

Preventing the next invasive species: The potential for bioenergy feedstocks to become invasive

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The recent rapid expansion of biofuels and bioenergy production, combined with incentives for the diversification of potential bioenergy crops, has generated considerable interest in the use of novel, non-native and genetically modified biomass feedstocks that have the potential to become ecologically and economically-damaging invasives. A number of potentially invasive plants are currently being cultivated as energy crops in test plots and/or commercial-scale plots, including giant reed, napier grass, and seeded giant miscanthus. Should these bioenergy feedstocks escape and become established in nearby natural areas, the results could be potentially highly destructive. Every year, invasive species cost the U.S. billions of dollars and affect countless acres of native ecosystems. Despite the threat, the issue has received remarkably little attention, and few safeguards exist in law to prevent the spread of invasive species through bioenergy cultivation. Changes in policy on the federal and state level could help to minimize or mitigate this risk. Recommendations include prohibiting the use of known invasive species as dedicated bioenergy feedstocks, assigning liability to feedstock producers for damages, and promoting the use of ecologically beneficial biomass feedstocks such as native plants and sustainably collected forest residues. Rigorous screening protocols and use of the precautionary principle should be integrated as a key component of future efforts to expand bioenergy. Additionally, companies adopting best management practices can significantly reduce the risk of feedstocks becoming invasive. More research is needed to better understand how to mitigate the risks of harmful invasions from bioenergy feedstocks.

Biography

Aviva is the Legislative Representative for Agriculture Policy for the National Wildlife Federation. Aviva works on policy efforts to protect and enhance wildlife habitat on working landscapes, to ensure funding for agriculture conservation programs, and to promote truly sustainable bioenergy. She has written numerous reports and articles on bioenergy and wildlife, and is a member of The Wildlife Society's Technical Review Committee on Effects of Bioenergy Production on Wildlife and Wildlife Habitat. Aviva completed dual master's degrees at the University of Michigan School of Natural Resources and School of Public Health.

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