

## EXPLOITABLE FOREGROUND

### Grain Sorghum Female Parent in Sweet Sorghum Hybrids for Mexico – 38ANE

#### Explanation and Purpose

This female line was developed at The University of Nebraska and The Facultad de Agronomía, UANL simultaneously. It is a grain sorghum line about 1.10 m tall well adapted to water stress conditions. Due to the lack of female lines selected specifically for sweet sorghum hybrid production, this female line was used to test with sweet sorghum male to produce new hybrids. The female line has a good combining ability and showed good ability to produce good sweet sorghum hybrids.



#### Exploitation Strategy

Due to the good characteristics associated with the response to stress conditions and to produce good sweet sorghum hybrids, the female line has the advantage to facilitate hybrid seed production because it is short and the seed can be harvested using a commercial thrasher machine.

#### 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 female line has the disadvantage that the head presents sterility on the bottom part causing a decrease of seed production. Therefore, some research needs to be done to compensate the lack of grain production in this part of the panicle. The female line needs to be tested in crosses with a wide range of maturity male sweet sorghum parents to evaluate sugar and juice production under stress environments in the northern areas of México with high temperature and water stress conditions.

#### Impact of Exploitation

This variety can be a good source of sugar for biofuel production and it can also be used as fodder, thereby offering opportunities to small farmers for enhancing their income opportunities.

## SWEETFUEL

### Sweet Sorghum: an alternative energy crop



#### Contact for Exploitable Result:

UANL, Mexico  
Francisco Zavala Garcia  
francisco.zavalagr@uanl.edu.mx



#### Project Coordination:

CIRAD, France  
Serge Braconnier  
serge.braconnier@cirad.fr



#### Project Dissemination:

WIP – Renewable Energies, Germany  
Rainer Janssen  
Dominik Rutz  
rainer.janssen@wip-munich.de  
dominik.rutz@wip-munich.de



SWEETFUEL Website:  
[www.sweetfuel-project.eu](http://www.sweetfuel-project.eu)



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