

EXPLOITABLE FOREGROUND

Sweet Sorghum Variety for Sweet Sorghum Hybrids in Mexico – ROGER

Explanation and Purpose

This genotype shows fertility restorer reaction on C1 cytoplasm. This male is a landrace collected by personnel of the Facultad de Agromomía, UANL, in the central part of Tamaulipas in México as part of the SWEETFUEL project. It produces good hybrids with high °Brix (°Brix > 16) values and more importantly high juice production. It has good combine ability with the range of females used. It can also be used as an open pollinated genotype with forage yield above 50 ton ha⁻¹.



Exploitation Strategy

This genotype can be used as a male parent. It will restore on C1 cytoplasm. However, it is important to identify the reaction on other types of cytoplasm to find the opportunity to create new females with good characteristics for bioethanol production (high sugar and good juice production). This variety can also be tested with other females to analyze the hybrid produced based on juice and sugar content. This genotype can also be used to cross with other sweet sorghum males using hand emasculation to produce new combinations and make new males with high sugar and juice production.

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

This male shows some variation due to the open pollinated characteristics. The variety needs to be more uniform through several self-generations. It is important to produce more homogeneous genotypes to produce more uniform sweet sorghum hybrid. This male needs to be tested with a wide range of sweet sorghum female lines to increase the probability to produce better sweet sorghum hybrids.

Impact of Exploitation

The use of this male variety will produce good forage quality and high yield. This male will increase the probability to find better sweet sorghum hybrids for ethanol production.

SWEETFUEL

Sweet Sorghum: an alternative energy crop



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