



**Seventh framework programme
Food, Agriculture and Fisheries, and Biotechnology**

Specific International Co-operation Actions
Small or medium scale focused research project



Sweet Sorghum an alternative energy Crop

Grant Agreement n° 227422

Deliverable 2.10:

*Five to ten hybrid parents with high
sugar yields and stay-green trait
for drought tolerance*

Composition of the consortium

CIRAD
ICRISAT
EMBRAPA
KWS
IFEU
UniBO
UCSC
ARC-GCI
UANL
WIP



The staygreen QTL containing lines were initially screened for sugar content and high brix (> 15%) containing lines were identified *i.e.* 19-35-SG 06002 and 19-S35 SG 06019 and used in the back crossing program with elite sweet sorghum genotypes.

One promising female hybrid parent, one *bmr6* source and three elite sweet sorghum lines were used as recipients.

Stg 3 codes for aquaporins that are responsible for high transpiration efficiency (unpublished).

For the materials in BC3F1 one more backcrossing is attempted in the current season to generate BC4F1. Then they will be selfed till BC4F3 to generate homogeneous population with homozygous for the QTL.

They will be evaluated through multilocation analysis for their adaptation in terminal drought prone environments and the best materials with terminal drought tolerance will be shared with farmers and other stake holders for large scale cultivation.

Recurrent parent (Recipient)	Non-recurrent parent (Donor)	Staygreen QTL	Generation
SP 35769	19-S35 SG 06019	Stg 3	BC4F1
ICSB 479	19-S35 SG 06019	Stg 3	BC4F1
SP 35878	19-S35 SG 06019	Stg 3	BC4F1
ICSV 25308	19-35-SG 06002	Stg A	BC3F1
IS 23789 (<i>bmr 6</i>)	19-35-SG 06002	Stg A	BC3F1