Scientists discover agave's tremendous potential as new bioenergy feedstock

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An article in the current issue of *Global Change Biology Bioenergy* reviews the suitability of Agave as a bioenergy feedstock that can sustain high productivity in spite of poor soil and stressful climatic conditions accompanying climate change.

Agave, which grows successfully under hot, dry conditions, is currently used in the production of beverages, food, and fiber, and has only recently been considered a promising source of biofuel.

Garcia-Moya and colleagues (2011) were able to assess Agave's potential as a biomass crop by reviewing Agave research published in English and Spanish. Agave has comparable productivity to high productivity crops such as corn and Eucalyptus has much larger biomass yields than most desert plants. Unlike most crops, Agave would continue to thrive under increased temperatures and variable precipitation accompanying global climate change. In addition, elevated levels of atmospheric CO2 would increase productivity.

According to E. Garcia-Moya, Professor of Botany at the Colegio de Postgraduados en Ciencias Agricolas in Texcoco, Mexico, "Agave is a potential candidate as a bioenergy feedstock because it does not compete for land with the production of commodities and it is widely distributed in Mexico. Waste remaining in the fields after harvest, and created during tequila and mescal production, can potentially provide thousands of tons of bioenergy feedstock per year for bioenergy production."

Provided by Wiley

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