



# Sweet Sorghum an alternative energy Crop

Grant Agreement n° 227422

**WP3**

**Deliverable 3.2:**

*Seed of new sweet sorghum germplasm  
received and increased*

Composition of the consortium

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



The seed of 25 cultivars (Table 1) of sweet sorghum previously developed by Embrapa was increased in the first reporting period in a two-step process; 10 g from long term seed storage to 250 g in the first cycle and to approximately 10 kg in the second cycle for each entry. Seed of these entries continues to be increased as needed to meet the demands in WP3. The seed from these growouts was used in Task 3.5 and has been available to members of the consortium with appropriate seed request forms, phytosanitary documents and Material Transfer Agreements (MTAs). A panel of fifty entries of sweet sorghum germplasm from Embrapa Breeding Collection was also increase and phenotyped for basic agronomic characters in 2009.

Embrapa Maize and Sorghum requested via CENARGEN, organ responsible for import and export of genetic resources in Brazil, import of sorghum genotypes from Consortium members from the lists present in the Consortium Agreement. Requests were made to CIRAD, ICRISAT, KWS-SAAT, UCSC, and UANL in July 2010. Note that all communications are directly between CENARGEN and the foreign country institution and all MTAs are signed by the Director of CENARGEN for Brazil.

As of this date CENARGEN has acknowledged receipt of germplasm from CIRAD, UCSC and KWS-SAAT. CENARGEN has not received genetic resources from ICRISAT and UANL.

The genetic resources imported from UCSC (24 entries) and CIRAD (55 entries) are at Embrapa Maize and Sorghum in the process of multiplication and initial evaluation in the greenhouse (Table 2 and 3).

Seed from KWS-SAAT is currently in the quarantine process at CENARGEN in Brasilia. The access list from KWS was not available yet to Embrapa Maize and Sorghum from CENARGEN. Only one member of the consortium, ICRISAT, has requested genetic resources from Embrapa Maize and Sorghum. Seed of 25 cultivars (Table 1) was prepared and sent to CENARGEN immediately after receiving the request. However, there was a delay in forwarding the seed to ICRISAT, due to the request from the importing country (India) of various phytosanitary analysis rarely conducted in Brazil, and which are normally undertaken on arrival in the importing country. Nonetheless CENARGEN performed all required phytosanitary tests requested by India and the seed was forwarded to ICRISAT in 2011.

**Table 1. List of available material from Embrapa Maize and Sorghum.**

Entry	Access	Entry	Access	Entry	Access	Entry	Access
1	CMSXS621	8	CMSXS630	15	CMSXS637	22	CMSXS645
2	CMSXS622	9	CMSXS631	16	CMSXS638	23	CMSXS646
3	CMSXS623	10	CMSXS632	17	CMSXS639	24	CMSXS647
4	CMSXS624	11	CMSXS633	18	CMSXS641	25	CMSXS648
5	CMSXS625	12	CMSXS634	19	CMSXS642		
6	CMSXS626	13	CMSXS635	20	CMSXS643		
7	CMSXS629	14	CMSXS636	21	CMSXS644		

**Table 2. List of material received from CIRAD.**

Entry	Access	Entry	Access	Entry	Access
1	IS 2848 A	22	BF 95-11/39	43	IS 19274
2	IS 2848 B	23	BF 95-11/110	44	IS 19358
3	IS 29876 A	24	BF 95-11/135	45	IS 18164
4	IS 29876 B	25	BF 95-11/196	46	CIR-1/OG2-4G-1G-M-M
5	IS 4027 A	26	IS 2263	47	CIR-1/OG8-1G-1G-M-M
6	IS 4027 B	27	IS 2787	48	CIR-2/7-3G-1G-M-M
7	IS 6193 A	28	IS 5972	49	CIR-5/16-1-2
8	IS 6193 B	29	IS 15752	50	CIR-5/16-4-1
9	IS 29375 A	30	IS 16044	51	CIR-5/18-2-1
10	IS 29375 B	31	IS 19453	52	CIR-6/125-1
11	IS 29407 A	32	IS 22332	53	IS 18461
12	IS 29407 B	33	IS 26833	54	IS 929
13	IS 29409 A	34	IS 27146	55	CIR-6/105-1-1-1
14	IS 29409 B	35	IS 28409		
15	IS 29496 A	36	IS 29310		
16	IS 29496 B	37	IS 32569		
17	IS 30400 A	38	SSM 215		
18	IS 30400 B	39	SSM 1123		
19	TAL 66-2	40	SSM 1267		
20	TAL 12-2	41	IS 30308		

**Table 3. List of material received from USCS.**

Entry	Access	Entry	Access
1	97-10	13	6-6-2-1
2	97-21	14	6-6-2-3
3	97-36	15	6-6-2-4
4	98-155a	16	CC585
5	98-334a	17	CC588
6	98-405	18	CC589
7	40-4-1	19	LP72 x Sweet Bee
8	40-4-3	20	LP146 x 62-5-3
9	40-4-1-1	21	ABF 263 - LP154 x LP119
10	40-4-1-2	22	LP154 x Sweet Bee
11	40-4-1-3	23	ABF 11
12	40-4-1-5	24	ABF 306