

Table S 1. Foxtail millet core collection accessions with passport data									
Sl. No.	ISe no	Race	Subrace	Origin	Sl. No.	ISe no	Race	Subrace	Origin
1	2	Indica	Nana	India	41	771	Indica	Nana	India
2	18	Indica	Nana	India	42	783	Indica	Nana	India
3	31	Indica	Nana	India	43	785	Indica	Nana	India
4	49	Indica	Nana	India	44	792	Maxima	Compacta	India
5	90	Indica	Nana	India	45	795	Indica	Erecta	India
6	96	Indica	Nana	India	46	796	Indica	Erecta	India
7	132	Indica	Nana	India	47	813	Indica	Nana	India
8	144	Indica	Nana	India	48	827	Maxima	Compacta	China
9	156	Indica	Nana	India	49	828	Maxima	Compacta	China
10	160	Indica	Nana	India	50	838	Indica	Nana	India
11	179	Indica	Nana	India	51	840	Indica	Nana	India
12	195	Indica	Nana	India	52	842	Indica	Profusa	India
13	200	Indica	Nana	India	53	846	Indica	Nana	India
14	237	Indica	Nana	India	54	869	Indica	Nana	India
15	238	Indica	Nana	India	55	900	Indica	Glabra	India
16	254	Indica	Nana	India	56	907	Indica	Nana	India
17	267	Indica	Nana	India	57	909	Indica	Nana	India
18	289	Indica	Profusa	India	58	914	Indica	Nana	India
19	302	Indica	Nana	India	59	931	Indica	Nana	India
20	362	Indica	Nana	India	60	936	Indica	Nana	India
21	364	Moharia	Aristata	India	61	946	Indica	Nana	India
22	375	Maxima	Assamense	India	62	956	Indica	Nana	India
23	388	Indica	Nana	India	63	963	Indica	Nana	India
24	398	Indica	Nana	India	64	969	Indica	Nana	India
25	403	Moharia	Aristata	India	65	983	Indica	Nana	India
26	458	Moharia	Aristata	USA	66	985	Indica	Nana	India
27	480	Indica	Nana	China	67	995	Indica	Nana	India
28	507	Indica	Nana	Kenya	68	999	Indica	Nana	India
29	525	Indica	Nana	USA	69	1000	Indica	Nana	India
30	663	Indica	Nana	Switzerland	70	1009	Moharia	Aristata	Lebanon
31	710	Indica	Nana	India	71	1026	Moharia	Aristata	Lebanon
32	717	Indica	Nana	Pakistan	72	1037	Moharia	Aristata	Lebanon
33	719	Moharia	Aristata	Pakistan	73	1059	Maxima	Spongiosa	India
34	735	Moharia	Aristata	Pakistan	74	1067	Maxima	Compacta	Syria
35	745	Indica	Nana	India	75	1118	Moharia	Glabra	Syria
36	746	Maxima	Compacta	India	76	1119	Moharia	Glabra	Syria
37	748	Indica	Glabra	India	77	1129	Moharia	Glabra	Syria
38	751	Indica	Glabra	India	78	1134	Indica	Nana	Syria
39	758	Indica	Glabra	India	79	1136	Indica	Nana	Syria
40	769	Indica	Glabra	India	80	1137	Indica	Nana	Syria

Table S1 continues.....

Sl. No.	ISe no	Race	Subrace	Origin	Sl. No.	ISe no	Race	Subrace	Origin
81	1151	Moharia	Glabra	Syria	119	1563	Maxima	Compacta	Korea, Repub.
82	1161	Moharia	Glabra	Syria	120	1575	Maxima	Compacta	Korea, Repub.
83	1162	Indica	Nana	Syria	121	1581	Maxima	Compacta	Korea, Repub.
84	1163	Moharia	Glabra	Syria	122	1593	Maxima	Compacta	Korea, Repub.
85	1177	Moharia	Aristata	Syria	123	1597	Indica	Glabra	India
86	1181	Maxima	Compacta	China	124	1605	Indica	Nana	India
87	1187	Maxima	Compacta	China	125	1610	Indica	Glabra	Malawi
88	1201	Maxima	Compacta	China	126	1629	Indica	Nana	India
89	1204	Maxima	Compacta	Russia & CIS	127	1638	Moharia	Glabra	Taiwan
90	1209	Moharia	Fusifformis	Russia & CIS	128	1647	Maxima	Compacta	Taiwan
91	1227	Moharia	Glabra	Russia & CIS	129	1655	Indica	Glabra	Taiwan
92	1234	Moharia	Glabra	Russia & CIS	130	1664	Indica	Nana	India
93	1251	Maxima	Compacta	Russia & CIS	131	1666	Maxima	Spongiosa	India
94	1254	Moharia	Glabra	Russia & CIS	132	1674	Moharia	Glabra	India
95	1258	Maxima	Compacta	Russia & CIS	133	1685	Indica	Profusa	India
96	1269	Indica	Nana	South Africa	134	1687	Maxima	Spongiosa	India
97	1286	Moharia	Glabra	Turkey	135	1704	Indica	Nana	India
98	1299	Moharia	Glabra	Iran	136	1725	Maxima	Compacta	Nepal
99	1302	Moharia	Aristata	Afghanistan	137	1736	Maxima	Compacta	Nepal
100	1305	Moharia	Glabra	Spain	138	1745	Indica	Glabra	Myanmar
101	1312	Moharia	Glabra	Unknown	139	1762	Indica	Nana	India
102	1320	Moharia	Glabra	USA	140	1767	Indica	Nana	India
103	1332	Moharia	Aristata	Afghanistan	141	1773	Indica	Nana	India
104	1335	Moharia	Glabra	Hungary	142	1780	Indica	Nana	India
105	1338	Maxima	Compacta	Turkey	143	1789	Indica	Glabra	India
106	1354	Indica	Nana	India	144	1805	Indica	Nana	India
107	1387	Indica	Glabra	Sri Lanka	145	1806	Indica	Nana	India
108	1400	Indica	Nana	India	146	1808	Indica	Nana	India
109	1402	Indica	Nana	India	147	1820	Indica	Erecta	India
110	1406	Indica	Nana	India	148	1846	Indica	Nana	India
111	1408	Indica	Nana	India	149	1851	Indica	Nana	India
112	1419	Indica	Glabra	India	150	1858	Indica	Nana	India
113	1454	Indica	Glabra	India	151	1859	Indica	Nana	India
114	1458	Indica	Glabra	India	152	1881	Indica	Nana	India
115	1460	Indica	Glabra	India	153	1888	Indica	Nana	Ethiopia
116	1474	Indica	Glabra	U.K.	154	1892	Indica	Nana	USA
117	1511	Indica	Nana	India	155	1900	Indica	Nana	USA
118	1547	Maxima	Compacta	Korea, Repub.					

Table S2. Number (percentage) of accessions under different qualitative traits and the classes within traits in entire collection and core collection of foxtail millet germplasm

Character	Entire collection	Core collection	χ^2	Df	Prob.
Plant pigmentation					
Deep purple	28(1.90)	3(1.94)	0.001	1	0.974
Green	1122(76.12)	120(77.42)	0.034	1	0.853
Pigmented	324(21.98)	32(20.65)	0.126	1	0.723
Total	1474(100.00)	155(100.00)	0.161	2	0.923
Leaf color					
Green	1189(80.66)	129(83.23)	0.126	1	0.723
Pigmented	123(8.34)	9(5.81)	1.197	1	0.274
Yellow	162(10.99)	17(10.97)	0.000	1	0.993
Total	1474(100.00)	155(100.00)	1.323	2	0.516
Growth habit					
Erect	1438(97.56)	148(95.48)	0.068	1	0.794
Erect geniculate	35(2.37)	6(3.87)	1.462	1	0.227
Prostrate	1(0.07)	1(0.65)	1.483	1	0.223
Total	1474(100.00)	155(100.00)	3.013	2	0.222
Culm branching					
High	333(22.59)	37(23.87)	0.112	1	0.738
Low	665(45.12)	70(45.16)	0.000	1	0.993
Medium	476(32.29)	48(30.97)	0.084	1	0.772
Total	1474(100.00)	155(100.00)	0.197	2	0.906
Bristle length					
Long	764(51.83)	79(50.97)	0.022	1	0.881
Medium	366(24.83)	32(20.65)	1.093	1	0.296
Short	344(23.34)	44(28.39)	1.693	1	0.193
Total	1474(100.00)	155(100.00)	2.809	2	0.246
Panicle lobing					
Dense lobed	499(33.85)	49(31.61)	0.230	1	0.632
Medium lobed	693(47.01)	75(48.39)	0.062	1	0.803
Non lobed	282(19.13)	31(20.00)	0.061	1	0.805
Total	1474(100.00)	155(100.00)	0.353	2	0.838
Inflorescence compactness					
Compact	356(24.15)	34(21.94)	0.315	1	0.575
Medium	906(61.47)	93(60.00)	0.054	1	0.816
Loose	212(14.38)	28(18.06)	1.461	1	0.227
Total	1474(100.00)	155(100.00)	1.830	2	0.400
Lobe compactness¹					
Compact	932(64.01)	99(63.87)	0.000	1	0.983
Medium	491(33.72)	53(34.19)	0.010	1	0.920
Loose	33(2.27)	3(1.94)	0.075	1	0.784
Total	1456(100.00)	155(100.00)	0.086	2	0.958
Grain color²					
Black	18(1.54)	2(1.55)	0.0001	1	0.990
Black and White	6(0.51)	0(0.00)	0.661	1	0.416
Dark grey	4(0.34)	0(0.00)	2.008	1	0.157

Light grey	8(0.68)	0(0.00)	0.881	1	0.348
Red	57(4.87)	8(6.20)	0.472	1	0.492
Yellow	1078(92.06)	119(92.25)	0.001	1	0.982
Total	1171(100.00)	129(100.00)	4.023	5	0.546
Lodging					
Completely lodging	184(12.48)	17(10.97)	0.285	1	0.593
Mostly lodging	112(7.60)	8(5.16)	1.212	1	0.271
Medium lodging	249(16.89)	23(14.84)	0.387	1	0.534
Slightly lodging	641(43.49)	76(49.03)	1.096	1	0.295
No lodging	288(19.54)	31(20.00)	0.017	1	0.897
Total	1474(100.00)	155(100.00)	2.997	4	0.558
Leaf senescence					
Leaves completely green at maturity	39(2.65)	3(1.94)	0.296	1	0.587
Leaves almost green at maturity	200(13.57)	27(17.42)	1.694	1	0.193
Leaves moderately green at maturity	363(24.63)	47(30.32)	2.042	1	0.153
Leaves almost dry at maturity	244(16.55)	23(14.84)	0.275	1	0.600
Leaves completely dry at maturity	628(42.61)	55(35.48)	1.845	1	0.174
Total	1474(100.00)	155(100.00)	6.152	4	0.188
Overall plant aspect					
Very good	87(5.90)	10(6.45)	0.079	1	0.778
Good	289(19.61)	36(23.23)	1.036	1	0.309
Average	804(54.55)	79(50.97)	0.364	1	0.546
Poor	127(8.62)	10(6.45)	0.843	1	0.359
Very poor	167(11.33)	20(12.90)	0.339	1	0.561
Total	1474(100.00)	155(100.00)	2.660	4	0.616

¹=based on 1456 accessions in entire collection and all the accessions in core subset

²=based on 1171 accessions in entire collection and 129 accessions in core subset

Table S3 The Shannon-Weaver diversity index (H') in the entire and the core collection of foxtail millet germplasm

Qualitative trait	Entire collection	Core collection
Plant pigmentation	0.268	0.261
Leaf color	0.271	0.243
Growth habit	0.051	0.097
Culm branching	0.460	0.462
Bristle length	0.446	0.446
Panicle lobing	0.451	0.451
Inflorescence compactness	0.400	0.412
Lobe compactness	0.321	0.325
Grain color	0.173	0.155
Lodging	0.624	0.586
Senescence	0.597	0.607
Overall plant aspect	0.554	0.565
Mean Qualitative traits	0.380	0.380
SE _±	0.052	0.050
Quantitative traits		
Days to flowering (no)	0.540	0.560
Plant height (cm)	0.607	0.605
Basal tillers number	0.455	0.443
Flag leaf blade length (cm)	0.615	0.627
Flag leaf blade width (cm)	0.596	0.542
Flag leaf sheath length (cm)	0.626	0.612
Peduncle length (cm)	0.612	0.614
Panicle exsertion (cm)	0.631	0.608
Inflorescence length (cm)	0.628	0.638
Inflorescence width (cm)	0.590	0.494
Weight of 5 panicles (gm)	0.574	0.583
Mean-Quantitative traits	0.588	0.575
Se _±	0.016	0.018
Mean Over all	0.480	0.480
Se _±	0.034	0.033

Table S4 Correlation coefficients(*r*) between 11 quantitative traits in entire collection and the core collection of foxtail millet germplasm¹

Character		Days to flowering (no)	Plant height (cm)	Basal tillers number	Flag leaf blade length (cm)	Flag leaf blade width (cm)	Flag leaf sheath length (cm)	Peduncle length (cm)	Panicle exertion (cm)	Inflorescence length (cm)	Inflorescence width (cm)	Weight of 5 panicles (gm)
Days to flowering (no)	Entire	1.000										
	Core	1.000										
Plant height (cm)	Entire	0.717	1.000									
	Core	0.686	1.000									
Basal tillers number	Entire	-0.135	-0.295	1.000								
	Core	-0.149	-0.213	1.000								
Flag leaf blade length (cm)	Entire	0.587	0.707	-0.279	1.000							
	Core	0.557	0.665	-0.200	1.000							
Flag leaf blade width (cm)	Entire	0.287	0.412	-0.341	0.626	1.000						
	Core	0.382	0.471	-0.307	0.614	1.000						
Flag leaf sheath length (cm)	Entire	0.438	0.644	-0.378	0.576	0.430	1.000					
	Core	0.394	0.620	-0.287	0.522	0.342	1.000					
Peduncle length (cm)	Entire	0.064	0.271	-0.190	0.291	0.246	0.381	1.000				
	Core	0.112	0.324	-0.110	0.281	0.134	0.301	1.000				
Panicle exertion (cm)	Entire	-0.193	-0.100	0.033	-0.041	0.007	-0.145	0.803	1.000			
	Core	-0.103	0.008	0.052	-0.023	-0.091	-0.139	0.828	1.000			
Inflorescence length (cm)	Entire	0.610	0.777	-0.355	0.741	0.538	0.698	0.239	-0.159	1.000		
	Core	0.575	0.793	-0.309	0.716	0.561	0.652	0.251	-0.102	1.000		
Inflorescence width (cm)	Entire	0.327	0.509	-0.363	0.556	0.578	0.429	0.171	-0.072	0.586	1.000	
	Core	0.229	0.360	-0.272	0.429	0.406	0.272	0.230	0.062	0.377	1.000	
Weight of 5 panicles (gm)	Entire	0.353	0.556	-0.443	0.480	0.505	0.470	0.149	-0.127	0.604	0.574	1.000
	Core	0.311	0.508	-0.406	0.433	0.563	0.421	0.139	-0.111	0.603	0.390	1.000

¹= $r \geq 0.061$ significant at 5% P for entire collection (df 1472); $r \geq 0.132$ significant at 5% P for core collection (df 153)