Australian Journal of Crop Science AJCS

AJCS 10(4):520-527 (2016) ISSN:1835-2707

Supplementary data

Molecular evaluation of Ethiopian sweet sorghum germplasm and their contribution to regional breeding programs

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Table S1: Region of collection and accession names. The code in column two was used together with the abbreviations of the region (in bracket) to represent respective accessions in Figure 2

Region	Code	Accession Name	Region	Code	Accession Name
South Wollo (SW)	1_1	Sorcoll 001/11	North Wollo (NW)	55_1	Sorcoll 090/11
	3_1	Sorcoll 003/11		56_1	Sorcoll 091/11
	3_2	Sorcoll 004/11		56_4	Sorcoll 092/11
	4_1	Sorcoll 005/11		57_1	Sorcoll 093/11
	4_2	Sorcoll 006/11		57_2	Sorcoll 094/11
	5_1	Sorcoll 007/11		114_1	Sorcoll 145/11
	5_2	Sorcoll 008/11		58_1	Sorcoll 095/11
	6_1	Sorcoll 009/11		58_2	Sorcoll 096/11
	7_1	Sorcoll 011/11		127	Sorcoll 148/11
	7_2	Sorcoll 012/11		59_1	Sorcoll 097/11
	133_1	Sorcoll 133/11		60_1	Sorcoll 098/11
North Wollo (NW)	8_1	Sorcoll 013/11		61_1	Sorcoll 099/11
	9_1	Sorcoll 014/11		62	Sorcoll 100/11
	10_1	Sorcoll 015/11		147_1	Sorcoll 160/11
	10_2	Sorcoll 016/11		148_1	Sorcoll 161/11
	11_1	Sorcoll 017/11	South Tigray (ST)	16_1	Sorcoll 026/11
	12_2	Sorcoll 019/11		16_2	Sorcoll 027/11
	12_4	Sorcoll 021/11		17_1	Sorcoll 028/11
	13_1	Sorcoll 022/11		17_2	Sorcoll 029/11
	13_3	Sorcoll 023/11		18	Sorcoll 030/11
	14_1	Sorcoll 024/11		19_1	Sorcoll 031/11
	15_1	Sorcoll 025/11		19_2	Sorcoll 032/11
	40_1	Sorcoll 071/11		20_1	Sorcoll 033/11
	40_2	Sorcoll 072/11		20_2	Sorcoll 034/11
	41_2	Sorcoll 073/11		116_1	Sorcoll 146/11
	42_1	Sorcoll 074/11		21_1	Sorcoll 147/11
	42_2	Sorcoll 075/11		21_3	Sorcoll 035/11
	43_1	Sorcoll 076/11		22_1	Sorcoll 036/11
	44_1	Sorcoll 077/11		22_2	Sorcoll 037/11
	45_1	Sorcoll 078/11		23_1	Sorcoll 038/11
	46_1	Sorcoll 079/11		24_1	Sorcoll 039/11
	46_2	Sorcoll 080/11		24_3	Sorcoll 040/11
	161	Sorcoll 162/11		25_1	Sorcoll 041/11
	47_1	Sorcoll 081/11		26_1	Sorcoll 042/11
	47_2	Sorcoll 082/11		26_2	Sorcoll 043/11
	48_1	Sorcoll 083/11		27_1	Sorcoll 044/11
	49_2	Sorcoll 084/11		27_3	Sorcoll 045/11
	50_2	Sorcoll 085/11		28_1	Sorcoll 046/11
	51_1	Sorcoll 086/11		28_2	Sorcoll 047/11
	52_1	Sorcoll 087/11		29_2	Sorcoll 048/11
	53_2	Sorcoll 088/11		30_1	Sorcoll 049/11
	54_1	Sorcoll 089/11		30_2	Sorcoll 050/11
South Tigray (ST)	31	Sorcoll 051/11	East Hararge (EH)	72	Sorcoll 111/11
	31_1	Sorcoll 052/11		73	Sorcoll 112/11
	31_2	Sorcoll 053/11		75	Sorcoll 113/11
	32_1	Sorcoll 054/11		76	Sorcoll 114/11
	33_1	Sorcoll 163/11		77_1	Sorcoll 115/11
	33_2	Sorcoll 055/11		77_2	Sorcoll 116/11
	162	Sorcoll 056/11		78	Sorcoll 117/11

	33_3	Sorcoll 057/11		81	Sorcoll 118/11
	34_1	Sorcoll 058/11		82_1	Sorcoll 119/11
	34_2	Sorcoll 059/11		82_2	Sorcoll 120/11
	35_1	Sorcoll 060/11		83_1	Sorcoll 121/11
	35_2	Sorcoll 061/11		83_2	Sorcoll 122/11
	36_1	Sorcoll 062/11		84	Sorcoll 123/11
	36_2	Sorcoll 063/11		85_1	Sorcoll 124/11
	36_3	Sorcoll 064/11		85_2	Sorcoll 125/11
	37_1	Sorcoll 065/11		86_1	Sorcoll 126/11
	38_1	Sorcoll 066/11		86_2	Sorcoll 127/11
	39_1	Sorcoll 067/11		87	Sorcoll 128/11
	39_2	Sorcoll 068/11		145_1	Sorcoll 129/11
	39_3	Sorcoll 069/11	West Hararge (WH)	89	Sorcoll 157/11
	137_1	Sorcoll 070/11		90_1	Sorcoll 130/11
	139_1	Sorcoll 150/11		90_2	Sorcoll 131/11
	140_1	Sorcoll 151/11		91_3	Sorcoll 132/11
	142_1	Sorcoll 152/11		92	Sorcoll 133/11
	143_1	Sorcoll 154/11		93	Sorcoll 134/11
	144_1	Sorcoll 155/11		94	Sorcoll 135/11
	146_1	Sorcoll 156/11		95	Sorcoll 136/11
	146_2	Sorcoll 158/11		96	Sorcoll 137/11
Gojam (G)	64	Sorcoll 159/11		97	Sorcoll 138/11
	65	Sorcoll 101/11	West Shewa (WS)	99	Sorcoll 139/11
	67	Sorcoll 102/11		100	Sorcoll 140/11
	163	Sorcoll 103/11		102	Sorcoll 141/11
	164	Sorcoll 164/11		103	Sorcoll 142/11
	165	Sorcoll 165/11		167	Sorcoll 143/11
	166	Sorcoll 166/11		168	Sorcoll 144/11
	68_1	Sorcoll 167/11		169	Sorcoll 169/11
	68_2	Sorcoll 104/11	East Wollega (EW)	170	Sorcoll 170/11
	68_3	Sorcoll 105/11		171	Sorcoll 171/11
East Hararge (EH)	68_4	Sorcoll 106/11		172	Sorcoll 172/11
	69	Sorcoll 107/11		173	Sorcoll 173/11
	70_1	Sorcoll 108/11		174	Sorcoll 174/11
	70_2	Sorcoll 109/11		175	Sorcoll 175/11
	71	Sorcoll 110/11		176	Sorcoll 176/11

East Wollega (EW)	177	Sorcoll 177/11		ICR_12	IESV 92038/2 SH
	178	Sorcoll 178/11		ICR_13	SDSL 90167
	179	Sorcoll 179/11		ICR_14	SPV 422
	180	Sorcoll 180/11		ICR_15	IS 2331
	181	Sorcoll 181/11		ICR_16	SPV 1411
ICRISAT (ICR)	ICR_1	ICSB 324	**ICRISAT (ICR)**	ICR_17	ICSR 93034
	ICR_2	ICSB 654		ICR_18	E 36-1
	ICR_3	IESV 91104 DL		ICR_19	ICSV 93046
	ICR_4	IESV 92001 DL		ICR_20	ICSV 700
	ICR_5	IESV 92008 DL		ICR_21	S 35
	ICR_6	IESV 92021 DL		ICR_22	104GRD
	ICR_7	IESV 92028 DL		ICR_23	Ent#64DTN
	ICR_8	IESV 92165 DL		ICR_24	NTJ2
	ICR_9	Kari Mtama 1	**Improved (PI)**	141_1	AS27
	ICR_10	IESV 91018 LT		214	Sorcoll163/07
	ICR_11	IESV 93042 SH		215	Gambella

Table S2. AMOVA results showing the partitioning of genetic diversity among collections from various regions of Ethiopia alongside improved material

Source of Variation	*Df*	Sum of squares	Variance components	Percentage of variation	*P* value
Among populations	9	422.76	1.16	23.1	< 0.001
Within populations	394	1513.90	3.84	76.9	< 0.001
Total	**403**	**1936.66**	**5.00**		

df Degrees of freedom

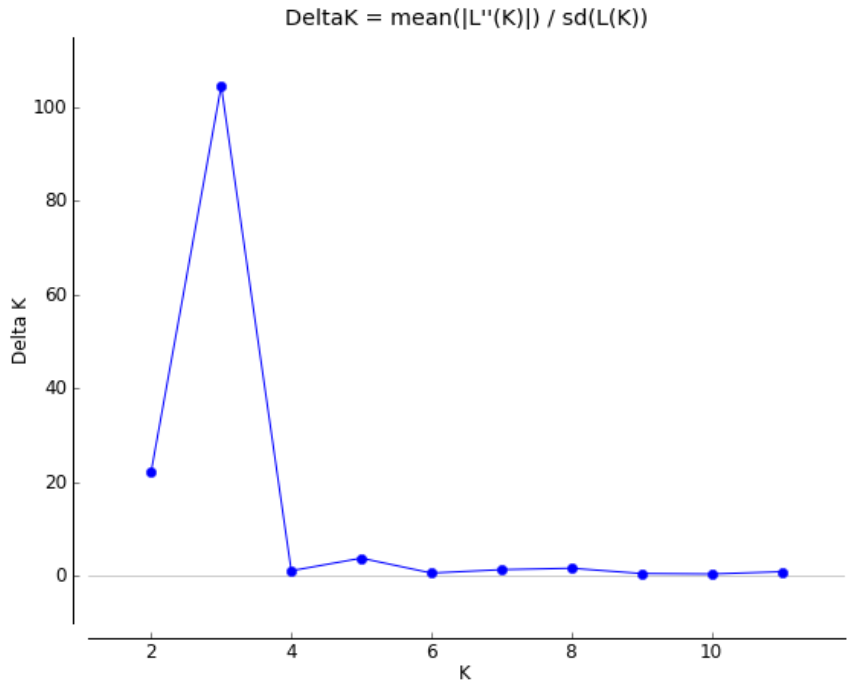

Figure S1. The modal value of this distribution is the true K. The Delta k of 15 repeats based on STRUCTURE calculation using SSR data. The optimum number of predicted subpopulation K= 3 was calculated from structure Harvester (http://taylor0.biology.ucla.edu/structureHarvester/)