

EXPLOITABLE FOREGROUND

New Biomass Sorghum Cultivar – CMSXS7015

Explanation and Purpose

CMSXS 7015 is a biomass photosensitive hybrid developed by Embrapa Maize and Sorghum to meet the growing demand for complementary feedstock as an alternative to sugarcane for second generation (G2) ethanol production and co-generated energy (CO). This cultivar has high yield potential of fresh biomass (150-190 t ha⁻¹), dry biomass (50-60 t ha⁻¹), and high levels of fiber content (22-28%), low moisture in biomass (50-60%), energy content (4000 kcal kg⁻¹), resistance to lodging and to major pathogens. Average maturity cycle for the harvest is about 150-180 days after sowing.



Exploitation Strategy

Biomass or Energy sorghum can be grown in all areas currently recommended for sugarcane and maize production in Brazil. This sorghum can provide quality feedstock during the months of March through July for G2 technology to produce ethanol or to burn directly to generate water vapor (CO) that can be used in industrial operations or for generating electricity.

IPR Measures

The results of this project from Embrapa are freely available and the breeding materials developed and released herein are available for licensing by the private sector for seed production and commercialization. SWEETFUEL partners have had and continue to have access to both experimental and released cultivars with appropriate Material Transfer Agreements.

Further Research

Embrapa will continue to develop and release biomass photosensitive hybrids as a feedstock for G2 technologies to produce ethanol or to burn directly to generate water vapor that can be used in industrial operations or for generating electricity. Embrapa is developing biomass hybrids with lower lignin for G2 applications and with higher lignin for CO technologies.

Impact of Exploitation

This technology can provide energy independence for industries requiring large amounts of energy for industrial processes. The designing of biomass hybrids with low or high lignin content depending upon industrial processing increases energy output and reduces energy costs.

SWEETFUEL

Sweet Sorghum: an alternative energy crop



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