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"..books always speak of other books, and every story tells a story that has already been told."

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APPENDICES

"Even a fool, when he holdeth his peace, is counted wise."

-Proverbs, 17: 28

Appendix 4.1

Growth data at peak flowering (stage 4.3) in Experiment 1 are presented in Table A4.1, while growth and yield data at maturity (stage 5.5) are presented in Table A4.2. The number of days to peak flowering and to maturity differed between the species and as such this data is confounded with phenology. Figure A4.1, shows the relationship between yield and days to maturity for Experiment 1.

Table A4.1. Dry matter, leaf area index (LAI) and specific leaf weight (SLW) at peak flowering (growth stage 4.3) for plants from Experiment 1. n=4

Cultivar	DAS to 4.3	Dry matter at stage 4.3 (g m ⁻²)			LAI	SLW
		Total	Leaf	Stem & Pod		
<i>B. napus</i>						
Taparoo	112	1759	235	1524	5.80	40.8
Maluka	105	944	108	835	2.56	42.2
Nindoo	108	1085	138	947	3.59	38.7
Shiralee	105	1073	138	935	3.24	42.3
DW15	108	1165	147	1018	3.87	38.8
DD28	114	1308	218	1089	5.49	39.9
mean		1222	164	1058	4.09	40.5
<i>B. juncea</i>						
PI340206	71	197	50	147	0.69	74.8
PI340212	71	155	33	122	0.45	72.3
CPI61680	<71	—	—	—	—	—
CPI62005	71	290	75	215	1.02	76.3
Stoke	101	580	73	507	1.47	49.9
ZEM1	101	893	133	760	1.98	65.3
mean		423 ***	73 ***	350 ***	1.12 ***	67.7 ***

*** P<0.001

Table A4.2. Dry matter, yield, harvest index and individual seed weights at maturity (growth stage 5.5) for plants from Experiment 1. n=4

Cultivar	DAS to 5.5	Dry matter at stage 5.5 (g m ⁻²)			Harvest index (%)	Seed weight (mg)
		Total	Seed yield	Stem & hulls		
<i>B. napus</i>						
Taparoo	151	1369	336	1033	25	3.31
Maluka	146	1413	398	1015	28	3.09
Nindoo	151	1498	367	1131	25	3.36
Shiralee	146	1432	389	1042	27	3.01
DW15	151	1788	473	1315	26	3.46
DD28	151	1663	250	1413	15	3.06
mean		1527	369	1158	24	3.22
<i>B. juncea</i>						
PI340206	120	290	74	216	26	2.72
PI340212	120	269	42	227	15	1.94
CPI61680	120	835	172	663	19	2.67
CPI62005	120	643	155	487	24	3.90
Stoke	137	858	167	691	20	2.72
ZEM1	137	1075	254	820	24	2.97
mean		662 ***	144 ***	517 ***	21 ns	2.82 *

* P<0.05, *** P<0.001

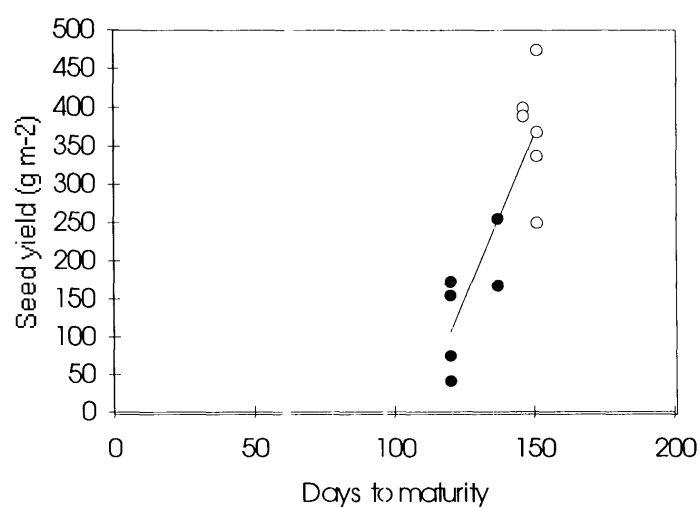


Figure A4.1. Relationship between seed yield and days to maturity in Experiment 1. $y = -921 + 8.56x$, ($r^2 = 0.74$, $P < 0.005$), mustard closed symbols, canola open.

Appendix 6.1

Table A6.1. Analysis of variance for stomatal frequency

Source of variation	Df	SS	MS	F
Replicates	8	2053.94	256.74	5.08
Main Plot				
Species	1	5170.10	5170.10	9.05
Deficit	1	63.12	63.12	0.11
Species x Deficit	1	1108.13	1108.13	1.94
Residual (a)	24	13704.50	571.02	11.29
Sub Plot				
Surface	1	28067.71	28067.71	198.82
Surface x Species	1	2319.09	2319.09	16.43
Surface x Deficit	1	6.08	6.08	0.04
Surface x Deficit x Species	1	1.54	1.54	0.01
Residual (b)	32	4517.47	141.17	
Sub-Sub Plot				
Position	2	1815.73	907.86	17.95
Position x Species	2	631.19	315.59	6.24
Position x Deficit	2	89.74	44.87	0.89
Surface x Position	2	196.01	98.00	1.94
Position x Species x Deficit	2	85.17	42.59	0.842
Surface x Position x Species	2	430.85	215.42	4.26
Surface x Position x Deficit	2	184.07	92.03	1.82
Surface x Position x Species x Deficit	2	66.92	33.46	0.66
Residual (c)	125	6323.59	50.59	
	(3)			
Total	141			

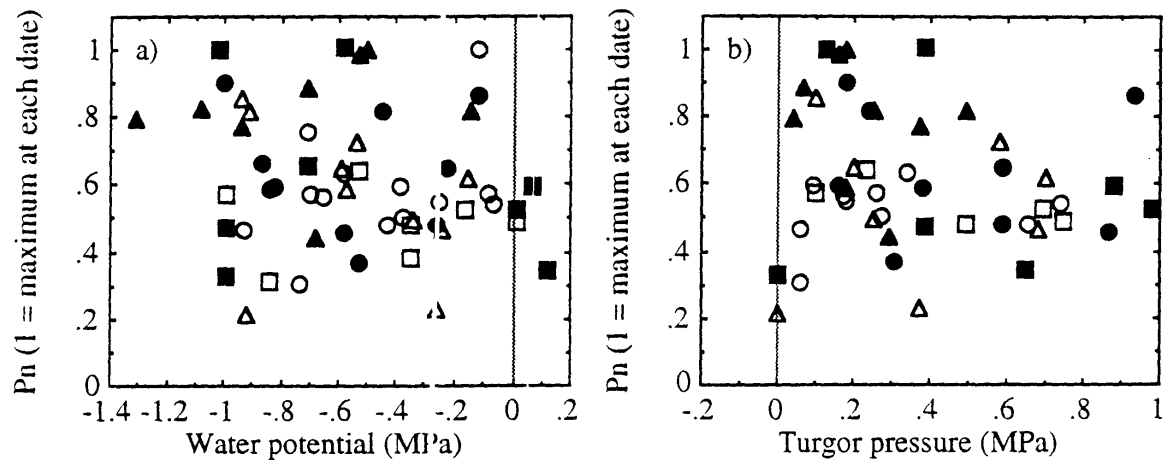
Appendix 8.1

Figure A8.1. Relationship between leaf photosynthesis and a) leaf water potential and b) leaf turgor pressure (open symbols canola, closed mustard; circles Experiment 3, triangles Experiment 4 and squares Experiment 5).