

Using less-profitable farmland to grow bioenergy crops also supports biodiversity

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Planting native grasses such as the bioenergy crop switchgrass can restore habitat for birds like this Eastern kingbird. Credit: Chris Lituma/West Virginia University

An analysis by Oak Ridge National Laboratory showed that using less-profitable farmland to grow bioenergy crops such as switchgrass could fuel not only clean energy, but also gains in biodiversity.

Researchers examined segments of land in the Midwest responsible for a loss of approximately \$110 million per year from 2013 to 2016. If about 3% of those areas were converted to switchgrass, they could generate about 7.6 million dry tons per year of plant material for use in biofuels and bioproducts.

Growing [native grasses](#) could also help birds, increasing [species diversity](#) by up to 8% according to models developed by ORNL's Jasmine Kreig.

"Finding ways to grow crops for [economic benefit](#) that also help restore habitat for grassland bird species is a win-win," ORNL's Henriette Jager said. "This is an opportunity to achieve both renewable energy and conservation goals."

The findings are published in a special issue of the journal *Biological Conservation*.

More information: Jasmine A.F. Kreig et al, Growing grasses in unprofitable areas of US Midwest croplands could increase species richness, *Biological Conservation* (2021). [DOI: 10.1016/j.biocon.2021.109289](#)

Provided by Oak Ridge National Laboratory

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