



Sweet Sorghum an alternative energy Crop

Grant Agreement n° 227422

WP1

Deliverable 1.7:

*Three to six pairs of promising sorghum
female lines (A and B-lines) identified*

Composition of the consortium

CIRAD
ICRISAT
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Promising new A- and B-lines selected out of the working collection

In Table 1 you will find the most promising A-/B-lines with per se selection on line level. The females have reached now BC3-Level and could be tested on Hybrid-level in 2013. In Table 1 you will find the early vigor compared to the used Check-lines and also the value for the "General impression of the Line (GIMP)" before harvest.

Table 2 gives the promising female lines identified by Cirad.

Table 1: Best performing A-/B-Lines in comparison to the check rows (Check 1 -10)

ID	IDT	INB_CODE	GENOTYPE	DER	F_M	PLASMA	GENER	EV 29_06	GIMP
1	ZM9-78291	Check 1	1Z1602A1			A1	S10	4	2,5
2	ZM0-30067	Check 2	1Z1064A1			A1	S10	3	2
3	ZM0-30077	Check 3	341x1Z1602B			A1	F1	4	1
4	8N-8053	Check 4	341			A1	S10	4	2,5
5	8N-8070	Check 5	339			A1	S10	3	4
6	Z2Y-5504	Check 6	3Z10022A-BC211312			A1	S10	2,5	2
7	Z2Y-5502	Check 7	1Z2245A1			A1	S10	2	1,5
8	Z9N-9545	Check 8	352			A1	S10	2,5	2
9	Z2N-7020	Check 9	62			A1	S10	4	1
10	Z2N-7007	Check 10	64			A1	S10	4	1
11	ZC2-35012/001		E603-**121111	E603	P	N	S5	1,5	1
12	ZC2-35013/001		E603A1-**121111.1	1Z1064A1xE603	FD	A1	BC3	1,5	
53	ZC2-35092/001		E606-**281111	E606	P	N	S5	4	1,5
54	ZC2-35093/001		E606A1-**281111.1	1Z1064A1xE606	FD	A1	BC3	3	
59	ZC2-35106/001		E606-**361111	E606	P	N	S5	3	1
60	ZC2-35107/001		E606A1-**361111.1	1Z1064A1xE606	FD	A1	BC3	3	
75	ZC2-35136/001		E606-**631111	E606	P	N	S5	3,5	1,5
76	ZM1-30288/005		E606A1-**6311.1	1Z1064A1xE606	FD	A1	BC2	3,5	
79	ZC2-35146/001		E606-**691111	E606	P	N	S5	4	1
80	ZC2-35147/001		E606A1-**691111.1	1Z1064A1xE606	FD	A1	BC3	4	
85	ZC2-35174/001		E611-**331211	E611	P	N	S5	2,5	1
86	ZC2-35175/001		E611A1-**331211.1	1Z1064A1xE611	FD	A1	BC3	2,5	
87	ZC2-35178/001		E611-**351111	E611	P	N	S5	2	1,5
88	ZC2-35179/001		E611A1-**351111.1	1Z1064A1xE611	FD	A1	BC3	2	
111	ZC2-35224/001		E613-**191211	E613	P	N	S5	4	1,5
112	ZC2-35225/001		E613A1-**191211.1	1Z1064A1xE613	FD	A1	BC3	3	
141	ZC2-35282/001		E614-**191111	E614	P	N	S5	3,5	1,5
142	ZC2-35283/001		E614A1-**191111.1	1Z1064A1xE614	FD	A1	BC3	3,5	
145	ZC2-35292/001		E614-**231211	E614	P	N	S5	4	1
146	ZC2-35293/001		E614A1-**231211.1	1Z1064A1xE614	FD	A1	BC3	3,5	
151	ZC2-35298/001		E614-**281111	E614	P	N	S5	4	1,5
152	ZC2-35299/001		E614A1-**281111.1	1Z1064A1xE614	FD	A1	BC3	4	
171	ZC2-35324/001		E614-**501111	E614	P	N	S5	2	1
172	ZC2-35325/001		E614A1-**501111.1	1Z1064A1xE614	FD	A1	BC3	2	

EV= early vigor (1= fast development ; 9= slow development); GIMP=general impression of line (1=very good, 9=very bad)

Table 2: Promising female lines for hybrid development identified by Cirad

Name	vigor of emerg. *	Date of 50% flowering	Plant height (cm)	Suitability for seed production	Agronomic rating §	Traits of interest and potential use
BC7 IS 9527 A	7	no	155	Good	3	good female for both biomass and sweet hybrids
IS 9527 B	7	no	155		3	
BC5 IS 29876 A	3	26-Jul	100	Good	3	good female for both biomass hybrids
IS 29876 B	3	24-Jul	100		3	
BC2 IS 18164 A	7	no	180	Good	5	sweet and very juicy
IS 18164 B	7	no	185		5	
BC3 TAL 12-2	7	10-Aug-12	135	Excellent	3	for biomass hybrids
TAL 12-2	7	10-Aug-12	130		3	
BC2 TAL 66-2	3	30-Jul-12	140	Intermediate	5	for biomass hybrids
TAL 66-2	3	28-Jul-12	135		5	

*Vigor of emergence and seedling growth: 1= high vigor & fast development ; 9= slow vigor & development

§ Agronomic rating: 1=very good, 9=very bad