



Variability and molecular diversity of wild sugarcane germplasm collected from low temperature regions Lohit and Changlang of Arunachal Pradesh

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Supplementary Table 1 — Names and origins of tested *S. spontaneum* L. clones from different areas of Arunachal Pradesh, India

SI. No	Accession no	Chromosome no (2n)	Altitude (m)	Habit	Leaf attitude	Origin
1	IND00-997	64	150	2	3	Paya, Lohit
2	IND00-998	64	150	1	2	Paya, Lohit
3	IND00-1001	64	150	1	3	Paya, Lohit
4	IND00-1002	64	150	1	2	Sunpura, Lohit
5	IND00-1004	64	500	1	1	Shivaji Nagar, Lohit
6	IND00-1011	64	700	1	1	Khamba, Lohit
7	IND00-1012	64	600	2	3	Khamba, Lohit
8	IND00-1015	64	700	1	1	Zeropoint, Lohit
9	IND00-1018	64	700	2	7	Ampani, Lohit
10	IND00-1019	64	700	2	2	Ampani, Lohit
11	IND00-1020	64	600	2	3	Nara, Lohit
12	IND00-1022	64	550	2	2	Nara, Lohit
13	IND00-1024	-	600	2	2	Teluwa, Lohit
14	IND00-1025	-	600	2	3	Teluwa, Lohit
15	IND00-1026	-	450	2	3	Paya-Tiding, Lohit
16	IND00-1027	64	450	2	6	Paya-Tiding, Lohit
17	IND00-1030	64	350	2	7	Tiding, Lohit
18	IND00-1032	64	450	1	6	Tiding, Lohit
19	IND00-1034	64	450	2	3	Tiding, Lohit
20	IND00-1035	64	600	2	2	Salegam, Lohit
21	IND00-1036	64	1030	2	3	Lalpani, Lohit
22	IND00-1037	64	1300	2	3	Lalpani, Lohit
23	IND00-1038	64	1480	2	3	Lalpani, Lohit
24	IND00-1039	64	1635	2	3	Udayak-Pass, Lohit
25	IND00-1040	64	1450	2	0	View Point of Hawa, Lohit
26	IND00-1041	64	1400	2	3	Hawa-Camp, Lohit
27	IND00-1042	64	1300	2	2	Hawa-Camp, Lohit
28	IND00-1043	64	1300	2	2	Hawa-Camp, Lohit
29	IND00-1044	64	1300	2	2	Hawa-Camp, Lohit
30	IND00-1045	-	1300	2	2	Hawa-Camp, Lohit
31	IND00-1046	-	150	1	2	Namsai, Lohit
32	IND00-1047	64	150	1	2	Namsai, Lohit
33	IND00-1048	64	200	1	4	Piyong, Lohit
34	IND00-1051	-	200	2	3	Innoa, Changlang
35	IND00-1054	64	200	3	0	Innoa, Changlang
36	IND00-1056	64	200	3	3	Kherum, Changlang
37	IND00-1057	-	200	2	3	Kherum, Changlang
38	IND00-1058	64	250	2	3	Medo, Lohit
39	IND00-1059	64	290	2	3	Kamlang, Lohit
40	IND00-1060	64	300	2	3	Kamlang, Lohit
41	IND00-1061	64	500	2	3	Wakro, Lohit
42	IND00-1062	-	500	3	2	Wakro, Lohit

(Contd.)

Supplementary Table 1 — Names and origins of tested *S. spontaneum* L. clones from different areas of Arunachal Pradesh, India (Contd.)

SI. No	Accession no	Chromosome no (2n)	Altitude (m)	Habit	Leaf attitude	Origin
43	IND00-1063	64	560	2	6	Pokri, Lohit
44	IND00-1064	60	560	3	3	Pokri, Lohit
45	IND00-1067	-	140	2	2	Mahadevpur, Lohit
46	IND00-1068	-	150	2	2	Mahadevpur, Lohit
47	IND00-1069	-	150	2	3	Mahadevpur, Lohit
48	IND00-1070	64	160	2	2	Mahadevpur, Lohit
49	IND00-1071	64	180	2	2	DerakgadeNamsi, Lohit

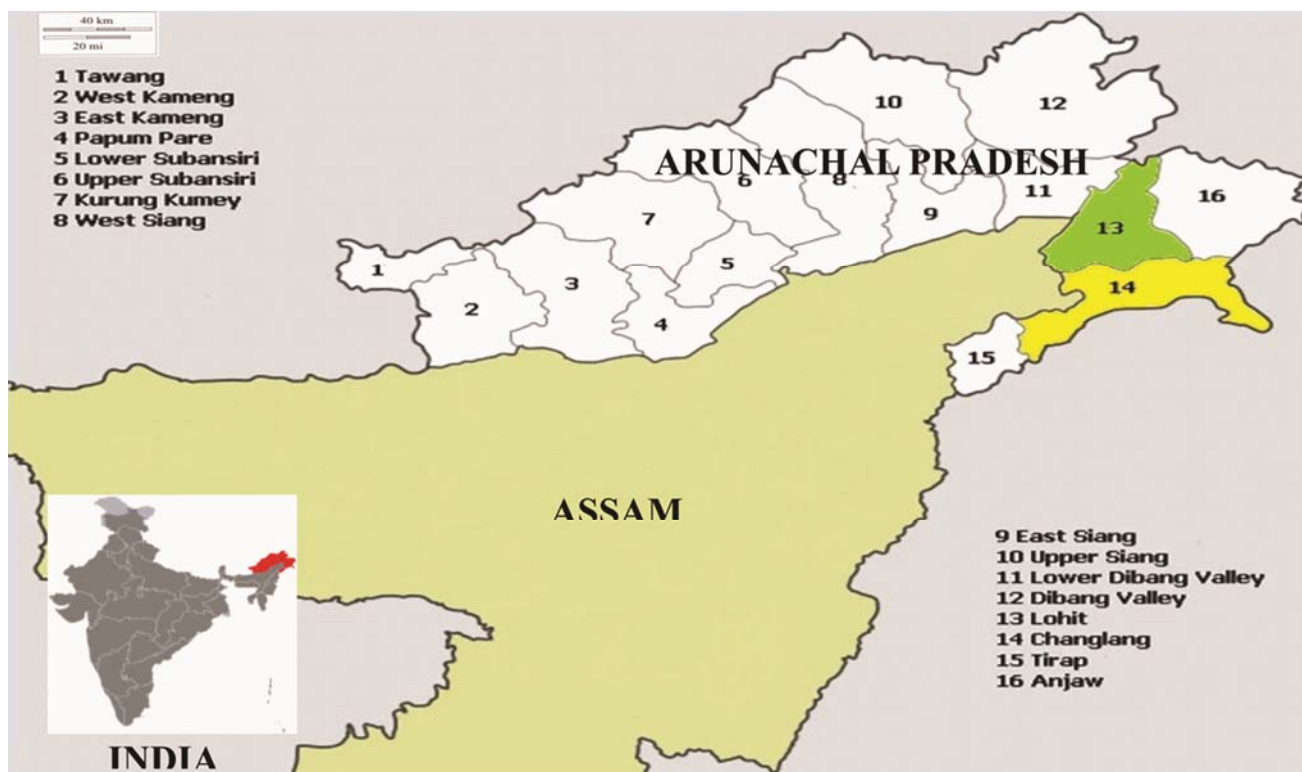
HAB=Habit, erect-1, Semi-erect-2, Bushy-3, Leaf attitude-Open Erect-1, Open tip droopy-2, Open droopy-3, Compact erect-4, Compact tip droopy-5, Fan erect-6, Fan tip droopy-7 (nair *et al.* 2014).

Supplementary Table 2 — Sequences of STMS primers used for genetic diversity analyses

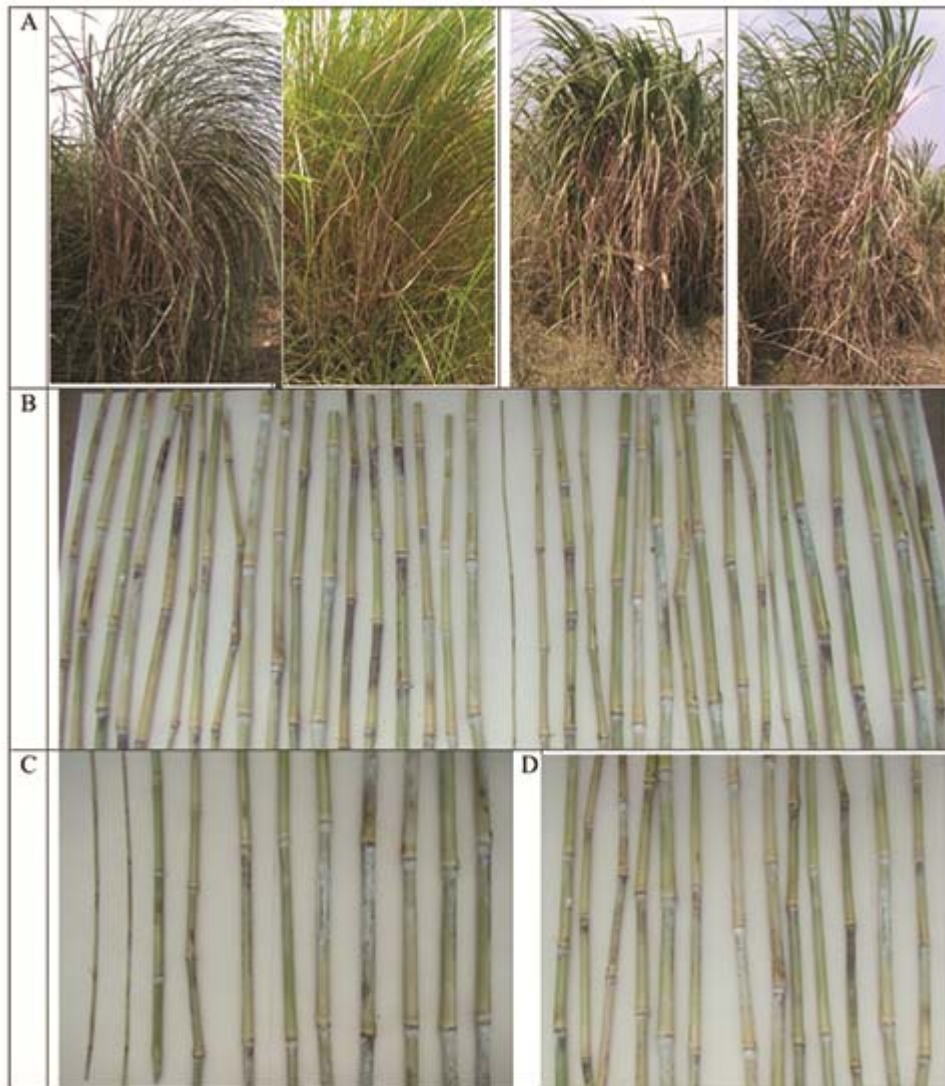
Marker name	Forward primer (5'--- 3')	Reversr primer (5' --- 3')
NKS1	TGGCATGTGTCATAGCCAAT	CCCCAACTGGGACTTTTACA
NKS2	GCTGTCCCCTTCCAAGTTAC	GCGACCCGATTATGATGATT
NKS3	CGTGTTCCTCTTCAACAACG	TGCTTCGCTATATATGGGTTC
NKS6	TCCAAATTGCCTGTTGTTTC	CTTACACATGCACAGGCACA
NKS7	TTACAGCCTGGAGCTCGTTT	CGAAGCCTCTCCTCTCCTC
NKS8	GTGACAGCGGCTTGTTCAG	TTAAACACGCAGCCATTCAG
NKS9	CTTTCAGTGGCCATCTCCAT	GAATGCGCAGGGATAGGATA
NKS12	GACAGAATATGCCATGGATAACAA	CGTTCTCTGGTCCATTGAGC
NKS16	TAAGCCATTGGGAAGAGGTG	CTGATGCCTGGGAATCTTTC
NKS21	TAAACCCCGAAAAAGAACC	TCCGGAGGTAGATCCATTG
NKS24	TATATGGCGAGGACAGATGC	GGGTTTCAAGAATTAGAGCAATCG
NKS25	TCCATGCATGCGTGTAGTTT	AGTGCAACAACGTTCTTGCTG
NKS28	GTGCTGGGATTCTGAGCTTC	GCAAGTTCTTGCCCTTTGTT
NKS29	TAGTGGTCCAAAAGCCCAAG	CGGTTAGCGCACTCTCTCTC
NKS30	CTCCTTCTCCTTCGCATCCT	CACCTTTCTGGAGCACGTTA
NKS31	AACCACCACTCATCGTCCTC	CACCGAGTTCCCATTGTCT
NKS38	TGAACCTCGGCAACAGTTTTT	CCCACCAAGTCGTTTGAAT
NKS42	ACCGATTGTTTCAGTGGGAAG	AACCTAGCAATTACAAAGAGAATTAGA
NKS45	GTCGGTTCGTGAGAAGGAAAG	CACGTATAAAGGCCCTGTGG
NKS46	ACAATAACCCCGCAGACATC	TAATGCGTCATTTGGAGCAG
NKS48	GGAAGCAAGCAAGAAGAACC	TCTCTGCAGTGTGTGTGCTG
NKS49	CTCACGTCCTGTTGGTGCTA	TACATGGGACACATGCTTGC
NKS50	CGAAGGACCAGTTGAAAGGA	ATGGAACAGGACACACCACA
NKS51	TTTGGAGAGCAAGGCAAT	CCACCGTATGCATGAAAGAA
NKS52	GGCCTATGGAACGAAGTTCA	CAGCCTTTTCTTCGCAAAAAC
NKS53	AGCTCACGTGTGTGTGTGTG	GTGCAGTGTGAGGGGACCTA
NKS56	CTATACGGCAAACGCAACCT	TATACGTGCGATGCACCATC
NKS57	CGAGCCTCCCTCCATAGATT	ACCACCACCAACCTCATCTC
NKS61	TTGGACATGGCAAGTCTTTG	AGGAACCTCCCAAGAACACA

Supplementary Table 3 — Estimation of delta K and the highest peak (calculated as $\Delta K = |L''(K)| / SD$)

K	Reps	Mean LnP (K)	StdevLnP (K)	Ln'(K)	Ln''(K)	Delta K
1	4	-24514.6	7.55	—	—	—
2	4	-22088.0	31.68	2426.57	984.22	31.06
3	4	-20645.7	84.673	1442.35	614.85	7.26
4	4	-19818.2	409.16	827.5	172.25	0.42
5	4	-18818.4	63.28	999.75	372.22	5.89
6	4	-18190.9	145.88	627.52	21.32	0.15
7	4	-17542.1	116.61	648.85	28.57	0.24
8	4	-16921.8	94.29	620.27	—	—



Supplementary Fig. 1 — Map of Arunachal Pradesh showing the collection districts (Green colour, Lohit; yellow colour- Changlang) of 49 *Saccharum spontaneum* clones used in this study.



Supplementary Fig. 2— Morphological differences in *S. spontaneum* collected from Arunachal Pradesh. A, Field stand of *S. spontaneum* clones; B, Stalk colour variation; C, Thickness range; D, Internode length range.