

## **Responses to California Agriculture Secretary Kawamura Op-Ed Piece on the Light Brown Apple Moth (LBAM)**

On March 2, 2003, California Secretary of Agriculture AG Kawamura wrote an articulate Op-Ed justification of the Light Brown Apple Moth (LBAM) eradication program. The following responses were prepared based on the most up to date evaluation of the scientific data and experience of agricultural experts in New Zealand.

**AK:** "The crisis is immediate, and this is an environmental emergency requiring quick action by the state and federal governments".

**Response:** LBAM is endemic or naturalized in at least 4 countries, Australia, New Caledonia, New Zealand, and Hawaii. It does not cause any significant damage whatsoever to crops and virtually none to Native Flora. Based on the population biology of the species and the extent of population distribution over 7000 square miles, LBAM has probably been in California for decades and there are absolutely no signs of agricultural or native flora damage.

**AK:** "Left unchecked, the light brown apple moth would spread rapidly, threatening more than 2,000 plants; our beloved Central Coast cypress, redwoods and oaks; and more than 250 agricultural crops"

**Response:** In every biological system there are prey and predators that maintain a relative equilibrium in the ecosystem. Beneficial predators and other environmental pressures such as viruses and bacteria keep pests in check. California has more than 80 native moths that have similar breeding and living patterns to LBAM and a host of predators including earwigs, spiders, ants, and wasps. Pilot studies at UCSC and by CDFA show that native wasps provide a high level of predation of LBAM. Most importantly, no damage has ever been reported in any native ecosystem where LBAM is present.

**AK:** "The threat is so widespread that international scientists with experience with the pest call it the light brown "everything" moth".

**Response:** LBAM is formally described as a superficial-feeding leaf roller. There are a number of California native leaf rollers and they generally cause little to no damage to agriculture and none of significance to native plants because they are easily controlled. By their very nature, they are superficial feeders sometimes causing cosmetic flaws on fruits or ornamental plants and rarely causing significant damage in other crops (e.g. grapes).

**AK:** "If the moth becomes established and weakens our native oaks, the damage already caused by the native oak moth could worsen considerably. And there could be further systematic impacts. The stress from this new pest could make oak and pines more susceptible to such devastating diseases as sudden oak death and pine pitch canker. The light brown apple moth also threatens new plant growth and seedlings of oak, cypress and redwood and it threatens new growth in the forest canopy".

**Response:** Nowhere in the world where LBAM is native or naturalized is any ecological damage of native trees reported. Based on the extent of the LBAM populations currently present in California it appears that LBAM has already been well established and has caused no damage to agriculture or native plants whatsoever.

**AK:** "It also threatens almost all of the ornamental plants in our yards, including roses, camellias, and rhododendrons".

**Response:** The most damage that may be done to ornamentals is a superficial nibbling of a few leaves. In the experience of nurseries in California, no significant damage of ornamental plants has been associated with superficial-feeding leaf rollers.

**AK:** "When discussing the food supply, it is important to recognize that, left unchecked, the light brown apple moth could cause damage as high as \$640 million annually in the nine-county infested area. If the pest becomes generally established statewide, annual losses could run into the billions".

**Response:** Worldwide, no damage to the food supply has been reported as associated with LBAM. This \$640 million estimate is based on outdated and exaggerated extrapolations of a theoretical worst-case scenario made by CDFA to justify their emergency declaration. Declaring this an emergency gives CDFA access to State and Federal funds they would otherwise not have available to them.

**AK:** "To eradicate this pest, we have chosen a progressive approach - moth pheromone, a scent that mimics the female moth's scent and, unlike conventional pesticides, does not hurt the moths but instead distracts and confuses the insects so they cannot breed."

**Response:** The pheromone-pesticide being used for aerial spraying of residential areas contains only 14% pheromone and 84% other ingredients, which among them include compounds formally classified as carcinogens, environmental, liver, reproductive, respiratory, and fetal toxins, hormonal disruptors, and mutagens. Some of these ingredients include butylated hydroxytoluene (BHT), tricapyryl methyl ammonium chloride, polyvinyl alcohol, sodium phosphate, ammonium phosphate, 1,2-benzisothiazol-3-one, and 2-hydroxy-4-n-octyloxybenzophenone.

The eradication program also includes broad spectrum application of highly toxic chemicals to backyards, nurseries, playgrounds, parks, along walkways and hiking and biking trails and applied to telephone poles throughout residential areas at approximately head height. These chemicals include chlorpyrifos (in nurseries), permethrin (highly toxic to children, cats, bees, and marine life), *Bacillus thuringiensis* (BT), and spinosad, both of which are highly toxic to bees, monarch butterflies, and marine life.

**AK:** "Our program is supported within the environmental community and has been endorsed by a number of government agencies with environmental stewardship responsibilities".

**Response:** More than 37 environmental and citizens health groups including Commonweal, Breast Cancer Action, Citizens For Health, Pesticide Action Network of North America, Pesticide Watch, Physicians for Social Responsibility (LA), and the Sierra Club, (LA) formally oppose the State's LBAM eradication program. In addition, 5 cities have passed formal resolutions opposing the program, there are 4 pieces of legislation opposing the program, more than 100,000 citizens have voiced opposition to the program, and 4 lawsuits have been initiated against the State of California regarding this program. The only support for this comes from the Agencies who have implemented it.

**AK:** "Moth pheromone doesn't harm people, pets or plants."

**Response:** The spray is not only pheromone but a pheromone-pesticide cocktail. After the spraying in Monterey and Santa Cruz Counties, more than 1000 adverse human health reports were made and submitted to the CDFA and State Public Health officials including a near-fatality of a 13-month old boy who almost died from a primary respiratory attack precipitated by the spray. Other children in Santa Cruz were also reported to experience primary respiratory attacks, among numerous other events, that have yet gone uninvestigated by the State. Numerous families have moved from the State to avoid future sprayings. Physicians were not trained to recognize symptoms that may have been due to the pesticide treatments and the actual number of adverse events reported are estimated to be much higher due to underreporting.

**AK:** "It has been used in aerial treatments for more than a decade around the world, with no scientific evidence that it has any impact beyond creating mating confusion among moths."

**Response:** No pheromone-pesticide cocktail has ever been used as an aerial application over residential areas as part of an eradication program. Such aerial programs have only been used over agricultural areas where pest control tools belong, not over residential areas.

**AK:** "Understandably, insect eradication - particularly involving aerial treatment - can cause questions and concerns among residents. In recognition of that, we are reaching out to inform and educate people in the areas that will be treated."

**Response:** The State's primary mechanism for reaching out to the public has been the allocation of \$475,000 in the hiring of PR Firms Porter Novelli (New York) and Anarasco (Monterey) in telling communities how being sprayed with pesticides is not a problem and how this program is desperately needed to save the environment.

**AK:** "Residents have been and will continue to be contacted directly by first-class mail, through e-mail, in the media, in local meetings, via our Web site and through other methods."

**Response:** Residents of Monterey and Santa Cruz counties were not well-informed they

would be sprayed with potentially toxic pesticides and not all were notified via mail as required by law. When notification was available, the actual dates of the projected spray continually changed. People wanting to avoid the actual spray were not able to do so.

**AK:** "We are also working closely with local government officials."

**Response:** The eradication program and aerial spraying was developed by USDA and forced on communities without consultation and consent. Virtually all local governments oppose this program resulting in formal local government resolutions opposing the eradication program by the cities of Albany, Berkeley, Fairfax, Monterey, Oakland, and Santa Cruz, and 4 pieces of State legislation and 4 lawsuits against the program. More lawsuits are being considered.

**AK:** "We will continue to respond to the concerns of the public. One example that has emerged is reports of illness from aerial treatment areas in Monterey and Santa Cruz counties. The reports prompted a review by the state Department of Pesticide Regulation and the Office of Environment Health Hazard Assessment, which determined the reported illnesses likely were not caused by the moth pheromone treatment".

**Response:** The report by the Department of Pesticide Regulation and the Office of Environment Health Hazard Assessment specifically stated that adverse respiratory events due to the spray were "plausible" and demonstrates the risk of adverse respiratory events was under estimated by the State and that events in sensitive populations such as children, the elderly, and those with chronic illness cannot be adequately assessed. This report specifically states: "The toxicological information on the Checkmate product indicates that exposure to high levels of the applied material would be consistent with many of the reported symptoms."

**AK:** "We are determined to defeat this pest as effectively and responsibly as possible before it grows into a widespread menace requiring more drastic means."

**Response:** Nowhere in the world is LBAM considered to be a menacing pest and nowhere in the world is aerial spraying of pheromone-pesticide cocktails being used to eradicate a species within residential populations. New Zealand has developed and implemented environmentally sound integrated pest management practices that completely control LBAM in agricultural areas. These practices are environmentally sound and do not expose residential populations to spraying with pesticide mixtures.

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