

Grazing wheat varieties in Gippsland

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Key messages

- Sowing early, grazing the crops and taking through to harvest gives only a small yield penalty.
- Manning has been a strong performer across all three sowing dates.
- With early sowings, more feeding is essential to improve yields at the end of the season.

Background

In Gippsland it is common practice to sow crops early to allow them to be grazed before taking through to harvest, but how early can we go and still have the yields?

With a number of new varieties on offer, the trial was aimed to see how they fared at different sowing dates compared with varieties suited to those dates.

Method

The trials were sown at the Bairnsdale trial site using our cone seeder which is on 200 mm row spacing. The fertiliser applications were based on soil test data, predicted yield estimate and district practice.

Table 1. Sowing details and fertiliser applications for the three sowing times.

	Sowing one – 14/3/14		Sowing two – 16/4/14		Sowing three – 22/5/14	
Previous crop	Brassica		Brassica		Brassica	
Fertiliser applications	14/3/14	100 kg/ha DAP	16/4/14	100 kg/ha DAP	22/5/14	100 kg/ha DAP
	23/6/14	100 kg/ha Urea	23/6/14	100 kg/ha Urea	2/8/14	100 kg/ha Urea
	2/8/14	100 kg/ha SOP	2/8/14	100 kg/ha SOP	2/8/14	100 kg/ha SOP
	13/8/14	100 kg/ha Urea	27/8/14	100 kg/ha Urea	27/8/14	100 kg/ha Urea

Results

After a dry start to the year the first sowing of wheat was planted on 14 March after 16 mm of rain. Although the rainfall figures for 2014 were below average, Bairnsdale received enough rain at the right time to allow us to successfully complete both a second sowing time on 16 April and also a third time of sowing on 22 May. This rainfall meant we had decent soil moisture for the later sowing dates. At the end of the season the site received more than double its December average rainfall which played havoc with harvest, resulting in shot grain and may have decreased yields.

Some varieties at the first and second times of sowing were grazed. The first fertiliser application for sowing one was delayed till after grazing, with the crop suffering as a result of it being late. The following applications occurred in a timely manner and the crops went on to finish well.

In the second and third sowings, yields of wheat varieties that finished early suffered as they were ready to harvest when the rain fell. For some, there was head loss and others had shot grain (Cobra).



Figure 1. First time of sowing of wheat, photo taken in July, 2014.

Table 2. Yield and grain quality results from the Gippsland wheat trials.

Sowing one – 14/3/14								
Variety	Yield (t/ha)		Protein (%)		Test weight (kg/hL)		Screenings (%)	
Manning	7.10	a	8.2	b	73.5	b	0.9	c
Scenario	6.62	ab	9.2	a	75.4	a	1.5	b
Adagio	5.94	bc	9.0	a	73.7	b	1.4	b
Revenue	5.68	c	8.9	a	73.6	b	2.2	a
Mean	6.34		8.8		74.1		1.5	
LSD(p=0.05)	0.83		0.61		1.03		0.55	
Sowing two – 16/4/14								
Variety	Yield (t/ha)		Protein (%)		Test weight (kg/hL)		Screenings (%)	
Manning	7.14	a	9.2	a	75.4	bc	1.2	e
Adagio	6.47	ab	10.3	a	74.9	bcd	2.1	cde
Scenario	6.40	abc	9.7	a	75.9	bc	1.8	de
Einstein	5.77	b-e	9.6	a	73.0	efg	2.7	bcd
Frelon	5.70	cde	10.6	a	77.8	a	2.8	bcd
Revenue	5.31	de	10.4	a	72.9	efg	3.9	a
Beaufort	5.02	e	11.0	a	72.2	fg	3.3	ab
Wedgetail	3.84	f	12.3	a	71.5	g	1.5	e
Trojan	3.41	f	10.2	a	74.3	cde	1.5	e
Mean	5.34		10.4		74.6		2.2	
LSD(p=0.05)	0.75		2.73		1.68		0.99	
CV	9.85		18.42		1.57		31.24	
Sowing three – 22/5/14								
Variety	Yield (t/ha)		Protein (%)		Test weight (kg/hL)		Screenings (%)	
Manning	7.96	a	9.7	e	74.4	cd	1.3	d
Scenario	7.01	b	10.7	bcd	75.9	bc	2.1	bc
Beaufort	6.71	bc	10.6	cd	73.9	d	2.7	ab
Revenue	6.32	cd	10.4	d	74.9	cd	30.0	a
Scout	6.23	cde	11.4	a	79.0	a	1.7	cd
Cobra	6.19	de	11.3	ab	75.0	cd	2.0	c
Phantom	5.97	de	11.1	abc	77.2	ab	1.5	cd
Trojan	5.81	e	10.8	a-d	77.0	b	2.2	bc
Mean	6.52		10.8		75.9		2.1	
LSD(p=0.05)	0.5		0.65		1.92		0.65	
CV	5.21		4.09		1.72		21.66	

Means followed by the same letter do not significantly differ ($p=0.05$).

Discussion

Gippsland's weather conditions are generally very conducive for fungal diseases outbreaks and for 2014 the temperatures were particularly mild. With these conditions, Manning's R disease rating for *Septoria tritici* and its BYDV resistance has shown itself to be a strong performer in all three sowings compared to Revenue. Scenario also yielded well in 2014, both in grain and grazing ability, producing 1.4 t/ha dry matter.