

LIGHT BROWN APPLE MOTH ERADICATION PROGRAM

Draft

Programmatic Environmental Impact Report

Public Response: Comments and Questions
by Glen Chase

In questions below: when a likelihood or mathematical probability of occurrence is asked for, or information or an opinion is asked for, please also give an explanation for the response to the question.

Example Question: What is the likelihood of an event?

Example Response: 33%, using history to predict the future, since in the last nine years it has occurred three times, and three of nine = $1/3 = 33\%$.

For all questions, please give some explanation and substantiation for the response rather than just an opinion or belief without support.

Thank you,
Glen Chase

#1 EIR SUMMARY page S-1, section S1, Background, lines 4-6

"If LBAM is not completely eradicated while the moth population in the U.S. is relatively small, the long-term impacts to the environment and agricultural production could be considerable."

COMMENTS:

- 1.1 LBAM has been in California for some number of years, likely many decades and has mature population infestation status in some places, yet there is no damage from LBAM in lightly populated areas, moderately populated areas or heavily infested population areas.
- 1.2 It has been observed to date that there are 13 insect parasitoids of LBAM eggs (Nick Mills, Miguel Gutierrez, UC Berkeley) and large numbers of predators of LBAM larva. This predator relationship and parasitoid relationship along with no damage from LBAM status in California indicates that LBAM is well balanced in California as part of the background food chain.

1.3 James R. Carey, Frank G. Zalom and Bruce D. Hammock, from University of California, Davis, College of Agriculture and Environmental Sciences, have written in a May 28 letter to Edward Schafer, Secretary of Agriculture, U.S. Department of Agriculture: "The data supporting the argument that LBAM will become a pest that is more economically important than the species of tortricid leafrollers that are already in California is unconvincing."

QUESTION #1.1

Why is LBAM considered an important potential threat to crops, forests and backyard gardens in California when LBAM has not demonstrated any indication of this threat in California, nor is LBAM considered such a considerable threat in any other country where LBAM lives?

QUESTION #1.2

Please demonstrate the potential of LBAM crop and environmental damage by listing the likelihood (mathematical probability) of occurrence of various degrees of potential damage with their respective quantities of potential damage measured in physical damage and the associated \$ values. The probabilities should total to 1.0 or 100% so that all varying possibilities of damage have been included. This will then allow the range of damage estimates to be known, the most likely amount of damage to be identified and the probabilities of different amounts of damage to be disclosed.

QUESTION #1.3

What is the likelihood (mathematical probability) that damage determined as "Not significant" or "Less than significant" will occur from LBAM?

QUESTION #1.4

Please demonstrate and document actual damage from LBAM in California.

#2 EIR SUMMARY page S-1, section S1, Background, lines 9-11.

"The CDFR is working closely with the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) and a Technical Working Group to develop the most effective strategy and methods to achieve the overall goal of LBAM eradication from California."

COMMENTS:

2.1 The Technical Working Group did not and does not believe that LBAM can be eradicated from California, nor is their recommendation to eradicate LBAM, given the extensive area of California that LBAM occupies.

QUESTION #2.1:

Why is the technical working group being represented as supporting eradication when the technical working group does not recommend attempting eradication under the circumstances that are known to exist in California?

#3 EIR SUMMARY page S-1, section S1, Background, lines 2-3.

"On June 20, 2008, the Secretary of the CDFA announced that the primary strategy for eradicating LBAM was changed from aerial treatment with pheromone to the release of sterile male LBAMs to disrupt the mating population."

COMMENTS:

- 3.1 On June 19, 2008 Steve Lyle, Public Relations Director for CDFA, announced on CBS TV news that Sterile Moth Release (Sterile Insect Technology, SIT) would replace aerial spray as the primary tool of the LBAM eradication program. Lyle reported that a "Scientific Breakthrough" had occurred. Lyle could not identify the actual "Scientific Breakthrough" when asked by investigative reporter Anna Werner what the breakthrough was. He also could not and did not explain the "Sudden Developments." [CBS TV news, June 19, 2008 video: <http://cbs5.com/investigates/apple.moth.spraying.2.752554.html>]
- 3.2 Through June 18, 2008 CDFA reported that 'Aerial Spray' was absolutely necessary and the only means to eradicate LBAM.
- 3.3 Consistently in 2007 and early 2008 A.G. Kawamura, Secretary of the CDFA, reported that there was only a short number of months for a window of opportunity to eradicate LBAM [4/15/08 CBS TV news video: <http://cbs5.com/investigates/apple.moth.spraying.2.700753.html>].
- 3.4 On 4/24/08, Judge Burdick ruled in favor of Santa Cruz County/City Lawsuit rejecting the LBAM emergency and halting the aerial spray until an EIR under CEQA was completed.
- 3.5 On 5/12/08, Judge O'farrell ruled in favor of HOPE's Monterey County Lawsuit rejecting the emergency and halting the aerial spray until an EIR under CEQA was completed.
- 3.6 The above events and CDFA reports have lead an informed public to believe that CDFA wants to implement a massive and costly eradication program, even if the moth is not a threat to agriculture, forests or backyard gardens.
- 3.7 The mathematical probability of Sterile Moth Release coincidentally being able to replace aerial spray almost immediately after aerial spray is halted by two superior courts is extremely unlikely.
- 3.8 The mathematical probability of the window of opportunity to eradicate LBAM expanding from months back in early 2008 to many years to allow the full R&D process of SIT development, experimentation and ultimate implementation is also extremely unlikely.
- 3.9 The mathematical probability of both (1) SIT being able to replace aerial spray and (2) the window of opportunity expanding to allow the SIT alternative, both occurring within the short time (a month) between the court decisions stopping aerial spray and the CDFA announcement is considerably more unlikely.

QUESTION #3.1

What was the Scientific Breakthrough reported by Lyle on June 19 and by Secretary Kawamura on June 20, 2008 such that Sterile Insect Technology could suddenly replace aerial spray, when up to that point it was not possible.

QUESTION #3.2

What was the Timeline of the Scientific Breakthrough such that Sterile Insect Technology could suddenly replace aerial spray, when up to that point it was not possible.

QUESTION #3.3

What was the sudden development so that Sterile Insect Technology could suddenly replace aerial spray when up to that point, as reported by CDFA, only aerial spray could eradicate LBAM?

QUESTION #3.4

What was the timeline of the sudden development so that Sterile Insect Technology could suddenly replace aerial spray when up to that point, as reported by CDFA, only aerial spray could eradicate LBAM?

#4 EIR SUMMARY page S-2, section S1.1, LBAM as an Invasive Species, lines 7-9.

"In grapes, apples, kiwifruit, plums, avocados, and citrus, LBAM larvae can feed directly on the fruit, and the resulting damage renders the fruit unmarketable (Irvin 2009)."

COMMENTS:

- 4.1 The above quote from the EIR is not typical of LBAM behavior. LBAM (tortricidae leaf roller family) larvae generally and typically do not feed on fruit. Rather they roll up a leaf to protect themselves from threats in their environment and they sometimes make marks or stains on the leaves as they nibble its surface. LBAM are generally considered superficial leaf eaters. LBAM doesn't defoliate because that would sacrifice the plant or tree where they live. If the leaf they are in comes in contact with a fruit, they sometimes make a mark on the fruit as they do on a leaf, but LBAM is not the worm in the apple that bores into the fruit and destroys the fruit. LBAM does not target the fruit, rather it uses a leaf as its home. Many other tortricidae leaf roller moths in the same family as LBAM have the same behavior as LBAM. None are targeted for eradication in California or worldwide.
- 4.2 Many and probably most insects have the capability of doing a wide variety of things outside their typical behavior. They don't usually, but they can. People driving cars can destroy street signs, damage homes and commercial buildings, drive their vehicles up onto farmland destroying rows of crops or filling their vehicles with loads of produce and fruit. They don't usually, but they can.
- 4.3 It is important in technical decisions and management decisions do determine the likelihood that certain events may occur and the frequency of occurrence of those events. Otherwise the value of attention and resources paid to unlikely events will

dominate the potential cost of the rare occurrence of that event. Attention and resources paid disproportionately to unlikely events will also deflect resources from more effective activities handling frequent events that have greater returns on attention and resources.

- 4.4 History is often a good predictor or a basis for predicting the future. LBAM larvae have not fed directly on grapes, apples, kiwifruit, plums, avocados or citrus in California. LBAM is not reported to be feeding on these fruits in other countries where LBAM lives, certainly not to any extent where the country is making any effort to eradicate LBAM or even implement state controls. Individual farmers may be controlling LBAM knowingly and unknowingly by whatever processes they use to control other insects, including other tortricidae leaf roller moths. LBAM's behavior in California has not resulted in damage rendering fruit unmarketable, nor is that occurring in other countries.
- 4.5 The reference "Irvin 2009" that is used for the above EIR quote is an article that is based on information that CDFA and USDA have reported. If CDFA and USDA information is inaccurate, then the report is inaccurate as well. And then this EIR is based on inaccurate information that was initially reported by the USDA and CDFA, the lead agency of this EIR. The inaccurate information is further circulated and repeated and then it is finally being used to substantiate the proposed Program of this EIR.

QUESTION #4.1

What is the likelihood (mathematical probability) that LBAM will feed directly on grapes, apples, kiwifruit, plums, avocados, and citrus?

QUESTION #4.2

What is the likelihood (mathematical probability) that LBAM damage to fruits will render the fruit unmarketable?

QUESTION #4.3

If the fruit were ever made unmarketable, what amounts or percentages of the total crop for the complete season would be made unmarketable?

QUESTION #4.4

Why does the EIR focus exclusively on a low or zero probability of occurrence event that is not typical of LBAM behavior in California, New Zealand, Hawaii and the other places that LBAM lives.

#5 EIR SUMMARY page S-3, sect. Potential for Damage in Cal Ecosystems, lines 1-3.
"As discussed above, LBAM feeds on plants in genera containing 2,042 different species including many agricultural, horticultural, and forest species of great economic and ecological value. See Appendix A for a list of all known plant species that are utilized by LBAM."

COMMENTS:

- 5.1 LBAM has not fed on any plant genera and has not fed on any species contained within any genera in the State of California or the state of Hawaii. LBAM has not fed on any forest species in California or the State of Hawaii.
- 5.2 LBAM is not reported to be feeding on 2,042 different species in other countries where LBAM lives. LBAM is not reported to feed on any forest species in any country where LBAM lives.
- 5.3 Any eating that LBAM does in every country where LBAM lives outside of California is certainly less than any economic and ecological value that would move the country to make a statewide eradication effort. No other country is making any effort to eradicate LBAM or even implement state controls or guidelines. Individual farmers may be controlling LBAM knowingly and unknowingly by whatever processes they use to control other insects, including other tortricidae leaf roller moths.
- 5.4 An equivalent example: If a neighborhood with 2,042 homes has children living in each home, there is the potential that any one child may sleepwalk out of the home and possibly hurt himself. It is not an expected behavior and it would be foolish for the state to commit resources beyond normal child safety measures for a program to exclusively handle sleepwalking in that neighborhood. If any individual family realizes that problem, it can be taken care of in their home.
- 5.5 There is little reason to project significant damage in thousands of species because LBAM was noticed perched or living in a plant related to thousands of other plants.

QUESTION #5.1

Is California or any other country on this earth currently having, or have they had at any time in recorded history great economic damage in 2,042 different plant species from LBAM?

QUESTION #5.2

How many actual plant species are realizing LBAM damage in California, in Hawaii, in New Zealand and in other countries where LBAM lives?

QUESTION #5.3

What forest, world wide, is suffering great ecological damage currently from LBAM and what forest has ever suffered such LBAM damage throughout recorded history?

#6 SUMMARY pg S-2, section Potential for Damage in California Ecosystems, lines 3-5. *"Furthermore, invasive species such as LBAM trigger use of chemicals to control the pest that end up destroying existing Integrated Pest Management and biological control measures used in horticulture and agriculture."*

COMMENTS:

- 6.1 There has been no documented increase in the use of chemicals to control LBAM in California, other than those forced onto farmers by CDFA or those used by growers to accommodate the demands of CDFA. For 100 years, there is no documented increase in the use of chemicals to control LBAM in Hawaii.
- 6.2 New Zealand controls LBAM almost exclusively due to the U.S. zero tolerance of LBAM on imported crops, not due to crop loss. New Zealand uses Integrated Pest Management and biological control measures effectively to control LBAM, other tortricidae leaf rollers and many other insects. New Zealand has actually decreased its use of chemicals due to their experience with LBAM and other insects recognizing that elimination of chemicals gives the predators of LBAM and other insects the opportunity to keep populations at balanced levels naturally at most all times. If a rare spike in LBAM or other leaf roller moths occurs, a small amount of growth inhibitor can be used at the individual farm level. This method has proven successful and the aggregate biological growth inhibitor used across all individual farms represents a tiny fraction of the chemicals that would be applied program-wide by the state.
- 6.3 It is certainly possible for an invasive species to cause havoc in a new location, particularly when the new location has no natural predators or no insects that parasitoid the eggs of the invasive pest. However, that is not the case for LBAM.

QUESTION #6.1

Is there any documentation in California to show that the use of chemicals has increased due to LBAM, other than chemicals forced by CDFA?

QUESTION #6.2

Has the existence of LBAM in New Zealand for over 150 years destroyed the Integrated Pest Management and biological controls in that country?

QUESTION #6.3

Could the CDFA please separate out LBAM from invasive species generally, so that we may see the specific results and potential results of LBAM, rather than possibilities of invasive species generally?

#7 SUMMARY pg. S-3, sec. S1.2, Potential Damage in California Ecosystems, lines 5-6.
"Recent LBAM infestations in organic berries have caused up to 20 percent crop loss (Agriculture and Natural Resources 2009)."

COMMENTS:

- 7.1 0% is included in the quantity "up to 20 %," so "up to 20% can still indicate no loss from recent LBAM infestations in organic berries.
- 7.2 DNA tests are not sufficiently accurate to consistently distinguish LBAM from Orange Tortrix or Garden Tortrix and other tortricidae leaf roller moths.
- 7.3 Because LBAM larvae may be found in an area, that is not sufficient documentation to attribute all damage in a field to LBAM, or even any damage to LBAM. Since trapping finds LBAM in numbers between one of 50 and one of 200 tortricidae moths, it is mathematically inaccurate to attribute damage to LBAM exclusively. Numerically, LBAM's proportionate share of responsibility would be between ½ of one percent and two percent, though there is still no documented proof of damage caused by LBAM.
- 7.4 Berry fields pick every week during the season. It is best to catch pests early and deal with them in order not to lose any part of any weeks harvest. But if a harvest is affected, the pests can be treated so that the next week's harvest will not be affected. This would not result in a 20% loss of berry crop. Only if CDFA reduced the natural pest predators by forcing a toxic and deadly-to-predators chemical application on the berry farmer or by not allowing the berry farmer to treat his crop as usual, would such a loss of a berry crop be likely.
- 7.5 The precise details of loss of crop on a single or a handful of berry farms have not, to my knowledge, been released in its entirety to the public by CDFA. There is a statistical problem with this claim of berry damage, whether it was one farm or a handful. If this claim was valid and it was due to an infestation of LBAM or any tortricidae moth, statistics would see the damage far wider spread than reported by CDFA or the media through press releases from CDFA and USDA. There is not some natural or fabricated boundary that would restrict movement to extreme degree where one farm has damage and its close neighbors do not, assuming most are treating similarly as is the case in organic farming.
- 7.6 Statistics indicate that the damage would be far more widespread, rather than a single farm or a handful of farms with no damage indicated elsewhere, as is represented by the EIR and media about berry damage in Watsonville or Santa Cruz County. Statistics would demonstrate and calculate an average damage over a wide range of farms and there may be variances of that damage, but the variances would be distributed as mathematical distributions with extreme cases greater or less than average having smaller occurrences and associated probabilities than cases closer to the average. The purported berry damage reported in Watsonville and Santa Cruz is only at a distinct small number of farms, ranging from one to a few depending on the report. This does not reflect natural damage from an insect. Rather it is an anomaly

and it is unlikely to be explained by natural damage from LBAM infestation or any other leaf roller moth population.

7.7 The office of the Santa Cruz Agriculture Commissioner where this damage has occurred does not have knowledge of such damage. The agricultural commissioner's office is aware of these claims, but they cannot reconcile these claims with their expert knowledge and familiarity with the agriculture community activities within their county where these claims of damage are purported to be.

7.8 This EIR states clearly that No damage has occurred in California from LBAM. In Chapter #3 on page 3-20 in the section 3.2.3.2 (Crop Damages) on the fourth and fifth lines, the EIR states: *"no direct crop damages have been experienced to date in areas subject to existing infestation (Roach, pers. comm., 2009b)."* Also in Chapter #3 on page 3-21 in the same section 3.2.3.2 in the third and fourth lines below table 3-16, the EIR states: *"Because no crop damages have been experienced to date, all potential crop damages would be reflective of the No Program Alternative; this impact is potentially significant."*

QUESTION #7.1

What specific berry does the damage refer to?

QUESTION #7.2

Which farms were affected, where are they and how many farms and how many acres on each farm were affected?

QUESTION #7.3

How many weeks during the season was the damage experienced?

QUESTION #7.4

What is the nature of the damage? Please describe.

QUESTION #7.5

How is the "Up to 20% damage" calculated?

QUESTION #7.6

How is the damage attributed to LBAM?

QUESTION #7.7

Were the farmers restricted or forced to use methods or chemicals or not allowed to use methods or chemicals that they, on their own, would have without CDFA participation?

QUESTION #7.8

Why hasn't this damage been reported to the County Agricultural Commissioners' office?

QUESTION #7.9

Why do the statements of this EIR in Chapter #3 claiming "No damage from LBAM" contradict the above quote in this Summary Chapter claiming "Up to 20% damage from LBAM"?

#8 EIR SUMMARY p. S-3, sect S1.2 Potential for Damage in Cal Ecosystems, lines 5-6.
"Recent LBAM infestations in organic berries have caused up to 20 percent crop loss (Agriculture and Natural Resources 2009)."

COMMENTS:

- 8.1 Many tortricidae leaf roller moth larvae cannot be distinguished one from another until they become mature moths.
- 8.2 Even as mature moths and even with DNA testing, it is still not 100% conclusive as to which moth one is examining.

QUESTION #8.1

What is the procedure for testing suspected LBAM finds, both moths and larvae?

QUESTION #8.2

What is the accuracy for testing of suspected LBAM finds, both moths and larvae?

QUESTION #8.3

What is the accuracy in the field for field identification of suspected LBAM finds, both moths and larvae?

QUESTION #8.4

What are the chain of custody procedures for finding, securing, transporting, identifying and reporting results of test results for suspected LBAM finds?

QUESTION #8.5

What are the audit procedures in place to audit past tests for accuracy and to audit the test procedure itself, including the full chain of custody from finding to reporting?

QUESTION #8.6

What is the parameter and unit of measure to evaluate performance of the test procedure or test results? (e.g. 88% accurate)

QUESTION #8.7

How is performance evaluated for (1) test reporting and (2) the full chain of custody from finding to reporting?

QUESTION #8.8

What has the testing performance been for LBAM?

QUESTION #8.9

Which testing facilities are used, where are they, who pays for the tests, how are test results reported (in writing, by phone, by email, etc) and who is entitled to receive the test results?

#9 EIR SUMMARY p. S-3, sec S1.2 Potential Damage in Calif Ecosystems, lines 7-11. *"LBAM both (1) directly threatens plant species that it may adapt to feeding on and (2) indirectly threatens animal species, particularly insects, should it adapt to feeding on plants that are relied upon as food supplies or for critical habitat. This tendency is of particular concern to endangered, threatened, and rare species because they often exist as small populations in very limited habitats and, therefore, any substantial decrease in their numbers or habitat could readily drive these populations to extinction."*

COMMENTS:

- 9.1 LBAM was first publicly noticed in Jerry Powell's back yard. Jerry Powell is a micro-moth specialist within entomology, retired professor from UC Berkeley, still very active with moths. LBAM is within Jerry's micro-moth specialty.
- 9.2 Jerry Powell first noticed LBAM in his back yard in July 2006 and then again the following month. That means that LBAM has been in California for at least four calendar years (2006, 2007, 2008, 2009) since Jerry noticed one in his back yard. Jerry Powell believes the moth to have been here some number of years prior to his first noticing one. The likelihood of one of the very first moths in California finding its way to Jerry's home immediately upon arrival in California is remote, and because the number of moths being trapped over such a broad area takes some number of years to occur.
- 9.3 Professor James Carey, an entomologist and an invasive pest biologist believes the moth to be in California for many decades, likely 30 to 50 years or more, in order to be in the numbers and dispersion patterns across the thousands of square miles that LBAM currently exists.
- 9.4 So the moth has been in California for some years, between four calendar years and 50 or more calendar years. Whatever the exact number of years, LBAM has done no damage in California to crops, plants or forests. LBAM has done no damage to other insects or endangered, threatened or rare species, since that danger comes from destruction of their habitat, not from LBAM eating them, since LBAM is a vegetarian superficial leaf eater.

QUESTION #9.1

Recognizing that LBAM has done no damage to plants, crops or forests in California for the full time that LBAM has occupied California, somewhere between four calendar years and 50 calendar years or more, what is the likelihood (mathematical probability) that LBAM will destroy sufficient crops, plants, vegetation and/or forests to eliminate the habitat of an endangered, threatened or rare species and therefore, drive that species to extinction? Please support the Answer with an explanation.

QUESTION #9.2

Please identify one or more specific endangered, threatened or rare species that is specifically threatened by LBAM and identify the probability that LBAM will drive that species to extinction.

#10 EIR SUMMARY page S-4, section S4, paragraph 3, Areas of Controversy.
"Emergency Action for Invasive Species Control and CEQA Compliance. Initial efforts to control LBAM's spread were done as emergency actions not requiring immediate CEQA compliance in an environmental impact report. Given the CDFFA's need to act quickly to control the invading pest and the public's desire for information on the impacts of the control and eradication measures through the CEQA process, how should pest invaders be managed and CEQA compliance activities completed? The CDFFA suspended chemical treatment activities in 2008 but continued with the trapping program to monitor the spread of the pest and quarantine regulations."

COMMENTS:

- 10.1 CDFFA and this EIR make no mention of the Santa Cruz County/City lawsuit that denied CDFFA's claim of emergency status and forced CDFFA to stop chemical treatments.
- 10.2 CDFFA and this EIR make no mention of the HOPE organization of Monterey County lawsuit that denied CDFFA's claim of emergency status and forced CDFFA to stop chemical treatments.
- 10.3 CDFFA and this EIR make no mention of CEQA law being violated by this program as determined by Santa Cruz County Superior Courts in 2008.
- 10.4 CDFFA and this EIR make no mention of CEQA law being violated by this program as determined by Santa Cruz County Superior Courts in 2008.

QUESTION #10.1

What were the errors that CDFFA made in the eradication program and/or in CEQA law that caused the Santa Cruz County Superior Court to shut down the program that CDFFA, at the time, claimed was totally appropriate?

QUESTION #10.2

What were the errors that CDFFA made in the eradication program and/or in CEQA law that caused the Monterey County Superior Court to shut down the program that CDFFA, at the time, claimed was totally appropriate?

QUESTION #10.3

Why did CDFFA withdraw their appeals to the Santa Cruz County Superior Court decision?

QUESTION #10.4

Why did CDFFA withdraw their appeal to the Monterey County Superior Court decision?

#11 EIR SUMMARY page S-4, section S5.1 Proposed Program.

"Sterile insect technique (SIT) is being developed in Australia and California, and is to be available for initial implementation in California beginning in 2009 (limited releases) and in 2011 on a large scale. SIT could be used at any infested area and is applied aerially."

COMMENTS:

11.1 There are specific criteria that make insects likely or unlikely candidates for eradication by certain tools.

11.2 For Moths and the Sterile Moth Release tool (Sterile insect technique, SIT), the following criteria make it easier or more difficult to have some effect on the moth population.

Criteria #1 Concentration:

The more concentrated the moth population in a crop type or certain plant or geography the better the candidate for SIT.

LBAM is the lowest level of candidate for SIT for this Concentration criteria since it disperses widely in non-agriculture lands throughout California, in many plants and amongst people.

Criteria #2 Size:

The larger the moth, the less impact the irradiation sterilization will have on the moth and thus the less difference and recognition of the lab grown moth versus the wild moth. LBAM is a tiny "Micro Moth." Irradiation Sterilization will therefore have a substantial impact on its behavior making the lab grown moths quite different from the wild moths and therefore quite distinguishable from the wild moth. In Canada, a significant percentage of irradiated moths were found on the ground with bodies shaking. These differences will not allow the lab-grown sterile male moths to be equally as likely mating partners with the wild female moths. Because reproduction is the greatest motivation of the moth, over time, it is possible that the wild female moths will get even better and better at recognizing the lab-grown irradiated moths as moths that do not deliver effective sperm and the initial reduced likelihood of mating for the irradiated moths will decrease even further.

Therefore by this criteria, LBAM is not a good candidate for SIT.

Criteria #3 Mating Habits:

If female moths mate only one time, the better the candidate.

LBAM is promiscuous, mating multiple times. Female LBAM will attempt to mate until a successful sperm packet is received.

Therefore LBAM is the lowest level candidate for SIT.

Criteria #4 Moth Behavior:

It is recognized that wild male LBAM sit in waiting for the female larva to mature into a female moth so that the male can mate immediately. This gives the wild moth still greater advantage in mating and it decreases lab moth participation in mating.

So again, LBAM is not a good candidate for SIT.

QUESTION #11.1

Since LBAM does not qualify for any of the above criteria for being a good candidate for SIT, what is the CDFA's logical support for using SIT for eradication? If a scientist's opinion is the basis for CDFA's belief in SIT, what is the logic or basis or support to arrive at that opinion?

#12 EIR SUMMARY p S-8, Table S-1 Summary Comparison of Impacts of Alternatives.

COMMENTS:

12.1 Table S-1 identifies over 300 possible areas of potential Environmental Concern resulting from the proposed Program. The proposed Program includes many chemical and non-chemical methods applied across the state of California directly onto persons and into populated communities and into sensitive wild land areas. Many of the methods will sustain levels of toxic chemicals into heavily and lightly populated communities 24 hours per day without relief for three to five years. However, not a single concern of any chemical or non-chemical method within the proposed Program has an impact that is judged as significant.

QUESTION #12.1

Who judges these impacts on environmental concerns?

QUESTION #12.2

How is "No Impact," "Less Than Significant Impact" and "Significant Impact" judged?

QUESTION #12.3

For those concerns that do not have existing or easily measured standards for precaution, how is significance judged?

#13 EIR SUMMARY page S-16, Table S-5, Significant Impacts & Mitigation for Alternative MMA. (Application of Permethrin E-Pro on trees, poles and other objects throughout populated cities and communities).

Table S-5:

HUMAN HEALTH:

Affected Resource and Area of Potential Impact: *Sensitive Receptors Exposed to Substantial Pollutant Concentrations.*

Identified Impact: *" Impact HH-7: Sensitive receptors could be exposed to substantial pollutant concentrations under Alternative MMA. Impacts would be potentially significant but mitigable."*

Mitigation Measures:

"HH-7a: Apply the MMA material containing Permethrin E-Pro to poles, trees, or similar structures at heights that are above the breathing zone of an average person. Placement of the formulation at this height should preclude most opportunities for direct contact while enhancing volatilization of the material. The planned height is 8 feet above ground, and this height has been tested for sufficiency by the DPR (Kim 2009)."

HH-7b: *"The CDFA will avoid parks and schools when treating for LBAM."*

Significance After Mitigation: *"Less than significant."*

COMMENTS:

- 13.1 Permethrin is classified as a "Potential Human Carcinogen" by the EPA, and tests with human cells have shown it to be mutagenic. In mammals it has been shown to cause a wide variety of neurotoxic symptoms including tremors, incoordination, elevated body temperature, increased aggressive behavior, and disruption of learning (Cox 1998).
- 13.2 Permethrin can disrupt successful reproduction in both males and females.
- 13.3 It appears children may be more sensitive to Permethrin than adults. Permethrin is almost 5 times more acutely toxic to 8-day old rats than it is to adult rats.
- 13.4 Permethrin is acutely toxic to honey bees and other beneficial insects.

QUESTION #13.1

Please explain thoroughly and in detail how placing Permethrin consistently at eight feet high throughout a populated community will mitigate the Potentially Significant Impact from the Permethrin poison down to Less Than Significant.

QUESTION #13.2

Because children are likely more sensitive to Permethrin than adults, what is the expected affect on children of the Permethrin blanketing their community at 8 feet for 24 hours per day for three to five years?

QUESTION #13.3

Why will CDFA avoid parks and schools when treating for LBAM if the effect from the treatment is Less Than Significant?

QUESTION #13.4

In heavily populated cities, many pre-school age children, home-schooled children and other children spend more time along the street and/or in their yards, places where Permethrin poison has been applied, than they do in parks or at school. How will CDFA mitigate the effects of Permethrin for these children as they are planning to mitigate the effects for the children in school and parks?

QUESTION #13.5

How many occurrences of medical problems in children would be sufficient to temporarily halt or terminate the proposed Program?

QUESTION #13.6

If a single child dies from Permethrin exposure, will that terminate the proposed Program? If not, what number of child deaths would be sufficient to temporarily halt or terminate this program?

QUESTION #13.7

If the Permethrin was not leaking into the air, ground and water, why does the CDFA need to refresh it every few weeks?

#14 EIR SUMMARY page S-19, Table S-6 Significant Impacts & Mitigation for Alternative Btk and S:

Mitigation Measures:

"Avoid spraying areas with Btk and spinosad in localized areas known to harbor special-status insects prior to treatment. No Btk or spinosad treatments will be conducted within 1 mile of known populations of special-status insects."

Significance After Mitigation:

"Less than Significant."

COMMENTS:

14.1 With local projects, sufficient scrutiny can be given to identify and find special-status species in the immediate area. With this proposed Program, it will be unlikely that all special-status species will be identified in the state, in order to avoid them.

14.2 Special status-species are often found during local projects, because of the scrutiny that the project area receives during the planning and implementation of the project. But during this nearly statewide proposed Program, over thousands of square miles, it is quite likely than many special-status species will be significantly harmed or even driven to extinction. The proposed Program over such a large area is almost certainly going to affect special-status species that have yet to be found or even identified. These special-status species could be found with continued normal land use and under implementation of more typical projects, but such a large project with sweeping pesticides will not have the sensitivity to accommodate or mitigate such a special-status species. This situation is of particular concern to endangered, threatened, and rare species because they often exist as small populations in very limited habitats and, therefore, any substantial decrease in their numbers or habitat could readily drive these populations to extinction.

QUESTION #14.1

How will CDFA mitigate significantly harming populations of endangered, threatened, and rare species that have yet to be found or identified across the state?

#15 EIR SUMMARY page S-20, Table S-7, Significant Impacts & Mitigation for Alternative Bio-P:

"Avoid parasitic wasp releases near known populations of federally listed insects. The CDFA or its contractors will check the locations of known populations of federally listed insects prior to scheduling the release of parasitic wasps. No parasitic wasp treatments will be conducted within 0.5 mile of known populations of federally listed insects."

QUESTION #15.1

Have all populations of federally listed insects in California already been located?

QUESTION #15.2

Are there additional populations of federally listed insects in California that likely have yet to be located?

QUESTION #15.3

Does CDFA and this proposed Program place any value on these insects?

QUESTION #15.4

Federally listed insect populations that have yet to be located are in harm's way by this proposed Program. The mitigation measures that CDFA plans for known locations of these insects will not assist those insects in other unidentified locations. How will CDFA mitigate the likely significant impacts of harm on these federally listed insects that have yet to be located?

QUESTION #15.5

Is CDFA willing to essentially cleanse the land of future finds of these federally listed insects?

#16 EIR Chapter #1 Introduction, page 1-1, section 1.1 History and Background:

"Growing LBAM populations in the area from the Salinas River south to the Monterey Peninsula required aerial treatment with a microencapsulated pheromone in September and again in October 2007."

QUESTION #16.1

Did two superior courts rule that there was no emergency?

QUESTION #16.2

Did both superior courts have findings of no damage from LBAM?

QUESTION #16.3

Considering the findings and rulings of the courts, why does this draft EIR state that aerial spray was required?

QUESTION #16.4

What were the results on the LBAM populations from the aerial sprays in 2007 and how were the results determined?

QUESTION #16.5

What conditions, factors and other variables did CDFA hold constant in order to isolate and identify the effects of the aerial sprays in 2007?

#17 EIR Chapter #1 Introduction, p. 1-2, section 1.1 History and Background, lines 5-6:
"In addition, due in part to issues that have prevented Program implementation, the infestation had spread from 9 counties to 12 by mid-2008."

QUESTION #17.1

How is it determined that the moth spread from nine counties to 12?

QUESTION #17.2

How is the "Moth spread" distinguished from an increase in the number of traps and an increase in the area where traps are placed?

QUESTION #17.3

Did those trapping for LBAM maintain the identical number of traps, maintain the identical locations of traps, maintain the identical monthly dates and seasons of trapping and maintain the consistency of all other methods and parameters from one trapping session to further trapping sessions used in judging whether LBAM had spread?

QUESTION #17.4

Were there any uncontrollable variations from one trapping test to a later trapping test such as difference in temperature, wind velocity, precipitation, etc?

QUESTION #17.5

Did those trapping use a control group so that later it could be analyzed if LBAM had spread or if LBAM was now found in more places than before because of numerous other reasons including, but not limited to intensity of trapping, frequency of trapping and improvement over time of identification and differentiation of one moth vs. another?

QUESTION #17.6

Were at least two separate counties tested and trapped sufficiently to determine with the same level of confidence, such as 95% or 98% certainty, that no LBAM existed in both counties?

QUESTION #17.7

Later on, were both separate counties again tested and trapped identically as they had been before and equivalently to each other and sufficiently to find one was still with no LBAM existing there and the other county now had sufficient LBAM populations to statistically suggest with some high level of confidence, such as 95% or 98% certainty,

that LBAM had spread into that county, and only 5% or 2% probability that LBAM had simply been missed during the previous round of testing or searching for LBAM?

QUESTION #17.8

In Question # 17.6 and generally, what were the levels of confidence used in initially determining that there were no LBAM in some counties?

QUESTION #17.9

In Question #17.6 and across this analysis, please identify any sensitivity analysis that was done, and on which variables in the assumptions made, that lead to whatever level of confidence was determined for (1) that no LBAM existed in some counties and (2) that infestation had spread from 9 counties to 12 by mid-2008.

QUESTION #17.10

What is the level of confidence, after all the analysis done, that LBAM had spread from 9 counties to 12 counties by mid-2008?

#18 EIR Chapter #1 Introduction, p 1-2, sect 1.1.1 LBAM as an Invasive Species, line 13:
"In addition the damage caused to native forests could result in higher fuel loading for future forest fires."

COMMENTS:

- 18.1 When CDFA was informed that LBAM was confirmed in California in early 2007 and when LBAM was first noticed by Jerry Powell in his yard in July 2006, those are not the moments that LBAM arrived in California. To declare that LBAM is an Extra fire threat may be inaccurate. LBAM may have already been part of the environment for up to 50 calendar years or more, and therefore it would not be clear whether to factor in LBAM as part of the previous threat or the upcoming threat. Without knowing when LBAM truly arrived, it would be inaccurate to guess a base year to compare fire potential changes due to an added variable, LBAM. That LBAM has done no damage in California during the years that it has been here, it is unsubstantiated that LBAM has any detrimental impact regarding fire threat. It may be equally or more likely that LBAM reduces the threat of fire. Statements suggesting fire threat from LBAM lack factual support or justification.
- 18.2 The synthetic pheromone in the intended aerial spray pesticide is indicated as flammable on the Material Safety Data Sheet (MSDS). That indicates specific evidence that the chemical spray contributes to the risk of forest fires. The magnitude of such risk is unknown.
- 18.3 In the #18 EIR quote above, the word "Could" is used for a very important potential danger, forest fires. Will the CDFA please identify the specific likelihood (mathematical probability such as 1% chance, 10 % chance, 50 % chance, 90% chance, etc) of this occurrence? "Could" literally includes every possibility, no matter how unlikely or how likely. "Could" might indicate the likelihood of a large body in space colliding with the Earth this month, one chance in many billions. "Could"

might indicate the likelihood of something that is as likely to occur as not to occur (50% probability or chance). "Could" might indicate the likelihood of something that is near certain or almost always the case, such as the Golden Gate Bridge being open to pass across (greater than 99% probability, but less than absolute 100%.)

QUESTION #18.1

Has the CDFA done any investigation or testing on the Aerial spray to see if its flammability might contribute to forest fire risk under various conditions?

QUESTION #18.2

What other factors contribute to risk of future forest fires and how do the chemicals in the aerial spray contribute to that risk as an increase in the likelihood or probability of that outcome?

QUESTION: #18-3

How do the flammable chemicals of the aerial spray contribute to the severity of future forest fires?

#19 EIR Chapter #1 Introduction, page 1-2, section 1.1.2 Potential For Damage in California Ecosystems, lines 1-2.

"LBAM feeds on plants in genera containing 2,042 different species including many agricultural, horticultural, and forest species of great economic and ecological value."

QUESTION: 19.1

"A murderer who is accused, not convicted, of murdering one person could also kill 300,000,000 people since all humans in the U.S. are in the same family. Why does the CDFA continue to project 2,042 different species within plant families that has no relevance to actual experience with LBAM anywhere or at any time on this planet?"

#20 EIR Chapter #1 Introduction, p 1-3, sec 1.1.2.3 Habitat for Sensitive Species, lines 1-3:

"LBAM both (1) directly threatens plant species that it may adapt to feeding on and (2) indirectly threatens animal species, particularly insects, should it adapt to feeding on plants that are relied upon as food supplies or for critical habitat."

QUESTION #20.1

LBAM lives widespread over many plants and that characteristic of LBAM biology contributes to the equilibrium of LBAM not threatening any one plant. Therefore, it would not threaten any rare species dependent on any one plant, quite different from other insects that are found in and thrive on only one plant or crop. The Pink Bollworm Moth is such an insect, concentrating its population in cotton and therefore, an argument could be made that Pink Bollworm moth may threaten an insect requiring cotton for their existence.

Why didn't CDFA include this known characteristic of LBAM biology to identify the lack of threat to any one plant, rather than to represent a threat to all of the possible plants and trees that LBAM could possibly land on?

#21 EIR Chapter #1 Introduction, p 1-4, sec 1.1 Legislative & Regulatory Actions, lines 1-3:
"In 2007, APHIS' Administrator established Federal Order DA-2007-42 to establish restrictions on the interstate movement of a list of regulated articles from the states of California and Hawaii to prevent LBAM's spread (APHIS 2007a)."

COMMENTS

21.1 Hawaii has been known to have LBAM for about 100 years and there have been no problems created for Hawaii or other states due to LBAM in Hawaii and there have been no LBAM restrictions on Hawaii prior to 2007, to my knowledge.

QUESTION #21.1

Why did APHIS establish restrictions on Hawaii at the same time as restrictions on California in 2007?

QUESTION #21.2

Why didn't APHIS establish restrictions on Hawaii prior to 2007 since Hawaii is well known to have LBAM for about 100 years?

QUESTION #21.3

Do the restrictions on Hawaii pressure Hawaii to support the California LBAM eradication program, despite Hawaii's knowledge and experience that LBAM is not a threat to the environmental, ecological or agricultural assets of Hawaii?

#22 EIR Chapter #1 Introduction, p 1-5, sec 1.2 Program Objectives/Purpose, lines 1-2:
"The CDFG's objective is to eradicate LBAM from the state of California within 5 to 7 years of its introduction, by 2015"

COMMENTS

22.1 Nowhere in the EIR is there a basis for demonstrating or supporting that eradication can be done by 2015. No example has been used of other eradication successes or failures or attempts from which to project eradication for LBAM in California by 2015.

22.2 When Objectives are stated, but not well thought out or not built on a foundation that indicates a high likelihood to succeed, it is unlikely that luck or accident will realize success, particularly when a program involves many activities, is spread over a large area and involves impacts on people.

22.3 When large and costly programs, as this eradication program, fail to achieve stated objectives as planned, they often create situations where tremendous amounts of additional funds and other resources are required, not just to complete or correct the initial problems, but to try to handle new problems that the program may have created for years to come. And under these conditions when people are being affected, as is this program with multiple chemicals being applied onto private

properties and into communities, hasty decisions must then be made and that is not a good scenario to reach. Therefore, it is wise to only start when objectives have strong foundations for success and the likelihood of success makes the expenditures worth their cost. There is currently no problem for people (farmers, consumers, elected officials) in California from LBAM, therefore before we move off of this comfortable place and commit tremendous amounts of funds and resources, we should have solid logical proof demonstrating a high probability that objectives can be achieved. If this program is an experiment, it needs to be identified as such so that different risk factors can be attached to it and different precautions likely installed.

QUESTION #22.1

What is the basis to support that eradication of LBAM can be accomplished by 2015?

QUESTION #22.2

What is the average length of other statewide eradication programs that CDFA has undertaken?

QUESTION #22.3

CDFA may consider multiple attempts at eradication of the same insect, each a different or separate eradication. If there has been more than one eradication for the same insect for any or all other insects (pests), what is the total duration of time stretching from the date of the beginning of the first eradication to the current or most recent eradication for each pest for which CDFA has had multiple eradications?

QUESTION #22.4

What has the length of time been for other LBAM eradication programs in other places outside of California, and have any of them eradicated LBAM?

#23 EIR Chapter #1 Introduction.

COMMENTS

23.1 Each alternative method planned in the proposed Program eradication plan is known not to be effective for LBAM eradication and/or has not been successful in eradicating LBAM.

QUESTION #23.1

Why would a combination of those methods taken together eradicate the LBAM population in California?

QUESTION #23.2

Are the methods in combination, greater than the sum of their parts? If so, why?

QUESTION #23.3

Please identify and document any alternative methods of eradication included within the proposed Program that have worked or at least been a part of a package of other methods that have successfully eradicated LBAM somewhere.

#24 EIR Chapter #1 Introduction, p 1-5, sec 1.2 Program Objectives/Purpose, line 1:
"The CDFA's objective is to eradicate LBAM from the state of California within 5 to 7 years of its introduction, by 2015." (bold added)

COMMENTS

24.1 There is a time projection inconsistency in the "Objective" of the proposed Program. This EIR was issued in July 2009. Seven years from 2009 is 2016, not consistent with the stated objective of the EIR: **"5 to 7 years of its introduction, by 2015"**. The Draft EIR is now in process. If expedited, the final EIR could be completed at the earliest by year end or early 2010. At that point seven years would indicate 2017. (If CDFA considers 2007 as the start of their Program because aerial spray did occur in 2007, seven years out brings us to 2014, still not consistent with the stated objective.)

This may only be an arithmetic or administrative or a reconciliation error. However, it is indicative of how statements are made in this EIR that don't reconcile with (1) historical performance of related activities, (2) current performance of related activities, (3) opinions from qualified scientists who have demonstrated, documented and supported their opinions with logical and relevant science, examples and reasons that make sense. CDFA's proposed Program is not supported in those three ways and it does not make sense. Other than cherry picking bits of information from different time periods, combining them inappropriately without a common denominator and then injecting CDFA's or USDA's authority that "It must be done," There is no actual logic to the implementation of the proposed Program.

24.2 Even if the LBAM population is reduced by some degree, which is optimistic, it is still impossible (or nearly impossible, never been done before, less than 1% probability) to eliminate all LBAM since (1) the geography of California is not homogenous, (2) the topography of California is not flat, (3) not all areas are easily or totally accessible, (4) the geography of California is huge, (5) because all methods of eradication cannot put out a consistent level of toxin or attractant to effectively reach or affect all moths, as desired and as the program requires. And therefore, LBAM can continually re-populate from areas where populations may have decreased and from pockets whose LBAM populations were not reached or affected or were only affected with reduced populations. Tremendous amounts of money and other scarce resources will have been wasted. The people and animals and the environment will have been exposed over many years for no reason.

24.3 Definition of "Eradicate"

"To destroy or get rid of something completely, so that it can never recur or return" (Encarta® World English Dictionary © 1999 Microsoft Corporation. All rights reserved. Developed for Microsoft by Bloomsbury Publishing Plc.)

QUESTION #24.1

Is the CDFA EIR definition of "Eradicate" the same as in Comment #24.3 above "To destroy or get rid of something completely, so that it can never recur or return" or does CDFA and this EIR have another definition of "Eradicate," and if so, what is it?

#25 EIR Chapter #1 Introduction, p 1-6, sec 1.2 Program Objectives/Purpose, lines 3-4:
"The Program is needed to protect the state's native plants, forest species, agronomically important crops, and ornamental plants from damage by this invasive pest species"

COMMENTS

25.1 The moth has been in California for between four and 50 calendar years or more, so it seems that this program is not needed since LBAM impact is none or negligible. Regardless, these stated impacts have not occurred in any other place where LBAM is found on this earth, so there is no more reason to claim they will occur than to claim that LBAM will assist all these assets by improving the natural balance in California. There is no precedent relevant to current day farming capability with available farming techniques for these significant impacts stated in the EIR. Any impacts can be stated, but there is no foundation or example of such impacts worldwide by LBAM.

25.2 If any of these damage impacts have ever occurred to any substantial level, then there would be records of dates, actual farms, amount and nature and cause of damage, and these records could be found in Agricultural offices in New Zealand and Australia and Hawaii and England and California and other countries where LBAM live. The CDFA could show these documents to people in California. CDFA could also calculate the specific amounts of damage and the duration in years of that damage and represent that as a percentage of total crops or another representation of those figures that is relevant to calculating the impact of LBAM. CDFA would need to consider only the time periods when agricultural technology and knowledge is similar to that of today. Obviously, times when farmers did not have electricity or gas powered vehicles or knowledge of the wheel would not apply, though it would be interesting to reference those times, because even then there is no word, reports or documentation of natural LBAM damage emergencies.

QUESTION #25.1

Is CDFA interested to show documentation of the level of threat that CDFA has claimed regarding LBAM?

QUESTION #25.2

What specific documentation does CDFA offer to substantiate any actual damage, any natural damage without manipulation by man or agency interference, or potential damage from LBAM worldwide that is relevant today?

QUESTION #25.3

What exactly is CDFA's numerical \$ projection of annual damage in California in each area that CDFA projects damage and what is the combined total \$ per year and is it less than the cost of the proposed Program?

#26 EIR Chapter #1 Introduction, p 1-6, sec 1.3 Alternatives Considered, lines 1-2:
"The CDFFA proposes taking a systems approach over several years using multiple tools including chemical and nonchemical treatment alternatives"

COMMENTS

26.1 A systems approach requires a relevant perspective including an objective that is possible and consideration of resources that are available and attainable. A systems approach is not simply a variety of methods or a combination of methods, none of which have been demonstrated to work, none of which have been successful in the past at achieving the objective and many of which have been shown to be ineffective in even less demanding circumstances, such as in **Canada**.

#27 EIR Chapter #1 Introduction, p 1-6, sec 1.3 Alternatives Considered, second bullet:
"The mating disruption (MD) pheromone attracts the male LBAMs and prevents them from mating with females but does not kill them"

COMMENTS

27.1 The synthetic pheromone should attract some moths within a certain distance of the source initially, but the synthetic pheromone is not identical to the real female moth pheromone. The motivation to mate is the strongest characteristic in this species and some of the moths initially will differentiate the synthetic pheromone from the real moth pheromone, particularly those males in closest proximity to the females. The effectiveness of mimicking natural moth pheromone with synthetic pheromone does not improve over time. The synthetic pheromone also needs a uniform distribution to be most effective. Because of the substantial terrain variation in California and because of the technical limitations of distributing the synthetic pheromone uniformly over this terrain, even the limited potential of the synthetic pheromone to mimic the real pheromone will not be achieved.

#28 EIR Chapter #1 Introduction, p 1-6, sec 1.3 Alternatives Considered, all bullets:
"This PEIR evaluates the potential for environmental impacts associated with the following alternatives, all of which are under consideration for use:

- *Sterile insect technology (SIT)*
- *The mating disruption (MD) pheromone, it is to be applied in three ways*
- *A male moth attractant (MMA) treatment*
- *The proposed biological control (Bio-P)*
- *Foliar ground treatments (Btk or S)"*

COMMENTS

28.1 Five separate methods for eradication, with mating disruption (MD) applied three separate ways results in seven distinct methods. These seven methods acting in

combination are offered in this EIR as the proposed Program eradication solution for LBAM. Overlooking at this time the likelihood that any of the seven methods may miss some of the LBAM target population, let's consider the likelihood of success of these methods. If each method was quite likely to succeed at a strong 80% likelihood, then the chances that all methods would succeed, which is required for eradication would be $.8 \times .8 \times .8 \times .8 \times .8 \times .8 \times .8 = .20$ or 20%. If any one method does not succeed, then the LBAM population not eradicated will repopulate the other areas regardless of any success by other methods. So if each method was a strong favorite to succeed, actual success of eradication would still be unlikely. But here the likelihood of eradication is far less because none of the seven methods have ever succeeded in eradicating LBAM and at least a couple have been shown not to work for eradication. If any one method has a zero probability of working, then the chance of eradication is 0. If we inflate the likelihood of each method working and we ignore that at least a couple methods have zero chance and instead assign them all a 50% chance, then the likelihood of eradication, with this inflated likelihood, is $.5 \times .5 \times .5 \times .5 \times .5 \times .5 \times .5 = .0078$ or less than 1% chance of eradication. To get closer to the real chance of eradication, the inability to find and target all LBAM populations large and small has to be included and this makes the likelihood of eradication even less.

QUESTION #28.1

What are the likelihoods (mathematical probabilities) of each method being successful as determined by the CDFA and how were those likelihoods determined?

#29 EIR Chapter #1 Introduction, p 1-8, sec 1.4.3, Areas of Controversy, line 4:
"Controversy exists over the chemicals to be used and their safety to the public"

COMMENTS

29.1 In 2007, a total of three aerial sprays were implemented in Santa Cruz and Monterey Counties. These three aerial sprays represent a small fraction of the number of aerial applications of pesticides and a tiny fraction of the area to be treated going forward with the proposed Program. Yet, already in 2007, 643 illness reports were submitted, even though no process was set up to submit reports for the 2007 program. At community meetings, farmers markets and other community places such as grocery stores, restaurants, etc., many who hadn't reported spoke of their illness and many spoke of their lingering illness that they felt was attributable to the pesticide applications onto their homes and work places and schools, etc. So the illness reports only represent a small fraction of the number of people who were affected, or at least felt that they were affected. And those who spoke of their illnesses were a typical cross section of the coastal community population, including doctors, teachers, other professional people and athletes and people who generally do not go out of their way to make flagrant or inappropriate statements or claims. Those most affected are not out in the community talking about their ailments. Also, many people's pets and young children were affected, many who were unaware of the aerial chemical spray and who are unlikely or incapable of being effected by psychosomatic symptoms.

DPR, OEHHA and DPH released three multiple joint reports (referenced below on page 91) discussing the potential of chemical exposure on people and whether or not the chemical application had anything to do with the people's illnesses and complaints. The CDFA has changed their statements from "Non-toxic" (prior to and during the aerial spray) to approximately that sensitive people may be affected. The six-pack report, one of the three joint reports that looked over the illness reports submitted could not determine if there was a link or not between the illnesses and the reports that were submitted. That is not surprising that they could not make that determination because (1) their investigation only included looking over the reports, but not requesting additional information from any of the victims when as many as 90% of the reports were lacking additional information that could be helpful in making a determination, (2) none of the persons or their doctors who submitted the reports were interviewed or communicated with in any way, even those who asked for a meeting were denied. That no determination was made is likely and apparently reflective of insufficient investigation, not that it was necessarily difficult or impossible to determine. The symptoms and illness reported were reflective of the chemical affects and the reports were submitted prior to the people academically knowing the chemical affects so there was no conspiracy to fake illness. Many people believed it to be safe because CDFA reported that it was "Non toxic" to humans and perfectly safe.

The proposed Program seems to focus the aerial spray portion of the program on less or lightly or essentially unpopulated areas, but it doesn't seem to officially rule out aerial spray on populated communities, nor does it actually define the number of people per some unit of area that unpopulated or relatively unpopulated areas tolerate. Also, the drift from the previous program was measured by CDFA at well over three miles, so since many or most people in the California program boundaries potentially live within three miles of land that may be aerially sprayed, it is still likely that many or most people will again be affected to some extent by aerial spray. The greatest exposure by the aerial spray will be on those who live or work or spend time in those areas designated as lightly populated and appropriate for aerial spray by CDFA within the proposed Program.

QUESTION #29.1

Will CDFA meet with some or all of the people who reported illness, or will CDFA encourage other agencies (DPR, OEHHA, DPH) to meet with these people prior to aerial applications of any pesticide within the synthetic pheromone based pesticide family, as was applied in 2007? (So much may be learned from these people and/or from their doctors who reported their illnesses.)

QUESTION #29.2

Does CDFA offer a firm commitment in writing not to aerial spray synthetic pheromone based pesticides on populated communities as they did in 2007?

QUESTION #29.3

Will CDFA please clearly and unambiguously define the areas that will be treated by

aerial spray of synthetic pheromone based pesticides? (Quantitatively in the form "less than five residents per square mile" or "maximum of 8 man-made structures per square mile" or "less than 30 single family residences per square mile," etc would be clear.)

#30 EIR Chapter #1 Introduction, p 1-46, sec 1.6.1.1 USEPA, paragraph 2:

*"Current FIFRA regulations do not require manufacturers to reveal formulation components. Many of the inert ingredients in the commercial formulations of the various pesticide products on the market are not publically available. Toxicity studies conducted under FIFRA are required to evaluate the active ingredient and the product formulation. **In environments where a variety of pesticides may be used, the potential for chemical interactions of inert and active ingredients should be understood to minimize risks. Since the identity and/or concentrations of the inert ingredients in each formulation are usually proprietary, and FIFRA does not require disclosure of these concentrations, it was not possible to estimate concentrations of most inert ingredients in the formulations considered for use, and only general toxicity hazard information is provided in Appendix D, Human Health Risk Assessment. In this assessment, an exception is the permethrin formulation, Permethrin E-Pro. For this product, the Material Safety Data Sheet contained information on two inert ingredients (ethylbenzene and 1,2,4-trimethylbenzene) and the percentage composition of each sufficient to support the quantitative assessment of potential health effects from exposure.**" (bold added.)*

COMMENTS

- 30.1 Most pesticides are used on agricultural fields. They are purchased by the owner of the field and their intended application is onto the field. The owner and seller enter into an agreement at their own free will and that is their business, particularly since the majority of the pesticide and its toxic impact will occur on the farm owner's land (other than those amounts that drift or otherwise leak off the farm into other public or private lands). If the seller doesn't offer full disclosure of inert ingredients and the buyer doesn't require full knowledge of the inert ingredients, that is their business.
- 30.2 The proposed CDFA eradication Program proposes to apply pesticides directly into environments where people live, work, eat, attend school, participate in recreation and sport; all areas of their public and private environments. People do not have the choice to accept or reject these pesticides. People cannot escape the affects of the pesticides on themselves or their children for whom they are responsible for making decisions. People are not entering into an agreement at their own free will. People are being forced as though they are imprisoned, yet at no fault of their own and certainly at no conviction of a crime that imposes that penalty.
- 30.3 ***"In environments where a variety of pesticides may be used, the potential for chemical interactions of inert and active ingredients should be understood to minimize risks."*** (copied from above EIR quote.)

Without full disclosure of the inert ingredients, it is not possible to understand or to minimize risks from the potential for chemical interactions of inert and active ingredients within the proposed Program.

QUESTION #30.1

Will CDFA please ask for the full disclosure of inert ingredients for all pesticides that will be used in the proposed Program? (The motivation to secure \$100s of millions of dollars of CDFA pesticide contracts will certainly have influence on pesticide manufacturers, and with effective encouragement and/or pressure from CDFA, manufacturers may provide the inert ingredients and their concentrations, disclosure beyond what FIFRA requires. Manufacturers of pesticides are people too and they may gladly and readily offer up the information in order to reduce the toxic chemical risks to millions of people.)

QUESTION # 30.2

Will CDFA wait on implementation of the proposed Program until all inert ingredients are known and sufficient time has been allowed to determine the associated risks of the chemical interactions of inert and active ingredients so that risks can be minimized?

QUESTION #30.3

There are quite a few people in California who go to extreme measures to avoid toxic chemicals in their lives and in the lives of their children. Many eat organic foods and still others go beyond organic to find food raised by farmers in the manor they prefer. Many people search for products and farmers whose standards are beyond those for organic certification. Some people grow their own food on their own property to achieve the standards of chemical avoidance they prefer. Some people avoid kitchen and other household products that are convenient, but that involve small amounts of toxic chemicals in the home. Some people even select their location and community to live based on their preference for avoiding toxic chemicals in their family's lives.

The combination of toxic chemicals, the magnitudes of toxic chemicals and the duration of toxic chemicals that the proposed Program imposes are outside the standards for many of these people. Those amounts of chemicals will dwarf the total amount of toxic chemicals that some of these people have avoided over many years. Many of these people's choices of homes, of schools, of work and their broader choice of living in California all would have not been made as they were, had these people known that such a proposed Program would take place.

How will CDFA mitigate the chemicals imposed, the chemical affects, the degradation in value of these people's valuation of their assets now finding themselves and their families essentially in a toxic dump, as they perceive it?

QUESTION #30.4

Some people are not willing to allow their children to be exposed to toxic chemicals, not only in amounts likely or known to cause cancers and other diseases, but also not allow them to be exposed to toxic chemicals in amounts even less than that. This is because of the significant variations in amounts of toxic chemicals that can cause effects from one person to another and because of their priorities and the premium value they place on their children's health and lives.

How will CDFA mitigate the impacts of the proposed Program on these people?

QUESTION #30.5

Will CDFA wait on implementation of the proposed Program for a reasonable time such that families who chose to can make arrangements to relocate outside of the proposed Program area?

(Relocation will consist of finding new jobs, new homes, new schools and physically moving their families and belongings to a new location. For some, it will involve selling their existing home, if they are a current homeowner.)

QUESTION #30.6

Will CDFA compensate people for the \$ cost of relocation in order to move outside of the proposed Program area?

QUESTION #30.7

Does CDFA consider as a cost of the proposed Program, the impact or risk of impact on people, children and families?

QUESTION #30.8

How does the CDFA include or integrate the impact or risk of impact on people's health and lives as a cost of the program and where is this cost shown in a cost benefit analysis of the proposed Program?

QUESTION #30.9

Does CDFA assign values to people's health problems or risk of health problems by the cost of medical care alone, or does CDFA assign an additional value in not having medical issues that need to be treated, and if so, how does CDFA value those avoidances of medial issues?

QUESTION #30.10

What values does CDFA place on (1) the life of an adult, (2) the life of a child and (3) the life of a fetus?

QUESTION #30.11

What value does CDFA place on illness or some other unit of health degradation to (1) an adult, (2) a child and (3) a fetus?

#31 EIR Chapter #1 Introduction, p 1-49, sec 1.6.1.4, MBNMS Permit, lines 6-8:

"This permit allowed potential discharges in the coastal areas of Marina, Seaside, and the Monterey Peninsula, within the MBNMS, but not in the vicinity of Santa Cruz or the Elkhorn Slough area."

QUESTION #31.1

Recognizing that drift was measured by CDFA from the 2007 aerial spray at well over three miles, how will CDFA prevent the pesticide drift from aerial spray into the vicinities of the sanctuary where it is not allowed or permitted?

#32 EIR Chapter #2 Program Description, p 2-1, sec 2.2, Program Goals & Objectives: *"Buffer areas (nontreatment areas adjacent to the treatment areas) will continue to be established and used to protect any threatened or endangered species or other environmentally sensitive areas from direct aerial and ground applications."*

QUESTION #32.1

Drift was measured by CDFA from the 2007 aerial spray at well over three miles. How will established buffer zones, at less than 1% the distance that drift travels, protect any threatened or endangered species or other environmentally sensitive areas from drift of aerial applications?

#33 EIR Chapter #2 Program Description, p 2-2, sec 2.2, Program Goals & Objectives: *"The OEHHA, DPR, and DPH will collaborate to conduct health reviews of the chemical-treatment tools to be used in the LBAM eradication program and to develop and monitor a system to collect and analyze health complaints that might be generated by the Program."*

COMMENTS

- 33.1 Developing and monitoring a system to collect and analyze health complaints that might be generated by the Program may be the most important aspect of the program. It is also the part of the Program that is second most requested by the public, second only to the public's request not to do the Program.
- 33.2 It is important that this program be in place at the beginning of the proposed Program, rather than any other scenario where it comes along afterwards.
- 33.3 This program should not stop at collecting and analyzing health complaints, but should have built in limiters that stop the Program when potential or actual harm may occur, or has occurred.
- 33.4 This part of the program is too important to not include it and its description and full details in this EIR, or a separate EIR of its own, but as a part of this Program EIR. DPR, OEHHA & DPH may have experience with some aspects of this program, but we can see from the chaos that was created in 2007, which was a tiny fraction of the magnitude of this proposed Program, that this is a substantial and unique program, to at least some degree, for these agencies. It is not routine by any evaluation. The public needs to be able to review and comment on the details of the Health Monitoring portion of the Program, just as this EIR provides the opportunity to comment on the other parts of the Program.

If CDFA were handling the Health Monitoring portion of the Program, it certainly would be appropriate to have it included in the EIR. It is equally important to have it included in the EIR when the three agencies are involved. It is actually more important that the Health Monitoring portion be included in the EIR when the agencies handle it, because there will be more coordination and communication required in the program to coordinate the multiple agencies participating.

If CDFA contracted out to have any or all of the alternative methods handled by a contractor or another agency, it would not be appropriate to not include that or those alternative methods in this Program EIR. Otherwise, if all alternative methods were handled by different agencies, then the Program EIR would simply be a listing of the parts of the program and the agencies handling their respective parts, no Program EIR at all. Thus, it is necessary to have that Health Monitoring portion or plan in its entirety as part of this Program and within the Program EIR.

QUESTION #33.1

Will CDFA include within the Program EIR, the complete health functions that are assigned to DPR, OEHHA and DPH with appropriate description, details, etc as related to any and all parts of the proposed Program?

QUESTION #33.2

When illness occurs and is reported after applications of various pesticides, it is very difficult at that time to scientifically determine the cause of the illnesses. If the pesticides do in fact cause illness, it still may be nearly impossible to prove because of the difficulty of isolating the impact of the pesticides from all other causes that are unknown and uncontrollable. Tests for most pesticide poisoning are not practical because there are few such tests and those that are possible often require a baseline prior to the pesticide exposure so a comparison can be made. These baseline tests are impractical because of the lack of availability of testing facilities and the substantial costs of such tests.

The only practical way to test the impact of the pesticide is to do the same procedure to a "Control" area where no pesticide is actually applied but those in that area are told the same thing is being done in their area as other areas actually receiving the pesticides. Then reports of illness can be compared and scientific results may be possible to determine based on the significance or lack of significance of differences in reports in the control area vs. the other areas.

Is CDFA planning to set up such tests to determine the impact of the pesticides applied?

QUESTION #33.3

The Department of Pesticide Regulation (DPR), the Office of Environmental Health Hazard Assessment (OEHHA) and the Department of Public Health (DPH) jointly issued **three reports** regarding the health effects of the 2007 aerial spray and potential health effects from applications of similar pesticides into human occupied areas.

These reports identified that the pesticide applied was a level 3 toxin, but the reports were inconclusive as to whether the illnesses reported after the spray of pesticides onto communities were caused by the spray of these pesticides onto these communities.

None of the three agencies doing the joint reports ever actually met with or interviewed any of the victims who filed illness reports, nor did they meet with any of the doctors or parents of children who filed reports. They did look at and consider 10% of the actual paper reports that were filed, but again with that limited level of investigation they could make no determination either way.

Q 33.3.1 On the proposed eradication Program, will CDFA or any other agencies actually meet with victims or parents or doctors who file reports?

Q 33.3.2 What is the budget for such activities?

Q 33.3.3 What are the full procedures planned for contact with victims in the application areas and what will the method of reporting be?

#34 EIR Chapter #2 Program Description, p 2-2, sec 2.2, Program Goals & Objectives: *"The OEHHA, DPR, and DPH will collaborate to conduct health reviews of the chemical-treatment tools to be used in the LBAM eradication program and to develop and monitor a system to collect and analyze health complaints that might be generated by the Program."*

COMMENTS

34.1 The EIR indicates that OEHHA, DPR and DPH will monitor and analyze health complaints that might be generated by the program, but no mention is made of who or what agency has the authority, responsibility, function and funding to modify or postpone or terminate the Program if health problems and/or reports occur.

QUESTION #34.1

Who or what agency has the authority, responsibility and function to modify or postpone or terminate the Program if health problems and/or reports occur? What is the budget for this activity?

QUESTION #34.2

What number of illness reports and types of illness observed or reported are NOT considered a significant impact?

QUESTION #34.3

What is the level and occurrence of illness reported that will be tolerated for each eradication tool (i.e. aerial spray, twist tie mating disruption, Permethrin poison splat on poles, trees, fixed objects, etc) with the planned result of continuing the eradication program: or conversely at what level and occurrence of illness reported for each eradication tool will that tool and/or the eradication program stop?

QUESTION #34.4

Where in the EIR are the alternate plans that would be implemented in the event that significant numbers or types of health incidents were occurring?

QUESTION #34.5

If significant numbers or types of health incidents were occurring, that would not be an effective time to initiate discussions or to expect members of the public to contact their elected officials. This would be far too time consuming and inappropriate for such a situation.

If significant numbers or types of health incidents were occurring, are there alternate and timely plans built-in/included within the Program to stop or change or postpone or terminate further Program actions? If so, what are those plans and what triggers them?

QUESTION #34.6

What is the complete budget for the health related responsibilities and activities for the proposed Program and how is it allocated across agencies and across functions?

#35 EIR Chapter #2 Program Description, p 2-2, sec 2.3, Alternatives for 2008-2015:
*"The Program anticipates using all of the chemical and nonchemical alternatives (and options) in combination as part of an integrated pest management Program. **However, should any one alternative become infeasible for effectiveness or economic or environmental reasons, the other alternatives would be used.**" (bold added)*

QUESTION #35.1

In the event that SIT or any other alternative failed to achieve its desired results and Permethrin applications were substituted, what is the maximum number of applications of Permethrin applied to trees, poles and other fixed objects that would be allowed within the proposed Program?

QUESTION #35.2

This Draft EIR took approximately 15 months to prepare from the time two superior courts denied the emergency status of LBAM in California, until July 2009 when this Draft EIR was issued. As the alternatives are substituted for each other real time during this program in the varied topography and urban conditions of California, how will significance of impacts be determined across the more than 357 elements (boxes within the matrix) of potential environmental concerns of Table S-1, and the 161 elements of health impacts (Table 8-52), literally while planes are flying?

QUESTION #35.3

How will Cumulative impacts be re-calculated timely under these same conditions?

#36 EIR Chapter #2 Program Description, p 2-7, sec 2.3.1 No Program Alternative, lines 1-6
*"The No Project or No Program Alternative, hereafter referred to as the No Program Alternative, would be to continue and expand quarantine and detection and inspection activities but without the application of the pheromone or any other insecticides or sterile moths or parasitic wasps on an areawide basis by the USDA or CDFA. Restrictions on domestic and foreign trade would increase. **It is included here early in the PEIR (rather than in Chapter 15, Other Required Disclosures, Alternatives), along with the Program alternatives, due to public interest expressed in the alternative during public scoping.**"*
(bold added).

COMMENTS

36.1 There was no public interest expressed in "The No Program Alternative" as defined in this EIR. That is a mistake and quite inaccurate. There was tremendous public interest expressed in "A No Program Alternative" that is defined as "No CDFA proposed Program, no CDFA quarantines, no CDFA inspections.

QUESTION #36.1

Will the CDFA please correct this error of misstating the public interest expressed during public scoping?

Videos of scoping sessions are available and with this alert of the error, it is simple to recognize and correct the error made. Please contact me if you do not already have access to the scoping videos.

#37 EIR Chapter #2 Program Description, p 2-8, sec 2.3.1 No Program Alternative, lines 1-6
*"Homeowner insecticide use for LBAM control has been estimated by the CDFA's Robert V. Dowell, PhD. using permethrin as a representative material (**Dowell 2008b**). Permethrin is a broad spectrum insecticide that will kill LBAM larvae and is readily available. The projected increase in permethrin use due to LBAM ranges from 0.7 to 5.6 percent of the 41,940 pounds of permethrin used annually for a 9-county area to 9.5 to 34.5 percent of the 215,348 pounds used in a 16-county area."*

COMMENTS

37.1 There are multiple locations in Santa Cruz and San Francisco counties with relatively large LBAM populations. There is no indication that additional Permethrin is being used in these places to combat LBAM. Not all insects motivate additional home and garden pesticides and LBAM is fitting into that category.

37.2 Dowell is the Program Manager for the CDFA LBAM Eradication Program. His position, alone, disqualifies him from being able to deliver an unbiased opinion. The analysis and relationship that he suggests for additional Permethrin use is unfounded and not being supported in any area with LBAM populations.

#38 EIR Chapter #2 Program Description, p 2-10, sec 2.3.2.1 Twist Ties, second bullet.

- *Areas designated for twist-tie placement:*
 - *Isolated sites*
 - *Areas that are further than 5 miles from a generally infested area*
 - ***Areas with low-level populations*** (bold added).

COMMENTS

38.1 Twist Ties are a mating disruption tool engineered exclusively for agriculture fields with instructions and training programs for agriculture fields. Twist Ties were not engineered for non-agriculture fields or populated areas and there are no instructions for use of twist ties in populated areas. The manufacturer is not able to guess Twist Tie impact in populated areas for which it was not engineered. Twist Ties were not intended to be placed in proximity to people, any number of people.

QUESTION #38.1

Please define "Areas with low-level populations." Please quantify the definition unambiguously when defining it, such as: number of people per square mile or acre, number of buildings per square mile, number of residences per square mile, or similarly so it can be easily understood and verified as to conformity during a program with those standards.

QUESTION #38.2

Please explain why a product would be considered for use outside of the boundaries for which it was engineered, particularly since it is toxic?

QUESTION #38.3

Have twist ties ever been used before for LBAM eradication and if so, what were the results?

#39 EIR Chapter #2 Program Description, p 2-14, sec 2.3.6, Alternative SIT, line 1:

"SIT will be the primary tool for LBAM eradication in California when it becomes fully operational."

COMMENTS

39.1 SIT is currently in the developmental stage. If it succeeds to a reasonable extent, it will go next into the experimental stage. If that stage succeeds to a reasonable extent, SIT will be implemented and then monitoring and effectiveness evaluations would continue and be ongoing as the scale of implementation increases significantly. All these steps require successes in both production of lab-produced moths and their effectiveness of mimicking wild moths.

39.2 Projecting that SIT for LBAM will be the primary tool for LBAM eradication and LBAM eradication will occur by 2015 is quite optimistic. Currently being in the development stage, the time it takes for development and the likelihood that it will

succeed in the development stage is still speculative. Similarly with the experimental stage. If done properly, it will take superior skill to determine if the portion of the experiment on mating disruption works because numerous other variables unrelated to SIT will impact the natural moth population of LBAM, and to be legitimate, the experiment will have to properly isolate the effect of SIT alone. That will be extremely hard to do, whether SIT is actually working or not. It would be a typical mistake to assign decreased LBAM count to SIT, when in fact it may have been most attributable to natural LBAM population reduction as fall approaches winter. Results of experimentation may also not apply to other areas and other times as the variables in nature combined with lab-produced moths do not lend themselves to consistent results. After the experimental stage, the scale of the operation would need to move from experimental to operational and on a huge statewide scale. In the process of dramatically increasing production numbers many millions per day, it will be an interesting and sensitive issue to attempt to maintain whatever limited mimicking characteristics that were achieved in the low level sample production of the lab-produced moths. To date, world wide, this has not yet been achieved to reach the standards necessary for eradication.

- 39.3 The SIT portion of the proposed Program is most accurately in the R&D stage. There are uncertainties and unknown probabilities that are typical within an R&D project. R&D programs consistently take longer and cost more than repetitive programs, three times longer and \$ multiples even greater are not untypical. This Project is loaded with uncertainties and upcoming delays and errors far beyond that of other large projects. This is not simply building another highway or another bridge with existing proven technologies. The SIT portion of the proposed Program involves research and development. Even though the CDFA speaks as though everything they say is a certainty, that style of ignoring the true likelihoods of multiple events does not make this Project any less of an experiment, than it truly is.
- 39.4 SIT is identified as the primary tool in the proposed Program. SIT is still in the developmental stage. If it comes through that stage, it will move to the experimental stage. If successful in experimentation, it will move to the implementation stage. Bringing SIT to full implementation capability within the implementation stage will be another interesting challenge.
- 39.5 But CDFA is planning to initiate the proposed Program years before SIT is successful in all stages required to be implemented and more importantly to be implemented as the primary tool being counted on for eradication in this program.
- 39.6 So it is quite possible that a vast amount of the chemical applications will begin for some years and people and the environment will be subjected to those chemicals and SIT will never reach the success required to step into the proposed Program as the primary tool that CDFA has conceptually described and is counting on for eradication in this EIR. Switching one tool for another is certainly mentioned in the EIR in some applications, but nothing of the magnitude of the primary tool never coming to fruition for this proposed Program. This scenario is extremely likely. However, CDFA is still intending to initiate and implement the proposed Program years prior to their SIT primary tool possibly coming available, if it ever comes

available. Millions of people and their children will be exposed to chemicals and for absolutely no reason, since even CDFA does not claim to be able to eradicate LBAM without SIT.

QUESTION #39.1

Will CDFA wait to begin the proposed Program until SIT has gone through all of its stages and is ready to deliver the capacity of 20 million or so moths each day to this Program?

QUESTION #39.2

What is CDFA's estimate of the likelihood that SIT will ultimately reach that capacity?

QUESTION #39.3

What is the minimum daily capacity that CDFA requires of SIT to still eradicate LBAM with SIT as the primary tool?

QUESTION #39.4

What is the likelihood (mathematical probability) that SIT will achieve at least the minimum capacity that CDFA requires?

QUESTION #39.5

What is the date that CDFA anticipates routine operational status for daily release of the capacity required that SIT would succeed as the primary tool for eradication?

QUESTION #39.5

What is CDFA's contingency plan if SIT does not achieve the status that CDFA is counting on as its primary eradication tool for the proposed Program?

QUESTION #39.6

What is the maximum time that CDFA will wait for SIT to be in full operation, calculated from the start time of the proposed Program, before CDFA implements their contingency plan?

#40 EIR Chapter #2 Program Description, p 2-14, sec 2.3.6, Completion of Applications: *"Duration of LBAM life cycles is calculated using a local daily temperature-driven computer model maintained by the CDFA. The model is based on research done on the effects of temperature on LBAM growth and development (Mo 2006; New South Wales Department of Primary Industries Agriculture 2008)."*

QUESTION #40.1

Why would the CDFA use and give credibility to a southern hemisphere study on effects of temperature on LBAM when the southern hemisphere countries do not have LBAM eradication programs, do not think that attempting LBAM eradication is cost - benefit effective, do not think that LBAM eradication is possible and have never used any of the proposed Program methods in LBAM eradication, though they are quite familiar with LBAM and those methods in control applications?

QUESTION #40.2

If CDFA expects LBAM to react to temperatures in California as they do in the southern hemisphere, why doesn't CDFA import any of the other LBAM behavior in the southern hemisphere including no impacts to forests and wild lands and not-a-significant-threat to agriculture?

QUESTION #40.3

With the extensive knowledge and experience that does exist in the southern hemisphere regarding LBAM, why doesn't the CDFA imitate or follow the same patterns and methods that are successfully implemented in the southern hemisphere to handle LBAM?

#41 EIR Chapter #2 Program Description, p 2-14, sec 2.3.6, Completion of Applications: *"Traps in eradication areas will be stationary, placed at nine .traps per square mile, inspected biweekly, and baited with 100-microgram lure."*

QUESTION #41.1

When aerially spraying synthetic pheromones, it makes the synthetic pheromone traps ineffective because the moths do not find the traps amongst the broader synthetic pheromone applied (blinds the traps).

How will CDFA monitor the number of moths in areas where aerial spray is being implemented?

#42 EIR Chapter #2 Program Description, p 2-16, sec 2.6 Public Outreach and Communication, lines 1-6:

*Working with government agencies, and organizations representing farmers, environmental interests, and others, the Program will initiate a statewide public education effort on California's initiative to manage LBAM and other invasive species. The objectives of the statewide outreach and education effort include: **Educating the public about potential environmental, agricultural and economic damage caused by specific pests (i.e., LBAM) and the consequences associated with not taking immediate action – such as the potential for increased pesticide use if the pest becomes established"** (bold added)*

QUESTION #42.1

How does the CDFA explain that at the Public Comment Meetings in Sacramento, Watsonville, Oakland, and Sonoma, 100% of the public was against the implementation of the proposed eradication Program?

QUESTION #42.2

How does the CDFA explain the entomologists, biologists, medical doctors, toxicologists retired public health officials, elected representatives and their representatives who spoke against the program and who presented scientific information and common sense statements against the necessity, against the safety, against the capability and against the cost benefit relationships of this proposed Program?

QUESTION #42.3

Where are the actual scientists within CDFA or other agencies that CDFA management often refers to that believe the potential threat of LBAM?

QUESTION #42.4

Many qualified scientists who speak against this Program have done so by (1) detailing the reasons that the moth is no more of a problem than other leaf rollers, (2) detailing the reasons that it cannot be eradicated and (3) detailing the known and potential problems to human health and the environment that the proposed Program creates. For the informed public, it is not enough for CDFA Management to claim that there are scientists in their agency and other agencies that believe in this program.

When will the scientists (not CDFA Management) who believe in this proposed Program come forward and speak to the public and deliver and exchange the facts and basis of their beliefs?

QUESTION #42.5

Why has CDFA rejected so many invitations to town hall type meetings sponsored by private groups, when the most significant independent scientists are known to be attending as part of the expert panel?

#43 EIR Chapter #2 Program Description, p 2-16, sec 2.6 Public Outreach & Communication:

COMMENTS

43.1 I, Glen Chase, at the 8/25/09 Sacramento CDFA draft EIR public comment meeting, submitted a verbal request that was entered into the record for a public EIR comment meeting in Santa Cruz. I also submitted an email dated 9/3/09 and followed with delivery of a copy of that same email to the CDFA by certified mail, requesting the public EIR comment meeting in Santa Cruz. The email/letter contains 14 significant reasons for holding a meeting in Santa Cruz that related to communicating with the public regarding this proposed Program. Neil Coonerty, Santa Cruz County Supervisor, also made a verbal request for such a meeting directly to the CDFA and as I understand, other elected officials and individuals requested the same meeting. I received one email response from Michael Jarvis of the CDFA telling me some general statements about public comments with no specific mention of a meeting in Santa Cruz. I then followed up with the email and copy of the email sent through the post office that I have described above and to this date, September 26, 2009, I have not received a response from Michael Jarvis or anyone else at the CDFA. Santa Cruz is the largest city that was entirely sprayed during the 2007 aerial spray program. There were at least 200 to 300 people or more in Santa Cruz looking to attend a public Draft EIR meeting. The number of

people in Santa Cruz wanting to attend was greater than the combined total of people across the state that attended other meetings in the state that were inconveniently timed and located for public comment. CDFA did not respond to my email or letter. (The email/letter is copied on page 92 of this EIR response.) That does not appear to be an excellent effort at Public Outreach and Communication. The informed public has judged CDFA's communication and outreach as deceptive and arrogant throughout this program, since they first approached Monterey and Santa Cruz Counties in 2007.

With all my research on this proposed Program (three published reports and four press releases), and with making every attempt at staying informed daily as to the status of this program since Fall of 2007, with all the CDFA claims that they will do the best possible job of keeping the public informed with opportunities for dialog, my family and I found out with 45 minutes notice that the house we were living in was about to be aeriually sprayed. And we only found out because I had made a random call to the CDFA to get information for a neighbor. Many other people in the spray zone had no notice and found out the CDFA's actual spray schedule after and while the planes were overhead. That is not an anomaly of this Program. It is quite representative of the actual communication and performance and apparent disdain by CDFA Management for the public, regardless of the standard or appropriate phrases that CDFA Management delivers in their formal process.

QUESTION #43.1

Why did CDFA offer EIR public comment meetings at locations and times that were known to draw and drew three or four people each, and not provide a meeting for the hundreds of people in Santa Cruz who wanted to participate in a public comment meeting and asked to do so?

#44 EIR Chapter #2 Program Description, p 2-16, sec 2.6 Public Outreach & Communication:

"Residents whose property will be treated will receive written notification prior to treatment. Residents may sign up for an e-mail notification for updates on the treatment schedules and areas scheduled to be treated or call an informational phone line to have questions answered."

QUESTION #44.1

For those persons that do not want the pesticide treatments on their private property, what are their options and what is their administrative method to deny application on their private property?

#45 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-1
"Further, the public scoping indicated a concern that pesticide applications on land proximate to organic farms may result in the loss of organic certification."

COMMENTS

45.1 The public was concerned about organic certification as that represented a certain standard and quality of food. The informed public has since learned that the aerial spray in 2007 contained TMAC, a toxic chemical not allowed on organic or conventional food of any kind, but that arrangements had been made to maintain the organic certification even with the TMAC in the aerial spray. So the informed public is now more interested in the truth of the chemicals used in their food, rather than a certification influenced by deals. The EPA has since withdrawn the emergency exemption for that aerial spray product under pressure from a lawsuit filed against them in Federal Court. CDFA represented the Checkmate aerial spray with TMAC as "Non-toxic" and that has proven false. CDFA sprayed people and communities with that toxic chemical in 2007. The current proposed aerial spray is represented as likely to affect sensitive people. That is not terribly reassuring after CDFA's previous misrepresentation of the toxic Checkmate aerial spray.

QUESTION #45.1

Will CDFA publicly acknowledge their error of 2007 as part of the final EIR, so the informed public may again begin to attempt to trust them?

QUESTION #45.2

Will CDFA please start representing their information more accurately in this EIR process as opinions with likelihoods or probabilities, rather than as proven facts or laws?

QUESTION #45.3

How will CDFA mitigate natural and non-chemical and organic home backyard food gardens that meet or exceed organic standards, but are not certified?

#46 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-17, section 3.2.2 Evaluation Methods and Assumptions, lines 10-12:

*" Under the No Program Alternative, it is assumed that the farmers and nursery operators would continue use of pesticides to avoid substantial agricultural and horticultural crop damages and to meet quarantine restrictions such that their commodities could be exported from the state. Estimates of increased pesticide application have been developed by the CDFA (see Dowell 2008a) and serve as part of the basis for changes in agricultural production costs. Further, it is assumed that individual farm-level and nursery-level responses to potential LBAM infestation would not eradicate the pest As a result, LBAM would continue to spread statewide and some level of residual crop damage would occur. Conversely, **it is assumed that implementation of the Proposed Program would completely eradicate the moth from currently infested areas and, therefore, would prevent the moth from spreading to other parts of the state**" (bold added).*

COMMENTS

- 46.1 This quote is the strongest support and basis for the success of Eradication as exists for the proposed Program. However, note that the support for eradication is simply assumed. Eradication in this proposed Program is assumed. Eradication is not predicted or supported by some activity or success in history that supports this current proposed Program to any degree of possible success. Eradication is not supported by an equivalent activity using similar combinations of methods or technologies that would demonstrate some likelihood of eradication for the proposed Program. There is no raw accumulation of new technologies specifically designed to accomplish eradication and with reasonable logic why eradication could be achieved. With the proposed Program, there is only a tremendous number of methods used in combinations that have never been proven to work together effectively and have never resulted in eradication of LBAM anywhere. The claim of eradication is not an evaluation, as one would expect, rather it is simply an assumption. "Assuming eradication" sets up a foundation that has no basis. And a system based on such a false premise is certainly not only going to fail, but it is likely to create problems that we can only guess, at this time.
- 46.2 Note the word "Conversely" prior to the bolded sentence above in #46. Conversely means "on the other hand." By convention in a sentence, conversely is often used to describe opposites placed before and after the word conversely. Examples include: He was tall and strong. Conversely, she was short and weak. The hare was fast. Conversely, the turtle was slow. Using the word conversely, by convention, almost becomes the support or substantiation for that which follows being opposite of that which preceded. Try it yourself as an example:
He was heavy. Conversely, she was _____.
The horse couldn't move the mountain. Conversely, the donkey _____
(answers: light, could).

There is an assumption in the above EIR quote prior to "Conversely" that something else "Would not" eradicate LBAM (called the pest), and then the something after "Conversely" would. Not surprisingly, the something after the word "Conversely" is the Proposed Program. There is absolutely no logic that if one thing won't, the next thing will. But that is precisely the way that eradication, even though stated as an assumption, is given false or more accurately hollow support, an appearance of support, but no actual foundation or content. Not only is eradication an assumption, but it is given strength, not by some rational scenario that leads to eradication, but by the structure of the sentence and the rhythm of the sentence with the word "Conversely" at the fulcrum (center of the teeter-totter.)

Whether one arrives at it by sentence structure, rhythm and balance or by recognition that it is an assumption without reasonable basis, eradication has no basis, no realistic potential and therefore the proposed Program which is based on a false assumption is without merit.

QUESTION #46.1

Why does CDFA assume that the Proposed Program will completely eradicate the moth? #47 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-20, section 3.2.3.2 Effects on Agricultural Revenues (Crop Damages), lines 3-5:

*"it is anticipated that LBAM would ultimately cause direct damages to host crops; **no direct crop damages have been experienced to date in areas subject to existing infestation** (Roach, pers. comm., 2009b)."*

COMMENTS

47.1 CDFA has been reporting damage from LBAM to the public, the media and elected officials repeatedly since 2007. Most recently CDFA attributed summer 2009 cane berry damage in Watsonville to LBAM. Media have released stories, based on information from CDFA representatives, about LBAM devastating the strawberry crop in Santa Cruz County. But finally and for the first time since CDFA took leadership of the LBAM situation, CDFA admits, within this EIR, that **"no direct crop damages have been experienced to date in areas subject to existing infestation"**

QUESTION #47.1

Why has CDFA repeatedly been claiming damage caused by LBAM and now in the EIR it states "No damage?"

QUESTION #47.2

Why did representatives of the CDFA show pictures of damage in 2008 that were represented as damage caused by LBAM to mayors and city councils including the Mayor of Daly City, their City Council and members of the public? What were those pictures?

QUESTION #47.3

Knowing that LBAM has been in California between four and fifty or more calendar years and this EIR finally and most recently reveals "No damage" from LBAM, why is CDFA still anticipating damages from LBAM?

QUESTION #47.4

Why does CDFA continue to project "Potential" damage when no damage has occurred in any area where light, moderate or heavy infestations of LBAM exist?

QUESTION #47.5

Initially, actual damage from LBAM was the motivation of the proposed Program. Previous claims of LBAM damage are now inconsistent with CDFA's EIR stating that no damages have occurred. Why has CDFA moved to "Potential damage" from actual damage to support the proposed Program and what is the exact basis (factual or rational support) for projecting potential damage and what are the \$ projections of potential damage?

#48 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-20, section 3.2.3.2 Effects on Agricultural Revenues (Crop Damages), para 3 lines 2-3:
"If the Proposed Program is not implemented, it is estimated that direct crop damage to LBAM host commodities in the primary Program Area could range from \$12.5 million to \$155.7 million annually"

COMMENTS

48.1 It is difficult to take these potential damage claims seriously now knowing that no damage has occurred at all after between four and 50 or more calendar years. But to discuss the claims made in this EIR, lets continue.

QUESTION #48.1

The present value of \$12.5 million of crops lost per year in perpetuity at 10% interest rate is \$125 million. The \$ cost of the attempted LBAM eradication program is approximately \$100 million per year. CDFA estimates it will take seven years to eradicate. The present value of the cost of attempted eradication at \$100 million per year over seven years at a 10% interest rate is \$536 million dollars.

Why is the CDFA committing to spend approximately \$536 million dollars to attempt to avoid a potential loss of approximately \$125 million?

QUESTION #48.2

It is likely that if there were ever crop losses from LBAM, they would not last in perpetuity, so the loss from LBAM would be even less. Farmers are not idiots. They would likely adjust their methods or even rotate their crops into other crops that are not affected by LBAM. New Zealand farmers, Hawaiian farmers, English farmers do not sustain economically significant crop loss from LBAM and they do not experience sustained economic loss from LBAM. Neither have California farmers for the four to 50+ calendar years that they have farmed with LBAM in California.

Other CDFA eradication programs, not nearly as extensive and complex, have lasted considerably longer, up to and beyond 25 years.

None of the individual tools or combination of tools have ever been used before to eradicate LBAM. The LBAM eradication Program has many tools and combinations of those tools proposed for use: aerial spray, twist ties, mating disruption by ground, permethrin poison by ground, parasitic wasps, Sterile Moth technology, etc. Sterile Moth Technology is still in the developmental stage with the experimental stage still to come, if the developmental stage is successful. Twist ties were developed for agricultural fields and putting them in non-agricultural lands or communities is beyond what they were engineered for so the results and impacts in non-agricultural lands are unknown.

The eradication proposed Program is most accurately in the R&D stage. Therefore this attempted eradication Program will almost certainly go beyond seven years and more, likely 25 years or more. SIT is identified as the primary tool in the proposed Program.

However, SIT for LBAM is not even yet out of the development stage, nor through the experimental stage and certainly not at the full implementation stage and there are no guarantees that SIT will make it through any of those stages. There is also no precedent for SIT to eradicate LBAM or any other moth on this planet, throughout history. So again, 25 years is a conservative estimate of the true projected time this proposed Government agency Program would likely continue to operate once it begins, and still almost certainly without eradication of LBAM. The cost will likely run into the billions of dollars.

Why is the CDFA committing to spend between present value \$536 million and many Billions of dollars to attempt to avoid a potential loss of approximately \$125 million, particularly when that loss may not occur and if any losses started to accrue, the remainder could be avoided.

COMMENT # 48.2

The eradication proposed Program is most accurately in the R&D stage. There are uncertainties and unknown probabilities that are typical within an R&D project. R&D programs consistently take longer and cost more than repetitive programs, easily three times longer and considerably more \$. This Project is loaded with uncertainties and upcoming delays and errors far beyond that of other large projects. This is not simply building another highway or another bridge with existing proven technologies. The proposed Program involves research and development. Even though the CDFA speaks as though everything they say is a certainty, that style of ignoring the true likelihoods of multiple events does not make this Project any less of an experiment, than it truly is.

SIT is identified as the primary tool in the proposed Program. SIT is still in the developmental stage. If it comes through that stage, it will move to the experimental stage. If successful in experimentation, it will move to the implementation stage. Bringing SIT to full implementation capability within the implementation stage will be another interesting challenge.

But CDFA is planning to initiate the proposed Program years before the successes that are required in many stages for SIT to be used at all and more importantly to take on the roll of the primary tool in this eradication Program?

So it is quite possible that a vast amount of the chemical applications will begin for some years and people and the environment will be subjected to those chemicals and SIT will never reach the success required to step into the proposed Program as the primary tool that CDFA has conceptually described and is counting on for eradication in this EIR. Switching one tool for another is certainly mentioned in the EIR in some applications, but nothing of the magnitude of the primary tool never coming to fruition for this proposed Program. This scenario is extremely likely. However, CDFA is still intending to initiate and implement the proposed Program years prior to their SIT primary tool possibly coming available, if it ever comes available. Millions of people and their children will be exposed to chemicals and for absolutely no reason, since even CDFA does not claim to be able to eradicate LBAM without SIT.

QUESTION #48.3

Will CDFA wait to begin the proposed Program until SIT has gone through all of its stages and is ready to deliver the capacity of 20 million or so moths each day to this program?

QUESTION #48.4

What is CDFA's estimate of the likelihood that SIT will ultimately reach that capacity?

QUESTION #48.5

What is the minimum capacity that CDFA requires of SIT to still eradicate LBAM with SIT as the primary tool?

QUESTION #48.6

What is the likelihood (mathematical probability) that SIT will achieve at least the minimum capacity that CDFA requires?

QUESTION #48.7

What is the date projected to reach daily delivery of the required number of moths and with the amount mimicking wild moth behavior to sufficient degree for SIT to be working and effective as the primary tool?

#49 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-21, section 3.2.3.2 Effects on Agricultural Revenues (Crop Damages), last two lines:
"Because no crop damages have been experienced to date, all potential crop damages would be reflective of the No Program Alternative; this impact is potentially significant."

QUESTION #49.1

After broadcasting damage from LBAM during 2007, 2008 and 2009, exactly when did CDFA determine that LBAM had actually caused no damage and how did this occur?

#50 EIR Chapter #4 Urban and Rural Land Use, sec 4.2.9 Cumulative Impacts, lines 1-2:
*"No potentially significant or even less-than-significant impacts to urban and rural land uses would occur as a result of any of the Program alternatives. **Therefore**, no cumulative impacts would occur."* (bold added)

COMMENTS

50.1 Cumulative means successive additions of the same Program alternative and/or the addition of Program alternatives acting in combinations. The EIR quote #50 above from Chapter #4 does not address the Cumulative impacts of the alternatives. The word "Therefore" is not an explanation. Whether or not the individual Program

alternatives have significant impacts or not individually, does not respond to the issue of their "Cumulative" impacts.

QUESTION #50.1

Does CDFG agree that the premise upon which the conclusion of no cumulative impact was based, was left out of the EIR as represented by the quoted statement in section 4.2.9 of the Draft EIR?

QUESTION #50.2

If CDFG does not agree that the premise of their conclusion "No cumulative impacts would occur," was left out of the EIR, what is the premise for that conclusion?

QUESTION #50.3

Being alerted now to the error or omission made regarding the lack of basis for the conclusion "No cumulative impacts would occur", will CDFG change that conclusion and what is CDFG's current conclusion regarding the cumulative impacts of the Program alternatives?

#51 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-23, lines 4-6:
*"Control of LBAM by individual farmers and nursery operators could result in increased annual production costs ranging from \$5.4 million to \$19.5 million. These amounts would represent increased costs of production for farmers and nursery operators. In some cases, the costs may be substantive enough to force those businesses to reduce production. The potential for such adverse effects is greater than under existing conditions. **This potential for increased costs to result in reduced production is a potentially significant impact.**"*

QUESTION #51.1

What is the specific increased cost threshold, above which this EIR identifies as "Potentially Significant?"

QUESTION #51.2

What is the probability of increased production costs at \$5.4 million, and at \$19.5 million?

QUESTION #51.3

This Draft EIR states *"No direct crop damage has occurred to date."*
What is the probability that No crop damage will occur?

QUESTION #51.4

What is the precedent in California for any projection of crop damage greater than zero?

#52 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-23, lines 4-6:
*"Control of LBAM by individual farmers and nursery operators could result in increased annual production costs ranging from \$5.4 million to \$19.5 million. These amounts would represent increased costs of production for farmers and nursery operators. In some cases, the costs may be substantive enough to force those businesses to reduce production. The potential for such adverse effects is greater than under existing conditions. **This potential for increased costs to result in reduced production is a potentially significant impact.**"*

QUESTION #52.1

Why does the EIR assume increased costs and reduced production rather than considering the rotation of crops into any number of hundreds of other relevant California crops unaffected by LBAM?

QUESTION #52.2

Doesn't the option to rotate crops into any number of hundreds of other relevant California crops mitigate even "Potential costs" of LBAM?

QUESTION #52.3

Doesn't the option to rotate crops into any number of hundreds of other relevant California crops also result in "No significant impact" and "No potentially significant impact?"

QUESTION #52.4

What is the amount of increased costs and reduced production, above which significance is claimed and below which is not significant?

#53 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-26, lines 4-6:
"Under all of the Program alternatives, both chemical and nonchemical treatment methods, it is assumed that, in the long run, the proposed eradication methods would be successful in eradicating LBAM from currently infested areas (i.e., primary Program Area) and would prevent spread of LBAM throughout the state (i.e., statewide Program Area)."

COMMENTS

53.1 Definition of "Eradicate."

"To destroy or get rid of something completely, so that it can never recur or return" (Encarta® World English Dictionary © 1999 Microsoft Corporation. All rights reserved. Developed for Microsoft by Bloomsbury Publishing Plc.)

QUESTION #53.1

Isn't it true that if the program does not eliminate each and every LBAM and keep LBAM from re-entering the state, that eradication has not been achieved?

QUESTION #53.2

What is the likelihood or probability that the proposed eradication program will be successful?

QUESTION #53.3

What is the likelihood or probability that the proposed eradication program will not be successful?

QUESTION #53.4

What is the likelihood or probability that the proposed eradication program will affect the population of LBAM, but not eliminate the entire population?

QUESTION #53.5

If the CDFA Program affects the population of LBAM, but does not eliminate LBAM completely, then the program will require continued treatments and the result will be some degree of Control of LBAM, rather than eradication. There are already simple and inexpensive Control techniques that are used in New Zealand to Control LBAM and leaf roller moths in general and many organic farmers in California already employ farming techniques that make LBAM a non-issue.

The September 14, 2009 NAS report has suggested that USDA revisit their statements about the threat from LBAM and adjust them to reflect science, rather than worst case scenarios.

James Carey, Dan Harder and Deryl Chambers in testimony at the 8/25/09 Senator Florez Committee of Food and Agriculture hearing on the LBAM EIR stated that LBAM cannot be eradicated.

Frank Zalom, UC Davis, has stated that there is virtually no chance to eradicate LBAM.

Common sense tells us that we cannot rid the entire state of each and every LBAM micro moth. If we could, then we could also eradicate other widely disbursed insects living throughout the state and amongst humans such as cockroaches, ants, spiders, earwigs, etc, but we cannot.

Why would the CDFA spend \$100s of millions every year for an eradication program that will fail by the expert opinion of virtually all qualified independent scientists with no stake in this matter, for which there is no single example of successful LBAM eradication under similar conditions or under any conditions in any country where LBAM lives and when the evidence is now near conclusive that the potential crop damage from LBAM is minor, negligible or none?

QUESTION #53.6

Why would the CDFA spend \$100s of millions every year for an eradication program that may at best ineffectively control LBAM in some areas, when effective techniques to

control LBAM are already known, at no cost to the state and at a negligible total cost to the entire agricultural community and considerably less than the cost of the proposed LBAM eradication program?

QUESTION #53.7

LBAM is in many other countries and will likely enter California on numerous additional occasions regardless of the efforts to stop it.

QUESTION #53.8

Hypothetically, if temporary elimination of LBAM took place, how does this program prevent LBAM from re-entering California again and again and again?

QUESTION #53.9

Is the CDFA planning to repeat the eradication program and to repeat spending even more emergency funds when they again find LBAM in the state?

QUESTION #53.10

How does the CDFA determine if LBAM has re-entered the state or if the finds of LBAM are those still remaining from the previous eradication attempt?

QUESTION #53.11

Why hasn't the CDFA recognized that control of LBAM is already a simple and routine process handled by farmers?

QUESTION #53.12

Why doesn't CDFA step out of the way so that farmers can control LBAM along with other leaf rollers which has been proven successful, routine and simple and operating successfully in New Zealand for over 20 years?

QUESTION #53.13

How about CDFA stepping out of the way for a while so that we can find out the natural affects of LBAM in California; to see if it requires no control as in Hawaii or just the very minimum control along with other leaf roller moths on rare occasions as in New Zealand?

#54 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-27, section: *Effects on Farm-Level Production Costs, lines 1-3:*

"Under all of the Program alternatives, it is assumed that, in the long run, the proposed eradication methods would be successful in eradicating LBAM from currently invested areas (i.e., primary Program Area) and would prevent spread of LBAM throughout the state (i.e., statewide Program Area)." (bold added)

QUESTION #54.1

Rather than assuming eradication, please explain how the program will result in eradication.

#55 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-29, section: Effects on Beneficial Insects and Agriculture, lines 1-7:

Chapter 12, Ecological Health, concludes that, due to uncertainties in the modeling, the potential exists for toxicity impacts to beneficial insects associated with implementation of Alternative MD-2; however, toxicity impacts on pollinator species are not anticipated. Accordingly, potential impacts on crop pollination, agricultural production, and losses in crop values would be negligible.

Impact AG-8: Based on the toxicity modeling, Alternative MD-2 would not have impacts on pollinator species and, therefore, impacts on crop production and values are not anticipated. This impact would be less than significant. No mitigation is required.

QUESTION #55.1

Why are impacts on pollinator species not anticipated, particularly since uncertainties exist and the potential exists for toxicity impacts to beneficial insects?

QUESTION #55.2

What impact above which would be significant and below which would be less than significant?

QUESTION #55.3

Permethrin poison, known to be deadly to many insects including bees, is intended to be applied on poles and bushes and trees along with the pheromone based pesticide which is less understood.

QUESTION #55.4

Why are bees and other pollinators not going to be impacted by such deadly chemicals distributed throughout the application areas where these insects live?

QUESTION #55.5

If Permethrin poison is within the "not significant" range for bees and other pollinators, what poison could possibly be worse?

#56 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-29, section: Aerial Applications, lines 1-3:

"Aerial applications of LBAM-specific pheromones would be used to treat denser LBAM populations. The area for application is a 1.5-mile radius around each location where LBAM is detected in an undeveloped area."

QUESTION #56.1

What is the maximum number of adults within the 1.5 mile radius acceptable to be aerial sprayed in this program and still label the area as "Undeveloped?"

QUESTION #56.2

What is the maximum number of children within the 1.5 mile radius acceptable to be aerial sprayed in this program and still label the area as "Undeveloped?"

#57 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-30, section: Effects on Organic Farming:

"The California Certified Organic Farmers,6 which bases its certification on the USDA standards, does not endorse aerial applications of pheromones in LBAM eradication efforts (Reed, pers. comm., 2009). However, this lack of endorsement does not affect organic farmers' ability to sell or label crops as organic, and it does not affect farm-level certification. Public protests have taken place about the perceived safety and health risks associated with aerial application of pheromones, which has caused some consumers to threaten a boycott of organic produce that has been treated with this method (Reed, pers. comm., 2009)."

COMMENTS

57.1 Organic certification is a practical administrative labeling that only approximates many people's desires to eat food that is not grown with or contaminated by toxins. CCOF specifically states their opposition to aerial spray of pheromones in LBAM efforts. The USDA not removing organic certification due to aerial spray on organic farms does not mitigate those people's preferences for their food grown without being sprayed with toxins and does not satisfy the intent of organic labeling. Stretching the organic label to include processes done by this attempted LBAM eradication program is not in good faith with consumers or organic growers.

QUESTION #57.1

How does the CDFA measure the impact on private organic food gardens of members of the public who do not want aerial sprays on their gardens, who have no way to mitigate broad aerial sprays over their gardens, who do not require certification but grow their own food to maintain standards of pesticide free food?

QUESTION #57.2

How does CDFA mitigate the effect of the aerial spray over private home gardens who want no part of the CDFA aerial spray, who grow their own food in order to provide their families with food without chemical toxins and who have no means of protecting their gardens from the chemicals in the aerial spray?

#58 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-30 to 3-31, section 3.2.5 Effects on Organic Farming:

"Alternative MMA involves ground treatment with LBAM-specific pheromones combined with permethrin to attract and kill male moths."

"The treatment area consists of a 1.5-mile radius around any detection site, and the material would be applied to street trees and utility poles. MMA treatment sites would be out of reach of the general public."

"The use of permethrin is prohibited for organic use by the USDA's National Organic Program Standards."

"In addition, any contact with a prohibited substance such as permethrin can also result in soil contamination."

"According to the USEPA, permethrin toxicity data show that the compound is highly toxic to honeybees, as well as other beneficial insects..."

QUESTION #58.1

Please explain how placement of Permethrin poison on telephone polls and trees on private property at eight feet high is out of reach of the general public, children, pets and honeybees. Isn't that applying a toxic blanket on the community at eight feet?

QUESTION #58.2

How is the Permethrin poison kept out of reach of adults, children, and their complete families as it leaks into the air that they breathe, the ground where children and pets play and possibly water that they contact?

QUESTION #58.3

How is the Permethrin poison kept from contaminating home gardens when Permethrin is known to contaminate soil?

QUESTION #58.4

How is Permethrin kept from contaminating chemical-free food gardens meeting or exceeding organic standards in one's own yard on their private property?

QUESTION #58.5

Whether determined significant or less than significant with mitigation, there is still some toxic exposure guaranteed and some potential of greater exposure by variation of proximity at the higher end and by potential accidents and irregularities of the program.

What is the assigned cost in the cost/benefit analysis of the overall system of the proposed Program for Permethrin placed onto private properties of those who do not want it?

QUESTION #58.6

For people that choose not to have Permethrin poison on their property in order to avoid any proximity to such a toxin for their families, guests, pets and food gardens, how will CDFA mitigate the effects of imposing permethrin onto their properties?

QUESTION #58.7

Many people choose a community based on its cleanliness, safety and lack of toxins so that a healthy family can be raised.

For people that choose not to have Permethrin poison distributed widely within their community so that they can travel freely within their community without jeopardy to their families while they shop, eat at outdoor restaurants, take walks in the natural undeveloped areas, enjoy parks and playgrounds, etc., how will CDFA mitigate the effects of imposing permethrin into their communities?

QUESTION #58.8

Some people do not want their families to be exposed to any level of known toxins, and some people do not want their families to be exposed to any toxin whose long-term effects are not yet known. They are simply not willing to gamble with the lives of their children and other loved ones. Some people do not want their families to be exposed to any toxin that is known or suspected to be a carcinogen, as is permethrin.

How will CDFA mitigate these people's preferences that chose not to be exposed to Permethrin?

#59 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-32 Impact AG-11

"Impact AG-11: The potential for MMA applications to adversely affect pollinators, including honeybee populations, in either the primary or statewide Program Areas is limited. Therefore, the impacts on agricultural production and values would be less than significant."

QUESTION #59.1

What amount of adverse affect to pollinators, including honey bee populations, is acceptable or determined "Not significant/"

QUESTION #59.2

What are the amounts of impacts on agricultural production and values below which are less than significant?

#60 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, p 3-33 section 3.2.6.6 Impact, AG-13:

Localized applications of Btk and spinosad could harm small numbers of beneficial insects if present during the treatment. Because these effects would be short term and are not expected to result in long-term population level impacts, the impact on agricultural production and values would be less than significant.

QUESTION #60.1

Each application of Btk and Spinosad is local but within this broad eradication program, the cumulative additional local applications of Btk and Spinosad are massive in comparison to existing use in the areas applied, so in the case of this amplified broad use of Btk and Spinosad, where it is not normally applied, what will the cumulative impacts be and will the insects be able to recover as they may from isolated local applications?

#61 EIR Chapter #4 Urban & Rural Land Use, sec 4.2.3 No Program Alternative p 4-8
"The No Program Alternative would be to continue and expand quarantine and detection and inspection activities but without the application of the pheromone or any other insecticides on an areawide basis by USDA or CDFR." (bold added)

COMMENTS

- 61.1 There is another alternative and it is called the No Program Alternative #2. **The No Program Alternative #2 is to discontinue quarantines, discontinue expansion of quarantines, discontinue inspection activities** and without the application of the pheromone or any other insecticides on an area wide basis by USDA or CDFR.
- 61.2 The No Program Alternative #2 is already being implemented in every other country where LBAM lives. The results are excellent. The program costs are zero. LBAM is not threatening crops, wild lands or back yard gardens, and pesticide use for LBAM by homeowners and farmers is zero or negligible, truly not significant.
- 61.3 The No Program Alternative #2 avoids trade restrictions by shipping 99.9% of crops successfully to countries that don't accept LBAM and shipping 100% of crops successfully to countries that don't restrict LBAM.
- 61.4 The No Program Alternative #2 has no impact on beneficial insects, pollinators or honeybees. The No Program Alternative #2 creates no potential for violating organic crops or voiding organic certification by accidentally or unintentionally bringing pesticides into organic farm environments.
- 61.5 The No Program Alternative #2 does not require the state to dominate local ordinances or force themselves onto the land of private property owners when not invited. The No Program Alternative #2 eliminates the potential or accidental tragedies associated with the placement of Permethrin poison in the same environments as children, adults, pets, wild animals, beneficial insects, pollinators, honey bees and other life forms.
- 61.6 The No Program Alternative #2 does not impose chemicals to be applied directly onto people, nor into the environments of those who prefer not to have those chemicals applied to themselves or their families. The No Program Alternative #2 does not apply chemicals by air onto whatever number of persons live or work or recreate in undeveloped areas and it does not inflict those same chemicals onto other people and families within the approximate 3+1/2 miles those chemicals are known to drift.
- 61.7 The No Program Alternative #2 does not interfere with the natural balances of nature. The No Program Alternative #2 does not interfere with the support that nature provides to reach sustainable equilibriums that do not require the continued use of more and more toxic pesticides to control the pest resistances that the initial rounds of pesticide use create.

61.8 The No Program Alternative #2 will not interfere with the human rights of individuals in California. The No Program Alternative #2 will not motivate demonstrations against the state. The No Program Alternative #2 will not require the State of California to determine the causes of illness when citizens report illness after pesticide applications certain they were harmed by them, yet the state consistently treats it as coincidence, psychosomatic reaction or an affect only on the most sensitive.

61.9 The No Program Alternative #2 is immediately available. It does not require development of new and expensive technology, it does not require going through an experimental stage following development, it does not require 5-20 years or more for implementation, and it has no cumulative adverse affects.

61.10 The No Program Alternative #2 is politically and socially acceptable to the public, to elected representatives and to the farming community, less a few pesticide manufacturers.

61.11 The No Program Alternative #2 is consistent with the most natural and chemical free path that California has been promoting as the intelligent path we must now take and move along for our futures.

61.12 The No Program Alternative #2 has the same chance of eradicating LBAM as does the entire proposed CDFA eradication Program

QUESTION #61.1

Please evaluate the No Program Alternative #2 as an additional alternative and evaluate it by all of the same criteria that the No Program Alternative and the proposed Program are evaluated. Please do not dismiss it out of hand, but literally evaluate it by each criteria and allow it to be seen up against the other alternatives. Will you please do that?

#62 EIR Chapt #4 Urban & Rural Land Use, sec 4.2. Cumulative Impacts, p 4-11, line1-2:
"No potentially significant or even less-than-significant impacts to urban and rural land uses would occur as a result of any of the Program alternatives. Therefore, no cumulative impacts would occur."

COMMENTS:

62.1 The above explanation of Cumulative Impacts and the determination that no cumulative impacts would occur is faulty. The word "Therefore" is an adverb that can link information and a conclusion within a sentence. But the word "Therefore" alone cannot be a substitute for the information or the explanation for supporting the conclusion. The word "Therefore" is NOT an explanation or reason, but it has been used that way in this section of the EIR.

62.2 Even if individual alternatives are not significant, that does not mean that the cumulative effects of these same alternatives are not significant. A person can have two separate illnesses, each of which is not significant, but together or cumulatively they can be deadly.

62.3 Cumulative impact consideration in this proposed program is extremely important because the alternatives identified are intended to be used together, simultaneously and all combinations of the alternatives are to be available to this program as stated by the EIR. Therefore, one alternative and one treatment alone could be implemented or all alternatives and all treatments listed below could be implemented. So the possibilities of implementation range from one to over 20,000 different combinations of approximately eight potential treatments being implemented together as a package.

1. Twist ties (MD-1)
2. Ground application (MD-2)
3. Aerial application (MD-3)
4. Male Moth Attractant (MMA)
5. Bacillus thuringiensis kurstaki (Btk)
6. Spinosad (S)
7. Inundative Parasite Wasp Releases (bio-P)
8. Sterile Insect Technique (SIT).

The number of different combinations that could result in cumulative effects from eight options is equal to $8*7*6*5*4*3*2*1 / 2 = 20,160$ (over 20,000). If treatment methods have variations, as they do in this program, then the number of potential combinations of treatments is a significant multiple of the 20,160. Since cumulative effects can also occur from the same treatment method being applied in multiple areas, that further increases the number of combinations that could potentially result in cumulative effects.

62.4 This Draft EIR that states that no cumulative impacts would occur because the EIR determined no significant impacts from the individual program alternatives is a gross error in procedure and content. A valid Cumulative Impact analysis still needs to be done.

62.5 A qualified analyst would not literally check every single possible combination since that number would be well over 20,000 and likely be in the 100s of thousands or more. A qualified analyst would group different combinations into relevant packages so that families of combinations with their associated likelihoods of occurring would be represented that are reflective of the actual likelihoods of combinations of treatments being applied. Once analyzed thoroughly in this manner, and determined which areas or combinations of relevant packages had the greater likelihoods for impacts and the greatest magnitudes of impacts, then the individual combinations in those areas could be further scrutinized for their individual impacts vs. whatever benefits are associated with them.

QUESTION #62.1

Can you please do a valid Cumulative Impacts analysis (responding to above comments) rather than simply stating there will be no cumulative effects without any basis or support for that statement?

#63 EIR Chapter #4 Urban & Rural Land Use, sec 4.2.1.1 Mitigation and Monitoring, page 4-12:

"No potentially significant impacts for urban and rural land use would occur as a result of any of the Program alternatives, and mitigation is not required."

COMMENTS:

63.1 People left the area during the 2007 application of pesticides for this eradication Program. Many others who believed the claims of safety they were told, now wish they had left after getting sick themselves, knowing others who got ill and/or seeing the toxicity reports of the chemicals dropped in 2007. The proposed Program is far greater in size than the 2007 program and it is intended to continue for many years, so it will be nearly impossible to avoid being impacted by the Program by only leaving temporarily. Some people moved after getting ill in the Central Coast after the application of pesticides and others are planning to move if it starts again. The move will need to be further away or out of state, to avoid the chemical program rather than just out of the counties where the program was implemented in 2007.

QUESTION #63.1

Is freedom to be able to live in one's home and spend time out in the back yard without fear of a forced chemical assault onto private property part of the consideration of impacts for urban land use?

QUESTION #63.2

People are concerned about going out of their homes, eating at outdoor restaurants, allowing their pets to be outside, allowing their children to go to school in a county where the eradication program will be taking place.

Are these considerations and other limitations in people's activities in their own communities being considered and how are they being considered in regards to impacts for urban land use?

#64 EIR Chapter #5 Noise, page 5-27 sec 5.2.3 No Program Alternative, Exceedance of Noise Standards: *"Impacts would be potentially significant."* Substantial Temporary Increase in Noise Levels: *"Impacts would be potentially significant."*

#64 EIR Chapter #5 Noise, page 5-42 to 5-43 Table 5-7 Summary Comparison of Impacts of Alternatives.

COMMENTS:

64.1 Table 5-7 lists 8 different alternatives.

"Exceedance of Noise Standards" has a Possibility of Significance (POS) for only one of the eight alternatives, the "No Program" alternative.

The other seven alternatives, all within the proposed CDFA Eradication program are evaluated as No impact (N), Less-than-significant impact (LS), or Potentially significant but mitigable impacts (SM).

"Substantial Temporary Increase in Noise Levels" also has a Possibility of Significance (POS) for only the "No Program" alternative.

The seven alternatives within the proposed CDFA Eradication program are evaluated as No impact (N) or Potentially significant but mitigable impact (SM).

Table 5-7 lists 14 different impacts. Together with the eight alternatives, the 14 different impacts result in $8 \times 13 = 104$ boxes evaluating alternatives by impacts. Six of the 104 boxes represent Potentially significant impacts (PS). All are within the "No program" alternative. Of the 91 boxes falling within the seven alternatives within the proposed Program, there are no potentially significant impacts that cannot be mitigated.

If these boxes had random results for evaluation, the possibility that all six of the Potentially significant impacts would all fall within the same column or alternative is statistically nearly impossible, in the one chance in 50,000 range.

In this specific case of noise, it is unlikely that each box's evaluation will be random, so the point may not apply in this case. However, it brings up the question of whether this EIR is an unbiased evaluation of alternatives or if it is a promotion to implement the proposed eradication Program.

64.2 In this chapter and in every chapter of this EIR, the assumptions have leaned to favor implementing the Proposed Program. Available and credible reports, information, opinions and logic of expert independent scientists have been ignored. The statements of degree of significance or no significance have rarely included any quantitative support or any explanation of how that evaluation was made at all. They seem to be the opinion of the agency that wants to do the program and no more. Outcomes have been projected with no precedence on the earth. Projections have been made that are inconsistent with actual experience. Tools are represented

as workable when similar and identical tools have failed miserably in less demanding situations. Complex development requirements and experimentation, which are highly speculative activities, have been treated as though they are basic administrative functions and the possibility or probability of failure is not even included in the entire EIR. The program is massive, representing nearly the entire state of California. Some tools intended for this program have already failed, others have never been attempted and still others are using tools outside of the area they were developed for. And with all these speculative and risky methods that are being represented as the proposed Program, there is not a single contingency plan built into the program. So if this program were ever to actually get funded and implementation started, those who have shown not even the basic skills of management to plan a program are going to be the same people who will be in charge of modifying the program real time when a perfect path is not occurring. The actual management program has never actually been defined. This EIR simply identifies tools and makes general statements about land types and where different tools may be applied. It is far simpler to identify prior to implementation where and what will be done than to attempt to make those choices real time once a program of this magnitude begins. Excuse the analogy, but this program reminds me of making decisions while in space as to when to drop the booster rockets and when to fire rockets for a space mission, rather than making those decisions well in advance on the ground. This proposed program lacks a specific plan. The proposed program lacks contingency plans based on specific circumstances and quantifiable performance compared to standards of performance that have been established within the plan; all absent in this program and EIR.

Lack of management of this form is typically only in cases where a person or organization simply wants to do something regardless of the logic, or there is a significant amount of \$ funds that the person or organization can capture by initiating and implementing the program.

- 64.3 This EIR demonstrates the lowest level of management capability or simply the intention to initiate the program and then figure it out from there on. And that motivation is typical of "Making the sale," to get the money and whatever happens beyond that is unimportant.
- 64.4 Project Management requires a plan with (1) time, (2) costs and (3) progress towards the objective flowing in tandem. There is little to no demonstration of Project Management in this EIR. The technical capability to contract for pesticides and apply pesticides across the state exists, but that is implementation of an implied plan, not effective project management.
- 64.5 The program has not been defined in the present draft EIR. A list of tools and combinations of those tools does not define a program or identify a management system or method to reach the stated objective. It is impossible to evaluate the proposed program in the EIR because the program is not defined, nor is the program management described.

Excuse the analogy, but an artist's rendering of a bridge crossing a waterway that has never successfully had a bridge across it before, does not define a program or identify the project management that will be implemented to build that bridge. An artist's rendering is simply a vision without a well-defined or quantified objective. It is without a plan to accomplish that objective. It lacks the parameter or units that will be measured or monitored to identify progress towards the objective. It lacks the standards, that when combined with actual performance on a timeline will identify variances from those standards of expectations and trigger contingency plans when those variances are significant. Similarly, the proposed CDFA Program in this EIR is no better defined and it has offered no management procedure or project management plan. An artist's rendering of that bridge, though just a concept, arguably exceeds that which CDFA has provided in this EIR related to project definition and project management. An artist rendering of a bridge consisting of only several piles of materials, one pile for each alternative of the proposed CDFA program would be a similar level of presentation that is provided for the proposed Program in the EIR. There are no blue prints, no engineering specifications, no instructions, no plan to sink supports in soil that has failed before, no plan to have materials hold up to weights that have never been carried before and no plan to handle stresses where materials have failed before. And the equivalent items for the proposed Project are equally absent in the EIR.

- 64.6 The proposed program in the EIR can best be represented by an artists rendering of only piles of materials and the statement of assurance that the bridge will be built. The bridge spans a greater distance than has been built before, many of the same methods planned to be used have failed before, some methods have never been tried before and most notably, there is a natural permanent land crossing already existing adjacent to where the bridge is proposed to be built. The EIR claims the land bridge is dangerous even though people have been using it effectively for hundreds of years and no one but the EIR lead agency sees the danger of the existing land bridge, though most everyone sees the danger with the proposed project bridge and the enormous costs that are associated with it.
- 64.7 By my judgment, it appears that this program is not meant to reach the stated goal, but rather to fail to meet that goal and therefore to be continued and funded far beyond the unsubstantiated childish projection of three to five years to complete full eradication of an insect widely disbursed throughout the state of California; an insect that has never been eradicated before in any place it has ever lived on this Earth. And there is literally nothing in this Project, no better alternative, no better strategy, nothing better than anything else that has not achieved eradication of LBAM or any similar moth. This program is only unique in that it is so large, so costly, and so reckless across so many areas that have the potential to harm people and the natural environments of California. It is more likely that LBAM will change from insignificant to becoming a chemically resistant problem insect responding to the eradication program, than it is that LBAM will be eradicated.
- 64.8 This EIR has text and tables and labels of significance, but no sincere substance. This EIR represents an insincere exercise of forcing an EIR to get results that have already been decided by the lead agency driving the EIR. The content, bias, lack of

defined management process, unsubstantiated information, unrealistic assumptions and biased evaluations indicates this EIR is a promotion to engage in undertaking a program proposed by an agency that wants to do that program for a reason unrelated to the stated goal of eradicating a moth. To double the agency's funding beyond their general fund budget every year and / or to distribute the emergency fund windfall to contractors who are quite comfortable with CDFA management are motivations that would be consistent with such a biased EIR presentation. This EIR promotes a program. It does not scientifically nor objectively evaluate it. It is a disgrace and an insult to the state and people of California.

QUESTION #64.1 What is the complete project management plan for the proposed Program , including but not limited to:

- Quantified Objective.
- Detailed Plans with associated Costs attached and a detailed Time Line of anticipated activities.
- Contingency Plans with associated Costs attached and likelihoods (mathematical probabilities) of being required and the likely circumstances that would require Contingency Plan implementation to replace any initial plan items.
- Expectations of Performance Progress and Standards over the full timeline of the project.
- Significant Variations from Standards that trigger Contingency Plans described above.
- Complete Program Budget.
- Complete listing of Program Contracts: pesticides, consulting, management, public relations, service and others.
- Names of the companies that have already secured contracts and the names of the companies who will be likely candidates for remaining contracts.

#65 EIR Chapter #6 Air Quality, section 6.1.1 Program Location page 6-1, lines 1-2:
"As discussed earlier in the PEIR, the LBAM infestation has spread and may continue to spread until full-scale eradication and treatment activities are implemented."

COMMENTS:

- 65.1 CDFA and this EIR cannot prove that the moth has been spreading.
CDFA and this EIR cannot prove that the moth may continue to spread.
CDFA and this EIR cannot distinguish between the moth spreading and simply finding moths in more locations and more numbers because of the increased intensity of the trapping for these moths. The more one looks, the more one finds.
- 65.2 The moth only moves a number of yards in its lifetime.
Trucks transporting potted plants with an occasional moth cannot be responsible for this moth spreading as described in this EIR.
Trucks transporting potted plants with an occasional moth cannot be responsible for generating the populations of moths that are found so widespread in the short time that CDFA is representing it has occurred.
- 65.3 There is no precedence for LBAM anywhere on the Earth to spread at the rate represented by CDFA and this EIR.
There is no precedence for any moth to spread at the rate represented by CDFA and this EIR.
- 65.4 James Carey, Entomologist & invasive pest biologist, UC Davis, says the moth has likely been in California for 30-50 years. Carey says that based on the population densities and breadth of spread that the moth occupies. Carey is the most qualified invasive pest biologist in the world regarding LBAM in California. Carey's estimate makes sense based on how far the moth travels, # of generations per year, etc.
- 65.5 CDFA's claims that it is spreading is based on nothing, just that they say it.
A.G. Kawamura in 2008 claimed on SF Bay area radio that the moth has been in California likely for only seven years. That has no basis behind it. But either way, Kawamura conceded that traps that didn't land any LBAM in 2005 are not reflective of LBAM not being here in 2005. The recent 9/14/09 NAS report also indicates that the increasing population and spread assumed by the EIR is misleading due to the lack of consistency in the intensity of traps over time.

QUESTION #65.1

How can it be shown that LBAM is in fact spreading at the rate that is indicated in the EIR, given that the number of traps and method of trap placements cannot distinguish the conclusion of spreading vs. not spreading?

#66 EIR Chapter #6 Air Quality, sec 6.1.4 Relationship of Ambient Air Pollution to Asthma
page 6-4 lines 1-2:

"Little evidence suggests that asthma is caused by air pollution."

"The relationship between ambient air pollution and the exacerbation of asthma symptoms is less clear."

"To the extent that exposure to particulate air pollution may initiate symptoms in sensitive individuals, it appears that certain components of the particulates, specifically acidic particles (sulfates) and/or products of combustion, are implicated; crustal particles appear not to exert the same effects as other components of PM (USEPA 2001; Peden and Boehlecke 1999; Laden et al. 2000.; Tsai et al. 2000). Correlations among air quality, components of PM, and disease outcomes, however, are based on epidemiological studies that have inherit uncertainties (Valberg 2003)."

COMMENTS:

66.1 Science cannot yet isolate every variable and replicate every environment to prove everything to the 100% certainty level. Until that time, common sense supported by existing science and caution, protecting the most prized assets on the earth, our children, is a good guide.

66.2 Air children breathe without pesticides is better than with air with pesticides. Air without Hercon bioflake, without Checkmate, without toxic synthetic lepidopteron pheromones, without other ingredients with secret proprietary status inappropriately called "Inert," is better for our children than air with any or all of those toxins. Air without the chemicals intended for use in the proposed program is less likely to cause children asthma, less likely to aggravate existing asthma and less likely to cause or aggravate other detrimental respiratory conditions than air with one or any combinations of those toxins.

QUESTION #66.1

It is disgusting that Cigarette companies lied like they did, but it is understandable since they are motivated by profit. CDFA claims to be interested in protecting people and as a public agency they are tasked with that responsibility.

Why is the CDFA currently playing the roll of the cigarette companies when cigarette companies were denying cigarettes caused health problems because science at the time had not yet proved to the 100% certainty level all the ailments that cigarettes cause?

QUESTION #66.2

Why is CDFA forcing pesticides onto people against their will and how does that represent their responsibility to protect people?

QUESTION #66.3

Why does CDFA say that the amounts are small and shouldn't harm anyone when the pesticides are toxins that have never been tested for long-term effects and the short-term tests are extremely limited and did not cover all the ways that people and their children can be harmed by these pesticides?

QUESTION #66.4

Why would CDFA jeopardize millions of children's lives in the program area, or even one child's life, when there appears to be minimal threat from LBAM?

QUESTION #66.5

Consider the unlikely biological event that LBAM's behavior changes beyond its current norm and LBAM became a potential threat to challenge a specific crop and the farmer's also do not have methods as they do today to stop such a threat. Under this worst case and extreme example unrelated to the scenario existing currently, couldn't some crop land be rotated to other of hundreds of crops that are not affected by LBAM in order to avoid having millions of people and millions of small children's lives exposed to and affected by toxic pesticides?

QUESTION #66.6

Instead of spending Billions for LBAM, could you spend tens of thousands for seminars, training and printed materials for farmers to educate them and assist them to rotate land from one crop to another, using the experience and knowledge of those before them, or just stay out of it and let the business sense of the intelligent farming community make the adjustments as they do to market prices, other more serious pests, weather, etc.?

QUESTION #66.7

Instead of spending Billions for LBAM, could you spend tens of thousands for seminars, training and printed materials for farmers to educate them on the methods used successfully to manage LBAM in other countries where it is found, particularly New Zealand, where they successfully ship 99.9% of their product to the US with a zero tolerance for LBAM?

#67 EIR Chapter #6 Air Quality.

COMMENT:

67.1 Sometimes it is appropriate to do detailed analysis to determine appropriateness of actions. Other times, a broad based look is relevant for better perspective.

67.2 In this chapter of Air quality and emissions, etc, all of these items are approximations that have some link to reducing the health of those in heavier emission areas than less emission areas. A detailed and itemized list and associated charts are identified in this chapter.

QUESTION #67.1

Now that the NAS report is out stating that USDA has overstated the threat of LBAM. Now that the NAS report indicates the likelihood of LBAM in California for quite a few years and others compute LBAM's time here between seven or so years and 50 years and no damage as stated in this EIR.

Isn't it apparent enough at this point that the amount of particles, pollution and toxins that the proposed program will add to the air will certainly do some degree of damage to sensitive persons and possibly others as well, and whatever that level of degradation of our air quality in fact occurs, it is simply not worth it since the moth may be of no danger and to have costs in air quality for no upside is a tremendous and gross management error?

#68 EIR Chapter #11 Water Resources, sec 11.2.3.1 Increase in Pesticide Application page 11-19 lines 1-4:

"It is expected that the No Program Alternative would involve hydraulic spraying by individual growers in agricultural areas and at nurseries. Although application over water bodies is not intended, spray drift is not uncommon. Additionally, rainfall events shortly following an individual's application activity could wash the compound into an adjacent water body."

"These applications would correspond to even more total pesticide application statewide and associated increased likelihood of impacts to water resources."

COMMENTS:

68.1 In the No Program Alternative, unintended Spray Drift and compounds washing into an adjacent water body after rainfall events are mentioned and emphasis is given to the potential problems from both drift and washing into water bodies with a judgment of "Increased likelihood of impacts to water resources."

68.2 In the proposed Eradication Program, the magnitude of pesticides and the areas that they will be applied dwarf those without the proposed Program eradication program, yet drift and washing into water bodies is downplayed in the proposed program. In the proposed Program, there is no technically possible way with (1) such a massive pesticide application program, (2) so many pesticide types, (3) so many methods of application, (4) such a large area and (5) so many varied topographies, could the drift and washing into water bodies realistically be avoided.

68.3 In a single aerial spraying CDFA executed in 2007, drift was measured at over 3 miles, so all water bodies that were represented as being protected with 25, 50 or 100 foot buffer zones were grossly violated.

QUESTION #68.1

Why does the CDFA with this EIR promote the proposed Program with obvious partiality rather than using some level of equality and fairness to evaluate and to select alternatives that may not benefit CDFA with program opportunities or budget expansion?

#69 EIR Chapter #11 Water Resources, sec 11.25 Male Moth Attractant (Alternative MMA) Impacts to Water Resources, section 11.25, page 11-25, lines 1-12

"However, if a targeted location is adjacent to a water body and the material is accidentally misapplied such that some or all of the applied material enters a water body, the permethrin water quality goal(s), as identified in Table 11-1, could be exceeded. Because a potential exists for the MMA material to enter a water body and the permethrin water quality goal(s) may, therefore, be exceeded, a potentially significant but mitigable impact may occur.

Impact WR-4: Alternative MMA could result in the exceedance of water quality standards when permethrin is used. Impacts would be potentially significant but mitigable. No impacts would occur from other chemicals used under Alternative MMA.

Mitigation of Impact WR-4: The CDFA will maintain 25-foot buffer areas from the edge of streambank or shoreline, and spraying will not occur on days with wind speeds exceeding 10 miles per hour. Additional mitigation, wherein spraying is avoided near open water when wind direction is towards nearby water, should be implemented.

Significance after Mitigation: Less than significant"

COMMENTS:

- 69.1 The steps indicated to mitigate the potentially significant impacts of MMA using Permethrin poison are not realistic to implement in a real world setting. They are words in a report format, but there is little practical chance of accomplishing these mitigation measures out doors where the pesticide applications are intended to occur.
- 69.2 Variance of wind is such throughout a day that it is not a simple matter to identify a day as wind speeds greater or less than 10mph.
- 69.3 Wind direction is variable generally, but more importantly wind direction varies locally due to terrain, particularly in populated urban area terrain, where local winds channel in all directions regardless of the prevailing wind direction.
- 69.4 With buffer zones of only 25 feet, water resources will not be protected by the mitigation method identified in this EIR, since wind changes and wind eddies can quickly move air well beyond 25 feet without warning.
- 69.5 It is not practical and it is unlikely that pesticide applicators could make valid wind reading judgments on wind direction and velocity as they apply pesticides throughout populated areas, and even if that were possible, movement of air over distances far greater than the 25-foot buffer zone cannot be avoided under the normal daily experiences of weather and wind.

QUESTION #69.1

Please respond to the practical difficulties of implementing the mitigation measures stated above to attempt to mitigate the potentially significant impacts form Permethrin poison entering water bodies. Will you please respond?

QUESTION #69.2

Why does this EIR include mitigation measures that require a degree of precision in an outdoor environment that does not offer that precision?

QUESTION #69.3

Why does this EIR include mitigation measures to be carried out by a pesticide application truck and crew that does not have the capability to deliver the actual precision results that this theoretical mitigation procedure requires?

QUESTION #69.4

What are the tools that would be provided to the pesticide application truck and crews to accomplish the mitigation instructions and results as described in this EIR?

QUESTION #69.5

What are the parameter variances that would be within the acceptable range and what are the variances outside the acceptable range for the applicators to follow?

QUESTION #69.6

What tolerance for failure is acceptable in violating water bodies with Permethrin poison?

QUESTION #69.7

What monitoring devices will pesticide applicators carry to measure the specific movement and drift of the Permethrin toxins during the time of their application and for the remainder of time when they are still most likely to drift?

QUESTION # 69.8

How will pesticide applicators document and report the actual movement and drifts away from the points they apply them, who will they report to, and what are the tolerances that this program accepts allowing the program as stated to continue?

QUESTION #69.9

Please also respond to these same questions in relation to poison entering human bodies in addition to water bodies. Please emphasize children who are more susceptible to toxins and who tend to play in the yards and public places where the Permethrin is planned for continuous application.

#70 EIR Chapter #11 Water Resources, p 11-27 sec 11.2.9, Cumulative Impacts lines 1-2
"Because no impacts were identified in association with these other chemical and nonchemical Program alternatives, no cumulative impacts would occur."

COMMENTS:

70.1 Cumulative impacts can occur from increasing number of factors or an increasing number of the same factor or from combinations of factors. Bread dough and yeast starter on their own may have no impact, but the two together create something not seen in either one. The cumulative impacts to Water Resources is not recognized or identified or analyzed in this "Impacts to Water" section.

70.2 Cumulative impacts have not been accurately defined, identified, analyzed or demonstrated throughout this EIR in each category where Cumulative impacts is labeled.

QUESTION # 70.1

What are the cumulative impacts on Water Resources of all the individual chemical and non-chemical Program alternatives together and all things that make up this proposed Program alternative?

QUESTION # 70.2

What are the cumulative effects of this proposed Program on each area subject to impact from the proposed Program, and not yet accurately identified in this Draft EIR?

#71 EIR Chapter #12 Ecological Health, p 12-55 sec 12.2.4.3 Aerial Application (Alternative MD-3) lines 1-2

*"Aerial applications of **pheromone** for mating disruption would be used to treat denser LBAM populations. The area for aerial applications is a 1.5-mile radius around each location where LBAM is detected in an undeveloped area."* (bold added).

"Flight operations for pheromone release would be during daytime hours (between 8:00 am and 6:00 pm) over essentially unpopulated areas at a height of 300 to 500 feet."

COMMENT:

71.1 Please stop using the word "Pheromone" as applied to the substance that the proposed Program is intending to aerial spray and apply throughout the state by ground applications in populated areas. The substance is correctly a toxic synthetic chemical that attracts moths. It is also correctly a pesticide. Calling it a synthetic pheromone based pesticide would be satisfactory. But please do not call it a pheromone. A pheromone is not a pesticide.

71.2 Excuse the example but:

When a thousand pound bomb has one of its compounds with molecular structure similar to gold, it is still not correct to call the bomb a "Gift" for those who the bomb is dropped onto.

QUESTION # 71.1

Will the CDFA please stop calling any of the pesticides used in this program a "Pheromone?"

QUESTION # 71.2

What is the maximum number of people living in an area and the number of people having recreation in an area that CDFA defines the area as "an undeveloped area?"

QUESTION # 71.3

Since the aerial spray has been determined to be inappropriate for various reasons over populated areas, why is it okay for even one person?

#72 EIR Chapter #12 Ecological Health, p 12-55 sec 12.2.8 Sterile Insect Technology (Alternative SIT), line 1

"SIT will be the primary tool for LBAM eradication in California when it becomes fully operational."

QUESTION # 72.1

What is the probability that the development of Sterile Moths will not succeed to the extent necessary to use SIT as the primary tool for LBAM eradication?

QUESTION # 72.2

What is the probability that after development of millions of sterile moths, that the experimentation phase will not be successful such that the sterile moths are not inhibiting native moths from mating to a significant enough degree that SIT will not eradicate LBAM within the time period indicated by 2015?

#73 Chapter #13 Greenhouse Gases and Climate Change.

COMMENTS:

73.1 Whether the proposed Program violates any individual items within the effort to stop the progression of greenhouse gases and climate change, it certainly does not join in the spirit of eliminating activities that are not mandatory that contribute to greenhouse gases and climate change which this proposed Program certainly does to some extent. For all the years that LBAM has been in California, we have experienced no damage to crops and no damage to any other aspect of life in California. (This does not include the damage and costs imposed from CDFA's apparently inappropriate reaction to LBAM.) If any or all the unlikely claims of threat of this moth were even true, which they are not, damage would still be avoidable by rotating from any crop that is affected to planting a nearly unlimited number of other crops that even CDFA can not claim are under threat from LBAM.

QUESTION # 73.1

Can't some or all claims of potential LBAM damage be mitigated simply by having farmers rotate crops to any of thousands of other crop varieties that are already known to be successfully grown in California and not subject to LBAM damage?

QUESTION # 73.2

Doesn't the proposed Program violate the intent of green house gas and climate change reduction, if not the specific regulations?

QUESTION # 73.3

Aren't the projections of LBAM damage in California wrong, misleading, out of date and misrepresentative of scientific based analysis?

#74 EIR Chapter #13 Green House Gases and Climate Change, sec 13.2.2.2, p 13-17 section Aerial Source Emissions, lines 5-8

"To estimate emissions from the airplanes, the airplanes were assumed to consume 64 gallons per hour, which represents an average fuel consumption rate provided by Dynamic Aviation (2005) for the PT6A-20 Pratt & Whitney engines anticipated to be used in the Beechcraft King Air A90. For both Alternatives MD-3 and SIT, four airplanes were assumed to operate statewide for 8 hours per day, 6 days per week, and 52 weeks per year (Schnabel 2009)."

COMMENTS:

74.1 Calculating the number of gallons per year of only the airplanes used in this program (based on the information from Dynamic Aviation above in the #71 EIR quote):

Each Airplane:

- 64 gallons per hour
- 8 hours per day
- 6 days per week
- 52 weeks per year

Each Airplane uses $64 \times 8 \times 6 \times 52 = 159,744$ gallons per year .

Four Airplanes use $4 \times 159,744 = 638,976$ gallons of gasoline per year, just for the aerial portion of the proposed Program, not including the trucks or anything else.

74.2 638,976 gallons of gasoline used just for the airplanes each year, representing well over \$2 million dollars just for their gas, not to mention the cost to the public of Dynamic Aviation's contract. There are so many other important needs for the people of California during this particular economy. The money just for the airplane gas could instead pay for services for thousands of people's valid needs.

QUESTION #74.1

This Program defies common sense. Will you please reject this proposed Program?

#75 EIR Chapter #13 Green House Gases and Climate Change, Table 13-7 Summary Comparison of Impacts of Alternatives p 13-25.

COMMENTS:

75.1 All alternatives in the proposed Program have some aspect that contribute to Green Hose Gases and Climate Change. However, they are all evaluated as "Less than significant for two reasons: (1) they are only a small percent of the total state emissions and (2) because the emissions are anticipated to stop prior to the year 2020, the year that emission goals are targeted.

QUESTION #75.1

Rather than compare emissions from the proposed Program to the total state emissions, please compare the cost and impact of the additional emissions to the people of California and compare that to the value of the proposed Program, also to the people of California?

#76 EIR Chapter #13 Green House Gases and Climate Change, section 13.2.11
Mitigation and Monitoring, page 13-26:

"13.2.11 Mitigation and Monitoring

The CDFA and its contractors may implement the following optional measures to reduce GHG emissions from fuel combustion due to employee commuting:

Mitigation Measure GHG-1: Provide storage and parking facilities for bicycles.

Mitigation Measure GHG-2: Subsidize costs for workers to take public transportation or participate in ride-sharing programs.

Mitigation Measure GHG-3: Offer preferential parking for electric, hybrid, or alternative low-carbon fuel vehicles.

The CDFA and its contractors may implement the following optional measures to reduce GHG emissions from fuel combustion in the working vehicles:

Mitigation Measure GHG-4: Check and reinflate tires at regular intervals.

Mitigation Measure GHG-5: Use lower-carbon fuels such as biodiesel blends where feasible.

Mitigation Measure GHG-6: Encourage ride-sharing when transporting work crews from the base of operations to the job site.

Mitigation Measure GHG-7: Limit idling time of all vehicles and equipment.

Mitigation Measure GHG-8: Service and maintain equipment according to manufacturer's instructions to remain in good working order." (bold deleted)

COMMENTS:

76.1 Each measure indicated as a mitigation measure of the proposed Program is a routine activity that should already be ongoing at the CDFA and all agencies in California. It is an insult to the state and the people of California to see *check and reinflate tires* as the mitigation against the tremendous waste of fuel and the emissions that this Project unnecessarily forces into the state's air.

#77 EIR Chapter #14 Cumulative Impacts, sec 14.1 Agricultural/Horticultural Resources and Economics p 14-2, lines 1-2

"It is expected that LBAM eradication will take between 3 and 5 years using these treatments."

COMMENTS:

- 77.1 It is most likely that LBAM cannot be eradicated because all populations of LBAM throughout the state cannot be approached, targeted, handled simultaneously and effectively killed or reproduction-suppressed to eliminate the entire population. And a significant population is expected to remain, though any population remaining at all exhibits the failure of eradication and the potential to re-populate to previous levels. LBAM can also not effectively be kept from re-entering California, so failure of eradication is almost guaranteed from multiple obstacles, none of which can be overcome by existing alternatives of the proposed Program.
- 77.2 LBAM cannot be approached in all areas due to restrictions on protected resources, water bodies and buffer zones where LBAM has no such restrictions.
- 77.3 LBAM cannot be thoroughly targeted because trapping for LBAM does not thoroughly find every micro-population of LBAM.
- 77.4 LBAM cannot be effectively killed because LBAM lives amongst people and in communities occupied by people. Therefore, the level of toxicity and magnitude of toxicity has to be tempered to reduce the impact on people to a moderate level. This way only a minority of the population may be immediately affected and outraged, and illnesses from the moderated toxicity can blend and be difficult to distinguish or prove cause with other illnesses. So the unknowing majority of the public may dominate the minority composed of those who are affected immediately and those who are familiar with the truths of the proposed Program. If this is the case, the unknowing majority may take the PR promotions for the proposed Program as accurate and so public pressure may not be unified initially across the board to stop the program. Over time, resistance builds as more and more people get ill, just as they did in only three relatively small aerial sprays in the Monterey and Santa Cruz Counties. People who get ill do not have the voice through the media that CDFG's Public relations department can access with statements of "Just a pheromone," "non-toxic to humans" "perfectly safe," "just a small amount," statements to calm and deceive the broader public, who do not have sufficient time or reason to investigate intensely for themselves.
- 77.5 LBAM cannot be effectively reproduction-suppressed to achieve eradication since the synthetic pheromone pesticide mix does not exactly replicate or mimic the natural moth pheromone attractant. Terrain and technical delivery methods cannot distribute the synthetic pheromones to cover all the territory sufficiently homogeneously to have the desired effect. It is also likely that insect learning will occur to further make this alternative fail as the drive to reproduce for this insect is

intense and it will search for that attractant that results in actual reproduction success, so its recognition of the synthetic will improve over time and the synthetic pesticide will become even less effective. Reproduction Suppression is a tool to assist in control of moths including LBAM when specific conditions are met: small number of acres, homogenous topography, homogenous crop height, etc. But this is not an eradication tool even under ideal circumstances, only a control tool.

- 77.6 The alternatives in the proposed Program are many. The Sterile Moth Release (Sterile Insect Technology, SIT) is identified as the dominant or primary tool in the eradication program. Sterile Moth Release (SIT) is still in the development stages and the experimental stages are still to come. Attempts at using this technology for eradication in the past with moths (Canada) have failed and failed miserably. SIT for LBAM is still very much in the Research & Development (R&D) stage, yet it is being represented as an existing technology. R&D management has risks and uncertainties that dwarf existing technology management. The R&D stage has uncertainties and risks that may likely never bring the method to operation. That is the nature of developmental and experimental projects, which SIT for LBAM is. This is not simply a modification development such as a new coating on a spacecraft or a new tracking system for small aircraft. This is not a modification, but rather a complete R & D program, and even more so when one realizes the huge number of unknown outcomes combining so many different methods and chemicals over such a huge area as California.
- 77.7 To represent any tool in the development stage and to count on that tool as though it has been in service for generations providing predictable results is a basic lack of responsible management and reporting. Because it involves substantial public funds, it also reflects management's irresponsibility in the use of those funds. It is similar to an investment that is inherently risky, but not represented as such; rather represented as a savings account at a bank that is FDIC insured.
- 77.8 To project eradication at 3 to 5 years recognizing the R&D status of this project is unrealistic.
- 77.9 The scale for this program is almost the entire state of California. The scale is magnitudes greater than has ever been attempted for any of the proposed tools (alternatives) and greater than has ever been attempted by the proposed combination of tools or any combination of tools ever used for eradication of LBAM on the Earth.
- 77.10 Placing the current R&D status SIT alternative as the primary tool in a California wide eradication of LBAM and projecting eradication at 3 to 5 years is absurd. There is no more substantiation for those numbers in this EIR than a young child voicing numbers that he/she yet has no understanding of their meaning.

- 77.11 There are also other tools (alternatives) in the proposed Program. They represent a package of tools one or more of which (some) have never been previously attempted, some never tested, if tested the results still unknown, some have failed in lesser demanding conditions and expectations, some are being used outside of the conditions for which they were engineered, none have ever been successful at eradicating LBAM or any other moth and none have ever been applied on such a scale as demanding as the state of California.
- 77.12 Combining this group of tools gives no indication that eradication can be accomplished. In fact, scientific reasoning as well as common sense demonstrates that the probability of success approaches zero with the exception of some form of miracle that at this time cannot be visualized by rational thought or science.
- 77.13 This program is reflective of an unconscious corporate mentality to expand pesticide sales beyond agricultural lands that are already at capacity with pesticides applied. This program introduces sweet sounding named chemicals, designer pesticides essentially, and expands markets for pesticide sales 10 and 50 and 100 times greater by applying the new "Designer pesticides" across the entire state.

QUESTION #77.1

How is it determined that the proposed Program will eradicate LBAM in 3-5 years. Please be specific and please refer to issues stated above.

(To say only that "Scientists believe that it can" or "CDFA trusts those who believe it can" is not sufficient. Opinions are based on facts, and that is what is being asked for here. Please bring any actual scientists forward to communicate their opinions publicly, and let's hear for the first time their voices and reasons. Will you do that?)

#78 EIR Chapter #14 Cumulative Impacts, sec 14.1 Agricultural/Horticultural Resources and Economics p 14-2, lines 2-3:

"The number of future LBAM infestations across the state is unknown, however, and cannot be quantified." (bold added)

COMMENTS:

78.1 When ready to spray paint a car in the summer time when many bugs seem to be in abundance, one must remove all the bugs from the paint booth so that the bugs don't ruin the paint. However, if one cannot stop new bugs from entering the paint booth, there is little reason to attempt to remove the existing ones. Only after preventing entry of new bugs is it reasonable to remove the existing ones from the booth.

- 78.2 Similarly, it is foolish to remove water from a hole in a river as the water continues to flow in. Only after stopping the water from flowing back to the hole does it make any sense to attempt to remove the water.
- 78.3 Until, there are restrictions in place with certainty that no new LBAM or infestations of LBAM will enter California, it is foolish to attempt to remove those that are already here and further foolish to go to the extent of attempting removal of every single one, particularly when the cost of attempting it is somewhere between \$500 Million Dollars and \$3 Billion Dollars depending how long the program lasts, not to mention the pesticides applied across the lands and people of California.
- 78.4 CDFA does not know the number of future infestations. Is CDFA planning to institute the same proposed Program at a cost of somewhere between \$500 Million Dollars and \$3 Billion Dollars for each future infestation?
- 78.5 If CDFA cannot secure California from future entries of LBAM or infestations of LBAM, then it is logical to learn how to successfully live with LBAM as is done in other places, or CDFA can continue to shovel water out of a hole in a river at \$500 Million Dollars to \$3 Billion Dollars per try.

QUESTION #78.1

Wouldn't it seem more reasonable for CDFA to first work on securing the entry of new LBAM to the 100% certainly level, and only after that is done, consider focusing on eradicating LBAM?

QUESTION #78.2

Will CDFA postpone implementation of the proposed Program until the number of future infestations of LBAM is confidently controlled at zero?

QUESTION #78.3

Does CDFA recognize that after some years, they can claim successful eradication and attribute any and all LBAM still in California to "New infestations?"

QUESTION #78.4

Will any independent monitors be monitoring and trapping LBAM throughout the state during the proposed Program or will only CDFA be monitoring, trapping and reporting on LBAM?

#79 EIR Chapter #8 Human Health page 8-53, section 8.2.9.2 Impacts less than Significant after Mitigation, Male moth Attractant (Alternative MMA).

*"Although it is primarily a pheromone treatment (SPLAT), Alternative MMA incorporates a low dosage of the pesticide permethrin, and the inert ingredients **ethylbenzene** and 1,2,4-trimethylbenzene. Moths would be attracted to the pheromone (used as a bait), and be killed subsequent to contact exposure with permethrin.*

Prior to applying mitigation measures, the analyses of human health effects under this alternative yielded estimates of cancer risk above 1×10^{-6} for all receptor populations except the Agricultural Workers. These risk estimates are significant but mitigable, based on a significance threshold of 1×10^{-6} . Estimates of noncancer health effects did not exceed HQs of 1 for any exposure pathway (all receptors), and did not exceed chronic HIs of 1 when considering all exposure pathways (all receptors). Alternative MMA was found to have less-than-significant impacts after mitigation (see Section 8.2.1.1).

The use of permethrin associated with Alternative MMA is limited, and after implementing mitigation measures, permethrin is expected to be only minimally available for direct contact by human receptors" (bold added).

#79 EIR Chapter #12 Ecological Health, p 12-12, section 12.1.3.2 California Department of Health Services lines 14-17:

*"Proposition 65 requires the governor to publish, at least annually, a list of chemicals known to the state to cause cancer or reproductive toxicity. Of the chemicals identified in the formulations proposed for use for LBAM eradication, only **ethylbenzene** is listed as a Proposition 65 chemical." (bold added).*

#79 EIR Chapter #14 Cumulative Impacts, page 14-5, sec 14.6.2 Impacts Less Than Significant After Mitigation, Male Moth Attractant (Alternative MMA) lines 2-3:

"Alternative MMA was found to have less-than-significant impacts after mitigation (see Section 8.2.1.1)." (bold added).

COMMENTS

79.1 There is no section 8.2.1.1 that is referenced in the EIR for mitigating MMA.

QUESTION #79.1

What is the mitigation for MMA?

QUESTION #79.2

Can the use of Permethrin be eliminated from the proposed Program to accommodate those who do not want Permethrin in their lives and their children's lives 24 hours per day?

#80 EIR Chapter #14 Cumulative Impacts, page 14-6,7, sec 14.6 Potentially Significant Impacts:

"In 2006, 190 million pounds of pesticide and herbicide were used, including organically approved pesticides." (in California).

COMMENTS:

80.1 Not all people receive average exposures. Not all people have average tolerance to chemicals. Not all people get cancer and other illnesses from the same average amount. Peoples' exposure to Permethrin poison will vary considerably based on where they spend their time, if it is nearer than average to Permethrin splats and how much time they spend in closer than average proximities. Whether or not Permethrin is applied on their private property or the property of adjoining neighbors can influence both factors of proximity and time exposure. With millions of people in the Permethrin poison application area, there will be attribute intersection groups of people who have multiple attributes, such that Permethrin threatens them more than the average person. Many children are in this group. A person with a low tolerance, who can get cancer from smaller than average amounts, who has greater than average exposure: proximity and/or time of exposure is well into the group. Not every attribute needs to exist for some people to have greater than average likelihood of cancer and other diseases from Permethrin poison exposure. With millions of people, there will be numbers of people whose variation from the average will expose them to Permethrin in greater than average amounts and associated higher risks. Some of their exposures based on these variations from average and intersection of multiple attributes, will lead to significance in exposure and higher risk of cancer and other illnesses, that are not mitigated. The illnesses that result will be adversely significant to the lives of those suffering the illnesses regardless of the mathematical significance or lack of significance when calculating the population averages.

QUESTION #80.1

How many cases of cancer and other diseases that Permethrin can cause will CDFA allow per some unit of time as acceptable risk during the execution of the proposed Program?

QUESTION #80.2

Even if CDFA does not anticipate illness from this program, at what number of illnesses or at what measure calculating number of illnesses in combination with severity of illness, will CDFA halt this proposed Program?

QUESTION #80.3

How does CDFA weight illnesses in children from routine or accidental exposure to Permethrin compared to the same illnesses in adults?

#81 ERROR IN EIR CALCULATION OF \$ ECONOMIC LOSS FROM POTENTIAL LBAM CROP DAMAGE.

COMMENTS:

- 81.1 LBAM has not caused any damage in California (per this EIR Chapter #3, page 20 and page 21; two superior court decisions in 2008, reports from agricultural commissioner offices across the state, etc).
- 81.2 However, this draft EIR projects that potential damage is between \$12.5 million and \$155.7 million per year (Chapter #3 p.3-20 section 3.2.3.2.) This EIR does not take into account (1) the history in California that no damage has occurred, (2) that other countries with LBAM have no damage or negligible damage, (3) the vast amount of predators in California and across North America that have access to LBAM and keep LBAM well balanced in nature as a background insect, (4) the large number of insects in California and across North America that parasitoid LBAM eggs.
- 81.3 Even though significant potential damage is unlikely, CDFA continues to move forward with their proposed eradication Program as though potential damage and significant potential damage was eminent and a certainty.
- 81.4 CDFA within this EIR has made an error in calculating the relevant \$ Cost of potential LBAM damage, so to examine and calculate that error, this analysis will assume the potential costs as stated in this EIR, for calculation purposes only.
- 81.5 CDFA has incorrectly calculated LBAM damage annually by the \$ value of a crop that CDFA says that LBAM can jeopardize. Assuming that the farmer is growing the crop that will maximize his profits for his land at this time, if LBAM is in fact a threat to the farmer, then he will rotate his crop to the second most profitable crop that he can grow without threat from LBAM. Therefore, the full value of a crop should not be used as the annual cost occurred from LBAM, but instead only the marginal cost should be considered. The marginal cost, in this case, is the difference between the profits of the two crops, not the value of the entire crop. If a farmer would make \$10,000 profit per acre on crop #1, but he moves to crop #2 due to the threat of LBAM and only realizes profits of \$9,900, LBAM has cost the farmer \$100 per acre, not \$10,000 per acre as this EIR and CDFA have calculated.
- 81.6 Farmers already make similar adjustments planting alternate crops based on supply and demand conditions, market prices, seed costs, transplants (baby plants used rather than seeds), relative costs of raising and shipping various crops, expectations of weather during the growing season and many other variables.
- 81.7 Excuse the example but it most clearly illustrates the point: If CDFA or this EIR tells us that LBAM is a potential threat to eat the flavor ice cream "Lemon Swirl Pecan Crunch" at Baskin Robbins 31 Flavors, then the total revenue from that flavor will not be lost from the bottom line profit of Baskin Robbins. Instead, Baskin Robbins will add their next preferred flavor, flavor #32, and that flavor will become the next flavor #31 offered to the public. The loss of profits to Baskin

Robbins will be the differential between profits lost from "Lemon Swirl Pecan Crunch and profits gained from Lemon Swirl Walnut Crunch. To count only the lost profits from Pecan Crunch and not add back in the profits from Walnut Crunch is a dramatic error in calculating the effect of LBAM and also a significant error in representing the economic threat from LBAM. Whatever the number of flavors that CDFA claims are a potential threat from LBAM, there are flavors in large numbers that even CDFA does not claim potential LBAM damage. So again, only the marginal difference in profits or revenues are relevant, not the total profits or revenues as represented by the CDFA and this EIR.

81.8 Because no damage has actually occurred in California from LBAM, there wouldn't even be losses in the initial year that generally occur to many companies when a product line goes out of style, out of fashion or out of demand for whatever reason unexpectedly. Since all damages are only "Potential" as represented by CDFA, so long as CDFA does not interfere with rotation to the other crops not "Potentially" threatened by LBAM, then again, we see that only the marginal difference in profits between the two crops is relevant for economic loss.

81.9 The profits between different crops is generally quite small, because if there is ever a significant profit differential, then farmers naturally transition into the higher profit crop, raising the quantities of that crop supplied to the market and therefore lowering the price and the resulting profits until profits from that crop are again in similar amounts to other crops.

81.10 To revisit CDFA and this EIR's \$ potential damage estimate at between \$12.5 million and \$155.7 million per year, correcting these numbers per the explanation above, they would adjust to approximately or less than between \$1.25 million and \$15.57 million per year, and these \$ amounts are dwarfed by the hundreds of millions and possibly Billions of dollars projected for the proposed Program.

QUESTION #81.1

Will you please adjust all \$ cost projections for potential LBAM damage to reflect the lower Marginal Cost that is relevant to \$ Economic loss as explained in the comments above?

#82 ERROR IN EIR CALCULATION OF \$ ECONOMIC LOSS FROM POTENTIAL LBAM CROP DAMAGE.- CASE #2.

COMMENTS:

82.1 The previous item #81 assumes that farmers will continue to farm. Now lets assume that due to potential LBAM damage, a farmer decides not to take any measures to challenge LBAM, not to rotate crops to grow any other crop on his land and decides to just let his land sit idle. It is an extreme case and an unlikely scenario, but it will show that even under these conditions, CDFA's \$ economic loss numbers are inappropriate.

If a farmer is generating \$100 million of crops per year, that represents his gross sales. Farmers also have costs, so for example and simplicity of numbers, lets say that his total costs come to \$99 million, and therefore his net profits for the year are \$1 million dollars.

If the farmer does not grow crops the next year or ever again, the economic loss is \$1 million per year, not \$100 million per year as implied or as might be assumed when reading the EIR. To generate those \$100 million of crops, the farmer used up \$99 million of resources, so the value added from producing those crops was only \$1 million. If the farmer stops his activity of farming that field, the economic loss will be \$1 million.

QUESTION #82.1

Will you please adjust all \$ cost projections for potential LBAM damage to reflect the lower Net Profit that is relevant to \$ Economic loss as explained in the comments above?

#83 EIR Chapter #3 Agricultural & Horticultural Resources & Economics, page 3-18 section 3.2.2. Effects on Farm-Level Production Costs:

"Changes in production costs are tied to increased pesticide application by individual farmers if the Proposed Program is not implemented under the No Program Alternative. To estimate these costs, the potential extent of increased farm-level pesticide application was considered, in conjunction with the types and costs of pesticides that would likely be used."

COMMENT:

83.1 After two years of inquiry to local farmers in Santa Cruz County, the area where LBAM population is greatest in the state, and other counties, no one has indicated that they are having any problem from LBAM. Not a single farmer has indicated that they have increased or are they inclined to increase their use of pesticides because of LBAM. Some of these farmers have indicated problems from the inspections and quarantines that CDFA has imposed and some have indicated problems from additional expensive and unnecessary pesticides that CDFA has forced them to use on their farms.

QUESTION #83.1

Isn't it more appropriate to call the "No program alternative" the "Existing program alternative" because it is the program that currently exists and it is the program that CDFA is currently operating, requiring and enforcing?

QUESTION #83.2

Will the CDFA please change the name of the "No program alternative" to the "Existing program alternative"?

QUESTION #83.3

Will CDFA also clarify in the Final EIR that the costs of the existing LBAM program implemented by CDFA are due to the imposition of CDFA procedures and requirements, and that none of these costs have actually been attributed to LBAM?

#84 "WAIT AND SEE" Program Alternative.

COMMENTS:

84.1 Back in 2007, CDFA initiated serious actions and emergency procedures to eradicate LBAM. It consisted of aerially spraying populated areas with a yet untested pesticide that ultimately underwent limited testing and proved to be toxic. Two superior courts finally ruled there was no emergency, that CDFA had violated CEQA law and ordered CDFA to stop the emergency program.

Since that time and prior to that time, no damage has been experienced from LBAM, even though CDFA initially started the program because they claimed that CDFA damage had already occurred and/or was imminent.

So it has been between 4 and 50+ calendar years that LBAM has been in California and no damage. More than two years after CDFA said damage was on us and imminent, no damage has occurred. Also qualified independent scientists, knowledgeable farmers from other countries where LBAM lives and most recently the NAS have all indicated that LBAM is not the serious threat that requires more attention than other native leaf roller moths of the same family, and certainly not emergency procedures.

The proposed Program intends to apply a variety of toxic chemicals directly into the community environments where people live and work and go to school and into valued wild lands of California. Even though CDFA says that they can mitigate almost all significant effects of those toxic chemicals, it is likely that some people and some children will be affected and maybe millions of people. CDFA does not know for sure the complete consequences.

In addition, there are environmental consequences that may occur that we can only guess from moving away from natural balances that nature provides and from increased-resistance-to-pesticides of insects that are not currently a problem in the state. That could potentially lead to significant increases in toxic pesticides statewide simply to attempt to reestablish the status quo that we already have without those massive amounts of additional pesticides in the state.

The populations of LBAM are already living in thousands of square miles of California. It is not as though we need to act immediately as for an invasive pest just found within 200 meters of the port of entry, where it likely arrived, and we need to stop it right now, before it moves on.

CDFA has clearly been wrong up to this time on numerous things they have reported regarding LBAM and toxins and windows of opportunities to eradicate, etc. If LBAM is not the serious pest that basically only CDFA predicts it is, it would be a statewide tragedy to expose millions of people, populations of real people, real children, real pets and real families, unnecessarily to the toxic pesticides proposed in CDFA's Program.

If CDFA were correct, any additional area that LBAM might occupy by the time CDFA initiated their Program would not be major because CDFA claims to have an eradication program that is state wide and not limited only to the precise distribution of LBAM that is approximated at this exact moment.

Therefore, to satisfy CDFA's desire to do this eradication program and to avoid the tragedy of doing such a thing, when it is not necessary, "Waiting and seeing" seems to be a very reasonable course of action.

CDFA could take the extra waiting time to monitor and map the exact locations and populations where LBAM exists in the state. During this time, CDFA may even learn of more effective and less chemically induced methods for insect eradication. CDFA could continue to wait and monitor statewide for some LBAM damage to finally actually occur.

CDFA could continue waiting for two years or five years or 10 years or even 30 years and all along have their Program ready to implement if and ever LBAM demonstrates a real threat to California above that of other leaf rollers already in the state, not posing a threat to California.

This reasonable course of action could be called the "Wait and see" program alternative.

California's people and environment would not be subjected to the toxic exposure that the proposed Program will inflict without LBAM proving conclusively to be the level of pest that was incorrectly predicted by CDFA earlier and has not demonstrated that level of seriousness, or any level in California, to date.

QUESTION #84.1

Will CDFA please add to and/or replace the proposed Program with the "Wait and see" alternative?

QUESTION #84.2

Please evaluate the "Wait and see" alternative as an additional alternative and evaluate it by all of the same criteria that the No Program Alternative and the proposed Program are evaluated. Please do not dismiss it out of hand, but literally evaluate it by each criteria and allow it to be seen up against the other alternatives. Will you please do that?

#85 PUBLIC CONTROVERSY

COMMENTS:

85.1 From mid 2007 to present there has been a tremendous amount of controversy over this LBAM and eradication subject. Many people are very sensitive to having chemicals dropped onto their homes and communities, particularly when one can google the chemical name so readily and find out its danger, but even more when noted scientists and toxicologists have spoken out on the dangers of exposure of many of the toxins involved in the Program, particularly in the manors that people will be exposed to them.

Experts have similarly spoken out that CDFA is considerably overstating the threat of LBAM and that eradication is not likely or even possible. And these experts have provided support for their conclusions.

People are further concerned that many of the toxins contain additional ingredients (often called "other chemicals or "Inerts") that are not revealed publicly even though they are intended for community and back yard applications on private property.

CDFA has made many definitive statements and issued extensive press releases and there have been a large number of occasions when the information was false.

Examples:

1. Checkmate is "Non-toxic" to humans. (Fact: existing tests identified it as a category 3 toxin, subsequent tests identified other dangers, EPA revoked its emergency exemption)
2. Particles in aerial spray are safe at 25 microns or more and not able to enter the deep lung (Fact: found in CDFA papers that 50 % of the particles by volume were 10 microns or less, extremely dangerous as they can enter the deep lung).
3. Numerous claims of LBAM damage (fact: no damage has occurred per even this EIR).
4. Ph.D. Botanist, Dan Harder, did not go to the southern Island of New Zealand when preparing his report on LBAM. (fact: Dan Harder spent considerable time in the southern island in that important agricultural area of New Zealand).
5. CDFA only uses Registered EPA pesticides (fact: Checkmate pesticide aerielly sprayed on populations in Central Coast, California was not registered by EPA).

CDFA has also appeared to the public to not absorb or even consider any of the suggestions that accredited world renown independent scientists have made that are not in line with "Dangerous pest" and "Must be eradicated." It doesn't appear to the public that CDFA is sincere; rather it appears to the informed public that CDFA is interested in doing the eradication program no matter what circumstances exist or whether the program is reasonable or not.

Many people out in the public believe that CDFA is doing this program simply to dramatically increase their own budget and direct large amounts of public funds to the manufacturers of the pesticides.

There are key people in the CDFA Management and related agencies who have represented the CDFA and EIR to the public for the LBAM proposed eradication Program.

A.G. Kawamura
Steve Lyle
John Connell
Bob Dowell
Robert Leavitt
Jim Rains
Sue Hootkins, Entrix
Osama El-Lissy, USDA

In order to clear the air, to prove that these people have been delivering valid high quality information to move the public to the understanding where CDFA believes they should be on the proposed Program and to clear any thoughts of inappropriate government agency activities that are clouding this program and getting in its way, I would suggest and request that these people take polygraph tests, administered by an independent agency. Since I am asking for such a test for others, I too would be willing to take such a polygraph test and add my name to the list. I would also be willing to pay the expenses for mine. With such tests administered by an independent agent and results delivered directly to the public, this process could neutralize any public skepticism and demonstrate the truth and value of the information and strategies that CDFA provides. It may be unconventional, but the public could quickly regain their trust in the CDFA agency.

There would be some cost obviously, but the unity in the public direction that could come from it, would be so valuable to all. It would be far less expensive than other means to communicate with the public to ease their concerns. CDFA made at least one previous attempt to use the Porter Novelli PR firm to gain public support, but that was not entirely successful. And because the Porter Novelli contract was terminated immediately after the Monterey Herald reported the existence of that contract for \$497,000, the public became even further suspicious of CDFA intentions. The cost of the polygraph tests for myself and the rest of the people on the list would be minimal and only pennies compared to other program expenses, even other PR expenses. Since the public is an integral part of this program and their trust in CDFA would be so much better than battling them at every step of the way, the test cost would be so well worth it on a cost benefit basis. I anticipate the results will be favorable for each person on the list and that would be such a good thing for harmony with CDFA and the public.

QUESTION #85.1

Will CDFA please add me, and some independent scientists with contradictory opinions to CDFA regarding LBAM eradication, to the others on the list and initiate polygraph tests as part of the EIR process?

QUESTION #85.2:

Will CDFA also please initiate a formal hearing where some of the independent scientists, like James Carey and Dan Harder and Jerry Powell will be able to testify under oath, subject to perjury charges if they were not telling the truth. And also have the people on the CDFA test list above also testify and bring a number of non-management scientists from CDFA who could support the pure science and public service that CDFA has claimed to provide throughout this process.

#86 TOXIC EXPOSURE: LARGE AREAS

COMMENTS:

86.1 I issued a 3/24/09 press release identifying an error that DPR, OEHHA and DPH all made in three joint reports regarding their evaluation of exposure from the aerial spray of 2007. That same error also relates to aerial spray generally and to all applications of toxins that people, animals and vegetation are exposed to.

The state agencies acknowledged some level of exposure from proximity to pesticide spray, but they tempered that statement by identifying that when the pesticide is diluted and applied over a large area, the degree of exposure as well as the potential for irritation should decrease significantly. This statement and the logic of this statement would then give grounds to mitigate toxic exposure of pesticides to populations by applying the pesticides over large areas.

The exact quote (in all three joint reports):

"However, as the product is diluted and applied over a large area, the degree of exposure as well as the potential for irritation should decrease significantly."

In the 2007 CDFA aerial sprays over Santa Cruz and Monterey Counties, a fixed amount of pesticide was applied to each acre treated. So dilution did not occur as the application area grew to a large area. The result of applying pesticides over a large area did impact the amount of time that people were exposed to the pesticide, the larger the area, the greater the time exposed. Exposure to toxins consists of (1) level of toxicity and (2) time exposed. So exposure did increase in the large area sprayed.

That directly contradicts the statement in the three joint reports by the state agencies. It also has implications on the opinion they made in the joint reports on people's exposure.

Because toxins are intended to be applied also in some fixed specific amounts per acre or square mile in the proposed Program and they are not intended to be diluted when area size increases, the error that DPR, OEHHA and DPH made in their analysis in 2007 carries over and remains as part of the incorrect evaluation of toxicity exposure in the proposed Program.

The leadership and participation of these three agencies in the Health aspects of the proposed Program are described as follows from the following quote from EIR Chapter #2, Program Description: Program Goals & Objectives:
"The OEHHA, DPR, and DPH will collaborate to conduct health reviews of the chemical-treatment tools to be used in the LBAM eradication program and to develop and monitor a system to collect and analyze health complaints that might be generated by the Program."

Based on the tremendous responsibility of the three agencies in the proposed Program health issues and because the geographical area of the proposed Program is large in total and because many of the individual pesticide applications within the Program are large on their own, it is imperative that these agencies correct their error in relation to toxicity exposure and area of application. Their statements and related opinions need to be revisited for the 2007 aerial pesticide applications, for the determinations of significance for exposures in the proposed Program and for the purposes of recognizing the correct relationships in exposure and area size in any program involving large areas of pesticide applications.

86.2 I submit my 3/24/09 press release to the Draft EIR for all the reasons described above in Comment #83.1.

QUESTION #86.1

Will CDFA please review my 3/24/09 press release and using the relationships identified within, revisit the 2007 aerial application regarding toxicity exposure, and the determinations of significance for toxicity exposure in the proposed Program?

In so doing, please focus on the error "However, as the product is diluted and applied over a large area, the degree of exposure as well as the potential for irritation should decrease significantly," rather than on numerical calculations in the press release which may cause confusion and deflect attention from the real problem of the error in quotes.

QUESTION #86.2

Will CDFA also review my 3/24/09 press release for impacts on cumulative effects within the proposed Program as related to large areas of pesticide applications?

The press release is copied below and can also be found online at:
<http://www.californiachronicle.com/articles/view/101130>
<http://www.indybay.org/newsitems/2009/03/24/18581612.php>

For Immediate Release.

Press Release: March 24, 2009 Santa Cruz, California

Contact: Professor Glen Chase

Email: glenchase@aol.com

Topic: California Department Of Food And Agriculture (CDFA),
Light Brown Apple Moth (LBAM).

CDFA, DUE TO A SIMPLE MATH ERROR, MAY HAVE UNDERESTIMATED THE TOXIC DANGER OF LBAM PESTICIDES ON CALIFORNIA'S POPULATION BY ONE MILLION TIMES OR MORE.

Evaluating the health effects of past and future pesticides applied on and around people to combat the Light Brown Apple Moth (LBAM), **three state agencies concluded the potential danger was low because they incorrectly divided instead of multiplying.** In their analysis, the agencies divided by the thousands of acres sprayed, when they should have multiplied by the same number of thousands. If only 1,000 acres were involved, the peoples' exposure was as much as one million times greater than reported by the state agencies.¹ In larger pesticide application areas, which are typical, the error is even greater.

The Reports were prepared by the Department of Pesticide Regulation (DPR), the Office of Environmental Health Hazard Assessment (OEHHA) and the Department of Public Health (DPH). All three joint reports released November 3, 2008, April 10, 2008, and November 16, 2007 contain the same error.²

The California Department of Food and Agriculture (CDFA), based on these incorrect reports and their enthusiasm to proceed, gave their assurance to the public that the pesticide applications directly on and around the people and their children were safe.

This extreme error in toxicity exposure could explain why hundreds of people and doctors filed written health complaints following CDFA's application of pesticides on people and their children in Santa Cruz and Monterey Counties in 2007.

The state agency tests acknowledge that the pesticide (including the synthetic pheromone) is toxic and exposure can cause skin, eye and respiratory problems. The state agencies reported: *"However, as the product is diluted and applied over a large area, the degree of exposure as well as the potential for irritation should decrease significantly."*² **The state agency conclusion is false. Because the same amount of pesticide is applied to each acre treated, dilution does not occur as area size increases. Pesticide exposure increases, not decreases as the state agencies concluded.**

As the product is applied over a larger area, the degree of exposure to the toxicity of the pesticide chemicals as well as the potential for irritation should increase. That is because of the greater likelihood that people will spend more of their time in an infected area. If the spray area were small, it would be likely that only time walking by or driving by was spent in the spray zone. With a large spray area, it is more likely that ones home, work, school and/or shopping would be included in the spray area. At the extreme, if the spray area were large enough to encompass a family's total activities, they would be spending 24 hours per day within the domain of the toxic pesticide zone. Many people who reported illness lived and worked in the toxic pesticide zone. **The average exposure to the toxic pesticide for the human population increases as application area increases under every circumstance**, not decreases as the state agencies concluded.

The synthetic pheromone that the CDFA said was non-toxic and safe for people and their children ended up testing as a moderate level 3 toxin to the skin (11/3/08 Six-pack test). This indicates a strong likelihood that the synthetic pheromone also causes respiratory problems including wheezing and asthma, but the state agencies intentionally did no inhalation tests for the synthetic pheromone specifically, so no official results exist.

The 11/3/08 Six-pack tests of the pesticides applied on the people also showed lymphocyte proliferation. Lymphocyte proliferation is the immune system rapidly producing and spreading antibodies to attack infected and cancerous cells to attempt to reject foreign tissues.

Children, pregnant woman and their unborn children within the womb are more vulnerable to toxins because of their low body weights, developing organs and low tolerance to toxins. After the CDFA pesticide applications in Santa Cruz and Monterey Counties, children ended up in emergency rooms. One perfectly healthy 11-month-old boy went into respiratory arrest and though his life was saved in a hospital, he now lives with an asthmatic respiratory condition. No one can accurately predict what will happen in five, ten, twenty or thirty years from now to the hundreds of thousands of people and children who were sprayed with the pesticide, because the state agencies did not do any tests on the long term effects before spraying Santa Cruz and Monterey Counties.

Science from top botanists, entomologists, toxicologists, medical doctors, invasive pest biologists and rulings from two superior California courts have clearly indicated that: (1) the Light Brown Apple Moth (LBAM) is not an emergency or a threat to plants or crops in California, (2) LBAM has been in California for many decades, (3) LBAM has done no damage to any plant or crop and (4) LBAM is far too widespread and densely populated to eradicate. Unfortunately, none of this information is included in the CDFA's plans and analysis. If the CDFA is able to maintain the unnecessary eradication program for LBAM, they can access approximately \$500 million of taxpayer emergency funds over five years. This additional windfall to the CDFA equals the dollar amount the CDFA normally receives for their entire budget for two full years. Therefore, it is impossible to get any of the management at CDFA to consider eliminating this toxic and unnecessary eradication program.

¹ The state should have multiplied by 1,000, but instead they divided by 1,000. Because the agencies divided instead of multiplying, the total error in the toxic exposure to the population, in this case, reflects the state underestimated the toxicity of the pesticide impact on the people by as much as 1,000 X 1,000 = one million times.

² Error and false conclusion are identified below in all three joint reports by state agencies:

Page 15, paragraph 1, line 6

11/3/2008 *A Review of Acute Toxicity Studies Results on the Light Brown Apple Moth Pheromone Active Ingredient and Four LBAM Pheromone Products (Six-pack test).*

Department of Pesticide Regulation (DPR), Office of Environmental Health Hazard Assessment (OEHHA), Department of Public Health (DPH).

<http://www.cdpr.ca.gov/docs/pressrls/lbam/lbam.htm>

Page 4, paragraph 1, line 4

4/10/2008 *Summary of Symptom Reports in Areas of Aerial Pheromone Application for Management of the Light Brown Apple Moth in Monterey and Santa Cruz Counties September, October, and November 2007.*

Office of Environmental Health Hazard Assessment (OEHHA), Department of Pesticide Regulation (DPR), California Department of Public Health (DPH)

www.oehha.org/risk/pdf/LBAM041008.pdf

Page 5, paragraph 2, line 4

10/31/2007 *Consensus Statement on Human Health Aspects of the Aerial Application of Microencapsulated Pheromones to Combat the Light Brown Apple Moth.*

Department of Pesticide Regulation (DPR), Office of Environmental Health Hazard Assessment (OEHHA). This report dated 10/31/07 was released 11/16/07.

www.lbamspray.com/00_Health/2007/Consensus_Statement_on_Human_Health_Aspects.pdf

Background on Professor Chase:

Glen Chase is a Professor of Systems Management specializing in Environmental Economics and Statistics. Glen served as an Associate Professor teaching graduate level courses in Systems Management at USC for eight years. He has taught at multiple universities in the Central Coast area, including The Naval Post Graduate School, The Monterey Institute of International Studies and Cal State University, Monterey Bay. Glen is also a Management Consultant. Currently, Professor Chase develops management systems to assist organizations that cater to the improvement of life for children with disabilities.

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9/3/09 EMAIL TO MICHAEL JARVIS @GLEN CHASE
Subject: EIR
Referenced in Comment #43.1

Subj: Re: EIR
Date: Thursday, September 3, 2009 10:49:20 AM
From: Glen Chase
To: MJarvis@cdfa.ca.gov
cc: yphillips@comcast.net, jrains@cdfa.ca.gov,
LBAM_EIR@cdfa.ca.gov, Glen Chase

To: Michael Jarvis, CDFG Deputy Secretary, Office of Public Affairs

Hi Michael,

Thank you for your email of September 1, 2009.

To clarify and remind you who I am, I am the person that requested an additional Public Comment Meeting in Santa Cruz. I made the request at the Sacramento Public Comment Meeting. I am not from nor did I request a meeting in Marin County as you mention in your email.

The specific reasons for the Santa Cruz EIR "Comment" meeting request are:

1. Three additional EIR "Scoping" meetings were previously added to the initial schedule by CDFG during the EIR scoping portion of the EIR, so there is precedent for adding additional meetings and so there should be no reason, administrative or otherwise not to be able to add an EIR "Comment" meeting in Santa Cruz.
2. There currently is NO meeting scheduled in any location where the 2007 CDFG eradication program took place; no 2007 program took place in Long Beach, Carpinteria, Fresno, Sacramento, Sonoma, Watsonville or Oakland, the only locations where meetings are scheduled.
3. Santa Cruz experienced the initial CDFG program attempt at eradicating LBAM by applying a pesticide onto their communities

and surroundings. None of the communities with EIR Comment Meetings had that experience.

4. A quick and casual survey of people in Santa Cruz who want to attend a comment meeting showed that only about one person of every 20 who want to attend will actually be able to attend in one of the seven sites holding meetings because they work or have children and cannot access an early 5:30pm meeting in any of those seven locations.

5. The Long Beach meeting had approximately three attendees, Carpinteria – five, Fresno – three, Sacramento – less than a dozen. The previous Santa Cruz EIR "Scoping" session alone had well over 200 attendees. It seems reasonable to anticipate that an EIR "Comment" meeting in Santa Cruz will draw a similar number.

6. The general feeling of the people in Santa Cruz is that the CDFA has made every attempt to avoid the public by the locations and times of the scheduled meetings.

7. I believe that Santa Cruz County Supervisor Coonerty on August 31, 2009 traveled to one of the seven meeting locations and requested that CDFA hold an EIR "Comment" meeting in Santa Cruz.

8. Many people and scientists in the Santa Cruz area have done considerable research on the LBAM issue because of the experience they had with the CDFA program in 2007. The amount of time and research spent on LBAM by people in Santa Cruz is likely considerably greater than people in other communities that did not actually experience the 2007 program.

9. People in Santa Cruz have children and families that experienced a CDFA attempt at LBAM eradication in 2007, and to my knowledge, no one representing the CDFA was residing in the Santa Cruz community where pesticides were applied. The people of Santa Cruz want to share with the CDFA the perspective of receiving pesticides into their Santa Cruz communities to inform the CDFA beyond the CDFA's experience of only delivering those same pesticides into the Santa Cruz communities.

10. The lawsuit that stopped the CDFA program and forced this EIR was filed in Santa Cruz by the City of Santa Cruz and the County of Santa Cruz whose offices are located in Santa Cruz City, and much

of the information on which the lawsuit was based was delivered to the city and county by residents of Santa Cruz.

11. The people and the representatives of Santa Cruz have asked CDFA for a meeting multiple times.

12. Without at least one meeting in Santa Cruz, the CDFA will have avoided hearing from the public who is most interested to comment, most experienced personally to comment and representing the largest number in the state who wants to comment via a comment meeting as their participation in the EIR process.

13. Many members of the public are intimidated by the written administrative process of responding to a 1500 page EIR document, regardless of how straightforward it may seem to you. A public comment session allows people to follow others in speaking after they have gained the confidence and recognize the simplicity in voicing their comments. Public comment at a CDFA draft EIR meeting is the only realistic way for many people to voice their comments and be included in the Draft EIR process. The most people in the state that want to participate in this way, possibly more people than all other areas combined, are in Santa Cruz.

14. I understand that some citizens have contacted CDFA offering to pay for a meeting in Santa Cruz.

Michael, it makes sense to locate meetings throughout the state and it also makes sense to locate meetings where the public interest is greatest. Given the attendance figures at the various meetings and looking at a map of the state, CDFA has geometrically spaced out the meetings, but CDFA has missed the area of greatest public interest; and the time of the meetings starting at 5:30pm made it a practical impossibility for most working individuals and families from the Santa Cruz area to travel to the meeting locations that were offered.

If there is any reason to hold public EIR Comment Meetings, which there seems to be since CDFA did offer that method of public comment, then there is no reason to exclude the largest body of those interested to participate in that forum.

A meeting at 6:30pm to 9:00pm or 7:00pm to 9:30pm in downtown Santa Cruz, where CDFA is already familiar with facilities, would serve this purpose.

Please let me know, yes or no and why, if there will be a meeting in Santa Cruz and on what day and at what time.

Your CDFA secretary announced to the city of Santa Cruz that the pesticide was non-toxic, but the DPR and OEHHA Consensus Report of 10/31/07 identified that it was a level 3 toxin.

CDFA told the people of Santa Cruz that the LBAM situation in 2007 was an emergency, but The Superior Court of Santa Cruz County ruled that it was not an emergency.

To my knowledge, CDFA has not contacted a single individual or family that made a report of illness following the pesticide application in 2007.

Michael, can you understand the history and background of why people in Santa Cruz may have some doubts now about the integrity and sincerity of the CDFA organization? People who represent the largest numbers in the state who are interested to participate in the EIR process request CDFA's cooperation to allow them to participate. Is the CDFA going to continue to proceed with explanations to people's requests that appear to the people as insincere excuses to support CDFA strategy to minimize public participation, or is it the CDFA's intention to be more honest and sincere than before and to work with the people and accommodate at least some of their requests and concerns?

Again, please let me know, yes or no and why, if there will be a meeting in Santa Cruz and on what day and at what time. (Five days notice should be sufficient.)

Sincerely,
Glen Chase

In a message dated 9/1/09 12:03:01 PM, MJarvis@cdfa.ca.gov writes:

Thank for you contacting the department regarding the Draft EIR and for testifying at the Sacramento public comment session. Although the public comment sessions are almost complete, the department will accept written comments via email and conventional mail until 5 p.m. Pacific Standard Time on Sept. 28, 2009. Please note: written (and email) comments are given the same weight and consideration as verbal comments.

Last week, when Marin County was suggested as a comment location, it was explained that this is a statewide EIR and that the seven locations were selected to cover multiple communities. Although there is not a requirement for public comment sessions, the department decided to hold seven comment sessions in conjunction with the written comment period to give the public the best opportunity to make public comments under the California Environmental Quality Act process.

The department has paid for advertising to publicize the release for this document and also to notify the public regarding the comment sessions. Numerous news agencies have provided free news coverage of the comment sessions and EIR process as well.

Please remember that the public is welcome to submit as many comments, as often as they wish. For those who cannot attend the hearings, comments can be submitted online or by mail until Sept. 28. Unfortunately we cannot be in every city but the public is being given an opportunity to comment worldwide by accessing the EIR online and sending comments via the internet, which is free at most public libraries. The department believes seven hearings throughout the state along with a 60-day comment period -- instead of the required 45-day period under CEQA -- are fair and adequate.

Please note that this request will go into the formal EIR record as requested at the Sacramento hearing. As always, your constructive input is appreciated. Thank you for your interest in this important issue and please feel free to contact us with your concerns

Sincerely,
Michael Jarvis
CDFA
Office of Public Affairs