

Biofuel crops push ignoring biosecurity impacts

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A high-intensity gamba grass fire in the Northern Territory. Gamba grass was introduced to tropical north of Australia as a pasture plant. Now, in parts of the Northern Territory, it has gone feral. Image credit - Samantha Setterfield, Charles Darwin University

(PhysOrg.com) -- Important biosecurity issues are being ignored in the global push to develop new non-food crops for biofuels and industrial and pharmaceutical uses, according to a report published recently by CSIRO.

"Compiled by representatives of 10 developed countries who attended the recent Biosecurity in the new bioeconomy summit in Canberra, the report focuses on the broad biosecurity consequences of 21st Century non-food agriculture," said the summit's Convenor, CSIRO Entomology scientist Dr Andy Sheppard.

"It makes a series of internationally relevant recommendations for the sustainable development of crop-based biofuels and bioindustries.

"The exponential growth in non-food crops could compromise conventional [agriculture](#) if it ignores issues such as the potential invasiveness of new crops, the effects of abandoned plantings of trial crops, new pests and diseases and pest management," Dr Sheppard said.

According to the Italian Institute for Environmental Protection and Research's Dr Piero Genovesi, the European Union's generally relaxed attitude to the issue of invasive species is changing.

"It is crucial that this new awareness leads to a revision of current biofuel legislation so that the biosecurity risks caused by mandatory targets for replacing fossil fuels with renewable energy are addressed."

The head of the [Biotechnology](#) Division of the Organisation for Economic Co-operation and Development (OECD), Dr Iain Gillespie, said biosecurity is the key driver for a sustainable 'green growth' economy.

Dr Sheppard said that, despite this, there are no accepted international regulatory approaches to evaluating these crops for the risks of bioinvasions, off-target pest impacts and degradation of natural ecosystems and associated ecosystem services.

"The report stresses the role of science in developing and regulating sustainable crop-based biofuels so its recommendations are relevant to a wide international audience including farmers, industry, researchers and policy makers."

It also highlights the need for a global vision for future agricultural development around biofuels and international standards and

certification for the industry to avoid repeating the environmental harm previous agricultural ‘revolutions’ have caused.

The report also recognises that developing countries will need assistance to develop best management practices, protect their environment and undertake risk assessments.

"While it is clear that biofuel-based rural industries can be beneficial, new non-food crops must meet the triple bottom line - people, planet, profit - criteria," Dr Sheppard said.

In parallel, CSIRO is also undertaking a project, led by Dr Deb O'Connell, to evaluate existing and future biomass feedstocks against sustainability criteria including biosecurity.

Provided by CSIRO

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