

EXPLOITABLE FOREGROUND

Sweet Sorghum Hybrid for the Northeastern Part of Mexico – WROGER

Explanation and Purpose

This hybrid is a product of the breeding program at Facultad de Agronomía, UANL, México as part of the SWEETFUEL project. The female line is a grain sorghum line derivative of Wheatland in 1994 and the male line (FAUANL-39) is a derivative of a landrace collected in the state of Tamaulipas in 2007.

Both parents were improved by the sorghum breeding program at UANL. The hybrid has been tested at experimental level under different nitrogen and density levels. It has a Total Fresh Weight near 80 ton ha⁻¹, high juice production (862 ml of juice/5 plants), 16.0 brix.

Exploitation Strategy

Due to the good characteristics associated with ethanol production and the facility to produce hybrid seeds due to the fact that the A line is a short plant (100 cm tall), it has a lot of potential to produce hybrid seeds and to be competitive in México as a dual purpose hybrid (sugar in the juice + forage production).

It can also be used as one of the sweet sorghum hybrids in Mexico, and as a check in the Breeding Project for Sweet Sorghum approved by the Mexican Government in 2012 to produce at least one sweet sorghum hybrid for the main sorghum production areas in Mexico. UANL is part of the Mexican Project due to its recognition of the sorghum breeding work made within the SWEETFUEL project.

IPR Measures

Patent application was initiated at SERVICIO NACIONAL DE INSPECCION Y CERTIFICACION DE SEMILLAS (SNICS), the Mexican National System for registration and certification of seeds.

Further Research

The hybrid needs to be tested under semi-commercial plots using the nitrogen doses and the best plant density to be tested against RB-Cañero, the only sweet sorghum variety registered in México so far. However, its expression under environments more suitable for commercial sweet sorghum exploitation (near Veracruz, South of Tamaulipas and Sinaloa, México) needs to be evaluated. The hybrid also needs also to be characterized according to the UPOV for registration and protection.

Impact of Exploitation

The commercial distribution of the seeds of this hybrid will give the advantage to farmers to have good forage production and high sugar content to improve feed quality. But, most importantly it gives the opportunity to farmers to produce a fuel crop thereby improving productivity of their fields.

SWEETFUEL

Sweet Sorghum: an alternative energy crop



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