

**Table S4. Assay of oil content in seeds of the transgenic *Brassica napus* (T2 generation).****In the pods placed in trial field under natural conditions**

<b>Genotype</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>
WT	34.67	36.12	35.02	35.71	35.38	34.82	36.04	34.97	34.85	34.85
CK	36.21	35.52	34.47	34.81	34.32	36.25	36.62	34.76	34.47	35.35
OSW6	44.35	46.81	46.07	47.47	45.35	51.27	48.52	48.51	48.35	46.89
OSW9	46.82	47.71	48.27	45.36	48.26	46.54	47.97	42.58	51.43	49.25
OSW13	46.57	45.88	43.51	49.16	48.10	46.75	42.83	49.32	48.37	47.23
OSA5	39.41	39.33	41.04	38.69	39.03	38.41	40.89	37.99	41.85	39.17
OSA11	37.35	39.47	37.07	38.71	38.15	39.97	37.75	39.98	37.12	38.41
OSA18	39.35	39.93	37.63	38.46	37.17	39.08	36.68	39.98	38.03	37.85
OSD4	45.32	45.61	48.02	47.32	46.28	47.33	47.54	48.41	47.94	48.83
OSD9	49.72	50.00	50.25	48.66	50.21	49.49	49.34	50.58	50.68	48.47
OSD12	41.73	46.47	44.71	49.23	48.26	46.88	48.95	46.85	45.47	42.76
OLW3	47.24	47.94	48.75	47.87	47.16	43.27	51.28	43.78	47.78	46.44
OLW9	46.04	47.32	45.54	40.28	47.52	49.50	49.21	46.88	47.47	47.35
OLW14	47.77	51.27	46.69	46.04	46.60	46.77	42.61	46.52	26.82	45.39
OLA4	35.17	34.17	35.88	35.62	37.40	35.89	35.21	36.97	35.88	34.88
OLA13	37.32	36.81	36.04	35.61	34.35	35.32	36.02	36.54	37.52	35.35
OLA17	34.79	35.17	36.69	35.69	35.76	37.55	35.26	34.12	32.97	35.47
OLD2	48.04	46.97	46.54	50.28	47.76	47.76	45.35	50.02	49.62	47.17
OLD9	46.88	46.17	45.82	49.97	46.88	48.03	47.76	49.34	48.76	47.67
OLD15	46.19	48.62	49.23	48.00	45.88	46.23	47.24	46.85	47.31	48.47

**In agricultural land of the trial field under natural conditions**

<b>Genotype</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>
WT	36.70	34.91	35.71	35.84	36.10	35.85	35.51	34.37	36.19	34.71
CK	35.27	36.34	36.98	36.34	36.68	34.95	34.44	35.57	37.41	36.25
OSW6	46.62	46.77	46.50	47.38	48.12	47.15	51.53	46.16	46.59	46.69
OSW9	47.81	50.48	47.26	48.40	45.17	49.53	46.78	46.92	47.78	50.39
OSW13	42.86	50.60	47.21	44.45	44.41	47.50	46.99	46.87	42.83	50.51
OSA5	40.39	41.80	41.30	38.39	39.67	39.25	38.60	39.63	39.47	41.16
OSA11	40.58	40.52	38.16	38.07	37.65	38.37	40.17	37.56	39.61	37.17
OSA18	39.93	40.28	37.75	39.18	37.14	37.38	39.28	39.58	40.08	37.73
OSD4	47.37	47.97	48.89	44.73	44.54	45.58	45.78	48.15	47.23	48.50
OSD9	48.52	48.50	48.32	51.84	49.89	50.01	50.19	50.39	48.57	50.67
OSD12	47.43	47.62	47.29	42.58	49.11	41.97	46.65	44.83	49.14	46.94
OLW3	46.60	43.38	48.13	48.68	51.37	48.07	47.33	44.33	46.90	47.30
OLW9	48.26	49.62	47.35	47.39	49.29	40.45	47.69	47.73	47.95	46.09
OLW14	42.03	46.89	46.09	45.88	42.69	46.22	46.76	46.09	45.73	47.83
OLA4	35.45	35.98	35.12	34.66	35.27	35.76	37.53	35.87	35.70	35.21
OLA13	36.23	35.41	36.15	35.38	36.09	35.76	34.47	36.05	37.94	37.36
OLA17	36.02	37.64	34.60	33.66	35.32	35.84	35.89	34.78	37.20	34.83
OLD2	46.95	47.88	48.20	48.36	45.43	50.49	47.93	47.00	46.57	48.09
OLD9	47.57	48.15	46.15	45.99	47.84	50.17	47.05	50.69	49.18	46.93
OLD15	49.13	46.35	48.47	46.67	47.33	48.20	46.05	46.56	44.55	46.24

WT, wild type; CK, the null transgenic lines; OSW6/9/13, *BnSnRK2;2* transgenic lines; OSA5/11/18, *BnSnRK2;2TI77A* transgenic lines; OSD4/9/12, *BnSnRK2;2TI77D* transgenic lines; OLW3/9/14, *BnLEC1* transgenic lines; OLA4/13/17, *BnLECIS17A* transgenic lines; OLD2/9/15, *BnLECIS17D* transgenic lines.