

**Notice of Preparation (NOP) of a
Draft Programmatic Environmental Impact Report for the
Light Brown Apple Moth Eradication Program**

Date: February 14, 2008

To: State Clearinghouse; Responsible, Trustee, and Interested Agencies; and other Interested Organizations and Individuals

The California Department of Food and Agriculture (Department) as Lead Agency under the California Environmental Quality Act (CEQA) will prepare a Programmatic Environmental Impact Statement Report (PEIR) for the eradication of the light brown apple moth (LBAM) (*Epiphyas postvittana*). We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed Project. Your agency may need to use the EIR prepared by the Department when considering any necessary permit or other approval for the Project. Interested parties and individuals are invited also to comment on alternatives to, concerns with, and environmental issues or potential effects of the Project.

Public Scoping Meetings

Four public meetings will be held to receive agency and public comment on the scope of analysis and EIR content for the proposed Project. Dates/time and locations¹:

Monterey: Wednesday, February 20, 2008, 6:00 – 8:00 p.m., Monterey Peninsula College, Lecture Forum 103, 980 Fremont Street, Monterey, CA 93940

Santa Cruz: Thursday, February 21, 2008, 6:00 – 8:00 p.m., University Inn & Conference Center, Sierra & Dawn Room, 611 Ocean Street, Santa Cruz, CA 95060

San Francisco: Monday, February 25, 2008, 6:00 – 8:00 p.m., San Francisco County Fair Building Auditorium, 9th Avenue & Lincoln Way, San Francisco, CA 94122

Oakland: Tuesday, February 26, 2008, 6:30 – 8:30 p.m., Ellis M Harris State Building Auditorium, 1515 Clay St., Oakland, CA 94612

Due to the time limits mandated by State law, **your written response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.** Please send your response to: Jim Rains, Staff Environmental Scientist, California Department of Food and Agriculture, 1220 N Street, Sacramento, CA 95814, fax (916) 654-1018, email jrains@cdfa.ca.gov. Project files will be maintained at this location.

Original signed by Jim Rains

2/13/08

Jim Rains
California Department of Food and Agriculture
Plant Health & Pest Prevention Services

Date

¹ If special accommodation is required, please contact Josilyn Hendricks at (916) 654-0462 or (jhendricks@cdfa.ca.gov) by February 19, 2008 to enable the Department to secure the needed services.

LIGHT BROWN APPLE MOTH ERADICATION PROGRAM PROJECT DESCRIPTION

Summary

The California Department of Food and Agriculture (Department) is preparing a Programmatic EIR to evaluate effects of implementation of eradication strategies and methods (Project) for the light brown apple moth (LBAM) (*Epiphyas postvittana*) in portions of the state where infestations have been identified by trapping programs to date. The LBAM attacks at least 2,042 different plants including many agricultural, horticultural, and forest species of great economic and ecological value. The Department is working closely with the United States Department of Agriculture (USDA) to develop the most effective strategy and methods to achieve the overall goal of eradication of LBAM from California. Preliminary actions were undertaken as emergency actions in 2007 in the Monterey-Santa Cruz area. Additional actions are proposed for the Monterey-Santa Cruz area and the San Francisco Bay Area in 2008. Depending upon the success of these initial actions, subsequent eradication activities would be scheduled for 2009 and beyond.

Project Location

The Project Area is located in the following nine counties of the state where infestations presently occur: Alameda, Contra Costa, San Francisco, Marin, Solano, San Mateo, Santa Clara, Monterey, and Santa Cruz. This area is shown on the attached Figure 1, Location Area. The areas proposed for eradication activities cover 571,259 acres (892 square miles). Within the nine counties, eradication activities would be focused in the areas with the greatest infestation problems. Small and isolated infestations will be treated when practical.

Background

The Department was notified by a retired professor and collector on February 6, 2007 that a moth expert in Australia had identified LBAM from collections made in 2006 at a site in Alameda County. The Department initiated a pheromone-baited trapping project in Alameda and Contra Costa counties that resulted in the finding of additional moths. On April 20, 2007, the Department issued a quarantine of at least 182-square miles in Alameda, Contra Costa, San Francisco, Marin, and Santa Clara counties. The USDA issued a federal quarantine order on May 2 requiring trapping, inspection, and certification of all nursery stock and host commodities from the quarantine area in eight counties. Today, the quarantine area has expanded to cover nine counties (Alameda, Contra Costa, Marin, Monterey, San Francisco, San Mateo, Santa Clara, Santa Cruz, and Solano).

Since March 2007, more than 43,000 traps have been placed throughout the state, and approximately 16,500 moths have been confirmed as LBAM. However, most of the captures are from traps located in two specific geographic areas: (1) southern Santa Cruz and northern Monterey counties (87 percent) and contiguous portions of northwest Alameda, western Contra Costa, and northern San Francisco counties (12 percent). The remaining 1 percent were mostly single trap captures in Los Angeles, Marin, Napa, San Mateo, Santa Clara, and Solano counties.



ENTRIX Environmental and Natural Resource Management Consultants Light Brown Apple Moth Eradication Program
FIGURE ONE
PROGRAM AREA LOCATION

In May 2007, a group of international scientific experts on LBAM was convened by USDA's Animal and Plant Health Inspection Service (APHIS) to provide recommendations on short- and long-term actions to contain, control, and eradicate LBAM in California to prevent the spread of the pest to other states and countries. This Technical Working Group recommended a strategy to first contain and eradicate LBAM from the outer edges of its range, and then second to eliminate the core population centers. Furthermore, an Environmental Advisory Task Force comprised of local growers, state and local agencies, non-governmental organizations, California Polytechnical Institute, University of Santa Clara and University of California personnel was appointed and convened for the first time in November 2007. Its mission is to communicate environmental concerns and research needs about the Light Brown Apple Moth Program to the Secretary of the Department, help in the scoping of the program's Environmental Impact Report, serve as liaison with key environmental groups about the program, and provide public outreach to the community. In addition, its goals, in part, are to focus on the environmental consequences of the LBAM eradication program, both positive and negative and to recommend to the Secretary as to how to best mitigate or avoid any negative environmental effects. The Department developed a reasonable range of alternative control and eradication measures and discussed these with the Task Force on November 15, 2007.

Beginning in June 2007, the Department and APHIS started emergency treatment of isolated populations with LBAM mating disruption techniques, namely ground applications of a biologically-based pesticide and the placement of pheromone treated twist ties. Growing populations of LBAM in the area from Salinas River south to the Monterey Peninsula required aerial treatment with a microencapsulated pheromone in September and again in October 2007. Aerial treatment was also applied in November 2007 over portions of northern Monterey County and over Santa Cruz.

The USDA completed four environmental assessments (EAs) in the Santa Cruz-Monterey-Seaside areas in the June-September 2007 period that concluded there were no anticipated adverse effects to humans, domestic or nontarget animals, or to the environment from the use of the pheromones. However, the level of public controversy over the aerial treatments along with the state legislation authorizing funds for emergency treatment (SB 556) require the Department to prepare an Environmental Impact Report under CEQA for the long-term program to eradicate LBAM. Consultants have been retained by the Department to prepare ecological and human health risk assessments and the PEIR.

Proposed Project

Because the LBAM is a new pest to the North American Continent that affects a broad range of plants (at least 2,042 plants including native plants, forest species, agronomically important crops, and ornamentals), both APHIS and the Department have taken immediate action to eradicate LBAM from California to prevent its spread to susceptible host plants throughout the United States and neighboring Mexico and Canada. The pest is prolific, and the number of generations produced in a growing season varies from one to more than four (depending on environmental conditions). Because the LBAM infestations are local or regional, the overall strategy is to eradicate the pest rather than control. A final Action Plan was approved on February 8, 2008.

Key components of the proposed Project are summarized below:

A systems approach over several years using multiple tools is planned that uses mating disruption pheromone, biological control, sterile insect technique, and/or insecticide treatments depending upon conditions at specific locations.

1. The mating disruption pheromone attracts the male LBAMs and prevents them from mating with females but does not kill them. It is to be applied in two ways. The primary tool is aerial application for heavily infested areas. For small and isolated areas, and to complement the aerial treatments, a ground treatment tool using pheromone twist ties is proposed.
2. The proposed biological control at present is the release of an egg parasitoid (inundative *Trichogramma* wasp releases) prior to aerial application of the mating disruption pheromone in heavily infested areas.
3. Sterile insect technology is being developed in Australia and New Zealand, but is 2-5 years away from implementation.
4. Foliar ground treatments targeting the insect larvae would use the biologically-based pesticide *Bacillus thuringiensis kurstaki* (Btk) or Spinosad, an insecticide.
5. A male moth attractant treatment using small amounts of pheromone and pesticide in a thick matrix, which is applied to poles and trees, is also being considered.

New formulations of the mating disruption pheromone are now available and will be tested to determine which formulation is the most efficacious at eradicating LBAM. For aerial application and ground applications to trees and utility poles on public and private property, the treatment area is a 1.5 mile radius around each LBAM detection with a projected 30 to 90 day spray interval. For ground treatment using twist ties, 250 twist ties per acre in a 200 meter radius around each LBAM detection are applied and subsequently replaced every three to six months. Treatment areas may be adjusted to provide the public with identifiable treatment boundaries. After two life cycles of treatment without any LBAM detections, the twist ties are removed from the area and post-treatment monitoring traps will remain in place for one additional life cycle. Following aerial applications, the one additional lifecycle will begin once the pheromone has dissipated to a low enough level that it will not influence the efficacy of the traps.

The LBAM program will monitor aerial pheromone applications for quality control, as well as effectiveness, and in consultation with the California Department of Pesticide Regulation. The Department will engage in additional consultations with state agencies on rare, threatened, and endangered species and any sensitive environmental sites in the proposed treatment areas.

Scope of the PEIR Analysis

The No Project alternative would be to continue and expand quarantine and detection and inspection activities but without the application of the pheromone or other insecticides on an areawide basis by USDA or the Department. Restrictions on domestic and foreign trade would increase. Private individuals may utilize insecticides to control LBAM, but without a regional coordinated treatment program, LBAM would flourish in existing areas and spread to surrounding areas. Several pesticides can be used effectively against the LBAM larvae, but the only pesticide currently known to be effective against both eggs and larvae is chlorpyrifos.

A range of project alternatives is being evaluated in addition to the No Project alternative by the Department and will be discussed in the PEIR. These project treatment alternatives include other types of synthetic pheromones (and their formulations) effective in treating LBAM.

The PEIR will evaluate potential environmental impacts (direct, indirect, and cumulative) and focus on the following environmental resources and concerns: human health, ecological health, agricultural economics and land use, non-agricultural land uses, public services/hazard response, water quality (surface and ground waters), air quality, climate change (greenhouse gas production), noise, and biological resources. The human and ecological risk assessments are expected to be technical appendices to the PEIR with important results summarized in the appropriate sections of the PEIR.

Environmental issues raised during public scoping will be incorporated into a public scoping report and made available to the public and preparers of the PEIR.

For More Information

Additional information is located at <http://www.cdfa.ca.gov/phpps/PDEP/lbam/envimpactrpt.html> .