Mt Cooper Break Crop Trial

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EXTENSION

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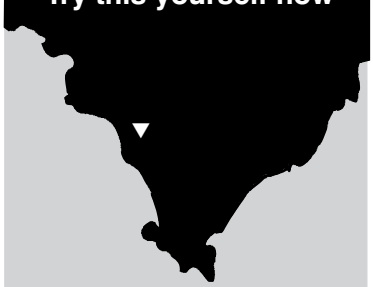

Location: Mt Cooper
Chris Lynch
Mt Cooper Ag Bureau

Rainfall
Av. Annual: 426 mm
Av. GSR: 332 mm
2009 Total: 459 mm
2009 GSR: 408 mm

Yield
Potential: Peas - 4.32 t/ha,
Canola - 4.62 t/ha
Actual: Average Peas - 2.29 t/ha,
Canola - 2.54 t/ha

Paddock History
2008: Peas
2007: Barley
2006: Wheat

Soil Type
Red loam

Diseases
Blackspot on peas

Plot size
10 m x 1.5 m x 3 reps

Yield Limiting Factors
Blackspot in peas

Key messages

- **No stand out varieties with peas at Mt Cooper in 2009.**
- **Av-Garnet conventional variety yielded the best at Mt Cooper followed by the two Clearfield varieties, Hyola 571CL and 43C80.**

How was it done?

One conventional, two Clearfield, three Triazine Tolerant (TT) canola varieties and one juncea Clearfield canola variety and six pea varieties were sown in a variety trial at Mount Cooper. The replicated trial was sown on 18 May with 70 kg/ha DAP fertiliser and 50 kg/ha Urea was broadcasted on 8 July. Trial received 1 L/ha Round up Power Max, 1 L/ha Triflur Xtra plus 0.75 L/ha Hammer at seeding and Select at 0.25 L/ha for grasses. No specific chemical was applied for the CLF and TT canola varieties, they were treated as conventionals. Grain yield and quality was measured.

What happened?

Mt Cooper received 408 mm of rain for the growing season which meant varieties had little moisture stress throughout the year. Nitrogen was a key factor for high yields in 2009. The trial was placed on pea stubble from 2008, boosting nitrogen reserves and also 50 kg/ha of urea was broadcast during July.

Peas

There was no stand out pea variety. Pea yields were reduced due to Blackspot, which was expected considering the trial was sown on pea stubble. The trial still yielded considerably well averaging 2.29 t/ha. The breeding line OZP 0703 had the highest yield and gross income with $644.

Canola

Canola yields were sound with the trial averaging 2.54 t/ha. AV-Garnet, a conventional variety, out yielded all other varieties with 3.32 t/ha and had the best gross income of $1,403. The two Clearfield varieties Hyola 571CL and 43C80 were second, both out-performing the TT varieties. The Clearfield Juncea Sahara yielded the same as the Triazine Tolerant varieties. Juncea canolas have been released and are grown in parts of Victoria and SA Mallee under a contract agreement.

Table 1 Peas yields, grain quality and gross income at Mt Cooper 2009

Variety	Grain Weight (g/100)	Yield (t/ha)	Price ($/t)	Gross Income ($/ha)
OZP 0703	24.82	2.83a	228	644
OZP 0602	23.45	2.36a	228	538
Morgan	17.68	2.33a	228	530
Kaspa	21.81	2.32a	228	529
OZP 0601	21.09	2.15a	228	489
OZP 0805	20.91	1.75b	228	398
Mean	21.63	2.29		521
LSD (P=0.05)		*0.69*		

**Gross Income is grain yield x price delivered to ABB Pt Lincoln using daily cash price 6/1/10*

Table 2 Canola yields and gross income at Mt Cooper 2009

Variety	Yield (t/ha)	Price** ($/t)	Gross Income* ($/ha)
AV-Garnet (Conventional)	3.32a	423	1,403
Hyola 571CL (Clearfield)	2.72b	423	1,151
43C80 (Clearfield)	2.67b	423	1,129
Tanami (TT)	2.34c	423	991
Cobbler (TT)	2.31c	423	975
Hurricane (TT)	2.31c	423	975
Sahara (Juncea Clearfield)	2.15c	423*	909
Mean	2.54		1,076
LSD (P=0.05)	*0.27*		

** Gross Income is grain yield x price (assuming 42% oil base) delivered to ABB Pt Lincoln using daily cash price Jan 6, 2009*

*** Price same as canola but there is no segregation in SA*

What does this mean?

When broadleaf weeds are under control choosing a conventional variety such as Av-Garnet can really increase profitability over using Clearfield and Triazine Tolerant technologies with canola.

Some new pea varieties are due for release soon, check their adaptability for your climate when choosing new varieties. Browse the NVT Web site, www.nvtonline.com.au for variety characteristics, yield and quality data.

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