

# Fungus among us could become non-food source for biodiesel production

June 9 2010

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Biodiesel could come from an unusual fungus that makes large amounts of oils suitable for fuel production.

In the quest for alternatives to soybeans, palm, and other edible oilseed plants as sources for biodiesel production, enter an unlikely new candidate: A fungus, or mold, that produces and socks away large amounts of oils that are suitable for low-cost, eco-friendly biodiesel. That's the topic of a study in ACS' journal *Energy & Fuels*.

Victoriano Garre and colleagues point out that manufacturers usually produce [biodiesel](#) fuel from plant oils — such as rapeseed, palm, and soy.

However, expanded production from those sources could foster

shortages that mean rising food prices. In addition, oilseeds require scarce farmland, and costly fertilizers and pesticides. To meet growing demand for biodiesel fuel, scientists are looking for oil sources other than plants. Microorganisms such as fungi, which take little space to grow, are ideal candidates. But scientists first must find fungi that produce larger amounts of oil.

In the study, scientists describe a process for converting oil from an abundant producer called *Mucor circinelloides* into biodiesel without even extracting [oil](#) from the growth cultures. The resulting fungus-based biodiesel meets commercial specifications in the United States and Europe and production could be scaled to commercial levels, they note.

**More information:** "Direct Transformation of Fungal Biomass from Submerged Cultures into Biodiesel", *Energy & Fuels*.

Provided by American Chemical Society

Citation: Fungus among us could become non-food source for biodiesel production (2010, June 9) retrieved 26 April 2024 from

<https://phys.org/news/2010-06-fungus-non-food-source-biodiesel-production.html>

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