

New report: Light brown apple moth classification for eradication and quarantine was justified

14 September 2009

A new report from the National Research Council finds that the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) is within its broad regulatory authority to classify California's invasive Light Brown Apple Moth (LBAM) as an "actionable" pest, which the agency asserted in a draft response document to two petitions questioning the classification. However, the Research Council report says that APHIS would benefit greatly from referencing more robust science to support its position, as its draft response did not adequately explain the moth's most likely future geographic distribution in the United States or the level of economic harm it could cause.

APHIS has classified the light brown apple moth -- originally from Australia and confirmed in California in 2007 -- as an "actionable quarantine significant pest" and has applied its authority to implement a program of quarantine restrictions and eradication, which has been met with some public resistance. Prior research in other countries where the moth has invaded has shown that it can damage seedling plants in nurseries; inflict aesthetic damage on ornamental plants; and injure tree fruit, citrus, and grapes. At the time the Research Council committee wrote the report, the moth had been found in 17 California counties.

In late 2008 and early 2009, the U.S. secretary of agriculture received two petitions, from the Pesticide Action Network North America and three private citizens, to reclassify LBAM as a "non-actionable pest" based on the argument that the moth is not a significant pest economically and can be controlled by means other than eradication. In February APHIS asked the Research Council to evaluate the scientific justification of the draft response APHIS wrote to answer the two petitions.

The committee found APHIS met the minimum standard within its broad regulatory powers to declare that the moth is of potential economic importance and is actionable. Nevertheless, APHIS has not communicated its justification in a scientifically rigorous way or with sufficient clarity. To improve the draft response to the petitions, APHIS should define terms relating to pest status explicitly and clearly. Independently of the draft response, it should consider the development of guidelines to quantify when damage can objectively be considered of "economic importance," the report says.

Moreover, the biological data presented in the draft response to support the invasive nature of LBAM, its history in California, and its potential geographic distribution in the United States are problematic and in some cases not based on sound science. In particular, the prediction of the potential geographic distribution of the moth in the United States and all of the economic analyses based on this distribution are questionable and need reassessment. The committee recommended that APHIS consider more biologically realistic and validated modeling approaches to predict the potential geographic range.

The committee also said that the draft response does not accomplish the goal of a balanced economic analysis. It shows the greatest potential damage that might occur under extreme -- and presumably unlikely -- trade restriction scenarios. A more appropriate goal would detail a range of geographic distributions, affected commodities, and the expected success of eradication.

Lastly, the APHIS draft response focused entirely on the regulatory status of LBAM and did not address the current eradication strategy, which was an important issue for petitioners. The committee

noted that although APHIS was within its regulatory purview in limiting its draft response to addressing only classification status, the agency missed an opportunity to clarify the difference between the classification of the pest and the means of controlling it and to justify its actions to stakeholders and the general public.

Source: National Academy of Sciences ([news](#) : [web](#))

APA citation: New report: Light brown apple moth classification for eradication and quarantine was justified (2009, September 14) retrieved 17 January 2020 from <https://phys.org/news/2009-09-brown-apple-moth-classification-eradication.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.