

MAC Farm Report 2017

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INFORMATION

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Key outcomes

- **On average MAC wheat yielded 0.9 t/ha, barley 0.65 t/ha (25 ha yielded 0.1 t/ha), canola (failed), lentils 0.15 t/ha, vetch 0.1 t/ha, oats (grazed and spray topped).**
- **80% of total farm area sown to crops and pastures.**
- **355 breeding ewes produced 127% lambs at marking including crossbred lambs from dry ewes mated to White Suffolk rams.**
- **Ten tonnes of certified Longsword seed made available for sale to growers.**

Background

The performance of the Minnipa Agricultural Centre (MAC) commercial farm is an essential component in the delivery of relevant research, development and extension to Eyre Peninsula. The effective use of research information and improved technology is an integral part of the role of the farm. MAC had white peg trials in 10 paddocks and continued to take full pedigree records and production

measurements on the sheep research flock in the 2017 season.

What happened?

Weather

What a year we had weather wise in 2017! It started with off with a bang, 56 mm in January followed by 29 mm in February. March became dry with only 0.4 mm and then 15 mm fell in April. Rain came in spits and spurts through April, May and June, this year being the driest for that period since 1982. July and August were the pick of the growing season months with 32 mm recorded in July and 50 mm fell in August. September was a month of small but helpful rainfall events with 15 mm in total, which kept things cool enough for crops to fill as best they could. October was very similar to September with milder weather, small rain events and 17.8 mm in total. Overall, we received 155 mm of growing season rainfall (GSR), compared to 268 mm of GSR in 2016.

Seeding

The program began on 11 April with Cummins vetch sown in N3 and MAC Airport, which we completed on 13 April. Stingray canola was sown in N7/8 on 18 May after a long wait for a somewhat reasonable rain event. Volga vetch went in on 24 April in S3S with the rest of the paddock completed with Cummins vetch. Waiting for rain was the main game and when a forecast for some precipitation came for late May, Spartacus barley went in dry before the rain, starting from 24 May until 26 May in S1, S4 and S7. Following rain on 29 May, the seeding program started in earnest beginning with Scepter wheat in N4, then N5S, Minnipa Hill, N11, S6, S2/8 and S10. A variety switch to Mace

occurred half way through S10 on 4 June and completed on 5 June in AP Town and N12. The new variety Longsword (RAC2341) followed, sown in S9, also Hatchet CL in S9 and the Golf Course. Next after a short delay to repair a missing wheel from the air cart, we made the change to Compass barley and this went in on 7-9 of June in Ronnie's, S5 and N2.

Over the entire operation, total areas sown in 2017 were wheat 360 ha (33%), barley 196 ha (18%), oats 20 ha (2%), vetch 148 ha (14%), canola 110 ha (10%), lentils 35 ha (3%) and 219 ha regenerated medic pasture (20%).

To try to prevent erosion, Super Sweet Sedan (forage sorghum-Sudan hybrid) was sown after rain in paddock N7/8 (17 November) where the canola failed and N5S (21 November) where pasture cover was minimal. At the time of writing (30 January), the sedan is yet to be grazed but with 13 mm of rain and a reasonable cover of plants, particularly in N7/8, it will be moderately grazed.

Certified seed

Longsword (RAC 2341) wheat grown as certified seed, with 10 tonnes prepared for sale.

Harvest

Harvest commenced on 31 October (Volga and Cummins vetch) and finished on 13 November (Compass barley). The program was completed with no interruptions. The average farm yields were; wheat 0.9 t/ha, barley 0.65 t/ha, canola (failed), lentils 0.15 t/ha, oats were grazed and vetch yielded approximately 0.1 t/ha.

Issues encountered in 2017:

- Poor establishment of canola due to lack of moisture
- Lack of early season rainfall
- Lack of paddock feed for livestock
- Caltrop in summer of 2017
- Photosensitisation in ewes and lambs
- Germination of all crops elongated

Table 1. Harvest results, 2017 grain yields and protein aligned with paddock rotational histories.

Paddock	Paddock History 2012-2016	Crop 2017	Sowing date 2017	Yield (t/ha)	Protein (%)	Screenings (%)
North 1	P W W P W	Medic (P)				
North 2	W B P C W	Compass (B)	9 June	0.80	16.5	6.1
North 3	W W V W B	Cummins (V)	11 April	Grazed		
North 4	B P W W P	Scepter (W)	30 May	0.71	14.1	6.1
North 5 N	P W W B P	Scepter (W)	31 May	0.76	14.5	5.5
North 5 S	W W W P W	Medic (P)				
North 6 E	B Pe W W B	Medic (P)				
North 6 W	W W C W B	Medic (P)				
North 7/8	P W P W P	Stingray (C)	18 April	Fail		
North 9	W B V W B/W	Wintaroo(O)	28 April	Grazed		
North 10	P W W P W	Medic (P)				
North 11	W P W W C	Scepter (W)	1 June	0.85	13.5	5.4
North 12	W W S S W	Mace (W)	4 June		13.8	5.2
South 1	B C W Pe W	Spartacus (B)	24 May	0.78	17.2	5.7
South 2/8	W Pe W W P	Scepter (W)	2 June	1.01	12.4	3.4
South 3 S	W P P W B	Cummins/Volga (V)	25 April	0.10		
South 3 N	W B P W B	Medic (P)				
South 4	P W P O/V W	Spartacus (B)	25 May	0.75	16.8	5.2
South 5	C B W P W	Compass (B)	8 June	0.10	-	-
South 6 E	M W W B P	Scepter (W)	1 June	0.89	14.9	5.6
South 6 W	W Pe B O P	Scepter (W)	1 June	0.89	14.9	5.6
South 7	P W W P W	Spartacus (B)	26 May	0.64	16.9	4.9
South 9	W W B P P	Hatchet/Longsword (W)	5 June	0.84/0.77	14.7/15.2	7.2/2.4
South 10	W V B B V	Scepter/Mace (W)	3 June	0.98	12.1	3.1
Barn	X P P W O	Medic (P)				

P = pasture, Pe = field pea, W = wheat, B = barley, O = oats, C = canola, V = vetch, S = sulla

Farm improvements and equipment

A new Sonic 5027T boom spray and two new mobile sheep lick feeders were purchased during 2017 for improved technology and labour efficiency, respectively.

Livestock

Stock currently on the farm: 335 merino ewes, 186 merino ewe lambs, 172 merino wether lambs, 87 crossbred lambs and 7 merino rams.

Reproduction results overall for 2017 from 355 ewes mated were 124% born and 98% marked, the low marking percentage was mostly due to failure of one ram. Excluding the 93 dry ewes (of which 51 were from the failed ram), the MAC flock had a scanning percentage of 167%, with 456 born, 361 marked and 132% lambing. The 93 dry ewes were joined to White Suffolk rams

after pregnancy scanning revealed the failed sire, of which 75 had 91 lambs born in late September/early October.

During the year, photosensitisation (a symptom where the skin becomes abnormally sensitive to sunlight) became an issue with livestock over much of Eyre Peninsula and MAC experienced major setbacks, particularly with young sheep, from the affliction, caused by grazing aphid-infested vetch. Livestock slated for sale had to remain on the research centre because of the photosensitisation causing scabbing and a reduction in condition. These animals needed to be hand fed while also reducing stubble feed, which over summer has been critical for the rest of the flock.

Shearing was completed on 31 January 2018, with the previous shearing completed in the last

week of August 2017. From five months of wool, the ewes averaged 3.4 kg and 48.3 mm staple length per animal. Ewe lambs shorn at the same time with 7 months' wool averaged 2.6 kg greasy fleece weight (GFW) and 57.3 mm staple length (SL) per animal and the wether lambs averaged 2.8 kg GFW and 57.3 mm SL per animal. Ewe and wether lambs averaged 25.2 kg live weight as weaners.

One ram was purchased in 2017, from a stud presenting ASBVs on Eyre Peninsula.

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