

Genotypic variation of adaptive and yield component traits of introduced grain oats (*Avena sativa* L.) grown in Bangladesh

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Supplementary Table 1. Details of plant materials used for this experiment, their cluster groups with their origin.

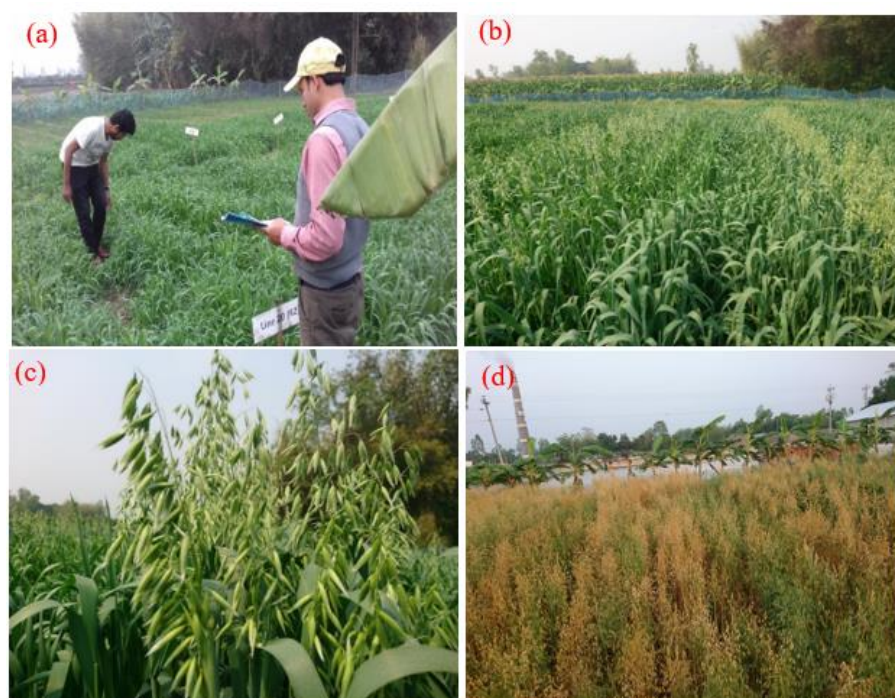
Cluster Group	Line No.	Name	Cluster Group	Line No.	Name
I (1)	1	FL1035BSBSB-15-2		38	FL13041-6
II (1)	19	LA14086SBSBS80-4	VI	50	FL13088-3
V (12)	68	FL12004-1		7	LA11074SBSBSBSB-109
	23	LA14113SBS-20-3		66	FL12011-1
	88	FL13041-1		90	FL13081-2
	9	LA11090SBSBSBSBS-98-1		67	FL12031-4
	56	FL13084-11		89	FL13041-8
	24	LA14113SBS-65-1		86	FL13094-1
	64	FLLA10027-1		80	FLLA11019S-8
	73	LA11047S-2		85	FL13079-4
	87	FL13100-1		46	FL13076-2
	16	LA14050SBS-38-1		74	FL12019-1
	84	FL13056-1		61	LA09015SBS-U1
	41	FL13057-4		59	LA09045SBS-U4
III (6)	11	LA13076SBSBBSBS61-1		96	FL13003-5
	69	FL12034-4		18	LA14086SBSBS71-1
	93	FL13086-2		27	FL1035-2
	29	FL11017-7		20	LA14086SBSBS86-1
	5	LA10043SSBSBSB-110-1		97	FL0914-U2
	4	LA10061SSBSBSB-23-1		39	FL13041-4
IV (2)	83	FL13048-4		2	FL1053BSBSBS-32-1
	92	FL13040-1		91	FL13028-1
VI (78)	79	FLLA11088S-6		12	LA13106SBSBS18-2
	58	LA09044SBS-U1		70	FL12034-5
	72	FL11017-6		45	FL13081-4
	22	LA14103SBS-69-2		25	LA09026SBS-U1
	3	FL12039BS-40-1		44	FL13057-7
	51	FL13031-4		57	FL13003-3
	54	FL13084-7		53	FL13097-1
	15	LA14035SBSBS13-1		100	FLLA09044SBS-U1
	75	FL12039-1		49	FL13028-9
	65	FLLA10044-6		48	FL13028-8
	55	FL13084-8		47	FL13028-6
	10	LA12037SBSBSB-33		71	FL11017-4
	81	FL12042-6		8	LA11090SBSBSBSBS-47-1
	94	FL13097-2		76	FL12034-1
	30	FL11017-9		77	FL12034-10
	99	FLLA09103SBS-U5		37	FL13041-3
	98	FLLA09103SBS-U5		17	LA14086SBSBS34-2
	43	FL13089-4		21	LA14103SBS05-1
	34	FL13088-1		28	FLLA10044-1

31	FL13018-1	98	FLLA09103SBS-U5
32	FL13018-5	95	FL13077-4
40	FL13051-6	82	FL13048-2
63	FL0914-U1	78	FLLA11063S-5
35	FL13100-5	60	LA09030SBS-U3
62	LA09015SBS-U4	42	FL13057-6
26	LA09067SBS-U4	6	LA10067SSBSBSB-64-1
36	FL13100-7	52	FL13060-3
80	FLLA11019S-8	33	FL13056-4

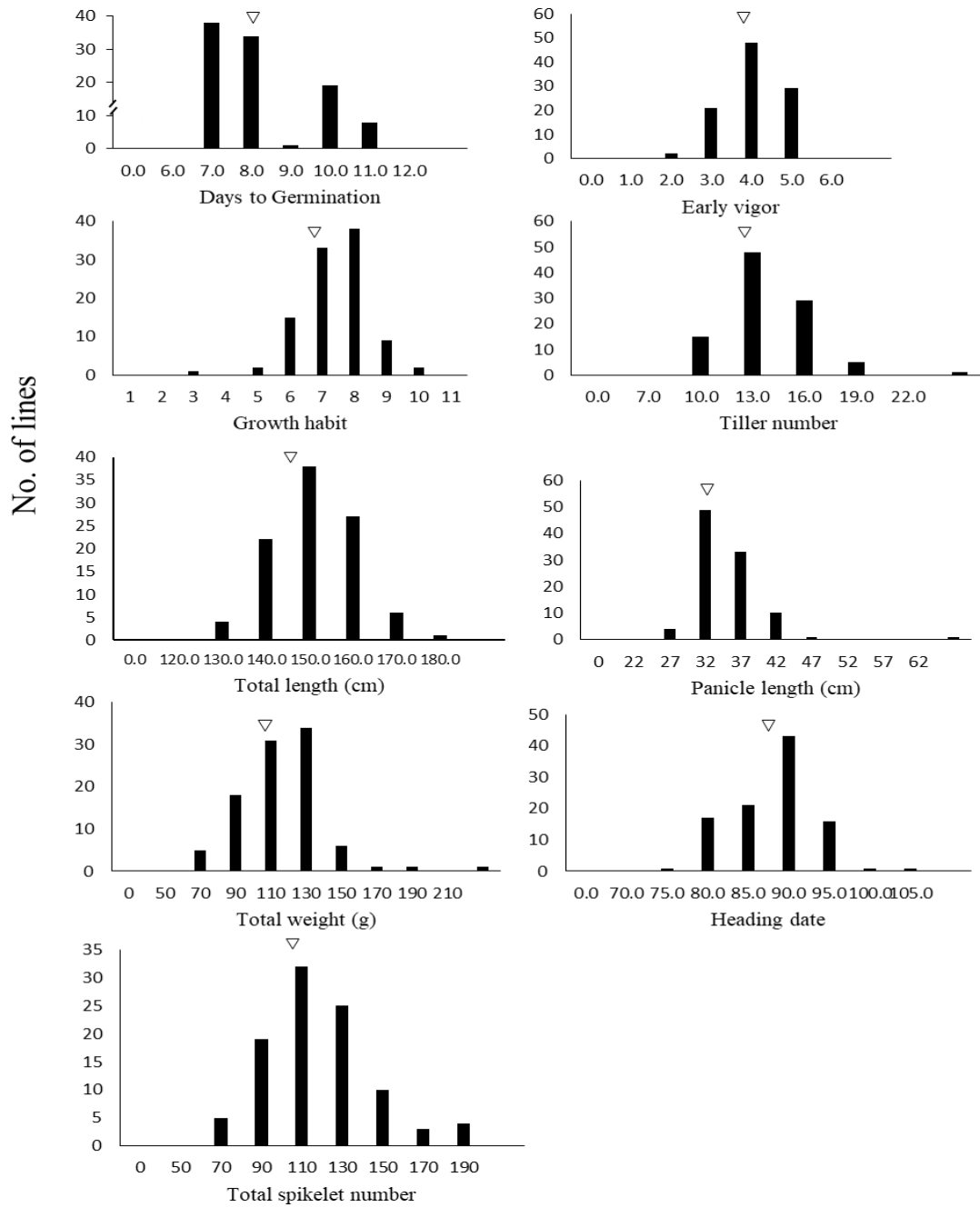
Supplementary Table 2. Eigen values, % variance and cumulative eigen values all 13 components of 100 oats germplasm.

Traits	Principle components	Eigen values	% Variance	Cumulative %
HD	PC1	3.411	26.23	26.23
FT	PC2	2.181	16.77	43.01
LS	PC3	1.555	11.96	54.97
EV (1-5)	PC4	1.233	9.43	64.46
GH (1-9)	PC5	1.097	8.43	72.89
TN	PC6	0.959	7.37	80.27
UTN	PC7	0.666	5.12	85.39
TL (cm)	PC8	0.635	4.88	90.28
PL (cm)	PC9	0.609	4.68	94.96
TSN/P	PC10	0.470	3.61	98.58
TW (g)	PC11	0.170	1.30	99.88
PW (g)	PC12	0.014	0.106	99.99
HI (%)	PC13	0.001	0.006	100.0

GD, Days to Germination; EV, Early vigor score (1 to 5); GH, Growth habit (1 to 9), TN, Tiller number; UTN, Unproductive tiller number; TL, Total length; PL, Panicle length; TW, Total weight; PW, Panicle weight; HI, Harvest index (PW/TW); HD, Heading date; FD, Flowering date; TSN/P, Total spikelet number per panicle

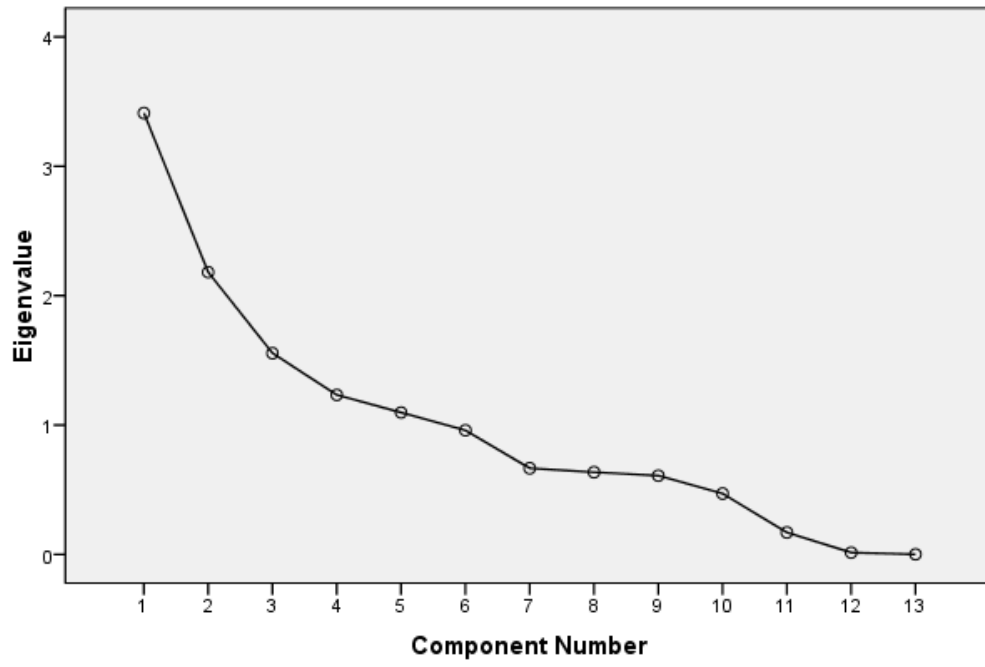


Supplementary Fig 1. Photos depicting the successful cultivation and growth of grain Oats accessions in Bochagonj upazilla under Dinajpur district in Bangladesh . (a) author and his students collecting early vigor data; (b) booting stage & variations; (c) Seed formation stage; (d) Maturity and ripening stage



Supplementary Fig 2. Variation for agronomic traits of Oats accessions grown in Bangladesh in 2019-20 winter season. A total of 13 agronomic traits were investigated with 10 plants in each lines, and the average of two replications were calculated and used as the representative value of each line. Arrow indicate the mean of the trait value.

Scree Plot



Supplementary Fig 3. Scree plot of principal component analysis of oat germplasm between eigen value and principal components.