

# Farming commercial miscanthus

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An article in the current issue of *Global Change Biology Bioenergy* examines the carbon sequestration potential of Miscanthus plantations on commercial farms.

Researchers evaluated Miscanthus plantations in Ireland, where planting has been subsidized by the government. Carbon sequestration is expected to vary among different farming practices and soil characteristics. They found significant soil carbon sequestration under Miscanthus on both former tilled land and former grasslands after only two years of planting with little evidence that its introduction contributes to the carbon debt. The authors speculate that soil organic carbon lost when grassland is converted to Miscanthus can be regenerated within 4 to 5 years.

According to lead author, Jesko Zimmermann, "The finding that soil carbon loss due to Miscanthus establishment does not significantly add to the carbon debt, even when planted on grassland, is very important for the development of this biomass crop. Cultivating Miscanthus on permanent grasslands of moderate soil organic carbon content reduces competition for land with [food crops](#) while simultaneously limiting the release of [greenhouse gases](#)."

This research is valuable for calculating the carbon mitigation potential of Miscanthus. It also underlines the importance of planning and management of bioenergy on a local basis, considering not only climate but also [soil conditions](#) and farming practices.

**More information:** [www.gcbbioenergy.org/](http://www.gcbbioenergy.org/)

Provided by Wiley

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