Agave fuels global excitement as a bioenergy crop

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Scientists found that in 14 independent studies, the yields of two Agave species greatly exceeded the yields of other biofuel feedstocks, such as corn, soybean, sorghum, and wheat. Additionally, even more productive Agave species that have not yet been evaluated exist.

According to bioenergy analyst, Sarah Davis, "We need bioenergy crops that have a low risk of unintended land use change. Biomass from Agave can be harvested as a co-product of tequila production without additional land demands. Also, abandoned Agave plantations in Mexico and Africa that previously supported the natural fiber market could be reclaimed as bioenergy cropland. More research on Agave species is warranted to determine the tolerance ranges of the highest yielding varieties that would be most viable for bioenergy production in semi-arid regions of the world."

Agave is not only an exciting new bioenergy crop, but its economically and environmentally sustainable production could prove to successfully stimulate economies in Africa, Australia, and Mexico, if political and legislative challenges are overcome.

The special issue of *Global Change Biology Bioenergy* in which this article appears focuses on the potential of agave as a bioenergy feedstock. *Global Change Biology Bioenergy* is a bimonthly journal that focuses on the biological sciences and the production of fuels directly from plants, algae, and waste.

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