

Supplementary Data

Variation of carbohydrates and macronutrients during the flowering stage in canola (*Brassica napus* L.) plants with contrasting seed oil content

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Supplementary Table 1. Comparison of yield, oil and protein content, and fatty acid profile between high oil content line (HOCL) and low oil content line (LOCL) in 2010 and 2011, respectively, in Hangzhou, China.

Year	Lines	Yield (kg ha ⁻¹)	1000-weight (g)	Oil content (%)	Protein content (g kg ⁻¹)	Fatty acid profile (g kg ⁻¹)							
						Palmitic acid	Stearic acid	Oleic acid	Linoleic acid	Linolenic acid	Arachidic acid	Docosanoic acid	Erucic acid
2010	HOCL	3645a	4.31a	51.3a	25.8b	92.4a	25.0a	634.4a	181.9b	56.4a	2.8a	1.0a	2.0
	LOCL	2935b	4.23a	42.2b	27.5a	92.7a	24.4a	586.0b	216.8a	63.9a	4.0a	1.0a	2.0
	<i>F</i> value	61.48**	2.40	126.0**	17.8*	1.01	1.75	147.5**	53.4**	7.25	7.08	0.00	0.00
2011	HOCL	3500a	4.29a	49.6a	25.5a	92.8a	25.4a	631.9a	179.4b	56.2a	3.3a	1.0a	2.0
	LOCL	2905b	4.17a	40.7b	26.9a	92.0a	24.2a	588.2b	218.5a	63.2a	4.1a	1.0a	1.9
	<i>F</i> value	29.2**	7.58	457.8**	3.64	2.88	1.76	206.4**	237.9**	5.95	1.09	0.00	0.40
Bartlett's chi square value		1.74	0.30	1.89	1.19	2.86	2.48	1.05	3.58	2.43	0.17	1.09	2.40
<i>P</i> value		0.627	0.960	0.596	0.759	0.414	0.480	0.790	0.311	0.488	0.982	0.800	0.493

Supplementary Table 2. Summary of ANOVA for the dry weight, carbohydrate, N, and P content in HOCL and LOCL at 0, 7, 14, 21, 28, and 35 DAA, respectively.

Dry weight (<i>P</i> value)						
Variance sources	Stem		Leaf		Flower + fruit	
	2010	2011	2010	2011	2010	2011
RIL lines (A)	<0.01	<0.01	0.249	0.552	<0.01	0.014
Harvesting date (B)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
A×B	0.291	0.544	<0.01	0.10	<0.01	<0.01

Fructose content (<i>P</i> value)						
Variance sources	Stem		Leaf		Flower + fruit	
	2010	2011	2010	2011	2010	2011
RIL lines (A)	<0.01	0.061	<0.01	0.016	<0.01	0.019
Harvesting date (B)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
A×B	0.013	<0.01	<0.01	0.044	<0.01	<0.01

Sucrose content (<i>P</i> value)						
Variance sources	Stem		Leaf		Flower + fruit	
	2010	2011	2010	2011	2010	2011
RIL lines (A)	0.580	0.161	0.035	0.696	0.116	0.013
Harvesting date (B)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
A×B	<0.01	0.020	<0.01	<0.01	<0.01	<0.01

Supplementary Table 2 continued.

Starch content (<i>P</i> value)						
Variance sources	Stem		Leaf		Flower + fruit	
	2010	2011	2010	2011	2010	2011
RIL lines (A)	0.644	0.380	0.899	0.017	0.061	0.300
Harvesting date (B)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
A×B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

N content (<i>P</i> value)						
Variance sources	Stem		Leaf		Flower + fruit	
	2010	2011	2010	2011	2010	2011
RIL lines (A)	0.203	0.623	0.827	0.024	0.025	0.042
Harvesting date (B)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
A×B	0.269	<0.01	<0.01	0.014	0.134	0.025

P content (<i>P</i> value)						
Variance sources	Stem		Leaf		Flower + fruit	
	2010	2011	2010	2011	2010	2011
RIL lines (A)	0.152	0.423	0.118	0.311	0.025	0.239
Harvesting date (B)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
A×B	0.450	0.496	0.129	<0.01	0.367	<0.01