

Questions and Answers:

Updated Action Plan to Eradicate the Light Brown Apple Moth

June 19, 2008

Sterile Insect Technique (SIT)

Q: When will sterile moths be released?

A: Limited field release is scheduled for the spring of 2009. If the results are as expected, we will begin to ramp up production and release in 2010, leading to full-scale release in 2011.

Q: How do you know this will work?

A: Sterile insect release has been successful against other pests in California, including the Mediterranean fruit fly, Mexican fruit fly and pink bollworm moth.

Q: How will the moths be sterilized?

A: They are briefly exposed to energy similar to an X-ray that halts development of the reproductive system.

Q: Will the treated moths reproduce?

A: No. They will be sterile and incapable of laying fertile eggs.

Q: Do the moths glow? Are the moths radioactive?

A: No. The moths are exposed to energy like the x-ray you get in the dentist's office. The resulting moths are no more radioactive than your teeth after an x-ray.

Q: Are male and female moths used?

A: Yes.

Q: How many sterile moths will be released? How often?

A: These details will be determined following the 2009 and 2010 field releases. Sterile insect technology works by the sterile moths out-competing the wild moths for mates; therefore, to be successful, the program will release many more sterile moths than there are wild moths in the environment.

Q: How will the treated moths be released?

A: We will likely release the sterile moths both from the ground and from airplanes.

Q: Why is this tool suddenly available?

A: It's not sudden. We fast-tracked research to develop this method starting in early 2007, shortly after the infestation was discovered. It was a positive and unanticipated breakthrough that the sterile moths could be raised much faster than we anticipated.

Q: Will the moths disrupt the ecosystem for other insects?

A: No. They will look solely to their own species for mating and no other disruptive impact will occur.

Male Moth Attractant Sites (MMAS)

Q: What will be applied to trees and utility poles?

A: There are two types of eradication tools we will use: (1) Moth pheromone will be mixed with a sticky carrier and applied from the ground to utility poles and trees and shrubs to confuse male moths so that they can't find a mate; and (2) in areas with heavier infestations, moth pheromone will be mixed with a sticky carrier and a small amount of a pesticide called permethrin and applied to utility poles and street trees. This approach will attract male moths and kill them.

Q: How high will the applications be?

A: The treatments using permethrin will be at least eight feet off the ground, well out of the reach of children and pets.

Q: How will you decide which areas are treated with permethrin?

A: Small, isolated infestations will continue to be treated with twist ties. Small infestations near larger infested areas will be treated with the moth pheromone applied to utility poles and trees and shrubs to confuse the male moths. Medium and large infestations will be treated with the moth pheromone and permethrin applied to utility poles and street trees.

Q: What are the inert ingredients in the sticky carrier?

A: We are currently working with the manufacturer to urge them to disclose this information quickly. We want to be as transparent as possible in every step we take to eradicate invasive species.

Q: How long will it take the mixture to dry?

A: The mixture is thick and will not run across surfaces. It will adhere and harden in less than a day.

Q: How often will infested areas be treated, and for how long?

A: Currently our scientists are aiming to treat every 60-90 days (until no moths or larvae are detected over a nine-month period).

Q: How will residents be notified that a site will be posted nearby?

A: CDFR will send notices by first-class mail to all residences in the treatment area and will host a public meeting to answer questions.

Health Concerns

Q: Can you speak to the results of six-pack test?

A: The tests are not yet complete, however we stick to our promise that no new pheromone product will be chosen until it's proven that it can be used safely.

Q: Are the new male moth attractant sites a safe technique to use in urban neighborhoods?

A: This is nearly identical to an approach to eradicate fruit flies in California that has been utilized for more than 30 years with no harm to people, pets or trees.

Q: Is permethrin safe?

A: Yes, Permethrin is a common, household pest control product that can be used safely. It is a widely used flea control substance for pets—mainly dogs—and is also utilized in mosquito-resistant clothing popular for trips to tropical climates.

Q: What if a male moth attractant site is touched or ingested?

A: The sites are out of reach and the pheromone mixture is inedible. We don't anticipate anyone being able to handle them. But if they did, the likelihood they would have an adverse reaction is the same as with a flea collar.

Aerial Spraying

Q: Are you halting the aerial spraying because it's dangerous?

A: No, state health officials have said clearly that pheromones can be applied safely. Aerial applications will continue to be an important tool, especially in densely forested areas.

Q: If aerial spraying is still on the table, how will you ensure that it doesn't make people sick again?

A: Our health officials did not find a link between the spraying and reported illnesses. Before any aerial treatments happen, health officials will thoroughly review the products.