

Overview of the Light Brown Apple Moth Eradication Program

What is the LBAM Eradication Program?

The California Department of Food and Agriculture (CDFA) Light Brown Apple Moth (LBAM) eradication program has been under way since 2007. CDFA currently proposes to use a combination of many treatments statewide to attempt to eradicate the moth over a 3- to 5-year period:

- 1. Aerial spraying** - of a pheromone pesticide called Disrupt Bio-Flake, which is dispersed in 1/8" square plastic flakes that the LBAM Environmental Impact Report (EIR) says are "very stable and can remain in the environment for many years." This is a new product, and its inert ingredients have not been disclosed. Aerial spraying is planned for "forested" and "agricultural" areas that have not been specifically identified.
- 2. Ground application of the synthetic pheromone or the same plastic flake pesticide as in #1** mixed with a sticky adhesive ("SPLAT") and applied to shrubs in private yards
- 3. Permethrin (carcinogenic pesticide, toxic to bees)** applied to telephone poles and trees in sticky SPLAT
- 4. Pheromone twist ties** hung in trees
- 5. Ground spraying of the pesticides bacillus thuringiensis and spinosad**
- 6. Release of millions of sterile moths**
- 7. Release of millions of predatory wasps**

What are the Risks of the Program?

Many of the treatments to be used in the program are largely untested, so the health effects are unknown. Some of the chemicals to be used in the program – permethrin, Bt, spinosad – are reasonably well understood. Permethrin is a carcinogen and toxic to honeybees. Bt lingers in the systems of those exposed and sickened large numbers of people when it was mass applied in New Zealand. Spinosad is known to be toxic to beneficial insects that prey on LBAM. The environmental impacts of blanketing areas of the state with non-bio-degradable plastic flakes are unknown but appear significant given. The risks releasing millions of sterile moths and wasps across the state is unknown but clearly an intervention in an ecosystem in this scale risks disrupting or destabilizing it.

Following aerial spraying of a different pheromone-based pesticide, Checkmate, in 2007, more than 600 people in Santa Cruz and Monterey County reported adverse health reactions. The active ingredient in that spray, a synthetic moth pheromone, is the same as the active ingredient in all the pheromone products currently planned for use and has not been tested for long-term human toxicity. Some of the "inert" or "other" ingredients in the 2007 spray were carcinogenic, mutagenic, reproductive effectors linked to birth defects, liver toxins, dermal irritants, and chemicals unsafe to inhale and toxic to aquatic species. The inert ingredients in the products now planned for use have not been revealed, with the exception of the permethrin product, which contains carcinogenic inerts. Inert ingredients are not inert in the dictionary sense of the word; in the context of pesticides, "inert" simply means that the ingredients do not actively target the pest. Most pesticide formulas are made up of more than 80% inerts, and inerts are typically not disclosed by manufacturers on the grounds that they are a trade secret.

The Moth Does Not Threaten Agriculture or Native Plants

LBAM has done no documented crop damage in California. Entomologists have testified that, based on its range, LBAM has likely been in California for 30-50 years. A recent scientific report on LBAM in New Zealand states that LBAM there "is considered a minor pest that does not cause economically significant crop damage or have detrimental effect on native flora" and that LBAM is 80-90% controlled by natural predators in New Zealand, and the same predators are present in California, including birds, spiders, wasps, flies, beetles, lacewings, and earwigs. An August, 2009 report by the National Academy of Sciences notes that "there is substantial uncertainty" about "the severity of damage that [LBAM] can inflict on plants."

Eradication will Not Work

Even if LBAM posed a problem in the state, scientists say that eradication has no chance of success given the range over which LBAM is established and the fact that the treatments proposed have never been used successfully to eradicate a pest. CDFA carries out many "eradication" programs year after year for the same pests. Medfly eradications, for example, have taken place annually for nearly 30 years.

What Efforts are Under Way to Stop the Spray?

Sign the petition at StoptheSpray.ORG. Two petitions have been submitted to the federal government asking that LBAM be reclassified as no longer requiring quarantine, which would end the eradication program. California Assembly Bill AB 622 by Oakland Assemblymember Sandré Swanson would prohibit aerial spraying near schools, day care centers, hospitals, senior centers, residential neighborhoods, and farm labor camps.