

3.1.2 CANOLA VARIETY TRIALS (BORDERTOWN, FRANCES, STRUAN SA)

Author: Trent Potter Ph. 08 8762 9100

Researcher: Trent Potter Ph. 08 8762 9100

Location: Bordertown, Frances and Struan in the South East of South Australia.

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Summary:

At Frances, little blackleg was observed. However blackleg was severe at Bordertown and very severe at Struan. *Sylvestris* attacking strains of blackleg were severe at all sites. Several varieties were badly affected by blackleg at Bordertown and Struan. Best TT varieties were TornadoTT and BravoTT. Best conventional varieties were Hyola 75 and 46C04. Best Clearfield variety was 46C76.

Objectives:

These trials were conducted to evaluate the range of mid season canola varieties available.

Background:

Canola is an important break crop in the South East of South Australia but blackleg has affected crops over the past few years. In the upper SE, the *sylvestris* attacking strains of blackleg have been particularly prevalent.

Methodology:

Three replicate trials were established with plot size of 8 rows at 15 cm row spacing by 8 m long. Trials were sown on 25 June at Frances and Bordertown and on 26 June at Struan. Rainfall (April-Nov) was 358 mm at Bordertown, 310 mm at Frances and 333 mm at Struan. All trials were windrowed.

Treatments:

Fertilizer applied at sowing was 130 kg/ha of NPKS 13:16:0:7, with a further 40 kg/ha N and 20 kg/ha S applied in August. Weed control was with Trefluralin applied presowing, followed by Lontrel and Select. TT canola had Simazine at 2l/ha applied post sowing.

Results and Discussion
Table 3-4: Yield In 2005, Long Term (1999-2005) Of Canola Sown At Bordertown, Frances And Struan Compared To Ag-Spectrum And ATR-Beacon

VARIETY	2005			1999-2005		
	Bordertown	Frances	Struan	Bordertown	Frances	Struan
AG Spectrum	100	100	100	100	100	100
AV Sapphire	109	86	133	98	97	101
Warrior CL	97	83	108	88	88	94
Hyola 61	104	89	145	94	95	98
46C04	118	105	114	100	100	102
46C76	105	102	111	94	95	98
Surpass 603 CL	75	70	97	91	91	94
AG Drover	101	98	118	99	100	104
Hyola 75	117	112	166	110	109	109
AV Ruby	96	98	150	95	97	100
AV Jade	88	85	133	92	94	99
Skipton	97	80	147	98	97	102
RocketCL	101	105	120	88	88	94
Ag-Spectrum yield	2.43	2.30	2.30	1.87	1.99	2.75
ATR Beacon	100	100	100	100	100	100
ATR Grace	94	90	102	97	92	105
Surpass 501 TT	76	92	93	93	92	98
ATR Summitt	87	118	113	100	103	106
BravoTT	94	126	107	99	105	106
Boomer	94	100	112	92	94	103
ThunderTT	107	125	89	99	102	99
TornadoTT	133	122	134	108	103	113
ATR-Beacon yield	2.12	2.13	1.84	1.68	2.16	2.01
Date sown	25-Jun	25-Jun	26-Jun			
Soil type	Clay loam	Sandy loam	Heavy clay			
A-O rain	314	284	367			
pH	7	5.7	7.5			
Stress factors	blackleg		blackleg			
Polygenic variety	58	13	35			
Sylvestris variety	75	40	55			

Blackleg data:

Polygenic variety: ATR-Beacon or Skipton, Sylvestris variety: Surpass 501TT or Surpass 603CL
% plants with significant yield loss

**Table 3-5: Oil Content In 2005 And Blackleg Rating Of Canola
Sown At Bordertown, Frances And Struan**

VARIETY	Oil Content			Blackleg Rating
	Bordertown	Frances	Struan	
AG Spectrum	39.3	44.1	44.3	6.5
AV Sapphire	40.3	45.9	45.2	7.0
Warrior CL	39.6	43.4	44.5	6.5
Hyola 61	39.3	43.0	43.7	7.0
46C04	38.0	43.1	43.4	7.0
46C76	38.8	44.6	44.0	6.5
Surpass 603 CL	41.6	45.4	46.8	
AG Drover	40.9	46.5	48.1	6.5
Hyola 75	39.6	43.4	44.9	8.0
AV Ruby	39.8	46.6	46.0	7.5
AV Jade	40.8	48.0	45.4	7.5
Skipton	41.5	46.2	47.8	7.0
RocketCL	40.9	46.0	45.5	8.0
ATR Beacon	40.2	40.6	35.5	5.5
ATR Grace	37.4	42.1	38.1	6.0
Surpass 501 TT	40.0	44.3	39.2	
ATR Summitt	38.2	43.3	37.1	6.5
BravoTT	38.0	41.5	37.0	7.0
Boomer	35.8	40.6	37.9	6.5
ThunderTT	39.5	43.9	36.8	7.5
TornadoTT	37.6	45.2	41.8	8.0

Best TT varieties were TornadoTT and BravoTT. Best conventional varieties were Hyola 75 and 46C04. Best Clearfield variety was 46C76. As is usually the case, TT canola yielded less than conventional and Clearfield varieties.

Blackleg was severe at Bordertown and very severe at Struan. *Sylvestris* attacking strains of blackleg were severe at all sites. Several varieties were badly affected by blackleg at Bordertown and Struan.

Oil content at Bordertown was low compared to normal while oils at Frances and Struan were about normal. TT canola generally produced lower oil contents than conventional and Clearfield varieties at all three sites.