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Herbicide Resistance: Challenges for Farmers and Implications for the Environment

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Herbicide Resistance: Challenges for Farmers and Implications for the Environment

A proposed plenary session at the 19th ICABR Conference on:
Impacts of the Bioeconomy on Agricultural Sustainability, the Environment and Human Health
Ravello, Italy
June 16 - 19, 2015

Organizers: George Frisvold and David Ervin

Session Description:

Genetically modified, herbicide resistant (HR) crops offer not only improved weed control, but also the potential to reduce soil erosion and fossil fuel use and to allow substitution toward less toxic or persistent herbicides. The widespread adoption of HR crops, however, has reduced the diversity of weed control tactics and increased ecological selection pressure for weeds resistant to dominant herbicides. This has led to a dramatic rise of HR weeds in many cropping systems. Resistant weeds threaten the sustainability of HR crops, pose environmental risks from alternative weed control practices, are altering public and private R&D programs, and necessitate new approaches to manage such resistance. The mobility of many weed species means that the susceptibility of weeds to herbicides is more of a common pool resource than previously appreciated. Such weed mobility limits the efficacy of traditional extension efforts aimed at farmers in isolation of each other. The session presents different international perspectives on HR weeds by a distinguished expert panel from developing and developed countries. The discussion will focus on innovating public policies and private sector strategies to address current weed resistance problems, including initiatives that encompass hard and soft technologies.

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