



PRINTABLE VERSION: Thursday, October 4, 2007

1. **INVASIVE SPECIES: Opposition mounts to aerial spraying for apple moth**

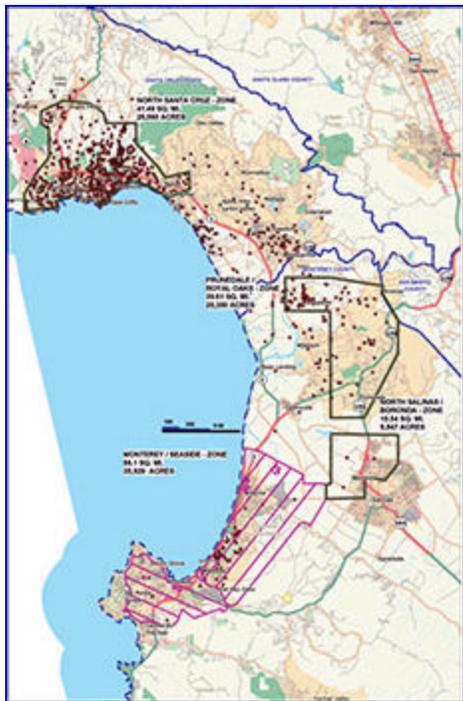
(10/04/2007)

Arthur O'Donnell, *Land Letter* editor

California and federal officials are increasingly on the defensive regarding their efforts to eradicate the light brown apple moth before it can do serious damage to the state's agriculture industry.

The moth, suspected to have arrived from Australia or New Zealand, was first reported in California in early February near Berkeley, but its presence has since been confirmed in eight counties stretching from Contra Costa on the north San Francisco Bay to as far south as Los Angeles. The greatest concentrations have been documented in Santa Cruz and Monterey counties.

According to the latest figures from the California Department of Food and Agriculture there have been at least 8,643 moths captured and confirmed at over 42,600 traps deployed throughout the state. The vast majority, more than 7,500 as of this week, were trapped in Santa Cruz and Monterey. In addition, moths in larvae and pupae stages have been found in 39 nurseries, flower or greenery farms along the central coast areas. Quarantine procedures were put into effect over a 182-square-mile area, and both Mexico and Canada have imposed sanctions against the potential spread of the moth.



This map illustrates the initial area over California's central coast being sprayed with a synthetic pheromone to disrupt the breeding cycles of invasive light brown apple moths. Communities in Santa Cruz and Monterey counties have expressed anxiety and opposition to the aerial spraying program. Click on the map for a larger version. Courtesy of California Dept. of Food and Agriculture.

In response, acting under a sense of urgency backed up by recent legislation, **S.B. 556** by state Sen. Patricia Wiggins (D-Santa Rosa), CDFA has begun an eradication program. The strategy largely consists of aerial spraying of a sexual pheromone intended to disrupt the reproductive cycle of the moths – in essence, confusing adult males and preventing them from locating females for mating. The commercial pheromone product, called Check Mate OLR-F, is considered by federal agencies to be of minimal toxicity and "no risk to human health is expected" for its use, according to U.S EPA.

After an initial round of spraying over Santa Cruz and Monterey this summer, CDFA has resumed and expanded the spraying program and expects to spray the pheromone over a 60-square mile area in Monterey County beginning Tuesday. Beginning in early November, the spraying will expand to cover a total 95-square mile area from Santa Cruz to North Salinas – home to many organic farms. Spraying would be repeated on a monthly basis into at least Feb. 2008, CDFA officials said.

USDA has provided the state with \$15 million in emergency funding to pay for the spraying program and the state has added \$2 million, said Steve Lyle, spokesman for CDFA. So far, about \$1.6 million has been spent on spraying in Monterey.

The program has created a wave of opposition in the two most affected counties. Local governments, including the city councils for Monterey and Seaside have introduced resolutions against the aerial spraying, and an activist group called Helping Our Peninsula's Environment (HOPE) announced the filing of a lawsuit against the state. The complaint, formally filed and served on the state yesterday, charges that California failed to conduct adequate analysis of the effects of using Check Mate in a manner "that will permit the chemicals to migrate to the Monterey Bay National Marine Sanctuary to kill and injure the invertebrates living therein, causing a loss of ecological health and diversity."

In addition, HOPE stated, "Members of the public already subject to the aerial spraying have complained of respiratory problems" and the state's notification process had been inadequate. The suit seeks

an injunction "to prohibit the aerial spraying of pheromone on the Monterey Peninsula without having first analyzed the environmental repercussions from such spraying in an appropriate document."

HOPE executive director David Dilworth told *Land Letter* that the group has amassed letters from more than 110 local residents who claim to have experienced respiratory problems or other symptoms after the initial spraying last month. He said the group's effort to halt the spraying has received "nothing but support" from local officials.

Local meetings

California's Agriculture Secretary A. G. Kawamura this week joined with USDA officials in a series of meetings with local elected officials to win support for the eradication effort. In a statement released in response to the HOPE suit, Kawamura defended the program, "For years, environmental groups have been asking for alternatives to pesticides. This is an excellent alternative and is, in fact, the most environmentally sensitive eradication project in the history of the Department of Food and Agriculture."

The campaign follows a series of letters from Kawamura to local officials responding to concerns and trying to explain the extent of the potential problems posed by the moth invasion and the benefits of the pheromone program.

For example, in a Sept. 28 letter to Janet Beautz, chairwoman of the Santa Cruz County Board of Supervisors, Kawamura wrote that the apple moth "is an extremely serious insect that threatens our state's natural environment and food systems. Entomologists tell us the larvae of this prolific moth can feed on more than 1,000 different types of native and ornamental plants and trees, including 250 different food crops. It reproduces at an alarming rate with females laying clutches of more than 500 eggs as often as five times per year."

He said plants especially at risk include fruits, vegetables, native redwoods and cypress trees and endangered saline clover.

In promoting the pheromone application, Kawamura said, "This particular treatment is the most environmentally friendly and sensitive eradication program in the history of our state."

While the state has not yet completed an environmental analysis under the California Environmental Quality Act (CEQA), it has been relying on an emergency waiver to begin the spraying program backed by a series of environmental assessment documents prepared by USDA to meet federal environmental impacts requirements.

The latest EA, prepared in September by Osama El-Lissy, director of emergency management for Plant Protection and Quarantine division of USDA's Animal Plant Health Inspection Service (APHIS), explained that "the lack of experience" with the light brown apple moth in the United States "has made it difficult to determine the best eradication approach to take in California." However, USDA conferred with scientists from Australia and New Zealand, two nations that have been trying to eradicate the moths for about a decade. "Based on their recommendations, the current eradication efforts have mainly relied on mating disruption with different types of pheromone treatments," El-Lissy wrote.

The assessment concluded that the pheromone treatment carries "negligible risk" to humans or non-target species.

For some environmental groups, the use of pheromones is far preferable to direct application of other pesticides. In a recent response to Santa Cruz-area Assemblymember John Laird (D), who had expressed concerns, Natural Resources Defense Council senior scientist Gina Solomon wrote, "We have frequently opposed the widespread use of toxic insecticides and advocated for use of pheromones instead. ... We hope that the prompt use of such a strategy will help avert future use of toxic insecticides to control this pest."

NRDC has been receiving phone calls from its members who are alarmed at the spraying program, Solomon added. "However, in this case, we believe that the concerns reflect a misunderstanding about the plan, rather than a real health-based issue."

Communication missteps admitted

Larry Hawkins, spokesman for USDA in California, told *Land Letter* that the federal and state agencies conducting the eradication program had misjudged the "level of anxiety" about aerial spraying in the Santa Cruz and Monterey communities. Still, he said, "We are very confident the material we are using is the least toxic and single-most effective product we could come up with. We probably felt so good about it that we just underestimated the resistance of the public. They are not as familiar with this."



A female light brown apple moth. From a single sighting in February, the invasion of these moths has spread through at least eight California counties. Photo by David Williams, Department of Primary Industries, Victoria, Australia. Courtesy of UC Davis Dept. of Entomology.