



Sweet Sorghum an alternative energy Crop

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WP3

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*Recombinant inbred line (RIL) population
derived from the cross of two sweet
sorghum lines contrasting for tillering
developed to S6 generation*

Composition of the consortium

CIRAD
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ARC-GCI
UANL
WIP



Two fertility restorer lines (R-Lines), BR501 (Brandes) and BR505 (Wray), both released sweet sorghum cultivars were crossed with the objective to develop a Recombinant Inbred Line (RIL) population by single seed descent (SSD) for the purpose of identifying QTLs associated with plant tillering, total sugars in the juice and sucrose in the juice.

Brandes is a high tillering sweet sorghum cultivar with low purity (low sucrose) and Wray is a non-tillering cultivar with high purity. The F₁ was self pollinated to produce a large F₂ population. Two hundred seventy-five F_{2:2} RILs were advanced to the S₆ (F_{2:7}) generation. This RIL population is being phenotyped for both agronomic and industrial characteristics (2010/2011 and 2011/2012) and DNA has been extracted for genotyping by sequencing (GBS) which will be completed in early 2012.