

**Table S3 The principal component analysis of agronomic traits in the population of *E. sibiricus***

<b>Trait</b>	<b>Principal component 1</b>	<b>Principal component 2</b>	<b>Principal component 3</b>	<b>Principal component 4</b>	<b>Principal component 5</b>
FL	0.89	-0.26	-0.00	0.30	-0.05
FW	0.90	0.01	0.13	0.28	0.06
SLL	0.85	0.02	0.34	0.18	-0.06
SLW	0.84	0.35	0.18	0.08	0.03
SD	-0.35	0.81	0.19	-0.18	0.19
IN	0.81	0.13	0.36	-0.08	-0.01
SN	0.65	0.61	-0.20	0.25	0.01
FN	-0.50	0.03	0.71	-0.04	0.01
EL	-0.33	0.33	0.44	0.57	-0.08
PH	-0.46	0.56	0.33	-0.24	0.38
TN	0.30	-0.32	-0.05	-0.17	0.80
BTS	-0.65	-0.26	0.51	-0.13	-0.32
SL	0.80	-0.33	0.17	-0.33	0.08
SW	0.40	-0.20	0.13	0.66	0.30
AL	-0.24	-0.66	0.49	-0.04	0.13
TKW	0.88	-0.08	0.04	0.02	-0.09
BT	-0.91	-0.11	-0.04	0.32	0.09
HT	-0.91	-0.10	-0.10	0.31	0.10
FT	-0.89	-0.07	-0.13	0.35	0.13
Eigenvalue	9.37	2.45	1.74	1.60	1.10
Proportion (%)	49.31	12.87	9.16	8.44	5.79
Cumulative proportion (%)	49.31	62.18	71.34	79.77	85.56

Note: Flag leaf length (FL), Flag leaf width (FW), Second leaf length (SLL), Second leaf width (SLW), Stem diameter (SD), Internodes number (IN), Spikelet number per branches (SN), Florets number per spikelet (FN), Ear length (EL), Plant height (PH), Tiller number (TN), Breaking tensile strength (BTS), Seed length (SL), Seed width (SW), Awn length (AL), Thousand kernel weight (TKW), Booting time (BT), Heading time (HT), Flowering time (FT).