBAM populations will result in reducing the applications of considerably more damaging chemicals known to be detrimental to our environment, especially in riparian corridors where many affected nurseries are located. Locally the nursery industry has suffered losses of approximately $800,000.00 and is fearful of what spring 2008 may bring. We will continue to push for an Integrated Pest Management program and alternatives to chlorpyrifos.

It is because of state and federal quarantine law that we are all up against the wall. These laws are incredibly powerful for obvious reasons and allow for little sympathy for those affected. In this environment complaints must be empirically proven rather than by supposition. It is here that people charged with leading should take heart and it is here that legitimate concerns should be addressed. This is especially true for the California Environmental Quality Act review that is presently ongoing. CDFA has appointed an Environmental Advisory Task Force to gather information for the vital third

\(^5\) A pesticide identified by the EPA as a ‘bad actor’ and the subject of a successful law suit to remove it from our environment.

\(^6\) We showed the lunacy behind exposing the public to chlopyrifos in the retail setting. Subsequently Blue Bamboo nursery (a retail nursery) was granted an exception. This opened the door for change.
party review necessary for the CEQA process. It is through this process that leaders in our community should address their concerns. For the distant future there is a much larger challenge that needs to be addressed and it involves the very core of pest exclusion protocol.

There needs to be a shift in trade and exotic pest exclusion paradigms. It is in this arena that a new way of thinking needs to be employed. Antiquated pest exclusion protocols do not apply in contemporary world markets, in fact, today, exotic pests have a considerably more extensive network of shipping routes to hitch a ride. Bridging this ever increasing chasm with present inspection protocol\(^7\) has and will continue to set us up for failure; hence LBAM. So where do we go from here and how do we make government take its antiquated exotic pest exclusion program and bring it up to speed to address a new trade environment? This ultimately is the billion dollar question. Since this is a question that can only find change in the halls of a plodding branch of government and only pushed by career bureaucrats when pressed by legislators, the future for a new perspective looks bleak. Add in trade negotiators that could care less about how their agreements affect local ag and communities in general and you have one hell of a mess. Locally some of us are tackling this project and are working on solutions that won’t hold communities hostage. This, of course, would be the most intelligent direction to pursue. It will take years to accomplish, however it must be done. This subject is rather esoteric but it has broad repercussions. This is why I am writing, to plant the seed for change and to open future leaders eyes to a direction that is so desperately needed. Enjoy your class and know that it comes with great responsibility that can alter the course of our lives.

Dave Cavanaugh
LBAM TASK FORCE Facilitator
CLASS 22 GRADUATE

\(^7\) Presently agriculture inspections account for less than one half of one percent.