Table S1. Mean values, homogenous groups and standard deviations (s.d.) for five quantitative traits in all studied genotypes of *Brassica napus*.

DH lines	Silique length [mm]			Silique width [mm]			Number of seeds per silique			Seed coat color			TSW [g]		
	Mean	Homogenous groups	s.d.	Mean	Homogenous groups	s.d.	Mean	Homogenous groups	s.d.	Mean	Homogenous groups	s.d.	Mean	Homogenous groups	s.d.
DH 01	52.10	efghijklmnop	7.18	4.03	abcd	0.03	18.88	a	2.47	2.12	ghijklmno	0.38	4.59	efghijklmnopqr	0.53
DH 02	56.31	bcdefghijklm	2.28	3.68	bcdefghij	0.29	16.19	abcdefghijklmno	1.24	0.27	BCDEF	0.16	5.16	cdefghijklmnopq	0.70
DH 03	56.13	bcdefghijklmn	1.85	3.93	abcdef	0.08	17.77	abcdefghi	0.25	2.15	ghijklmn	0.62	5.40	abcdefghijklmn	0.33
DH 04	52.20	efghijklmno	4.27	3.59	bcdefghijk	0.33	16.29	abcdefghijklmno	1.67	2.32	fghijkl	0.21	4.28	mnopqr	0.95
DH 05	55.42	bcdefghijklmno	3.40	3.12	k	0.21	17.60	abcdefghi	2.58	2.72	defg	0.32	4.74	efghijklmnopqr	0.64
DH 06	53.07	defghijklmno	6.32	3.47	efghijk	0.31	14.32	efghijklmnopqrs	2.68	0.71	uvwxyzABCDEF	0.23	5.02	defghijklmnopq	0.13
DH 07	41.98	q	2.91	3.78	abcdefghi	0.28	8.50	t	4.23	3.63	bc	0.78	4.69	efghijklmnopqr	0.80
DH 08	54.00	bcdefghijklmno	8.35	3.72	bcdefghi	0.25	12.93	mnopqrs	5.49	1.81	ijklmnopqr	0.44	6.57	a	0.38
DH 09	50.58	hijklmnop	2.98	3.43	fghijk	0.42	14.64	defghijklmnopqrs	0.67	1.02	rstuvwxyzABCDE	0.48	4.66	efghijklmnopqr	0.37
DH 10	50.23	ijklmnop	3.19	3.75	abcdefghi	0.23	12.88	nopqrs	2.75	0.46	yzABCDEF	0.14	5.09	cdefghijklmnopq	0.28
DH 11	55.53	bcdefghijklmno	3.80	3.57	bcdefghijk	0.29	14.07	hijklmnopqrs	3.14	1.18	pqrstuvwxyz	0.86	5.20	cdefghijklmnop	1.18
DH 12	57.82	bcdefghi	3.69	3.72	bcdefghi	0.32	17.99	abcdefg	2.22	0.80	tuvwxyzABCDEF	0.26	5.46	abcdefghijklm	0.54
DH 13	60.83	bc	9.32	3.65	bcdefghijk	0.22	17.95	abcdefgh	3.37	0.91	stuvwxyzABCDEF	0.39	4.56	fghijklmnopqr	0.51
DH 14	54.15	bcdefghijklmno	0.50	3.67	bcdefghij	0.24	16.92	abcdefghijkl	0.88	2.57	efghi	0.65	4.94	efghijklmnopq	0.34
DH 15	50.92	hijklmnop	2.55	3.93	abcdef	0.23	18.22	abcde	0.94	0.54	xyzABCDEF	0.27	4.44	hijklmnopqr	0.98
DH 16	54.08	bcdefghijklmno	1.95	3.51	defghijk	0.30	16.49	abcdefghijklmno	0.84	1.35	nopqrstuvwx	1.06	4.70	efghijklmnopqr	0.76
DH 17	58.73	bcdefg	4.00	3.47	efghijk	0.44	18.72	ab	3.44	1.79	ijklmnopqr	0.06	5.03	defghijklmnopq	0.75
DH 18	54.73	bcdefghijklmno	3.45	3.75	abcdefghi	0.13	15.42	abcdefghijklmnopq	3.53	0.52	xyzABCDEF	0.25	5.02	defghijklmnopq	0.39
DH 19	51.15	ghijklmnop	1.99	3.78	abcdefghi	0.23	17.62	abcdefghi	3.37	2.49	efghij	0.55	5.11	cdefghijklmnopq	0.21
DH 20	57.42	bcdefghijk	4.45	3.38	ghijk	0.21	15.08	abcdefghijklmnopqrs	1.48	0.18	EF	0.09	5.62	abcdefgh	0.48
DH 21	59.40	bcdef	1.91	3.67	bcdefghij	0.25	17.43	abcdefghij	0.90	2.63	efghi	0.38	4.74	efghijklmnopqr	0.47
DH 22	57.12	bcdefghijklm	4.83	3.48	efghijk	0.45	18.47	abcd	4.40	3.11	cdef	0.30	4.82	efghijklmnopqr	0.66
DH 23	55.81	bcdefghijklmno	7.22	3.55	cdefghijk	0.48	15.34	abcdefghijklmnopqr	2.39	0.25	CDEF	0.13	4.96	efghijklmnopq	0.40
DH 24	54.20	bcdefghijklmno	4.34	4.05	abc	0.05	16.55	abcdefghijklmno	2.88	0.43	zABCDEF	0.18	5.63	abcdefgh	1.19
DH 25	52.87	efghijklmno	3.22	3.62	bcdefghijk	0.40	14.15	ghijklmnopqrs	1.91	1.09	qrstuvwxyzABCD	0.08	4.30	lmnopqr	0.93
DH 26	60.67	bcd	0.62	3.73	abcdefghi	0.44	16.83	abcdefghijklm	1.51	0.10	F	0.07	5.69	abcdefg	0.56
DH 27	52.33	efghijklmno	4.38	3.82	abcdefgh	0.28	16.97	abcdefghijkl	1.91	2.66	efgh	0.92	5.36	bcdefghijklmno	0.35
DH 28	50.16	ijklmnop	7.06	3.39	ghijk	0.29	15.25	abcdefghijklmnopqr	4.39	1.45	mnopqrstuvw	0.14	4.67	efghijklmnopqr	1.16
DH 29	49.82	klmnop	2.63	4.00	abcde	0.05	15.33	abcdefghijklmnopqr	0.75	2.32	fghijkl	0.32	4.48	hijklmnopqr	0.35

DH 30	51.05	ghijklmnop	3.03	4.26	a	1.29	13.94	ijklmnopqrs	2.91	1.54	lmnopqrstu	0.41	6.43	ab	0.55
DH 31	59.52	bcde	2.31	3.72	bcdefghi	0.40	17.03	abcdefghijkl	0.42	0.25	DEF	0.12	5.52	abcdefghijk	0.91
DH 32	51.28	ghijklmnop	0.87	3.69	bcdefghi	0.35	16.92	abcdefghijkl	0.95	2.21	ghijklm	0.57	5.11	cdefghijklmnopq	1.24
DH 33	54.88	bcdefghijklmno	2.06	3.68	bcdefghij	0.24	13.65	jklmnopqrs	1.31	2.41	efghijk	1.58	4.57	efghijklmnopqr	0.54
DH 34	48.58	nopq	4.54	3.93	abcdef	0.13	12.02	pqrst	2.59	1.10	qrstuvwxyzAB	0.39	5.02	defghijklmnopq	0.80
DH 35	53.65	bcdefghijklmno	1.01	3.65	bcdefghijk	0.16	15.64	abcdefghijklmnopq	0.34	1.34	nopqrstuvwx	0.34	5.01	defghijklmnopq	0.98
DH 36	51.72	fghijklmnop	5.97	3.76	abcdefghi	0.21	18.17	abcdef	3.94	4.23	ab	0.39	4.96	efghijklmnopq	0.49
DH 37	53.72	bcdefghijklmno	10.77	3.72	bcdefghi	0.20	15.87	abcdefghijklmnopq	4.24	2.32	fghijkl	0.37	5.00	efghijklmnopq	0.58
DH 38	53.64	bcdefghijklmno	1.25	3.78	abcdefghi	0.21	17.37	abcdefghij	1.52	3.23	cde	0.36	3.98	qr	0.28
DH 39	52.39	efghijklmno	1.69	3.71	bcdefghi	0.25	16.21	abcdefghijklmno	0.67	3.18	cde	0.94	4.38	jklmnopqr	0.88
DH 40	53.05	defghijklmno	6.67	3.57	bcdefghijk	0.62	12.00	qrst	1.55	0.65	wxyzABCDEF	0.77	5.40	abcdefghijklmn	0.81
DH 41	49.58	lmnopq	2.40	3.92	abcdefg	0.08	13.43	klmnopqrs	0.88	0.84	tuvwxyzABCDEF	0.57	5.32	bcdefghijklmno	1.09
DH 42	44.41	pq	6.39	3.44	fghijk	0.25	11.47	rst	1.27	2.57	efghi	1.13	4.48	hijklmnopqr	0.32
DH 43	56.65	bcdefghijklm	9.68	3.66	bcdefghij	0.32	14.69	defghijklmnopqrs	3.42	1.57	klmnopqrst	0.24	5.61	abcdefgh	0.44
DH 44	51.82	efghijklmnop	4.83	3.46	fghijk	0.42	13.87	ijklmnopqrs	2.51	1.30	opqrstuvwxy	0.96	5.09	cdefghijklmnopq	0.97
DH 45	52.53	efghijklmno	2.00	3.59	bcdefghijk	0.23	14.14	ghijklmnopqrs	1.65	1.09	qrstuvwxyzABC	0.33	4.80	efghijklmnopqr	0.55
DH 46	55.50	bcdefghijklmno	2.25	3.82	abcdefgh	0.38	16.35	abcdefghijklmno	0.60	0.55	xyzABCDEF	0.16	6.20	abcd	1.74
DH 47	53.07	defghijklmno	7.48	3.15	jk	0.33	13.28	lmnopqrs	3.23	2.56	efghi	0.91	4.72	efghijklmnopqr	0.16
DH 48	55.10	bcdefghijklmno	4.99	3.56	cdefghijk	0.23	14.82	bcdefghijklmnopqrs	2.64	0.28	ABCDEF	0.06	4.36	klmnopqr	0.57
DH 49	57.23	bcdefghijkl	1.71	3.78	abcdefghi	0.26	16.92	abcdefghijkl	1.37	1.92	ghijklmnopq	0.18	5.12	cdefghijklmnopq	0.94
DH 50	54.49	bcdefghijklmno	0.45	3.69	bcdefghi	0.23	16.74	abcdefghijklmn	1.61	1.97	ghijklmnop	0.58	5.12	cdefghijklmnopq	0.13
DH 51	53.87	bcdefghijklmno	2.59	3.69	bcdefghi	0.15	13.55	jklmnopqrs	2.27	0.27	BCDEF	0.19	6.26	abc	2.02
DH 52	54.22	bcdefghijklmno	4.85	3.41	fghijk	0.32	14.52	efghijklmnopqrs	1.77	0.35	zABCDEF	0.21	4.21	nopqr	0.99
DH 53	54.33	bcdefghijklmno	1.93	3.81	abcdefghi	0.25	17.37	abcdefghij	1.37	1.71	jklmnopqrs	0.86	5.03	defghijklmnopq	0.82
DH 54	49.82	klmnop	4.40	3.47	efghijk	0.33	12.80	opqrs	1.79	0.72	uvwxyzABCDEF	0.14	4.09	pqr	0.74
DH 55	50.58	hijklmnop	10.04	3.29	hijk	0.38	14.92	bcdefghijklmnopqrs	4.39	0.46	yzABCDEF	0.53	4.49	hijklmnopqr	0.91
DH 56	51.12	ghijklmnop	2.73	3.55	cdefghijk	0.48	16.20	abcdefghijklmno	3.59	1.14	pqrstuvwxyz	0.58	4.28	mnopqr	0.62
DH 57	57.63	bcdefghij	1.15	3.73	abcdefghi	0.50	15.92	abcdefghijklmnop	1.01	3.54	bcd	0.93	5.58	abcdefghi	0.62
DH 58	53.28	cdefghijklmno	4.04	3.32	hijk	0.33	12.92	mnopqrs	0.98	1.11	qrstuvwxyzA	0.44	4.79	efghijklmnopqr	0.67
DH 59	61.27	b	2.82	3.33	hijk	0.20	16.60	abcdefghijklmno	1.96	0.58	xyzABCDEF	0.47	5.13	cdefghijklmnopq	0.47
DH 60	55.20	bcdefghijklmno	2.10	3.48	efghijk	0.29	17.22	abcdefghijk	2.45	1.61	klmnopqrst	0.23	5.17	cdefghijklmnopq	0.38
DH 61	56.02	bcdefghijklmn	2.17	3.66	bcdefghij	0.35	15.32	abcdefghijklmnopqr	0.56	0.70	vwxyzABCDEF	0.10	5.76	abcde	0.14
DH 62	56.05	bcdefghijklmn	4.19	3.66	bcdefghij	0.30	14.89	bcdefghijklmnopqrs	2.48	0.81	tuvwxyzABCDEF	0.21	4.80	efghijklmnopqr	0.40
DH 63	48.22	opq	4.02	3.70	bcdefghi	0.20	11.22	st	2.59	1.85	hijklmnopqr	0.36	5.28	bcdefghijklmnop	1.40

DH 64	55.63	bcdefghijklmno	1.74	3.64	bcdefghijk	0.12	13.89	ijklmnopqrs	2.37	1.07	rstuvwxyzABCD	0.67	5.06	defghijklmnopq	1.01
DH 65	53.67	bcdefghijklmno	5.45	3.46	fghijk	0.39	16.33	abcdefghijklmno	2.07	0.47	yzABCDEF	0.32	4.41	ijklmnopqr	0.17
DH 66	54.42	bcdefghijklmno	3.05	3.48	efghijk	0.24	15.80	abcdefghijklmnopq	2.94	2.03	ghijklmno	0.41	4.77	efghijklmnopqr	1.09
DH 67	50.03	jklmnop	2.89	3.77	abcdefghi	0.03	15.35	abcdefghijklmnopqr	2.36	0.55	xyzABCDEF	0.09	4.59	efghijklmnopqr	0.35
DH 68	50.65	hijklmnop	7.66	3.65	bcdefghijk	0.20	14.28	fghijklmnopqrs	3.00	1.17	pqrstuvwxyz	0.15	4.79	efghijklmnopqr	0.37
DH 69	69.63	a	14.89	3.48	efghijk	0.40	17.75	abcdefghi	3.39	0.27	BCDEF	0.07	5.52	abcdefghijk	0.42
DH 70	50.63	hijklmnop	6.30	3.32	hijk	0.60	14.62	defghijklmnopqrs	1.34	1.52	lmnopqrstuv	1.31	4.17	opqr	0.51
DH 71	50.70	hijklmnop	4.62	3.55	cdefghijk	0.27	14.30	fghijklmnopqrs	2.32	4.36	ab	0.35	5.49	abcdefghijkl	1.00
DH 72	48.42	nopq	4.56	3.70	bcdefghi	0.18	13.97	ijklmnopqrs	1.85	2.48	efghij	0.51	5.74	abcdef	0.07
DH 73	55.12	bcdefghijklmno	4.59	4.05	abc	0.09	15.32	abcdefghijklmnopqr	1.81	2.75	defg	0.36	5.56	abcdefghij	0.77
DH 74	52.90	efghijklmno	4.08	3.82	abcdefgh	0.10	15.20	abcdefghijklmnopqr	3.04	0.64	wxyzABCDEF	0.17	5.54	abcdefghijk	0.25
DH 75	50.95	hijklmnop	2.78	4.10	ab	0.23	16.83	abcdefghijklm	0.89	0.52	xyzABCDEF	0.37	5.59	abcdefghi	0.07
DH 76	49.73	klmnop	2.41	3.57	bcdefghijk	0.46	13.23	lmnopqrs	2.35	0.70	vwxyzABCDEF	0.42	4.51	ghijklmnopqr	0.80
DH 77	49.42	mnopq	5.99	3.27	ijk	0.28	14.76	cdefghijklmnopqrs	2.67	1.50	lmnopqrstuv	0.04	3.72	r	0.57
DH 78	57.75	bcdefghi	3.60	3.82	abcdefgh	0.26	18.62	abc	2.78	1.13	pqrstuvwxyz	0.44	5.24	bcdefghijklmnop	0.84
M 305	58.24	bcdefgh	1.38	3.64	bcdefghijk	0.22	16.13	abcdefghijklmno	0.76	0.40	zABCDEF	0.11	5.52	abcdefghijk	0.14
Z 114	49.76	klmnop	0.59	3.63	bcdefghijk	0.31	15.66	abcdefghijklmnopq	0.58	4.75	a	0.41	4.85	efghijklmnopqr	0.51
Mean	53.66		3.88	3.65		0.29	15.44		2.15	1.52		0.42	5.01		0.64
LSD$_{0.05}$	7.72			0.53			3.92			0.84			1.19		