

Biofuel crops pose invasive pest risk

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Researchers with the University of Hawaii Pacific Cooperative Studies Unit have examined the impact of unregulated planting of biofuel crops for their potential invasiveness and raised concerns about their impacts on Hawaii's environment. Their findings, published in the open-access, peer-reviewed journal *PLOS ONE*, conclude that biofuel crops proposed for use in the Hawaiian Islands are two to four times more likely to establish wild populations or be invasive in Hawaii and in other tropical areas when compared to a random sample of other introduced plants.

Recent spikes in energy costs and political instability in many oil-rich regions of the world are driving a search for homegrown alternatives to traditional fossil fuels, such as coal, oil and natural gas.

Biofuel crops are often touted as a "green" solution to U.S. dependence on foreign oil and have been promoted for stimulus package "green jobs". Despite the potential benefits, researchers say biofuel crops actually might be aggressive invasive plants grown under the guise of beneficial crops.

The researchers used a weed risk assessment that examines a plant's biology, geographic origin, pest status elsewhere, and published information on its behavior in Hawaii to identify plants with a high risk of becoming invasive pests in Hawaii or other Pacific islands.

Despite these findings, researchers say some high risk biofuel crops could be grown if measures are implemented that reduce their risk of spreading out of control and causing unintended problems.

"By identifying the species with the highest risk, and pushing for planting guidelines and precautionary measures prior to widespread planting, we hope to spare the Hawaiian Islands and similar tropical ecosystems from future economic and environmental costs of the worst invaders while encouraging and promoting the use of lower risk alternative [crops](#)," said Christopher Buddenhagen, co-author of "Assessing Biofuel Crop Invasiveness: A Case Study."

More information: Buddenhagen CE, Chimera C, Clifford P (2009) Assessing Biofuel Crop Invasiveness: A Case Study. [PLoS ONE](#) 4(4): e5261. doi:10.1371/ journal.pone.0005261, dx.plos.org/10.1371/journal.pone.0005261

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