



“Longer Season canola varieties and agronomy”

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Several trials were conducted to determine the place of longer season canola varieties in the mid South East and what agronomic treatments may increase grain yield.

One trial was sown at Bool Lagoon on 31 March 2011 to test such early sowing. A spring canola (Hyola 50) was compared to two winter types (CBI206 and CBIW208). While a lot of rain had fallen during summer, spring rain was below average.

Nitrogen rates applied were 60 and 120 kg N/ha while grazing was simulated by mowing plots about 5 cm high.

Hyola 50 flowered very early (16 July), while the winter types did not flower to 15 and 22 September. Grain yield were higher for the winter types. Grazing reduced the dry matter and grain yield. Grazing reduced grain yield by reduced pods and seeds per square metre plus smaller grain size and increased blackleg internal infection. Higher nitrogen rate gave a better yield mainly by increased numbers of pods and seeds per square metre.

Table 1. Dry matter production, grain yield and harvest index for canola sown at Bool Lagoon on 31 March 2011

Variety	Treatment	DM 14/7	DM 23/9	DM harvest	Seed yield	HI
CBI206	N	2330	6649	9538	2588	0.27
CBI206	Nx2	2598	8711	10097	2766	0.27
CBI206	Nx2 G	2720	5553	6552	1533	0.24
CBIW208	N	3126	6996	9045	2711	0.30
CBIW208	Nx2	2869	7995	10615	3242	0.30
CBIW208	Nx2 G	2841	4986	7977	2330	0.29
Hyola 50	N	3268	8180	9405	2323	0.25
Hyola 50	Nx2	3024	8825	8993	2373	0.26
Hyola 50	Nx2 G	2809	3535	4765	1398	0.29

Table 2. Yield components of canola sown at Bool Lagoon on 31 March 2011

Variety	Treatment	Pods/ m2	Seeds/pod	Seeds/m2	1000 grain wt	Blackleg int inf
CBI206	N	3813	16.3	63112	3.91	11.0
CBI206	Nx2	7551	17.4	133977	3.91	13.2
CBI206	Nx2 G	4891	17.2	88433	3.63	22.5
CBIW208	N	4480	21.0	93322	4.08	3.2
CBIW208	Nx2	5169	21.5	110968	3.99	10.3
CBIW208	Nx2 G	3686	17.8	65080	3.96	18.7
Hyola 50	N	6746	10.3	69774	3.88	2.0
Hyola 50	Nx2	7332	10.3	76113	4.14	9.0
Hyola 50	Nx2 G	4572	11.5	53220	3.36	24.2

Another trial was sown south of Struan to evaluate a range of later flowering canola types compared to Australian commercial spring types.

Table 3. Grain yield of a series of longer season types compared to Australian spring types when sown on 17 May 2011

entry	kg/ha	% site mean
CBI8802	3547	137
Hyola50	3452	133
PS2610	3198	123
46Y83	3166	122
CBI1609	3114	120
CBI2109	2932	113
JardeeHT	2709	105
CB2	2573	99
CBIW8006CL	2488	96
CBI1709	2441	94
CB3	2364	91
CBI8004	2175	84
CBI8001	2143	83
CBI206	2122	82
Taurus	2017	78
CB1	2011	78
CBIW208	1638	63

Site mean	2593	
CV%	13.48	
lsd(0.05)	507.8	

With the low rainfall that fell from early September onwards the later flowering types were at a disadvantage to the spring types. However, the lines CBI8802 (late spring type) and PS2610 performed as well as Hyola 50. Earlier sowing dates could give these later flowering types a higher yield potential.

A further trial was sown using the winter variety Taurus that has been released for grazing and grain production in the high rainfall zone. We used mowing to simulate grazing at the 8-10 leaf stage. We also applied the fungicide Prosaro that is likely to be released later in 2012 for the control of blackleg in canola.

Table 4. Effect of mowing and fungicide application on grain yield, plant height and blackleg in Taurus canola sown on 17 May 2011.

entry	Yield (g m ⁻²)	% site mean	Plant height	# plants	Internal infection
Taurus_Proсарo(3-4leaf)	369.8	119	1.688	38.2	17.41
Taurus_Proсарo(8-10leaf)	323.6	104	1.688	31.7	10.15
Taurus_Nil	306.4	99	1.700	37.1	32.12
Taurus_mow(8-10leaf)	291.2	94	1.575	36.8	24.28
Taurus_mow+Prosaro(8-10leaf)	264.7	85	1.538	38.7	15.91
Site mean	311.1		1.638	36.5	19.97
CV%	9.87		2.48	17.76	22.64
lsd(0.05)	45.1		0.063	ns	6.96

Mowing to simulate grazing reduced grain yield and plant height. The application of Prosaro at the 3-4 leaf stage increased grain yield over the nil application treatment by reducing the level of internal infection caused by blackleg. The later application of Prosaro (8-10 leaf stage) also decreased the amount of blackleg compared to either the nil or the mowed at 8-10 leaf treatments.

