

Peer Review Summary Document

(1/9/2012)

Peer Review Plan

http://www.usgs.gov/peer_review/docs/rust_fungus_HI.pdf [76.5 KB PDF].

Title and Authorship of Information Product Disseminated

Economic Analysis of the Proposed Rule to Prevent Arrival of New Genetic Strains of the Rust Fungus *Puccinia psidii* in Hawai'i, By Kimberly Burnett (University of Hawai'i Economic Research Organization), Sean D'Evelyn (University of Hawai'i Economic Research Organization), Lloyd Loope (U.S. Geological Survey), and Christopher Wada (University of Hawai'i Economic Research Organization).

Peer Reviewers Expertise and Credentials

Peer Reviewer #1 – Ph.D. in Biology, Clifford G. Morrison Professor in Population and Resource Studies. Expertise in ecology of terrestrial ecosystems in Hawaii and Pacific islands.

Peer Reviewer #2 – Ph.D. in Botany, Emeritus Professor of Botany. Expertise in the biology and ecology of fungi and alien plants in Hawaii and Pacific islands.

Peer Reviewer #3 – Ph.D. in Environmental Science and Management. Expertise in environmental and resource economics, including estimating and mitigating invasive species risk from international trade.

Charge Submitted to Peer Reviewers

The reviewers were asked to make an objective evaluation of the research.

Summary of Peer Reviewers Comments

Peer Reviewer #1: Overall, the reviewer found the analysis clear and straightforward. The reviewer suggested restructuring the introduction to clarify exposition. The reviewer was skeptical of the significance of the analysis of benefits based on biofuels, not questioning that the analysis accurately reflects the literature; instead believing it's extremely unlikely to develop into a meaningful system in practice. That said, the reviewer indicated that the relative importance of biofuel analysis didn't change the importance of the underlying conclusion - the benefits of keeping the rust out greatly exceed the rather minor costs.

Peer Reviewer #2: Overall, the reviewer found the paper to be a very interesting, well-thought attempt to quantify the effect of a proposed government rule on the industry affected. The reviewer's comments were focused on technical aspects of plant material treatment or sources, as well as potential by-products of industrial processes (e.g., biochar). The reviewer also provided feedback on some of the estimates of factors included in the economic analysis.

Peer Reviewer #3: Overall, the reviewer believed this study provided a clear and informative summary of the major anticipated impacts of the proposed rule to prevent new strains of *P. psidii* to Hawai'i. The reviewer provided extensive commentary on several ways in which the manuscript could be improved through better description of the analytic factors and process and a refined methodology.

Summary of USGS Response to Peer Reviewer Comments

The introduction was revised for clarity in response to Peer Reviewer #1 comments. In response to Peer Reviewer #1 comments regarding biofuel, the authors agree that the future of biofuel production is highly uncertain, and qualified this assumption in the manuscript. All technical issues raised by Peer Reviewer #2 were addressed. In response to Peer Reviewer #3 comments, the description was revised to provide more detail regarding the analytic process and parameters.

The Dissemination

The published information product will be released as a Pacific Cooperative Studies Report and will be available at <http://manoa.hawaii.edu/hpicesu/techrep.htm>.