

Aerial Pesticide Spraying in the East Bay for the Light Brown Apple Moth Background and Summary January 2008

contact: Nan Wishner, Chair, City of Albany Integrated Pest Management Task Force
510-524-5185
nan@undoingyoga.com

Summary of the Light Brown Apple Moth (LBAM) Aerial Pesticide Spray Program

The California Department of Food and Agriculture (CDFA) announced on December 17, 2007 that it plans to begin aerial pesticide spraying in Alameda, Contra Costa, and other Bay Area counties in February or March, 2008. The spraying is to eradicate the Light Brown Apple Moth (LBAM). CDFA plans to spray for three nights every 30 days for nine months to three years or indefinitely until the moth is eradicated.

CDFA has undertaken the current spray program despite: lack of long-term human toxicity testing of the chemicals being used, the unknown inhalation risks of the microscopic plastic capsules in which the pesticide is sprayed, CDFA's own admission that the moth has not caused crop damage in California, and biologists' expert testimony that eradication has almost no chance of success. CDFA's sole reason for spraying is concern about potential economic losses to agribusiness from a USDA quarantine of the California counties where the moth has been detected.

The active ingredient in the pesticide products CDFA is spraying is synthetic moth pheromone.¹ The two pesticides, Checkmate OLR-F and Checkmate LBAM, also contain a number of toxic/mutagenic/possibly carcinogenic so-called "inert"² ingredients, many of which should not be inhaled. The pesticide mixture is packaged in minute plastic capsules that are inhaled by anyone exposed to the spray. The pesticides are sprayed from planes flying at 500-800 feet through the night, typically for three nights per month. The plastic capsules break down over approximately 30 days, releasing the pesticides. CDFA obtained an exemption from U.S. EPA to use the products in this manner and warns people and pets to stay inside during the spraying.

Adverse Health and Environmental Effects from Spraying

CDFA began the spray program in Monterey and Santa Cruz in fall, 2007. Following the spraying in Monterey, there were more than 600 reports of health problems, including respiratory difficulties, eye irritation, dizziness, severe skin rashes and headaches, nausea and intestinal pain. There were also reports of deaths of birds and otherwise healthy pets who were outdoors during the spraying (because owners could not get home quickly enough when spraying began with only a few minutes' warning). An independent toxicologist who reviewed the literature on the pesticides being used concluded that there is ample evidence that they are highly toxic to aquatic species.

What Should Be Done Instead of Spraying?

Blanket spraying to try to eradicate LBAM is in direct contradiction to environmentally responsible pest management practices and to California law protecting citizens' right to consent to spraying. There are

¹ Many environmental and organic agriculture groups have advocated the use of pheromones alone (i.e., with no inert ingredients) for pest control. However, the formulation and encapsulation in plastic of the products being used in this case, the lack of testing of human exposure effects, and their aerial application differentiate them from the environmentally preferable pheromone products such as stationary bait traps.

² Inert ingredients are so named because they do not actively work to kill the target pest. In most cases, the U.S. Environmental Protection Agency tests only the active ingredient of a pesticide, not the complete formula including inerts, and the inerts are considered trade secrets and are not disclosed. In this case, the governor ordered the inert ingredients disclosed after the first round of LBAM spraying in 2007.

many least-toxic approaches that are used to control other similar “leaf-roller” moths that are already present in California. These include allowing the natural ecosystem to address the pest (many nursery owners say that LBAM has been present for a number of years without posing a significant problem, which suggests that local ecosystems have accommodated to the moth), and using environmentally friendly controls such as cleaning up plant debris where moth larvae overwinter, releasing naturally occurring predators and parasites, releasing sterile male moths, and using stationary pheromone bait traps. Rather than conducting aerial spraying, CDFA should be promoting these environmentally responsible Integrated Pest Management strategies and educating the USDA regarding the lack of damage caused by the moth and negotiating the lifting of the quarantine.

Proposed Legislation to Protect Citizens’ Right to Consent to Spray

Citizens groups in Monterey, Santa Cruz, and the East Bay have drafted legislation protecting citizens’ right to consent to spraying and clearly defining the standards the state must meet to enact an emergency spray program. The proposed legislation affirms existing California laws protecting the environment, and defines the criteria for emergency spraying, including the requirements to prioritize public health and obtain consent from those living in the spray zone. The bill would stop any spray programs currently under way, including the LBAM program and protects against future spraying programs being enacted without sufficient independent expert and public scrutiny of the evidence for and against spraying, as has unfortunately been the case with the LBAM program.

To date, more than 2,350 people have signed a petition in favor of legislation to ensure citizens’ right to consent to spray.

Sources

Abraham, Kera. November 15, 2007. “Pheromone spraying aimed at wiping out the light brown apple moth maybe fruitless.” *Monterey County Weekly*.

Alexander, Kurtis. Nov. 10, 2007. “State Wraps Pesticide Use, Some Still Bugged.” *Contra Costa Times*.

California Alliance to Stop the Spray. 2007. Letter to Santa Cruz Health Services Agency (R. Khalsa). Dec. 31.

Carey, James, PhD. 2007. Testimony Submitted in *Edna Williams, et al., v. California Department of Food and Agriculture, A.G. Kawamura, et. al., Case No. 07-05587*, U.S. District Ct. for the Northern District of California. November 14.

Cox, Caroline, and Michael Surgan. 2006. Unidentified Inert Ingredients in Pesticides: Implications for Human and Environmental Health. *Environmental Health Perspectives*. August.

Executive Summary of Health Complaints and Recommendations. January, 2008. Prepared by Helping Our Peninsula’s Environment (HOPE).

Harder, Daniel, PhD. 2007. Testimony in *County of Santa Cruz v. CDFA*, Superior Court of California, Santa Cruz County. October 31.

“Light Brown Apple Moth in California: Quarantine, Management, and Potential Impacts.” 2007. U.C. Davis IPM website. September 12. <http://www.ipm.ucdavis.edu/PDF/PUBS/lbam091207.pdf>

Material Safety Data Sheet. Butylated hydroxytoluene.

Material Safety Data Sheet. Polyvinyl alcohol.

Material Safety Data Sheet. Tricaprylmethylammonium Chloride.

McCord, Shanna. 2008. “Hundreds of health complaints followed apple moth spraying.” *San Jose*

Mercury News. January 6.

Philp, Richard B. 2007. *Analysis of Toxicology Studies with LBAM and Related Lepidopteran Pheromones*. October.

Philp, Richard B. 2007. Testimony in County of Santa Cruz v. CDFA, Superior Court of California, Santa Cruz County. October 31.