

City of Capitola City Council Meeting

5-22-08

Council Members Information Packet

LBAM

Light Brown Apple Moth
Epiphyas postvittana
CDFR Eradication Program

Public Concerns

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- 8) American Lung Association; State of the Air 2007
<http://www.lungusa.org/site/apps/s/content.asp?c=dvLUK9O0E&b=34706&ct=67879>
- 9) Lawrence Rose M.D., M.P.H., Former Cal-OSHA Medical Expert
<http://www.veganreader.com/2008/04/21/dr-larry-roses-crucial-report-on-lbam-spray-toxicity/>
- 10) Derrell L. Chambers, Retired USDA Pheromone Expert
www.stopthespray.org/resources/science/ChambersTestimony.pdf

Attachments:

Hard copy documents 1-10 1 set for council members to share

LBAM Information web sites

www.lbamspray.com/index.htm

www.stopthespray.org/

www.1hope.org/chkmate.htm

www.cassonline.org/

www.dontspraycalifornia.org/lbam.html

Summary/Quotes

1) Citizen Report Summary; 643 Documented Complaints of Adverse Reactions

Several people reported severe reactions, and others have required emergency room visits. Some said the effects of the spraying were debilitating and made it impossible for them to focus, work, and take part in their normal activities. Many report they have never had any similar symptoms previously.

2) Real Estate Disclosure Requirement; Legal Opinion

The unfortunate side effect of disclosure is that some buyers will abandon pursuing close of escrow once they read the disclosure. This may or may not lower the selling price for a given property, but there is a *higher probability that the average price of houses in the spray zones will decline over time*. This may happen in the aerial spray regions of California as the pool of buyers becomes aware of the issues associated with the spray and the regions impacted. This same economic downward force may also gradually affect the viability of rental properties as well as property values themselves.

3) CASS Report Summary; Economic Impacts and Solutions

Our most conservative estimates project **annual losses of \$198 million (1%) to \$1.98 billion (10%) for the tourist industry of the nine counties** for which aerial spraying is planned. **A 1% -10% drop in housing prices would translate into a \$25.7 – 257 billion drop in the value of housing assets.** Not only are houses the primary repository of most people's equity, but if people choose to leave the sprayed counties, their houses could be difficult to sell.

4) EPA Definition of Pesticide; U.S. EPA Office of Pesticide Programs

A pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Pests can be insects, mice and other animals, unwanted plants (weeds), fungi, or microorganisms like bacteria and viruses. Though often misunderstood to refer only to *insecticides*, the term pesticide also applies to herbicides, fungicides, and various other substances used to control pests. Under United States law, a pesticide is also any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

5) California Constitution; Article 1 Declaration of Rights

SECTION 1. All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, and privacy.

6) NUREMBERG CODE; Directives for Human Experimentation

The voluntary consent of the human subject is absolutely essential. This means that the involved should have legal capacity to give consent; should be so situated as to be able free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to understanding and enlightened decision. This latter element requires that before the acceptance an affirmative decision by the experimental subject there should be

made known to him nature, duration, and purpose of the experiment; the method and means by which it is conducted; all inconveniences and hazards reasonable to be expected; and the effects upon health or person which may possibly come from his participation in the experiment.

7) PM10 from Aerial Spraying Increases Hospitalization and Death

Dr. Jeff Haferman and Dr. Dennis Knepp, both engineers, had shown that half of the micro-capsules in the spray have a diameter of less than 10 micrometers, a size referred to as PM10 that is a great health concern, according to the American Lung Association. Haferman's and Knepp's conclusions on capsule size were confirmed by a table provided by the California Department of Food and Agriculture (CDFA). * See 8) below. *Half the particles in the spray are a serious, undisputable danger to human health.*

8) American Lung Association; State of the Air 2007: Particulate Matter

What is particle pollution?

Particle pollution, called particulate matter or PM, is a combination of fine solids and aerosols that are suspended in the air we breathe.

Particles are different sizes. * The ones of most concern are small enough to lodge deep in the lungs where they can do serious damage. They are measured in microns. The largest of concern are 10 microns in diameter (PM10). The group of most concern is 2.5 microns in diameter or smaller (PM2.5). Some of these are small enough to pass from the lung into the bloodstream just like oxygen molecules. By comparison, the diameter of a human hair is huge—it's 70 microns.

9) 28 Year Public Medical Officer for Cal-OSHA Lawrence Rose M.D., M.P.H.,

Discussion and Conclusion It has been several months since Monterey and Santa Cruz counties have been sprayed. The federal DFA, state CDFA, and DPR have not implemented or funded a well designed epidemiology study to determine scope and seriousness of the health impact on exposed residents in these two counties. This is far beyond irresponsible, and in fact criminal negligence would be a more appropriate label for the lack of public health follow-up. The longer these necessary public health follow-up studies are delayed, the more critical information will be lost. Health questionnaires administered to all residents could determine the scope and seriousness of all short term and later long term adverse health reactions. Exposed residents should expect nothing less. Any acute reactions or disabilities resulting in medical expenses, disabilities, or loss of income from these exposures should be totally compensated. Federal and state agencies responsible for this spraying decision must take financial and criminal responsibility for adverse impacts to health and environment.

10) 40 Year USDA Pheromone expert; Derrell L. Chambers

But, if eradication with mating disruption alone is the true intention, I think it unlikely ever to succeed. Even so, such an attempt should be preceded by extensive trials to develop, improve and demonstrate efficacy. Eradication is extremely difficult and I think it unlikely to succeed in California without methods development and proof tests on an island population, even using multiple tactics. This has not been done for LBAM, not by ARS, APHIS, CDFA or even those most in a position to do so, the scientists of the various New Zealand agencies responsible for LBAM management in that country. The only field trial of mating disruption alone for eradicating LBAM was conducted recently in Santa Cruz County.

EXECUTIVE SUMMARY OF COMPLAINTS and RECOMMENDATIONS

A Review of 643 Documented Complaints of Adverse Reactions Following the CDFA's Aerial Spraying of two Pesticides based on Pheromones over Densely Populated Neighborhoods in Santa Cruz and Monterey Counties in September, October and November 2007

As of December 20, 2007 various governmental agencies and citizen groups have received **643** documented complaints from Monterey and Santa Cruz area citizens who believe they suffered adverse short-term reactions following the aerial spraying of pesticides pheromones on their cities in September, October, and November 2007.

Of the 643 complaints, **509 are reported here for the first time**, along with the original 134 citizen complaints of adverse reactions following the aerial spraying of the Monterey area in September which released to state agencies and the press in October.

Summary of the Complaints

Citizens complained of a variety of adverse reactions immediately and soon after the aerial spraying, including:

- Asthma attacks
- Bronchial irritation
- Lung congestion and soreness
- Difficulty breathing and shortness of breath
- Coughing or "wheezing"
- Headaches (sometimes debilitating)
- An inability to concentrate and focus
- Dizziness
- Muscle aches
- Body tremors
- Skin rashes (sometimes severe)
- Nausea
- Swollen glands and lymph nodes in neck and under arms
- Vision blurred
- Eye irritation
- Feelings of lethargy and malaise
- Sore throats
- Nasal congestion
- Sinus bleeding
- Menstrual cramping, an interruption to menstrual cycles, and in some cases a recommencement of menstrual cycles after menopause
- Chest pains and tightness
- Heart arrhythmia and tachycardia (irregular and rapid heartbeat)

Several people reported severe reactions, and others have required emergency room visits. Some said the effects of the spraying were debilitating and made it impossible for them to focus, work, and take part in their normal activities. Many report they have never had any similar symptoms previously.

People with less severe reactions generally said they went on with their day-to-day responsibilities, although with diminished capacity, and did not call or visit their doctors because they did not want to take the time or incur the expense, or could not get a short-term appointment.

A number of people said they had left their homes during the spraying and experienced symptoms immediately upon returning. A tourist visiting Monterey from Pennsylvania said her symptoms appeared as soon as she got near the area after driving north on Highway One from the Hearst Castle in San Simeon.

Some reported that several members of their families experienced unusual symptoms at nearly the same time shortly after the spraying. Several said their domestic animals also experienced adverse reactions. Two pets died after developing symptoms similar to those reported by humans.

Complaint Sources

Today's report cites 317 complaints of adverse reactions received directly by the CDFA since the spraying began, 52 of which were detailed illness reports. It also cites 36 reports of illnesses sent by doctors to the Santa Cruz County Agriculture Commissioner's office. Public interest groups received 290 complaints, which are documented in the report.¹

Potential Complaint Duplication

Because there is no single agency and no single well publicized system for tracking and investigating adverse reactions to the aerial sprayings, there is likely some overlap in the 643 complaints, if people filed complaints with more than one entity.

Underreporting Breadth of Illnesses And Symptoms

The report explains why the official numbers under-report the numbers of people with illnesses and symptoms and how complaints inherently cannot include potential long-term adverse health effects.

- Sometimes a single complaint was submitted for several members of the same family, and on one occasion, one complaint was submitted for a family of six, all of whom got sick.
- There is evidence some people could not afford the time or expense of a doctor visit, or could not get an appointment, while others did not know how to register complaints of adverse reactions. Meanwhile, some health care providers were not

¹ The total number of complaints reported in the press in September and October grew to more than 200 as governmental representatives, referring to the adverse reactions, likely added complaints they had received directly to the count, and referred to these in their communications (see "Laird Response to Sec. Kawamura," dated October 16, 2007, page 4, which referenced 200 complaints). These extra complaints are not included in the tally of 643 referenced in this report; only the 134 complaints received through ReactiontoSpraying@yahoo.com last fall, and forms sent to the related P.O. Box.

prepared to recognize and report possible pesticide-related illnesses or were not aware of state law requiring them to report suspected pesticide poisonings within 24 hours.

“Midway through the aerial sprayings, the CDFA stated that the only way complaints of illness would be taken seriously is if they were validated by a doctor. However, I have patients who told me that other doctors refused to file a report on their reactions, even though it is required by law.”

– Randy Baker, MD, *a family physician practicing environmental medicine in Soquel*

- The present tally of 643 complaints does not include complaints that have been made directly to the offices of Governor Schwarzenegger and other elected officials. Citizen groups have asked the Governor’s office to disclose this information. They also continue to gather illness complaints through various channels, including an email address, ReactiontoSpraying@yahoo.com. The number of documented complaints count should rise as the Governor’s office, city governments, and governmental representatives pass along complaints they have received directly from citizens. There is no law requiring these offices to forward pesticide harm complaints.

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Putting Health and Safety First

Despite assurances by the CDFA that the spraying would be safe, many community leaders remain concerned after learning of the larger scale of documented complaints.

“While California’s agriculture business is vitally important, no one, including the Governor, I think, wants to sacrifice the health of children and other vulnerable citizens for produce. That’s why the spraying needs to stop so we can have a thorough public process including an Environmental Impact Report.”

– Tony Madrigal, *Santa Cruz City Council*

“The science establishing the safety of the spraying simply is not there. In effect, this has been an experiment on a grand scale. The Nuremberg Code, which is adhered to by the National Institutes of Health, prohibits medical experimentation on human subjects without their informed consent. I believe the same code of ethics should be adhered to in this situation.”

– Dr. Doug Hulstedt, *pediatrician, Monterey*

“The number of people who have reported adverse reactions is alarming, and I believe further spraying must be halted until we can be certain it is safe.”

– Emily Reilly, *Santa Cruz City Council member*

“Protecting those who are most vulnerable is a hallmark of our society, and while the aerial spraying might not adversely impact everyone, there is reason to believe it is harming some people, including those with chemical sensitivities, impaired

immune systems, and asthma and other respiratory ailments. The rights of these citizens need to be protected.”

– Jeff Haferman, *Monterey City Council member*

“Article One of the California Constitution clearly states that all people have a right to pursue and obtain safety, and the aerial spraying of synthetic pheromones and other chemicals on neighborhoods, playgrounds and schools could be in violation of this right,” said Mike Lynberg of *Concerned Citizens Against Aerial Spraying*.

“We, as elected officials, have a responsibility in matters of public safety to make sure that decision-making process is transparent to the citizenry. Thus far, the state has not lived up this standard.”

-- Ryan Coonerty, *Santa Cruz Mayor*

“Far more effective non-spraying alternatives exist. Aerial spraying has been called the ‘least effective’ way to control the light brown apple moth because at least 99 percent of the spray has no effect on the widely dispersed moths at all. A more effective and less costly solution is targeted, pheromone-scented sticky traps², which the state has used to trap essentially all the 9,000 moths they’ve caught in California so far.”

– David Dilworth, *Executive Director, Helping Our Peninsula’s Environment (HOPE)*

“Given the number and seriousness of the health complaints, and the heavy presence of the Checkmate LBAM F capsules in the river and along Cowell Beach after the spraying, I think there is reason to believe that a line has been crossed and that the aerial spraying is not environmentally responsible, possibly violating the authority under which it was initiated.

– Ed Porter, *Member of the Santa Cruz City Council*

“CDFA has undertaken aerial spraying under the pretext of an emergency. Clearly there is no emergency in the legal sense. An emergency is a sudden and unexpected occurrence threatening life and property. There is no way in law that the LBAM situation can be considered an emergency.” Ibid

“Unfortunately, many people did not know how to register complaints of adverse reactions, and primary care health providers were not adequately instructed how to recognize and report possible pesticide-related illnesses among their patients. Also, citizens and health practitioners were assured by the CDFA that the spraying would not make anyone sick, so it’s possible that many attributed their adverse reaction to other causes. Ibid

² **Targeted pheromone-baited Sticky Traps are the only solution to catch and kill the LBA moths.** Twist ties and aerial spraying do not catch or kill the LBA moths. "Targeted" sticky traps are used only where the moths are found. This is in sharp contrast to saturation trapping to cover an entire region. For more detailed information on this effective and less expensive solution please see **Ihope.org/checkmate**

“Midway through the aerial sprayings, the CDFA stated that the only way complaints of illness would be taken seriously is if they were validated by a doctor. However, I have patients who told me that other doctors refused to file a report on their reactions, even though it is required by law.”

– Randy Baker, MD, *a family physician who practices environmental medicine in Soquel*

“Unfortunately, there is very little in the way of objective testing doctors can do to tell if a complaint actually is related to chemical exposures. And many people could not afford the time or expense of going to a doctor, or could not get a timely appointment. Should their complaints be ignored?” Ibid

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METHODOLOGY: HOW THE COMPLAINTS WERE COMPILED

Mike Lynberg, a husband and father of two in Pacific Grove, who is also a bestselling author and business writer, was concerned about the safety of spraying untested pesticides on large urban populations and started Concerned Citizens against Aerial Spraying in September 2007. Then, when some of his friends and neighbors had adverse reactions to the aerial spraying, he began to collect and compile their complaints, and to seek records of complaints from other sources.

Collected and compiled by Lynberg, this report includes or makes reference to:

- **317** citizen complaints submitted by citizens directly to the CDFA; 52 of them in the form of detailed illness reports, and 265 in the form of phone calls, email messages and other correspondence. These 317 complaints, disclosed to Lynberg by the CDFA on December 20, 2007, are the total received so far by the CDFA following all three rounds of spraying in Monterey and Santa Cruz Counties.
- **290** citizen complaints of illnesses have so far been received by public interest groups, including via a dedicated email address, ReactiontoSpraying@yahoo.com, a dedicated P.O. Box, and two citizen petitions. Of the complaints, 134 followed the first round of spraying in the Monterey area in September, and 156 of them followed the second round of spraying in the Monterey area in October and the first round of spraying in the Santa Cruz area in November.
- **36** complaints submitted by local physicians to the Santa Cruz County Agriculture Commissioner's office following the November spraying in that county, consistent with a law that requires physicians to report illnesses that could be pesticide-related. These reports of illnesses are being investigated by Sean Fields, an inspector in that office, and will be forwarded by it to the appropriate state agencies at a later time.

While care has been taken to delete duplicate complaints in this report, there could be some overlap (i.e., some people might have reported their adverse reactions to more than one entity). That overlap, to a significant degree, results from the lack of a single, well planned and managed system for tracking and investigating adverse reactions, established and funded by the state, and ideally undertaken by a reliable and trusted third party, and peer reviewed by experts in the area of pesticide-related illnesses.

Despite possible duplicate complaints, HOPE believes the known complaints are likely just a fraction of the total illnesses linked to the spraying for the reasons described above.

Moreover, in late October, the CDFA began to say publicly that the only way citizens' complaints of illnesses would be taken seriously is if they were validated by a doctor. "What about people who could not afford the time or expense of going to a doctor, or who couldn't get an appointment?" asks Lynberg. "Are their complaints not worth taking seriously?"

Finally, the total number of complaints in this report is likely to be much lower than the actual number of people who believed they suffered adverse reactions to the aerial spraying because the complaints reported herein do not include:

- Complaints of illnesses received by Governor Schwarzenegger's office
- Complaints of illnesses and adverse reactions received by other elected officials such as state and federal representatives
- Calls, messages and letters sent by people who believe they got sick to the mayors of the city clerks of the many cities sprayed
- Complaints of illnesses received directly by the Monterey and Santa Cruz County Health Officers

Working with other public interest groups, Lynberg is presently working to obtain this information so it can be publicly disclosed. In time, the total number of citizen complaints of adverse reactions related to the aerial spraying of urban populations in California in late 2007 could grow.

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CDFA Could Spray Continuously through 2010

The California Department of Food and Agriculture (CDFA) agency declared an emergency and obtained a permit from the US-EPA to spray urban populations through 2010, as often as every 30 days, and to do so without any advance testing of the pesticide's health harm to humans.

Three rounds of aerial pesticide spraying using two different pesticides³ occurred late last year beginning on the Monterey Peninsula and then expanding to Santa Cruz County. Each round involved airplanes spraying untested pesticides at high-speed⁴ largely over densely populated areas from 500 - 800 feet above the ground⁵. At that altitude there is considerable sideways drift of the pesticides, potentially miles from the release location.

The pesticide ingredients and concentrations are a closely held secret. Two days after an LA Times editorial the Governor released a few of the names of ingredients of only one of the two pesticides. The disclosed ingredients include a synthetic pheromone

³ Checkmate OLR-F and Checkmate LBAM

⁴ 160 mph.

⁵ Crop dusting normally takes place only a few yards above the ground and at speeds below 100 mph.

as the active ingredient, and variety of so-called "inert" ingredients⁶. Some of the disclosed ingredients are known to be hazardous at certain levels. Concentrations of the ingredients and chemical residues of the manufacturing process were not disclosed. US-EPA has explicitly refused to disclose that information on an expedited basis.

The tiny light brown apple moth has been widely across California from Los Angeles to Napa, including highly populated areas such as San Francisco, Berkeley and Marin County. *The LBA moth does not cause physical harm to people which is in sharp contrast to the West Nile Virus.*

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⁶ Pesticides almost always contain chemicals that are secrets, misnamed inerts. "Despite their harmless sounding name, **many so-called inerts are dangerous chemicals that can cause cancer, reproductive harm, nervous system damage and other health effects.**" (NCAP Report "Toxic Secrets")

RECOMMENDATIONS & ALTERNATIVE SOLUTIONS

There are three broad questions related to the recent aerial spraying of pesticides using pheromones and potentially toxic “inert” ingredients by the State of California on hundreds of thousands of its citizens:

- Is it necessary?
- Can it be effective?
- Is it safe?

Experts have expressed opposing viewpoints on whether the aerial spraying is necessary or effective. For example, Jim Carey, a professor of entomology at the University of California-Davis and a respected Invasion Biology expert, has cast doubt on whether the aerial spraying can be effective, saying the pest is too established to be eradicated. “This thing is so widespread that there is no way that they're going to eradicate it,” said Carey in a *Monterey Herald* interview in December. When a pest is not eradicatable, we can only try to control it. Pest control requires dramatically less urgency and less draconian measures than eradication.

While the first two questions are critical, and while some experts believe the spraying is neither necessary nor effective, this report is primarily focused on complaints of adverse reactions to the spraying.

Out of a deep concern for the health and safety of our families, friends and neighbors, HOPE and those supporting this report strongly and respectfully recommend that :

1. The State of California immediately stop further aerial spraying to eradicate the light brown apple moth, given the evidence the spraying may significantly harm human health and is therefore not being done in an “environmentally responsible” way, as described in Senate Bill 556.
2. Our governmental representatives vigorously defend and uphold every citizen’s **constitutional right to pursue and obtain safety**, as established in the California State Constitution, Article One, Section One.
3. The State of California abide by international codes of ethics pertaining to experimentation on human subjects without their informed consent (such as the Nuremberg Code adhered to by the National Institutes of Health), since the chemical mixtures being sprayed have not, prior to the wholesale spraying of large urban populations, been tested for their health effects on human beings.
4. The health complaints received so far be thoroughly investigated by an objective and trusted third party – not by an agency or organization that serves or supports agriculture

and related interests – and peer reviewed by panel of experts in the fields of toxicology, environmental medicine and other appropriate disciplines. The California Dept of Public Health may be a good start.

5. The ingredients in the products being sprayed on unwitting populations be thoroughly disclosed, including their relative concentrations and the residues that result from their reaction, and this data be studied by an objective and trusted third party -- not an agency with a clear conflict of interest and loyalty to agricultural and economic interests such as CDFA and DPR, and peer reviewed by an appropriate panel of independent toxicologists, physicians and other specialists.

6. The State of California prepare a thorough Environmental Impact Report that includes the findings of the investigations into the spray's ingredients and the adverse health effects among the population, and objectively and thoroughly evaluates non-spraying alternatives.

7. The CDFA implement non-spraying solutions to eradicate or control the light brown apple moth, such as the targeted pheromone-scented sticky traps it has used successfully to trap essentially all the 9,000 LBA moths found in California so far, instead of measures that put people at risk and possibly sacrifice their health and safety for the interests of others.

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April 8, 2008 (c)

Lindsay Vurek
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RE: Potential Liabilities to Holdings in Visitor Serving Facilities and Real Estate Property Resulting from the Scheduled Upcoming Light Brown Apple Moth (LBAM) Aerial Spraying of the Greater San Francisco and Monterey Bay Area

Pages 1-2: Brief background information

Pages 2-4: Legal liabilities and the possibility of mitigation issues for visitor services and facilities (tourism) and real estate property sellers

Pages 5-7: Annotated references and additional information

Dear Mr. Vurek:

This letter is a response to your recent request that I briefly research potential liabilities to your holdings in visitor serving facilities and real estate property located in the Light Brown Apple Moth (LBAM) aerial spray zone. I have researched this issue and concluded that you may incur liability as a result of the LBAM spraying. My rationale for this conclusion is outlined below. Included in this letter is brief background information about the spray, followed by a synopsis of my conclusion of potential legal liability and advice for mitigating your liability. Additionally, references are included at the end of this letter, to assist you in ascertaining additional information about the potential negative impact on real estate holdings resulting from the planned aerial spraying.

Brief Background Information Regarding the LBAM Aerial Spray:

In Fall 2007, the California Department of Food and Agriculture (CDFA) ordered the spraying of aerial pesticides, specifically Checkmate OLR-F and Checkmate LBAM-F, in Santa Cruz and Monterey counties, to eradicate the Light Brown Apple Moth (LBAM). The aerial spraying of Checkmate OLR-F in Santa Cruz and Monterey counties was completed in November 2007, and was the first time this chemical composition had been sprayed on an urban population. The CDFA has now ordered the aerial spraying of the Greater San Francisco Bay Area, as well as the continued spraying of the Monterey Bay Area. The expanded aerial spray zone is currently defined as the counties and cities within Monterey, Santa Cruz, San Mateo, San Francisco,

Marin, Contra Costa and Alameda Counties. The aerial spraying could be extended to additional counties and cities if the CDFA finds the moth in other California regions.

The spraying is scheduled to begin on June 1, 2008 in the Monterey region and move north into the San Francisco-Oakland-Berkeley region by no later than August 1, 2008. If the CDFA uses the same procedure as they used in Santa Cruz and Monterey counties in 2007, then low flying planes would be slated to spray every thirty (30) days until the beginning of the winter rainy season. The CDFA has stated that the spraying is likely to occur each season over at least a three-to-five (3-5) year period, and could extend indefinitely, depending upon the results of the spraying.

Checkmate OLR-F and Checkmate LBAM-F, were used in the 2007 Monterey and Santa Cruz region sprayings. CDFA said this formula may change but has not yet published the new formula. The formula previously used was a micro-capsulated, synthetically derived pheromone that also contained over ten (10) chemical compounds, some listed as “suspected cancer agent” in the Material Data Safety Sheets. The ingredients, published on October 24, 2007 LBAM-F, were listed as (E)-11-Tetradecen-1-yl Acetate, (E,E)-9, 11 Tetradecadien-1-yl Acetate, Crosslinked polyurea polymer, Butylated Hydroxytoluene aka DBPC, Polyvinyl Alcohol, Tricaprylyl Methyl Ammonium Chloride (Aliquat 336), Sodium Phosphate, Ammonium Phosphate, 1,2-benzisothiazoli-3-one, 2-hydroxy-4-n-octyloxybenzophenone. The pheromone is encapsulated in a microscopic plastic-like capsule that breaks down over time, releasing the pheromone into the environment over a thirty-to-seventy (30-70) day period.

The reported size of the microcapsule to be used is 10 to 190 microns. The American Lung Association states that particles measuring 10 microns in diameter are *small enough to lodge deep in the lungs where they can do serious damage*. Several of the ingredients are *known to have toxic properties and could easily cause inflammation of lung tissue in young, healthy adults - not to mention children, seniors and those who are already physically impaired*.

On April 1, 2008, Secretary of Agriculture Kawamura at the City at Alameda council chambers under questioning said that if Checkmate was being aerially applied over a agriculture field, the field workers would be required to leave the fields during spraying due to the “caution” requirements and liability issues associated with the Checkmate (recorded testimony).

Approximately 640 adverse human health reactions were reported after the Fall 2007 spraying of Monterey and Santa Cruz counties. These reactions ranged from mild sore throats and respiratory distress to severe reactions in children that required immediate hospitalization. There was a large range of symptoms, with respiratory related symptoms being the most frequently reported. Additionally, hundreds of birds and many cats were found dead within three (3) days of the spraying. There has been no easily accessible method to report incidents associated with the spray, so the number of reactions is likely understated. As stated above, the 2007 sprayings were the first time this product had ever been applied aerially over populated urban areas in the U.S. or anywhere else. Therefore, the long-term health consequences to humans and animals, as well as to the environment and ecology of the area, are difficult to determine. I could find no long-term health data on these pesticides.

Legal Liabilities and Possible Mitigations for Visitor Serving Facilities and Real Estate Property Sellers:

You asked me to research the question of whether the scheduled LBAM aerial spraying could create any liabilities for you with respect to your holdings in visitor serving facilities and real estate property. Of the two liability issues you asked me to address, the issue of potential liability respecting real estate holdings is the easiest to address, so I will do so first. Some of the discussion of liability pertaining to real estate holdings may also apply to visitor serving facilities (tourist trade).

California Civil Code Section 1102 requires sellers, transferors and agents of real property to disclose relevant information to buyers regarding the condition of the property, and information pertinent to the value of the property, prior to sale. The disclosures are particularly important with respect to information not easily discoverable by buyers; in other words, it is the intent of the legislature to provide the buyer with reasonable access to information impacting the value and condition of the property prior to the sale. The court interpreted the purpose of the disclosure requirement in *Alexander v McKnight* (1992) 7 C.A. 4th 973, 9 C.R. 2d 453, holding that “the purpose of section 1102.6 requires that it be liberally interpreted so that a buyer will be fully informed on matters affecting the value of the property to be purchased”.

I believe you would need to disclose the scheduled LBAM spraying to potential buyers on two bases: environmental hazard and nuisance.

First, section 1102.6 of the California Civil Code requires the disclosure of environmental hazards relating to real property. Specifically, the law requires disclosure of: “substances, materials, or products which may be an environmental hazard, such as, but not limited to, asbestos, formaldehyde, radon gas, lead-based paint, mold, fuel or chemical storage tanks, and contaminated soil or water on the subject property”. Given the information known about the potential toxicity of the aerial spray, the seriousness of the potential health consequences and the unknown long-term effects of the chemicals, I believe you would be required to make full disclosure of these facts to any potential buyer of real property in the designated spray area.

Additionally, one of the standard items the law requires be disclosed is “neighborhood noise problems and other nuisances”. The scheduled spraying is likely to rise to the level of common law nuisance. Nuisance is a common law tort, defined as the interference with one’s quiet enjoyment of his or her property. The residents of Monterey and Santa Cruz counties lodged several complaints of noise pollution during the aerial spraying of the counties in 2007. The noise from the low flying planes is extremely loud, and the planes flew relentlessly from 8 p.m. to 5 a.m., disturbing and/or preventing sleep for many residents. Several Monterey and Santa Cruz residents reported difficulty performing job duties the following days and/or lowered levels of productivity. The noise from the planes also has the potential of disturbing war veterans or others with Post Traumatic Stress Disorder (PTSD), as several residents described the noise as akin to being in a war zone.

There are substantial penalties for failing to disclose required information. Failure to disclose information about the spray leaves you vulnerable to a lawsuit for nondisclosure. Even with disclosure, there is no guarantee that the buyer will not sue, but the disclosure can lessen the probability of a buyer-initiated lawsuit, as well as mitigating damages resulting from a lawsuit.

In rural agricultural areas of California, it is a common practice for sellers of real property to disclose whether the property is in an agricultural zone and whether there is a possibility of aerial spraying occurring nearby. On the attached reference page, I have included a link to a Mendocino County disclosure form for agricultural zoning that includes language associated with aerial spraying. I can draft a more appropriate disclosure for the urban areas that are due to be sprayed if you wish.

The unfortunate side effect of disclosure is that some buyers will abandon pursuing close of escrow once they read the disclosure. This may or may not lower the selling price for a given property, but there is a higher probability that the average price of houses in the spray zones will decline over time. This may happen in the aerial spray regions of California as the pool of buyers becomes aware of the issues associated with the spray and the regions impacted. This same economic downward force may also gradually affect the viability of rental properties as well as property values themselves.

For potential home buyers already living in the spray region, the seller may have some degree of mitigation without disclosure due to the seller being able to point to fairly wide spread local media about the spray. This,

of course, would not apply to the pool of buyers coming from outside the aerial spray region where there has been little media coverage.

Some of the above principles apply to visitor serving facilities as well (hotels, motels, inns, convention centers and visitor based businesses). The same logic would apply (to a lesser extent) to large groups of travelers from outside the spray region, i.e., written disclosure of the impending spray would tend to mitigate the ability of visitors to file lawsuits, however, written disclosure would also likely lead to loss of revenue from cancellations. There may be a gradual decline in regional tourism as the public becomes aware and educated about the aerial spray campaign.

Conclusion:

- 1) Written disclosure can mitigate legal liability and possible lawsuits related to aerial spray zone issues for property owners and visitor server facilities owners.
- 2) There is likely to be some downward pressure on home prices, rental prices and visitor serving facility bookings due to the aerial spraying.
- 3) Proposed California legislation aimed at preventing the aerial spraying (AB2892, AB 2763, AB2764, AB2765 and AB2760) is not likely to be passed in time to prevent the upcoming spraying plan and the legislation will require a large effort to be passed.
- 4) Of the two government officials in California who are in a position to cancel the aerial spraying before it occurs in 2008, Governor Schwarzenegger is likely to be most responsive to home owner and business owner input on the subject.
- 5) See the Annotated Reference section (pages 5-7) for the likely reasons why this emergency LBAM aerial spraying is scheduled.

Please feel free to contact me at (831) 600-3030 with questions pertaining to this letter.

Sincerely,



Tracey DeMartini
Attorney at Law

TLD: kb

Enclosure

Annotated References:

Sample Disclosure Form

Disclosure form used in rural areas near aerial spraying (see Agricultural Land Zoning disclosure on form)
<http://norbarrealtor.com/upldocs/mendodisclosuresadvisory1-12-07.pdf>

Toxicology of Checkmate (pesticide used in aerial spraying)

Checkmate OLR-F and Checkmate LBAM-F warning labels
<http://media.portland.indymedia.org/images/2007/10/366799.png>
http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/CheckMate%20LBAM.pdf

Website page detailing chemical composition and health effects of Checkmate http://www.hopefortruth.com/checkmate_lbam.htm

Declaration of Richard Philp, Professor of Pharmacology and Toxicology
http://www.hopefortruth.com/LBAM_Forms/Toxicology_report.pdf

Information about Checkmate's particle size and composition
From: Aquatic Toxicology Laboratory the University of California, Davis
http://lbamspray.com/00_Documents/2007/ATL_Pheromone_Toxicity_Testing_112807.pdf

American Lung Association information on lung damage and particle size
http://lungaction.org/reports/sota05_heffects.html#pp

Toxicology of one the "inert" ingredients in Checkmate Butylated Hydroxytoluene aka 2,6-di-tert-butyl-p-cresol
The compound (a preservative) has been banned for use in food in Japan (1958), Romania, Sweden, and Australia. The US has barred it from infant foods. It is well know that infants will be both breath and ingest this chemical during the aerial spray.
<http://msds.chem.ox.ac.uk/DI/2,6-di-t-butyl-p-cresol.html> (MSDS Oxford University)
http://en.wikipedia.org/wiki/Butylated_hydroxytoluene (general chemistry and synonyms)

Health reports related to the Fall 2007 Spraying of Monterey and Santa Cruz Counties

Executive Summary Report of 643 complaints of adverse reaction to aerial spraying in Santa Cruz and Monterey counties
http://www.indybay.org/uploads/2008/01/05/executive_summary_mike_lynberg.pdf

Full report of 643 complaints of adverse reaction to aerial spraying (192 pages - 8 mega bytes)
<http://www.indybay.org/uploads/2008/01/05/spraycompl2.pdf>

Forum posting on Monterey and Santa Cruz sprayings
"...At least four of them required hospitalization, including a 12-month old boy whose parents had to rush him to the emergency room after his condition grew progressively worse the week of the spraying. He got to the point where he couldn't breathe on his own and was in the hospital for three days. Two weeks later, he had a relapse and was rushed to the hospital again. He has now been diagnosed with asthma, a condition he did not have before the spraying began..."
<http://forums.myspace.com/t/3820183.aspx?fuseaction=forums.viewthread>

Impact of Light Brown Apple Moth (LBAM) on California Agriculture

Testimony of Entomologist, Professor James R. Carey
James R. Carey, Professor of Entomology at the University of California, Davis, testified to the likelihood that CDFA's effort to eliminate the Light Brown Apple Month will be a failure and that crop damage using the normal natural predators would be limited. He also testified to the fact that the CDFA's effort will likely be counterproductive (expensive and more harmful than the natural course of the

moth). Professor Carey's testimony before State Senators Simitian and Migden in Marin County on March 13, 2008 demonstrated a LBAM spread model that strongly indicates that CDFA trapping data and LBAM spread models are likely flawed.

[http://www.albanyca.org/archiPage 6 of 7ve/pdf/012208_E_CareyTestimony.pdf](http://www.albanyca.org/archiPage%206%20of%207ve/pdf/012208_E_CareyTestimony.pdf)

Democrats.assembly.ca.gov/MEMBERS/A27/pdf/AssemblyAg_Committee_LBAM2

Video of testimony of Professor Carey and Harder PH.D before Senator Simitian committee

http://www.youtube.com/watch?v=2Zc7I_o0M6E&feature=related (15 minutes total)

Statements by Daniel Harder, Ph.D., UC Santa Cruz Arboretum Director

Exaggeration of threat of LBAM

Existence of LBAM in New Zealand for over 100 years with only minor crop damage

www.santacruzsentinel.com/ci_8559269

http://www.hopefortruth.com/LBAM_Forms/Harder_Report.pdf

Report on Daniel Harder's trip to New Zealand and control of LBAM with natural predators and Dr. Carey's statement that the LBAM has probably been in California for decades.

<http://www.berkeleydailyplanet.com/issue/2008-03-11/article/29430>

IPM Practices for the LBAM in NZ: Implications for California: -Harder/Rosendale, March 08 2008

<http://forum.stopthespray.org/download/file.php?id=114>

Connections between USDA decision to eradicate LBAM and international trade issues:

The US has engaged in protectionist activities by using the LBAM to prevent agricultural shipments from other countries, thereby promoting American produce. Now other countries are using the small LBAM USA infestation to their advantage. The European Union does not block fruit or vegetable shipments due to LBAM infestation.

http://www.register-pajaronian.com/V2_news_articles.php?heading=0&page=&story_id=3655

"...As has been researched and indicated by premier UC scientists, the class A classification of the LBAM as a pest is not only disputable, it is incorrect. Mexico and Canada only have their ludicrous import restrictions in place because of US Policy. If we change ours, they'll change theirs."

<http://www.topix.com/forum/state/ca/TPPH45FSK9CKTGTR>

See last page of attachment – in the past Mexico has waited for the US to take the lead in modifying the threat conditions to allow "harmonization" of trade policies.)

http://www.cdca.ca.gov/phpps/pdep/lbam/pdfs/PSA12_2007.pdf (

CDFA claims to have eradicated LBAM in LA and Napa counties without aerial spraying and Mexico has lifted moratorium from those counties. Also Mexico has modified the trapping requirements at the CDFA request.

<http://westernfarmpress.com/news/lbam-protocol-0326/>

Invasive Species Management: Programs, Policies, and Institutions for Preventing and Managing Invasive Agricultural Pests: Supporting Tables (including trade treaty related information)

<http://www.ers.usda.gov/briefing/InvasiveSpecies/supportedtables.htm>

Political Reasons for Spray

On January 24th, 2008, United States Department of (USDA) Agriculture Secretary Chuck Conner announced the availability of \$74.5 million in emergency funding to combat the light brown apple moth (LBAM) infestation in California. This announcement comes in conjunction with the release of the California Department of Agriculture's (CDFA) expanded aerial spray zone, which includes the entire cities of San Francisco, Oakland, Berkley and many others.

http://www.organicconsumers.org/articles/article_10711.cfm

Contractor, Dynamic Aviation Group Inc Bridgewater, VA, Air Transport, contributed exclusively to Republican candidates, the Republican Party and Republican PACS in 2007.

http://vpap.org/donors/results_level2.cfm?Key=ORP000226214

STEWART A. RESNICK - Chairman & President: Roll International Corp. (a major California agri-business), and Suterra LLC, maker of Checkmate pesticide used for aerial spraying in California, contributed a \$144,600 to California Governor Schwarzenegger.

http://www.arnoldwatch.org/special_interests/index.html

Also see <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/03/08/BAF1VG26A.DTL>

"...each aerial application of Checkmate OLR-F and Checkmate LBAM-F costs approximately \$3.5 million and that \$3 million is paid directly to the manufacturer Suterra, LLC of Bend, Oregon.

<http://nationalexpositor.com/News/870.html>

A \$497,000 Public Relations contract was awarded in November to Porter Novelli after hundreds of residents complained about breathing problems and other health effects from the (LBAM aerial) spraying.

The California Department of Food and Agriculture invoked emergency powers to award the contract without competition. Porter Novelli is affiliated with Donna Lucas, former chief of staff to first lady Maria Shriver and a member of Schwarzenegger's inner circle during his first years in office. The firm subcontracted some of the work to Jeff Randle, a frequent campaign and political adviser to Schwarzenegger.

<http://www.star-telegram.com/462/story/533063.html> (originally AP story that caused them to cancel contact after the fact)

AG Kawamura, Secretary of the Department of Food and Agriculture: Governor Schwarzenegger appointee Secretary Kawamura is a produce grower and shipper from Orange County, where his family grows strawberries, green beans and other specialty crops.

http://www.causeusa.org/add_blog.asp?cid=204

Kawamura, who is set to be the California Secretary of Agriculture, signed on as a New Majority member shortly after the group endorsed the Governor. He gave \$21,200, the legal limit, to Schwarzenegger in September.

http://findarticles.com/p/articles/mi_m5072/is_46_25/ai_110741291

"I'm honored to be appointed by Governor Schwarzenegger and to be a part of his team. Agriculture in California faces many challenges, but I know Schwarzenegger is someone who will listen to the rancher, growers and shippers of California to help relieve the overtaxation and overregulation that we face as farmers," said Kawamura.

The Department of Food and Agriculture oversees programs to assist and promote California's agriculture industry. The department operates as an advocate for the industry. Approximately 1,800 employees work for the department with a budget of \$270 million.

http://westernfarmpress.com/news/farming_kawamura_tapped_state/

Light Brown Apple Moth (LBAM)

ECONOMIC IMPACTS AND SOLUTIONS

**Clearing the Air
in the
CDFA, USDA Pesticide Spray Program
On Nine Northern California Counties**



**C.A.S.S. RESEARCH SUMMARY
Economics Action Team
May 5, 2008**



**Contact: Foster Gamble 464-1777
foster@cassonline.org**

Light Brown Apple Moth (LBAM)

**ECONOMIC
IMPACTS AND SOLUTIONS**

Clearing the Air
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CDFA, USDA Pesticide Spray Program
On Nine Northern California Counties

C.A.S.S. ECONOMICS RESEARCH SUMMARY

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INTRODUCTION

The purpose of this document is to provide a succinct collection of key facts, data and insights about the potential negative economic impacts of the LBAM pesticide spray program on affected communities, and to offer safe, just and effective alternative solutions.

Aerial spraying of an untested pheromone pesticide is currently targeted over residential communities with almost 7 million people in 9 counties throughout Northern California. The California Department of Food and Agriculture (CDFA) has initiated this program in response to a quarantine against the Light Brown Apple Moth. The communities include the counties of Alameda, Contra Costa, Marin, Monterey, San Francisco, San Mateo, Santa Clara, Santa Cruz and Solano. Monterey and Santa Cruz were already sprayed in September, October and November and are scheduled to be sprayed again starting August 17, 2008. The San Francisco Bay area is slated to be sprayed starting sometime after that.



People from all walks of life are contributing their time and expertise and numerous officials say they have never before experienced such vast and informed opposition. It is our hope that what follows here will be helpful for those who want to become better informed in order to take effective actions to halt the spray and to prevent this type of thing from happening again.

KEY DISCOVERIES

In our collective quest to go upstream beyond the confusion and frustration to find reasonable, just and healthy solutions, we made several key discoveries. They include:

1) Negative economic impacts to the targeted communities could be vast, especially in the areas of tourism, real estate values and organic farming.



2) The CDFA has failed to address adverse health and environmental impacts, the die-off of seabirds, the effects of the chemical ingredients in the selected Checkmate pesticide, the safe and natural integrated pest management program successfully employed in New Zealand, the potential violations of US and California laws and international human rights norms, the impossibility of eradication and the potential economic impacts on individuals, businesses and schools in all nine targeted counties.

Fortunately, concerned scientists, businesspeople, journalists, parents, teachers and other citizens have researched and published vital information on the impacts ignored by the CDFA. (See endnote references, p. 39.)

3) The CDFA has hidden virtually all important information from the public and forced actions without transparency or independent public involvement. They have:

- imposed an unnecessary State of Emergency
- avoided a timely Environmental Impact Report
- concealed ingredients that, once revealed, turned out to be verifiably toxic
- used misleadingly old and irrelevant crop damage data from Australia
- exaggerated projections of damages to California agriculture
- given incomplete and inaccurate information in public presentations
- granted no bid and preferential contracts
- failed to prepare medical response teams, doctors or to offer a system for monitoring or attending to health complaints
- ignored skilled input from university scientists with viable solutions
- delayed providing official Public Records Act request for data

4) In the last 100 years there were over 30 documented cases of US Government agencies, including the USDA, EPA, Army, Navy, CIA, Department of Defense and others, intentionally testing harmful chemicals *covertly* on human populations – at least fourteen of which involved *aerial spraying*. (See Appendix E) This pattern has resulted in increasing distrust of these agencies, and appears similar to the current behavior of the CDFA and USDA pertaining to the LBAM in Northern California.

5) Many people, animals, birds and insects have already been harmed from the spray.^{1, 2}

6) Our inalienable and constitutional rights to the protection of our safety, liberty, person and property are being violated by this spray. In violation of over 30 laws, regulations and international moral and ethical guidelines, the CDFA has ignored safe alternatives in favor of the aerial spray of toxic chemicals and synthetic pheromones on almost 7 million citizens in urban areas. (See Appendix C) On April 24, 2008 a judge in Santa Cruz County ruled to stop the spray until the Economic Impact Report was completed and passed. The questions raised by this report have been submitted to the USDA and CDFA and need to be addressed as part of their E.I.R. Other lawsuits are in process and more are being filed, including a Federal case by CASS.



7) The justification for the spray is based on flawed science and skewed, insufficient economics.

8) There is no crop damage due to the Light Brown Apple Moth.

9) LBAM is considered to be an insignificant pest in New Zealand³, ⁴Australia, the UK and Hawaii.

10) Eradication of LBAM is most likely impossible and unnecessary.⁵

11) Farmers are experiencing economic damage due to US trade quarantine policy, not crop damage.

12) Narrow economic considerations are dictating policy at the expense of human rights and the health of our residents and the environment.

BACKGROUND – Follow the Money

It is helpful to understand a few key concepts, core alliances and a bit of LBAM history to accurately assess the situation:

Quarantine

Certain US Government protocols impact trade competition. One of these is quarantine. More than thirty years ago, the US instituted a quarantine on Australian citrus, nuts and other products because they were exposed to the Light Brown Apple Moth (LBAM). Canada and Mexico went along with the US embargo in order to maintain good trade relations with the US. As a result of restricting export of these Australian products, American growers had an advantage and prospered financially. The Light Brown Apple Moth, a native of Australia, was then discovered in Berkeley in July, 2006. Once it was found in California, the USDA quarantine then impacted US growers and farmers. In September of 2007, the Secretary of Agriculture declared a “State of Emergency.” The “State of Emergency” was based on a decades old classification of the insect and potential economic loss to growers resulting from the quarantine. There has been no crop damage from LBAM in California.

State of Emergency

A State of Emergency is another protocol which impacts trade dynamics. In the case of LBAM, a State of Emergency was instituted by the head of the CDFR, a non-elected, governor - appointed bureaucrat, A. G. Kawamura. This Emergency status has significant ramifications. It allows the Government to by-pass an otherwise-required Environmental Impact Report, and to forego the usual process for public education and input. In addition, the State of Emergency enables the California Department of Food and Agriculture to access federal money through the Department of Homeland Security. President Bush’s current annual budget proposal contains \$330M in earmarks (cash allocated) for the control of three pests, with LBAM specifically mentioned.⁶ Eighty percent of the Northern California spray program is funded through the USDA and its Director of the Emergency Management Office, Osama El Lissy. Many believe the State of Emergency was called to bypass the legal safeguard and access federal money.

Eradication

Federal emergency funds are only available for eradication measures. USDA policies prevent federal emergency funding for pest management and control. CDFA has attempted 274 eradication efforts against 9 species of pests since 1982. None has been successful and both the programs and the pests are still in place. It's useful to note that no pheromone treatment has ever been used in a successful eradication of an entire species either. In addition, the California eradication program bypassed exclusive communities in Carmel, Monterra, Tehama and Seascape and a portion of Pebble Beach, including the Lodge and Golf Course, which in itself would undermine the strategy of eradication.

Of significant trade impact, however, is the fact that so long as an active attempt is made to eradicate the moth, then US crops are allowed to be exported whether or not the attempt is effective or successful. Eradication efforts are, in practice, long-term treatment plans that access federal funding. LBAM is currently managed effectively with natural measures in New Zealand, Australia and Hawaii. Among our proposed solutions is for the USDA to create new administrative rulemaking to provide "Urgency" funding for management of LBAM and other pests so that such funds are not just available for "emergency" or eradication programs.

Oil, Monoculture and the So-Called "Green Revolution"

If we trace back the money roots of our current pesticide predicament, we find that agriculture took a critical turn in the mid 1900's when the so-called "Green Revolution" promised greater yields in a more cost effective manner with the use of Monoculture – the planting of a single crop over vast areas with no other plants interspersed. The initial results were encouraging, but then problems were revealed that plague us to this day. It turns out that this style of farming is less productive and more expensive than polyculture,^{7, 8} (where more than one species of plant is grown in the same area) and organic farming, when the costs of subsidies, chemicals, energy and related health costs are included in the accounting.

Monoculture upsets the balance of nature – specifically of insects, soil and plants. Certain insect populations and weeds get out of equilibrium, because without mixed planting there are insufficient natural predators and inhibitors,. The espoused "solution" is to purchase and apply pesticides and herbicides. The use of these treatments has been shown to not only kill off even more of the balancing insects and plants, but also to poison the soil, food, water and people.

Genetically modified seeds ("Round-up Ready") were engineered which could survive the immersion in pesticides, then others which could not reproduce from one year to the next ("Terminator") and now new varieties ("Traitor") which will not grow the plant from one stage to the next without being triggered by the application of particular chemicals, for which the chemical companies own the patents.⁹ Farmers have thus become dependent on petroleum-based pesticide products and corporate-manufactured seeds to survive. In the process agriculture has turned into agribusiness, and the natural process of sustaining and evolving life is being taken over for profit and control.

This major shift in agricultural practices was initiated when the Rockefeller Foundation's Natural Science Division combined with large agricultural companies like Cargill, ADM, Bunge and Continental Grain and multinational chemical companies like DuPont and Monsanto.¹⁰ This combination of research and funding created a massive force and fueled the changeover of agriculture to a petroleum base and the consolidation of family farms into factory farms. In fact, 72% of agricultural production is now controlled by the wealthiest 8% of all U.S. farms.

The wealthiest and largest 10% of farms receive 73% of governmental farm subsidies, up 67% since 2000. The value of subsidies to the bottom 80% are down 16% in the same time period.¹¹ The primary beneficiaries of subsidies are the agribusiness companies who in 2004 spent \$53.8 million on campaign contributions.¹²

Windfall Profits

The same family whose company, Paramount Farms covers 100,000 acres and is the largest US grower of citrus and nuts is also the owner of the pesticide Company, Suterra, which provides the chemical spray for LBAM. The owners are Stewart and Lynda Rae Resnick and their company was slated to be paid \$15 Million (88%) of the initial \$17 Million contract for spraying the first two counties. If the proposed multi-year contract goes into effect, it would provide an "emergency" based windfall profit of hundreds of millions of dollars to the Resnicks. Despite being long time Democrats, they were among the top contributors to Arnold Schwarzenegger's election campaign, giving \$144,600, as well as contributing to all members of the State Agriculture Committee. Governor Schwarzenegger was the one who OK'd the State of Emergency. The contract was awarded to Suterra in spite of the fact that theirs was reportedly the most costly bid. The Resnicks and their parent company, Roll International, benefit from the quarantine, the taxpayer-funded spray and the chemical sales. Roll is the same company which, in a closed door deal in 1994 (which excluded public interest groups, environmentalists and smaller water contractors), was able to purchase controlling interest in the largest aquifer in California, the Kern Water Bank, an underground lake that had been purchased and developed with \$74 million of taxpayer dollars. The original intent was for the aquifer to act as a safeguard against drought for citizens and farmers of California.¹³

Faulty Crop Damage Projections

Rather than access recent hard economic data, the CDFA uses figures from 1993-1994 in Australia, when growers were using the old organophosphate pesticides, to estimate that California crop damages due to LBAM might reach \$133M annually. As we looked more closely into these calculations, however, we discovered that only 11% of total production costs for LBAM was attributable to actual crop damage, and the rest was for research and treatment. If we use this 11% figure, the actual estimated crop damage from LBAM in California, *if there were to be any*, could be \$14 million instead of \$133 million. Since New Zealand and Australia stopped using organophosphate pesticides in the 1990's, LBAM has not caused any significant damage to crops. The CDFA has since raised the damage estimate to \$640 million, but with no apparent explanation. (See Appendix B)

POTENTIAL ECONOMIC COSTS TO COMMUNITIES

In other recent documents, scientists and citizen researchers have reported thoroughly on the health and environmental damages of this spray program.^{14, 15} With the CDFA public relations focus on projected losses to farmers, the potential negative impacts on the revenue of other major businesses in the affected communities have been almost completely ignored by both the Government and the populations themselves. These looming losses are only now beginning to become a part of the community awareness and media reporting. Projected drops in revenues to our communities if the spraying resumes could easily dwarf losses due to crop damage, *should any actually occur*.

California is the most visited state in America, earning over \$88 billion in travel-related income per year. There are already reports of tourists opting to stay away from the Monterey and San Francisco Bay areas if the spray is resumed. Tourism is San Francisco's number one revenue generating industry, with visitor spending reaching \$7.37 billion in 2005. Now there have been discussions on a premier travel web site cautioning against travel plans to Northern California.¹⁶ Local residents would be going out less and if aversion to being involuntarily sprayed with pesticides decreased the tourism (including entertainment and hospitality) industry even 1%, the lost revenues would be deeply felt. These figures, as well as an accompanying calculation at 10%, are outlined in this document. (The dot.com bust and September 11 attacks dropped the tourist revenues by 16.3% in 2002.¹⁷



Our most conservative estimates project **annual losses of \$198 million (1%) to \$1.98 billion (10%) for the tourist industry of the nine counties** for which aerial spraying is planned. (See Appendix A)

Some home buyers are hesitating to purchase in the nine county spray zone and real estate agents are beginning to realize the challenge of selling homes that will be immersed in toxins for years on end if CDFA proceeds with their plan. Agents will need to disclose this new hazard or risk liability suits. The Marin Association of Realtors has already voted to oppose the planned spraying and to amend disclosure advisory forms to notify homebuyers of potential spraying.¹⁸ **Real estate commissions at the same rates of loss could drop between \$17.8 -178 million dollars.**

A 1% -10% drop in housing prices would translate into a \$25.7 – 257 billion drop in the value of housing assets. (See Appendix A) Not only are houses the primary repository of most people's equity, but if people choose to leave the sprayed counties, their houses could be difficult to sell.



Monterey and Santa Cruz counties are frequently referred to as the epicenter of organic farming in the US. Even though the USDA has technically allowed organic growers to continue to qualify their food as organic even after it's exposed to the pheromone-pesticide spray, discerning shoppers are not buying it - the logic or the food. Buyers are asking for labeling of sprayed produce at the markets. The result is a projected loss of revenue for organic farmers. The California Certified Organic Farmers (CCOF) officially reversed their initial support of the spray and has joined efforts to implement a safe alternative. **Organic farming could lose \$2.8 M million to \$28.8 million annually in just these two counties**, if the spray resumes. (Appendix A) The discovery of E-Coli in California Spinach from the Monterey area quickly dropped the revenues for the spinach growers from \$258.3M by \$74M, a loss of 28%).¹⁹

Estimated total annual losses in revenue for all 9 counties

for the combined areas of:

- 1) Tourism and related construction and tax revenue
- 2) Losses to Organic farming
- 3) Losses in Real Estate Commissions

total: **\$200M (estimated at a 1% reduction due to spray) or \$2 Billion in losses (at 10%)**
(See Appendix A)

Taxpayer Costs - Paying to Spray Ourselves

These figures do not include the hundreds of millions of taxpayer dollars that are intended to be used for funding the spray (\$100-500M+), the CDFR's public relations efforts and the legal fees to fight the vast socio-political and legal backlash that is emerging among the nearly 7 million people targeted for immersion in the pheromone pesticide spray. If the moth is not eradicated, the next five years of the 10-year license could run the cost to taxpayers close to a billion dollars. Remember, no such program, out of 274, has ever successfully eradicated a species.²⁰

Compensation Costs

Not included here are the economic losses are the costs associated with evacuating, housing and caring for the chemically sensitive, disabled, pregnant, elderly and infant residents as well as those who rationally choose to leave to avoid the risk of serious damage to their health.

Miscellaneous Costs

As we begin to imagine the predicament of large urban areas continually immersed in toxins, other potential areas of lost revenue arise. A few examples: lost workdays/productivity as people get sick, outside workers who might skip their shifts on the nights sprayed, resulting in lost

productivity (police, firemen, night-time construction crews, transit workers, etc), outdoor weddings, sporting events, emergency room visits from sick residents without insurance, lost revenue to schools due to increased absenteeism. (In a sampling of six high schools in Santa Cruz County after the spray, average absences in the three days following the spray were more than double the average of the three prior months.²¹) The Berkeley Unified School District Board of Directors has recently passed a resolution opposing the LBAM aerial spray program.

Citizens Taking a Stand for No Spray

Citizens have persuaded political representatives to file numerous legislative bills and city resolutions against the spray. Already 19 cities and two counties, representing over 1.8 million people, have formed a coalition with resolutions against the spray. Over 20,000 citizens have already signed petitions to stop the spray. All this despite the CDFA awarding a no-bid contract for close to one half million taxpayer dollars (from the USDA) to a high-powered PR firm, Porter Novelli, to convince the public that this spray is safe and necessary. (After the Associated Press exposed Schwarzenegger's ties to Porter Novelli, the CDFA began the process of suspending the contract after already spending close to \$100,000.²²)

CASS Law Suit

In November 2007, a team of lawyers with CASS came together to develop a strategy to ensure not only that this eradication program would be permanently stopped, but to set a precedent for the future so that no one in California would have to be exposed to this kind of governmental over-reaching and abuse of power.

The lawsuit that CASS has structured tackles areas of law that are unique to all the other suits. If successful, it will prevent this program from continuing, and benefit not only people in Santa Cruz or Monterey, but throughout all of California. The case is being filed against USDA, EPA, CDFA and APHIS.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SECTION 1. All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, and privacy.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 2. (a) Every person may freely speak, write and publish his or her sentiments on all subjects, being responsible for the abuse of this right. A law may not restrain or abridge liberty of speech or press.

(b) A publisher, editor, reporter, or other person connected with or employed upon a newspaper, magazine, or other periodical publication, or by a press association or wire service, or any person who has been so connected or employed, shall not be adjudged in contempt by a judicial, legislative, or administrative body, or any other body having the power to issue subpoenas, for refusing to disclose the source of any information procured while so connected or employed for publication in a newspaper, magazine or other periodical publication, or for refusing to disclose any unpublished information obtained or prepared in gathering, receiving or processing of information for communication to the public.

Nor shall a radio or television news reporter or other person connected with or employed by a radio or television station, or any person who has been so connected or employed, be so adjudged in contempt for refusing to disclose the source of any information procured while so connected or employed for news or news commentary purposes on radio or television, or for refusing to disclose any unpublished information obtained or prepared in gathering, receiving or processing of information for communication to the public.

As used in this subdivision, "unpublished information" includes information not disseminated to the public by the person from whom disclosure is sought, whether or not related information has been disseminated and includes, but is not limited to, all notes, outtakes, photographs, tapes or other data of whatever sort not itself disseminated to the public through a medium of communication, whether or not published information based upon or related to such material has been disseminated.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 3. (a) The people have the right to instruct their representatives, petition government for redress of grievances, and assemble freely to consult for the common good.

(b) (1) The people have the right of access to information concerning the conduct of the people's business, and, therefore, the meetings of public bodies and the writings of public officials and

agencies shall be open to public scrutiny.

(2) A statute, court rule, or other authority, including those in effect on the effective date of this subdivision, shall be broadly construed if it furthers the people's right of access, and narrowly construed if it limits the right of access. A statute, court rule, or other authority adopted after the effective date of this subdivision that limits the right of access shall be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest.

(3) Nothing in this subdivision supersedes or modifies the right of privacy guaranteed by Section 1 or affects the construction of any statute, court rule, or other authority to the extent that it protects that right to privacy, including any statutory procedures governing discovery or disclosure of information concerning the official performance or professional qualifications of a peace officer.

(4) Nothing in this subdivision supersedes or modifies any provision of this Constitution, including the guarantees that a person may not be deprived of life, liberty, or property without due process of law, or denied equal protection of the laws, as provided in Section 7.

(5) This subdivision does not repeal or nullify, expressly or by implication, any constitutional or statutory exception to the right of access to public records or meetings of public bodies that is in effect on the effective date of this subdivision, including, but not limited to, any statute protecting the confidentiality of law enforcement and prosecution records.

(6) Nothing in this subdivision repeals, nullifies, supersedes, or modifies protections for the confidentiality of proceedings and records of the Legislature, the Members of the Legislature, and its employees, committees, and caucuses provided by Section 7 of Article IV, state law, or legislative rules adopted in furtherance of those provisions; nor does it affect the scope of permitted discovery in judicial or administrative proceedings regarding deliberations of the Legislature, the Members of the Legislature, and its employees, committees, and caucuses.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 4. Free exercise and enjoyment of religion without discrimination or preference are guaranteed. This liberty of conscience does not excuse acts that are licentious or inconsistent with the peace or safety of the State. The Legislature shall make no law respecting an establishment of religion.

A person is not incompetent to be a witness or juror because of his or her opinions on religious beliefs.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 5. The military is subordinate to civil power. A standing army may not be maintained in peacetime. Soldiers may not be quartered in any house in wartime except as prescribed by law, or in

peacetime without the owner's consent.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 6. Slavery is prohibited. Involuntary servitude is prohibited except to punish crime.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 7. (a) A person may not be deprived of life, liberty, or property without due process of law or denied equal protection of the laws; provided, that nothing contained herein or elsewhere in this Constitution imposes upon the State of California or any public entity, board, or official any obligations or responsibilities which exceed those imposed by the Equal Protection Clause of the 14th Amendment to the United States Constitution with respect to the use of pupil school assignment or pupil transportation. In enforcing this subdivision or any other provision of this Constitution, no court of this State may impose upon the State of California or any public entity, board, or official any obligation or responsibility with respect to the use of pupil school assignment or pupil transportation, (1) except to remedy a specific violation by such party that would also constitute a violation of the Equal Protection Clause of the 14th Amendment to the United States Constitution, and (2) unless a federal court would be permitted under federal decisional law to impose that obligation or responsibility upon such party to remedy the specific violation of the Equal Protection Clause of the 14th Amendment of the United States Constitution.

Except as may be precluded by the Constitution of the United States, every existing judgment, decree, writ, or other order of a court of this State, whenever rendered, which includes provisions regarding pupil school assignment or pupil transportation, or which requires a plan including any such provisions shall, upon application to a court having jurisdiction by any interested person, be modified to conform to the provisions of this subdivision as amended, as applied to the facts which exist at the time of such modification.

In all actions or proceedings arising under or seeking application of the amendments to this subdivision proposed by the Legislature at its 1979-80 Regular Session, all courts, wherein such actions or proceedings are or may hereafter be pending, shall give such actions or proceedings first precedence over all other civil actions therein.

Nothing herein shall prohibit the governing board of a school district from voluntarily continuing or commencing a school integration plan after the effective date of this subdivision as amended.

In amending this subdivision, the Legislature and people of the State of California find and declare that this amendment is necessary to serve compelling public interests, including those of making the most effective use of the limited financial resources now and prospectively available to support public education, maximizing the educational opportunities and protecting the health and safety of all

public school pupils, enhancing the ability of parents to participate in the educational process, preserving harmony and tranquility in this State and its public schools, preventing the waste of scarce fuel resources, and protecting the environment.

(b) A citizen or class of citizens may not be granted privileges or immunities not granted on the same terms to all citizens. Privileges or immunities granted by the Legislature may be altered or revoked.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 8. A person may not be disqualified from entering or pursuing a business, profession, vocation, or employment because of sex, race, creed, color, or national or ethnic origin.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 9. A bill of attainder, ex post facto law, or law impairing the obligation of contracts may not be passed.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 10. Witnesses may not be unreasonably detained. A person may not be imprisoned in a civil action for debt or tort, or in peacetime for a militia fine.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 11. Habeas corpus may not be suspended unless required by public safety in cases of rebellion or invasion.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 12. A person shall be released on bail by sufficient sureties, except for:

(a) Capital crimes when the facts are evident or the presumption great;

(b) Felony offenses involving acts of violence on another person, or felony sexual assault offenses on another person, when the facts are evident or the presumption great and the court finds based upon

clear and convincing evidence that there is a substantial likelihood the person's release would result in great bodily harm to others; or

(c) Felony offenses when the facts are evident or the presumption great and the court finds based on clear and convincing evidence that the person has threatened another with great bodily harm and that there is a substantial likelihood that the person would carry out the threat if released.

Excessive bail may not be required. In fixing the amount of bail, the court shall take into consideration the seriousness of the offense charged, the previous criminal record of the defendant, and the probability of his or her appearing at the trial or hearing of the case.

A person may be released on his or her own recognizance in the court's discretion.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 13. The right of the people to be secure in their persons, houses, papers, and effects against unreasonable seizures and searches may not be violated; and a warrant may not issue except on probable cause, supported by oath or affirmation, particularly describing the place to be searched and the persons and things to be seized.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 14. Felonies shall be prosecuted as provided by law, either by indictment or, after examination and commitment by a magistrate, by information.

A person charged with a felony by complaint subscribed under penalty of perjury and on file in a court in the county where the felony is triable shall be taken without unnecessary delay before a magistrate of that court. The magistrate shall immediately give the defendant a copy of the complaint, inform the defendant of the defendant's right to counsel, allow the defendant a reasonable time to send for counsel, and on the defendant's request read the complaint to the defendant. On the defendant's request the magistrate shall require a peace officer to transmit within the county where the court is located a message to counsel named by defendant.

A person unable to understand English who is charged with a crime has a right to an interpreter throughout the proceedings.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 14.1. If a felony is prosecuted by indictment, there shall be no postindictment preliminary hearing.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 15. The defendant in a criminal cause has the right to a speedy public trial, to compel attendance of witnesses in the defendant's behalf, to have the assistance of counsel for the defendant's defense, to be personally present with counsel, and to be confronted with the witnesses against the defendant. The Legislature may provide for the deposition of a witness in the presence of the defendant and the defendant's counsel.

Persons may not twice be put in jeopardy for the same offense, be compelled in a criminal cause to be a witness against themselves, or be deprived of life, liberty, or property without due process of law.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 16. Trial by jury is an inviolate right and shall be secured to all, but in a civil cause three-fourths of the jury may render a verdict. A jury may be waived in a criminal cause by the consent of both parties expressed in open court by the defendant and the defendant's counsel. In a civil cause a jury may be waived by the consent of the parties expressed as prescribed by statute.

In civil causes the jury shall consist of 12 persons or a lesser number agreed on by the parties in open court. In civil causes other than causes within the appellate jurisdiction of the court of appeal the Legislature may provide that the jury shall consist of eight persons or a lesser number agreed on by the parties in open court.

In criminal actions in which a felony is charged, the jury shall consist of 12 persons. In criminal actions in which a misdemeanor is charged, the jury shall consist of 12 persons or a lesser number agreed on by the parties in open court.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 17. Cruel or unusual punishment may not be inflicted or excessive fines imposed.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 18. Treason against the State consists only in levying war against it, adhering to its enemies, or giving them aid and comfort. A person may not be convicted of treason except on the evidence of two witnesses to the same overt act or by confession in open court.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 19. Private property may be taken or damaged for public use only when just compensation, ascertained by a jury unless waived, has first been paid to, or into court for, the owner. The Legislature may provide for possession by the condemnor following commencement of eminent domain proceedings upon deposit in court and prompt release to the owner of money determined by the court to be the probable amount of just compensation.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 20. Noncitizens have the same property rights as citizens.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 21. Property owned before marriage or acquired during marriage by gift, will, or inheritance is separate property.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 22. The right to vote or hold office may not be conditioned by a property qualification.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 23. One or more grand juries shall be drawn and summoned at least once a year in each county.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 24. Rights guaranteed by this Constitution are not dependent on those guaranteed by the United States Constitution.

In criminal cases the rights of a defendant to equal protection of the laws, to due process of law, to the assistance of counsel, to be personally present with counsel, to a speedy and public trial, to

compel the attendance of witnesses, to confront the witnesses against him or her, to be free from unreasonable searches and seizures, to privacy, to not be compelled to be a witness against himself or herself, to not be placed twice in jeopardy for the same offense, and to not suffer the imposition of cruel or unusual punishment, shall be construed by the courts of this State in a manner consistent with the Constitution of the United States. This Constitution shall not be construed by the courts to afford greater rights to criminal defendants than those afforded by the Constitution of the United States, nor shall it be construed to afford greater rights to minors in juvenile proceedings on criminal causes than those afforded by the Constitution of the United States.

This declaration of rights may not be construed to impair or deny others retained by the people.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

Section 25. The people shall have the right to fish upon and from the public lands of the State and in the waters thereof, excepting upon lands set aside for fish hatcheries, and no land owned by the State shall ever be sold or transferred without reserving in the people the absolute right to fish thereupon; and no law shall ever be passed making it a crime for the people to enter upon the public lands within this State for the purpose of fishing in any water containing fish that have been planted therein by the State; provided, that the legislature may by statute, provide for the season when and the conditions under which the different species of fish may be taken.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 26. The provisions of this Constitution are mandatory and prohibitory, unless by express words they are declared to be otherwise.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 27. All statutes of this State in effect on February 17, 1972, requiring, authorizing, imposing, or relating to the death penalty are in full force and effect, subject to legislative amendment or repeal by statute, initiative, or referendum.

The death penalty provided for under those statutes shall not be deemed to be, or to constitute, the infliction of cruel or unusual punishments within the meaning of Article 1, Section 6 nor shall such punishment for such offenses be deemed to contravene any other provision of this constitution.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 28. (a) The People of the State of California find and declare that the enactment of comprehensive provisions and laws ensuring a bill of rights for victims of crime, including safeguards in the criminal justice system to fully protect those rights, is a matter of grave statewide concern.

The rights of victims pervade the criminal justice system, encompassing not only the right to restitution from the wrongdoers for financial losses suffered as a result of criminal acts, but also the more basic expectation that persons who commit felonious acts causing injury to innocent victims will be appropriately detained in custody, tried by the courts, and sufficiently punished so that the public safety is protected and encouraged as a goal of highest importance.

Such public safety extends to public primary, elementary, junior high, and senior high school campuses, where students and staff have the right to be safe and secure in their persons.

To accomplish these goals, broad reforms in the procedural treatment of accused persons and the disposition and sentencing of convicted persons are necessary and proper as deterrents to criminal behavior and to serious disruption of people's lives.

(b) Restitution. It is the unequivocal intention of the People of the State of California that all persons who suffer losses as a result of criminal activity shall have the right to restitution from the persons convicted of the crimes for losses they suffer.

Restitution shall be ordered from the convicted persons in every case, regardless of the sentence or disposition imposed, in which a crime victim suffers a loss, unless compelling and extraordinary reasons exist to the contrary. The Legislature shall adopt provisions to implement this section during the calendar year following adoption of this section.

(c) Right to Safe Schools. All students and staff of public primary, elementary, junior high and senior high schools have the inalienable right to attend campuses which are safe, secure and peaceful.

(d) Right to Truth-in-Evidence. Except as provided by statute hereafter enacted by a two-thirds vote of the membership in each house of the Legislature, relevant evidence shall not be excluded in any criminal proceeding, including pretrial and post conviction motions and hearings, or in any trial or hearing of a juvenile for a criminal offense, whether heard in juvenile or adult court. Nothing in this section shall affect any existing statutory rule of evidence relating to privilege or hearsay, or Evidence Code, Sections 352, 782 or 1103. Nothing in this section shall affect any existing statutory or constitutional right of the press.

(e) Public Safety Bail. A person may be released on bail by sufficient sureties, except for capital crimes when the facts are evident or the presumption great. Excessive bail may not be required. In setting, reducing or denying bail, the judge or magistrate shall take into consideration the protection of the public, the seriousness of the offense charged, the previous criminal record of the defendant, and the probability of his or her appearing at the trial or hearing of the case. Public safety shall be the primary consideration.

A person may be released on his or her own recognizance in the court's discretion, subject to the same factors considered in setting

bail. However, no person charged with the commission of any serious felony shall be released on his or her own recognizance.

Before any person arrested for a serious felony may be released on bail, a hearing may be held before the magistrate or judge, and the prosecuting attorney shall be given notice and reasonable opportunity to be heard on the matter.

When a judge or magistrate grants or denies bail or release on a person's own recognizance, the reasons for that decision shall be stated in the record and included in the court's minutes.

(f) Use of Prior Convictions. Any prior felony conviction of any person in any criminal proceeding, whether adult or juvenile, shall subsequently be used without limitation for purposes of impeachment or enhancement of sentence in any criminal proceeding. When a prior felony conviction is an element of any felony offense, it shall be proven to the trier of fact in open court.

(g) As used in this article, the term "serious felony" is any crime defined in Penal Code, Section 1192.7(c).

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 29. In a criminal case, the people of the State of California have the right to due process of law and to a speedy and public trial.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 30. (a) This Constitution shall not be construed by the courts to prohibit the joining of criminal cases as prescribed by the Legislature or by the people through the initiative process.

(b) In order to protect victims and witnesses in criminal cases, hearsay evidence shall be admissible at preliminary hearings, as prescribed by the Legislature or by the people through the initiative process.

(c) In order to provide for fair and speedy trials, discovery in criminal cases shall be reciprocal in nature, as prescribed by the Legislature or by the people through the initiative process.

CALIFORNIA CONSTITUTION
ARTICLE 1 DECLARATION OF RIGHTS

SEC. 31. (a) The State shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.

(b) This section shall apply only to action taken after the section's effective date.

(c) Nothing in this section shall be interpreted as prohibiting bona fide qualifications based on sex which are reasonably necessary to the normal operation of public employment, public education, or

public contracting.

(d) Nothing in this section shall be interpreted as invalidating any court order or consent decree which is in force as of the effective date of this section.

(e) Nothing in this section shall be interpreted as prohibiting action which must be taken to establish or maintain eligibility for any federal program, where ineligibility would result in a loss of federal funds to the State.

(f) For the purposes of this section, "State" shall include, but not necessarily be limited to, the State itself, any city, county, city and county, public university system, including the University of California, community college district, school district, special district, or any other political subdivision or governmental instrumentality of or within the State.

(g) The remedies available for violations of this section shall be the same, regardless of the injured party's race, sex, color, ethnicity, or national origin, as are otherwise available for violations of then-existing California antidiscrimination law.

(h) This section shall be self-executing. If any part or parts of this section are found to be in conflict with federal law or the United States Constitution, the section shall be implemented to the maximum extent that federal law and the United States Constitution permit. Any provision held invalid shall be severable from the remaining portions of this section.

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Directives for Human Experimentation

NUREMBERG CODE

1. The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, over-reaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonable to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.

The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.

2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.
3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.
4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.
5. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.
6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.
7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.
8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.
9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.
10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

Reprinted from *Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10, Vol. 2, pp. 181-182..* Washington, D.C.: U.S. Government Printing Office, 1949.

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PM10 from Aerial Spraying Increases Hospitalization and Death

What is PM10

PM10 is a notation used to describe air pollution from particles of diameter 10 micrometers or less. The particles could be plastic, dust, ash, a deadly chemical, or micro-encapsulated artificial pheromone. PM10 is considered particulate pollution and is a cause of fatality in human beings.

The Statistics of Spraying 5 Million People

Around the country, air sampling stations measure the amount of PM10 in the air. As an example, on an average day in Watsonville, California, the density of PM10 is 19 micrograms per cubic meter.

In court filings, statements, and letters released by the CDFA, the public has been falsely assured that aerial spraying of CheckMate would create only minor, negligible amounts of PM10 in the air. However, they've made a tremendous error.

Based upon measurements misinterpreted by the CDFA, the new calculations by Knepp and Haferman show that a single application of CheckMate would increase the density of PM10 to 141 micrograms per cubic meter - about 7 times more dangerous particulate pollution! Over the lifetime of the particles, winds will concentrate the PM10 in certain places increasing the exposure still more.

In an average group of 5 million people, there are normally about 15,000 deaths per year from pneumonia and cardiovascular disease. By adding the deadly burden of aerial CheckMate spraying, Dr. Knepp has calculated that 1480 more of these kinds of deaths would occur within 2-3 days after each spraying. Similarly the average 17,000 admissions to hospital from pneumonia will increase by 4600. PM10 explains the correlation between the aerial spraying and the health complaints in Monterey and Santa Cruz.

CDFA intends to spray about 700 square miles, up to 5 nights a month, 9 months a year, for up to 10 or more years. The number of additional deaths will be increased accordingly. These calculations are based on long-term medical studies involving the effects of PM10 in many large U.S. cities. Similar statistical studies in the past resulted in the recognition of coal miner's disease, the effects of asbestos, and of tobacco where not all the exposed population is immediately affected.

The Hardest Hit

Children, elders, and people with chronic illness will be LBAM spray's first targets for disease and fatality. Those very elements of society whom decent people try hardest to protect because of their heightened vulnerability are set to become the commonest victims of this intolerable aerial spraying.

PM10HospitalizationAndDeath.doc

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<http://www.americanheart.org/presenter.jhtml?identifier=4478>

Relationship between PM10 exposure and death due to combined pneumonia and cardiovascular disease, New England J Medicine, Johns Hopkins School of Medicine:

<https://content.nejm.org/cgi/content/abstract/343/24/1742>

Knepp and Haferman, all the math:

<http://www.lbamspray.com/Reports/KneppAndHafermanLetterwithAttachments.pdf>

Useful Web sites to learn more:

www.stopthespray.org

www.lbamspray.com

www.1hope.org

What is particle pollution?

Particle pollution, called particulate matter or PM, is a combination of fine solids and aerosols that are suspended in the air we breathe.

Particles are made up of different things. “A mixture of mixtures” is how the U.S. Environmental Protection Agency (EPA) describes them.¹ PM can be solids, like dust, ash, or soot. PM can also be completely liquid aerosols or solids suspended in liquid mixtures.

Particles are different sizes. The ones of most concern are small enough to lodge deep in the lungs where they can do serious damage. They are measured in microns. The largest of concern are 10 microns in diameter (PM₁₀). The group of most concern is 2.5 microns in diameter or smaller (PM_{2.5}). Some of these are small enough to pass from the lung into the bloodstream just like oxygen molecules. By comparison, the diameter of a human hair is huge—it’s 70 microns.

Particles come from different sources. Burning fuel is a major source of the smallest types of particle pollution — whether from woodstoves to diesel trucks and buses to coal-fired power plants. Larger particles also come from other sources, including agricultural practices or wind-blown soil and dust.

What are the health effects of particulate matter?

Short-term increases (over hours to days) in particle pollution have been linked to: death from respiratory and cardiovascular causes, including strokes^{2,3,4} increased numbers of heart attacks, especially among the elderly and in people with heart conditions;⁵ inflammation of lung tissue in young, healthy adults;⁶ increased hospitalization for cardiovascular disease, including strokes;^{7,8} increased emergency room visits for patients suffering from acute respiratory ailments;⁹ increased hospitalization for asthma among children; and^{10,11,12} increased severity of asthma attacks in children.¹³

Year-round exposure to particle pollution has also been linked to:

increased hospitalization for asthma attacks for children living within 200 meters (218 yards) of roads with heavy truck or trailer traffic;¹⁴ slowed lung function growth in children and teenagers;^{15,16} significant damage to the small airways of the lungs;¹⁷ increased risk of dying from lung cancer; and¹⁸ increased risk of death from cardiovascular disease.¹⁹

How serious is the impact?

Here’s one example: EPA scientists estimated that over **4,700 premature deaths**

occur each year in just nine cities analyzed (Detroit, Los Angeles, Philadelphia, Pittsburgh, St. Louis, Boston, Phoenix, Seattle, and San Jose) even if those cities all met the current PM2.5 standard.²⁰ Extrapolating these data would mean many thousands of more deaths nation-wide, but EPA has not calculated that total. Other studies have estimated the nationwide death toll to be tens of thousands annually.²¹

Who is at risk?

Anyone may be affected by particle pollution, but several groups are most at risk:

Children under 18

Adults 65 and older

Anyone with chronic lung diseases, such as asthma, chronic bronchitis, or emphysema

Anyone with a cardiovascular disease, such as a coronary artery disease or who has suffered a stroke or heart attack

Anyone with diabetes

How can you protect yourself and your family?

Check daily air quality levels and air pollution forecasts in your area. Sources include local radio and TV weather reports, newspapers and online at www.epa.gov/airnow/. You can even have the information email or sent to your cellphone.

Don't burn wood or trash. Burning firewood and trash are among the major sources of particle pollution in many parts of the country. If you must use a fireplace or stove for heat, convert your woodstoves to natural gas, which produces far fewer emissions.

Avoid exercising outdoors when pollution levels are

high. Walk indoors in a shopping mall or gym or use an exercise machine. Always avoid exercising near high traffic areas. Limit the amount of time your child spends playing outdoors if the air quality is unhealthy.

Encourage your child's school to reduce school bus emissions. Most buses use heavily polluting diesel engines; newer fuels and engines are cleaner. Many school systems are using the EPA's Clean School Bus Campaign to clean up these dirty emissions. Schools are also not allowing school buses to idle at the building, to keep exhaust levels down.

Don't smoke or allow anyone to smoke indoors. Cigarette smoke produces large amounts of particle pollution among its many toxic components.

What should be done to protect the public from particle pollution?

EPA needs to require old, dirty coal-fired power plants to become cleaner, sooner. EPA needs to tell these large plants that they must reduce their emissions that help form the smallest particles. Some states are considering stronger requirements that could reduce emissions even more.

EPA needs to make final proposed rules that would clean up locomotive and marine diesel engines. EPA proposed tighter standards for trains and ships in March 2007, but these need to be made final to take effect.²²

EPA needs to set more protective national air quality standards for particle pollution. The national air quality standards are the clean air goals that the states and counties must reach. They drive all the federal, state, and local measures to clean up air pollution. Although EPA issued new standards in September 2006, these new standards fail to protect public health as much as the science showed was needed. The American Lung Association and other public health and medical societies supported lower levels.²³

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Marin Pesticide Spraying Health Hazard Alert

By Lawrence Rose M.D., M.P.H., former Senior Public Medical Officer for Cal-OSHA and part of the UCSF Occupational/Environmental Medicine Department

California Department of Food and Agriculture plans to aerial spray a micro-encapsulated pesticide to "eradicate" the Light Brown Apple Moth" (LBAM). The proposed pesticides — "Checkmate LBAM-F or Checkmate ORL-F" — contain a moth synthetic chemical pheromone combined with eight other chemicals in a plastic polyurea polymer capsule. These microscopic capsules (25 micron, and breaking down to under 10 micron) would be sprayed over heavily populated areas for 9 months of the year. In Marin they will begin in August 2008, concentrating for the present on San Rafael and south.

Capsules are designed to emit the pheromone over a 30 day period, to be repeated monthly (except winter) for continual saturation for several years. These airborne microscopic particles would drift down and randomly disperse, according to the prevailing winds, to settle on all exposed life, houses, gardens, playgrounds, walkways, etc., and of course be inhaled by all breathing life forms including homo sapiens. Any particle size under 10 micron would reach to the finest lung bronchiolar air exchange units called alveoli. These particles are designed to break down over a 30 day period when exposed; there is no data to know how they will act in human, dog, cat, etc., lungs.

The purpose of this science fact based information release is to inform health care providers so they can make an informed judgment as to what their professional responsibilities should be: and so the general population of Marin County can make an informed decision as to how to best protect themselves, families, friends, and communities, and environment from this unwarranted experimental toxic exposure.

There are many other demonstrated established effective methods for controlling the LBAM, and this factual information can be accessed at "Stop the Spray-Marin". So far there has been no demonstrable crop or plant damage in California from the LBAM.

Checkmate Toxicology

Immediate short term acute health concerns are to be expected from the known toxicology of several of the chemicals in the Checkmate formulation mix and in the polyurea plastic particulate capsule.

Over 643 recorded health complaints were associated with the September, October, and November spraying in Monterey and Santa Clara Counties. These short term complaint symptoms are consistent with known toxicology scientific information of the ingredients of Checkmate (see attached document). These ingredients include irritants, sensitizers, nervous system disrupters, endocrine disruption, allergens, and hypersensitivity induction.

Long term health effects are also of concern due to the known induced mutations and suspected cancer risks of constituent chemicals.

It is also important to include the risks of the polyurea plastic capsules. Industrial production of this plastic uses isocyanate catalysts which can cause serious acute reactive bronchial constriction (asthma attacks) in exposed worker populations.

Glaring deficiencies in the animal toxicology studies are extremely important. There were no inhalation studies. There were no long term or multigenerational health studies done on this brew of toxic chemicals.

Population at Risk for Immediate Acute Reactions

The panoply of symptoms that occurred in the 643 Monterey and Santa Cruz complainants included: asthma attacks, bronchitis, productive pulmonary congestion, shortness of breath, wheezing, coughing, chest pain and tightness, nasal congestion, sore throats, eye irritation, blurred vision, severe skin rashes, sinus bleeding that reflected acute upper respiratory distress, eye, and dermal reactions.

Cardiopulmonary reactions included arrhythmia, and tachycardia. More generalized acute debilitating systemic reactions included headaches, trouble concentrating, dizziness, muscle aches, tremors, gastrointestinal pain, diarrhea, lethargy, malaise, and fatigue. There were frank hormonal disturbances as evidenced by breast symptoms and menstrual irregularities.

Relevant medical histories, current medications, and most important timing in relationship to the spraying will give primary care practitioners the information needed to connect these patients to the pesticide exposure — if primary care practitioners receive and act on this information.

The population most at risk for acute reactions are asthmatics, infants, children, the elderly, patients with borderline cardiopulmonary compensation (e.g. chronic obstructive pulmonary disease, chronic bronchitis, pneumoconiosis, marginal pulmonary vital capacity), congestive heart failure, cardiovascular abnormalities, angina, those with environmental illness, and medically debilitated patients. It is critical that patients with such medical profiles be protected from these life-threatening to them airborne toxic particles.

Long Term Health Risks

Major toxicity concerns go beyond immediate acute effects when the known toxicology profiles of the ingredients (attached) include endocrine disruption, mutagens, suspected carcinogens, and immune system disruptors. Such exposures could well put exposed population at increased risk for diseases later in life, e.g.: hormone disruption (multigenerational), genetic damage, reproductive disorders (spontaneous abortions, infertility, low birth weight newborns, birth defects), developmental disorders, cancers and leukemia, neurological disorders, and immune system dysfunction. Many diseases that fit into these categories are nationally increasing in frequency, and are probably

mainly due to toxic chemical environmental exposures.

Testing thus far by manufacturer and EPA of Checkmate is clearly inadequate to determine increased long term chronic health risks to the general population that would occur in these disease categories from airborne exposures.

Discussion and Conclusion

It has been several months since Monterey and Santa Cruz counties have been sprayed. The federal DFA, state CDFA, and DPR have not implemented or funded a well designed epidemiology study to determine scope and seriousness of the health impact on exposed residents in these two counties. This is far beyond irresponsible, and in fact criminal negligence would be a more appropriate label for the lack of public health follow-up. The longer these necessary public health follow-up studies are delayed, the more critical information will be lost. Health questionnaires administered to all residents could determine the scope and seriousness of all short term and later long term adverse health reactions. Exposed residents should expect nothing less. Any acute reactions or disabilities resulting in medical expenses, disabilities, or loss of income from these exposures should be totally compensated. Federal and state agencies responsible for this spraying decision must take financial and criminal responsibility for adverse impacts to health and environment.

Physicians are legally required to report diagnosed pesticide diagnosis; but in the two sprayed counties there was no systematic notification that included probable short term health reactions sent to health providers, first responders, emergency rooms, or all residents before the September, October, and November 2007 sprayings. This is a shocking disregard of human rights in any democracy.

Further Information about LBAM

Further information about controlling LBAM without spraying the general population can be accessed at the "Stop the Spray Marin website.

Further Broad Perspectives on the National Health Impact of Toxic Chemicals

There are three recent studies of cumulative contamination of our bodies that give relevant information regarding public health impact of toxic chemicals we have all been exposed to — called "body burdens".

The CDC "Third Report on Human Exposure to Environmental Chemicals, 2005.(Access through Goggle)

The recent Environmental Working Group study of toxic chemicals found in fetal cord blood.

A number of studies showing the toxic chemicals found in maternal milk.

Most of the chemicals contaminating the nation's population through food, water, air, soil, and consumer products come from pesticides. Many exposures cannot be measured

in our bodies. There are a variety of other consumer products that are also causing these exposures. It turns out that recent studies of hormone disrupting chemicals show chemical health effects at extremely dilute low levels of exposure — down to parts per trillion in fetuses.

About the Author

Lawrence Rose M.D., M.P.H., was the senior Public Medical Officer for Cal-OSHA for 28 years, and in that capacity was for a time assigned liaison for Cal-OSHA to the statewide interagency pesticide advisory committee, (recently retired), and an Occupational/Environmental Medicine practitioner, and part of the UCSF Occupational/Environmental Medicine Department.

Checkmate Ingredients

CheckMate/ LBAM-F Partial Ingredients Information

This is based on ingredient information provided at <http://www.lbamspray.com/Health.html>; Additional information on CAS Numbers and synonyms is from [HYPERLINK "http://www.Chemfinder.com" www.Chemfinder.com](#). Some of the additional information is from an article by entomologist Richard Fagerlund and sources need to be located.

(E)-11-Tetradecen-1-yl Acetate

Pheromone component

(E,E) -9,11 Tetradecadien-1-yl Acetate, Crosslinked polyurea polymer

Pheromone component

Z isomer?

The Z-isomer is a “behavioral antagonist” (Karg et al. 1997. J Insect Physiol 43(2):179-187, q.v., citing Rumbo et al 1993 J. Chem. Ecol.19: 953-961) It is also one of the components released from pheromone dispensers, (Karg et al. 1997, op.cit., citing Suckling et al 1994. J Econ Entomol 87:1477-1487).

Butylated Hydroxytoluene, =2,6-Di-tert-Butyl-p-Cresol [128-37-0]

Other Synonyms: 2,6-Bis(1,1-dimethylethyl)-4-methylphenol; 2,6-Di-tert-Butyl-1-Hydroxy-4-Methylbenzene; 2,6-Di-tert-Butyl-4-Methylphenol; 2,6-Di-tert-Butyl-p-Cresol; 3,5-Di-tert-Butyl-4-Hydroxytoluene; 4-Hydroxy-3,5-Di-tert-Butyltoluene; 4-Methyl-2,6-di-t-butyl-phenol; Annulex BHT; Antracine 8; BHT; Dibutylated Hydroxytoluene; Butylated hydroxytoluene; BUTYLATED HYDROXYTOLUENE CRYSTALLINE; Butylhydroxytoluene; Catalin CAO-3; Dalpac; DBPC; Embanox BHT; Hydagen DEO; Impruvol; Ionol CP; Sustane; Tenox BHT; Topanol; Topanol OC and O; Vianol;

An antioxidant. Irritant; may be linked to asthma, mutations, cancer

Polyvinyl Alcohol [9002-89-5] (numerous synonyms)

A component of white glue (or used to be).

Irritant; may be linked to cancer in lab animals.

Tricaprylyl Methyl Ammonium Chloride = Capriquat [5137-55-3]

Synonyms: Aliquat 336; Capriquat; Methyltricaprylyl ammonium chloride; Methyltrioctylammonium chloride; Tri-n-octylmethylammonium chloride; Tricaprylylmethylammonium chloride; Trioctyl methane ammonium chloride; Trioctylmethylammonium chloride;

A phase transfer catalyst; used in mothproofing clothing; degradates are more toxic Irritant

Sodium Phosphate = trisodium phosphate [7601-54-9]

Synonyms: Phosphoric acid, trisodium salt; Sodium orthophosphate; Sodium phosphate; Sodium phosphate, ACS, 98.0-102.0% (Assay); Sodium phosphate, tribasic; Trisodium orthophosphate; trisodium phosphate;

Irritant; can burn skin, eyes, and respiratory tract Is associated with adverse effects when used in enemas.

Ammonium Phosphate [10124-31-9]

Synonyms: Ammonium phosphate; phosphoric acid, ammonium salt;

Used as a fire retardant and in fertilizers. Irritant; can burn skin, eyes, and respiratory tract

1,2-benzisothiazoli-3-one- a misspelling for: **1,2-Benzisothiazolin-3-one [2634-33-5]**

Synonyms: 1,2-Benzisothiazol-3(2H)-one; 1,2-Benzisothiazolin-3-one; Benzisothiazol-3(2H)-one; Benzisothiazolin-3-one; IPX; Proxan; Proxel; Proxel XL; Proxil;

Fungicide, bactericide. Highly toxic to green algae and marine invertebrates.

Sensitizer/allergen

2-hydroxy-4-n-octyloxybenzophenone =Methanone, [2-hydroxy-4-(octyloxy)phenyl]phenyl- [1843-05-6]

Synonyms: 2-Hydroxy-4-n-octyloxybenzophenone; 2-Hydroxy-4-n-octyloxybenzophenone; 2'-Hydroxy-4'-n-octyloxybenzophenone; 2-Hydroxy-4-(octyloxy)benzophenone; Methanone, [2-hydroxy-4-(octyloxy)phenyl]phenyl-; Octabenzone;

UV absorber; the benzophenone family of chemicals includes endocrine disruptors.

Testimony of Derrell L. Chambers on Bill Number 87 – “Relative to the Light Brown Apple Moth”.

April 28, 2008

Good afternoon, and thank you for this opportunity to testify.

I am Derrell Chambers and my intent today is to bring to this matter my experience in the development of insect pheromones in pest management. I retired from the U. S. Department of Agriculture in 1994 after nearly 40 years largely devoted to developing pheromones and hormones as they emerged as new opportunities to avoid the use of pesticides. I obtained a Ph. d. in 1965 in insect physiology precisely to prepare for this new area of research. Thereafter, I returned to the Agricultural Research Service of the USDA and specialized in conducting and directing pheromone development until my retirement. I was the Laboratory Director of ARS research in Mexico and Hawaii concentrating on the technologies now in use in California and elsewhere to manage and eradicate pests such as the Mediterranean fruit fly and the Mexican Fruit Fly. In 1968 I became Director of a new ARS facility in Gainesville, Florida, created specifically to conduct research on insect pheromones and hormones. During the following 12 years I was intimately involved in the conceptual and technical development of pheromones in agriculture. I then returned to field research in Guatemala, using its existence there as an opportunity to model such methods on large wild populations. I retired after 11 years in Guatemala.

In the nineteen seventies the medfly emergency in San Jose brought me there to serve as a science advisor to CDFA and I continued this service until well after my retirement. I hold the staff and management of CDFA's pest control activities in the highest regard, and feel that with them I have contributed to California's ability to address it's emergency projects. I am fully in favor of eradicating emergent pest populations in California where it is necessary and feasible. Nevertheless, I do not support the aerial application of pheromone to attempt eradication of LBAM .

There are a number of ways pheromones are used to deal with pest insects. They are one of the best alternatives to reduce or avoid pesticide use. That said, no eradication of a pest species with only mating disruption has ever been accomplished. An attempt to eradicate the gypsy moth was the only regional, stand-alone mating disruption eradication yet attempted that I am aware of. That attempt has been reduced to its application in suppressing populations and delaying the pest's spread. All other applications are for suppression only, and are accompanied by multiple, supporting integrated tactics.

In fact, the recommendation to CDFA by the advisory Working Group on LBAM specifically states, “ in addition to mating disruption, the program should consider using a multi-pronged integrated approach”, and then lists tactics to be included. If, indeed, CDFA intends an integrated attack on LBAM, why is this not apparent to the public?

But, if eradication with mating disruption alone is the true intention, I think it unlikely ever to succeed. Even so, such an attempt should be preceded by extensive trials to develop, improve and demonstrate efficacy. Eradication is extremely difficult and I think it unlikely to succeed in California without methods development and proof tests on an island population, even using multiple tactics. This has not been done for LBAM, not by ARS, APHIS, CDFA or even those most in a position to do so, the scientists of the various New Zealand agencies responsible for LBAM management in that country. The only field trial of mating disruption alone for eradicating LBAM was conducted recently in Santa Cruz County

We learned in San Jose that justification, appropriate technology, safety and proven efficacy must be convincing. Certainly, the public’s present feeling that they are being subjected to an unwarranted, unsafe, and untested procedure should be more thoroughly addressed than it so far has been. I believe the LBAM project should be challenged on all these issues, but I am particularly concerned that the issue of efficacy has not been sufficiently questioned.

I hope to convince you today that I am qualified to consider the principles of pheromone uses, the strategies for their employment, the tactics for their successful use and the complexities of the planning and management of large-scale eradication campaigns. It is my judgment that:

1. Mating disruption alone is not appropriate for California’s situation, and probably never will be.
2. Mating disruption for eradication of LBAM, even with the recommended supporting tactics is unlikely, and certainly has not been adequately tested, and
3. The political and social sensitivities of an unconvincing project are not being adequately addressed.

Thank you for your attention. I would be pleased to attempt to answer any questions you may have.

Derrell L. Chambers