Millicent, South Australia
High Rainfall Zone, Lower Southeast

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A much drier than average start to the season delayed crop emergence until mid-June, which stunted broad bean canopy growth and in turn, yield. The first germinating rainfall event (12.2 mm) occurred on the 31st May. July and September were the only months to receive higher than average rainfall and between August to October temperatures were drier than average (Figure 1). These drier and warmer conditions reduced the requirement for foliar fungicide application across the lower southeast of the state. Stored soil water and warm conditions allowed for an extended flowering period from early September to late October, however, with limited branch numbers from the delay emergence, pod set was severely reduced compared to an average season. The restrictive environmental conditions meant limited treatment effects were observed across the disease, nutrition, and canopy trials. Yields ranged from 0.44-2.55 t/ha across the broad bean trials on the site.

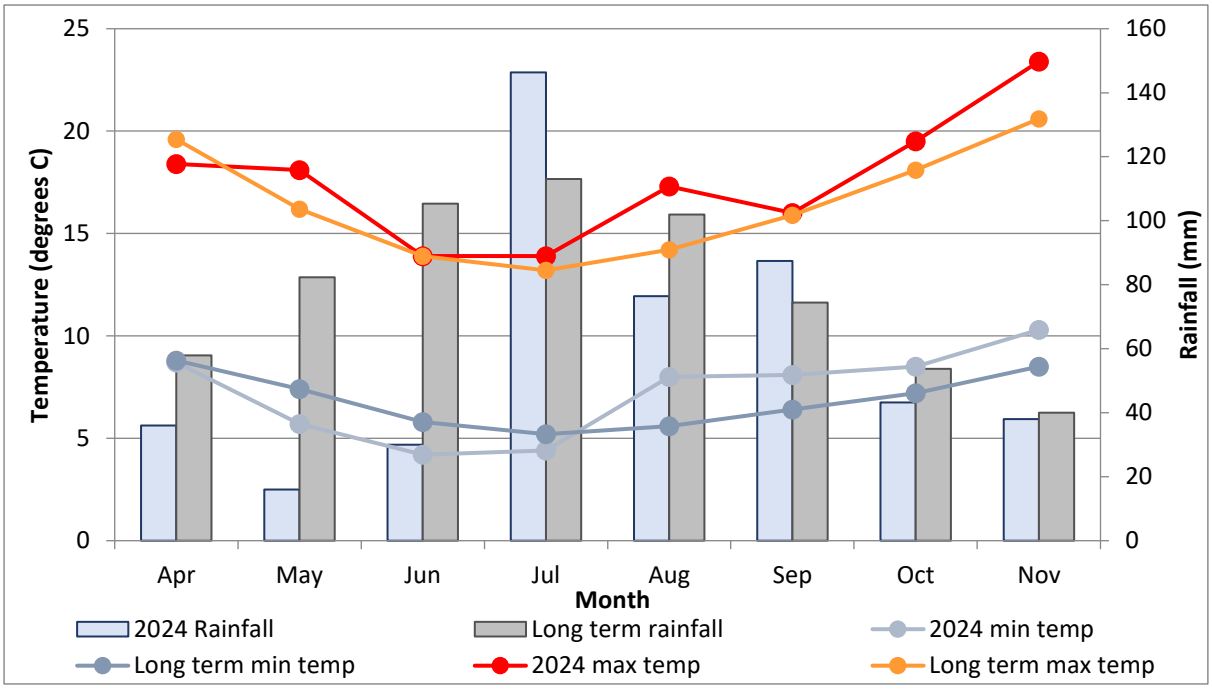

Figure 1. 2024 growing season and long-term rainfall recorded at Millicent (1877 to 2024) and long-term min and max temperatures recorded at Mount Gambier Aerodrome (1941 to 2024) for the growing season (April to November). Rainfall April to November = 473 mm.

GRDC Project: UOA2105-013RTX *- Development and extension to close the economic yield gap and maximise farming system benefits from grain legume production in South Australia.*

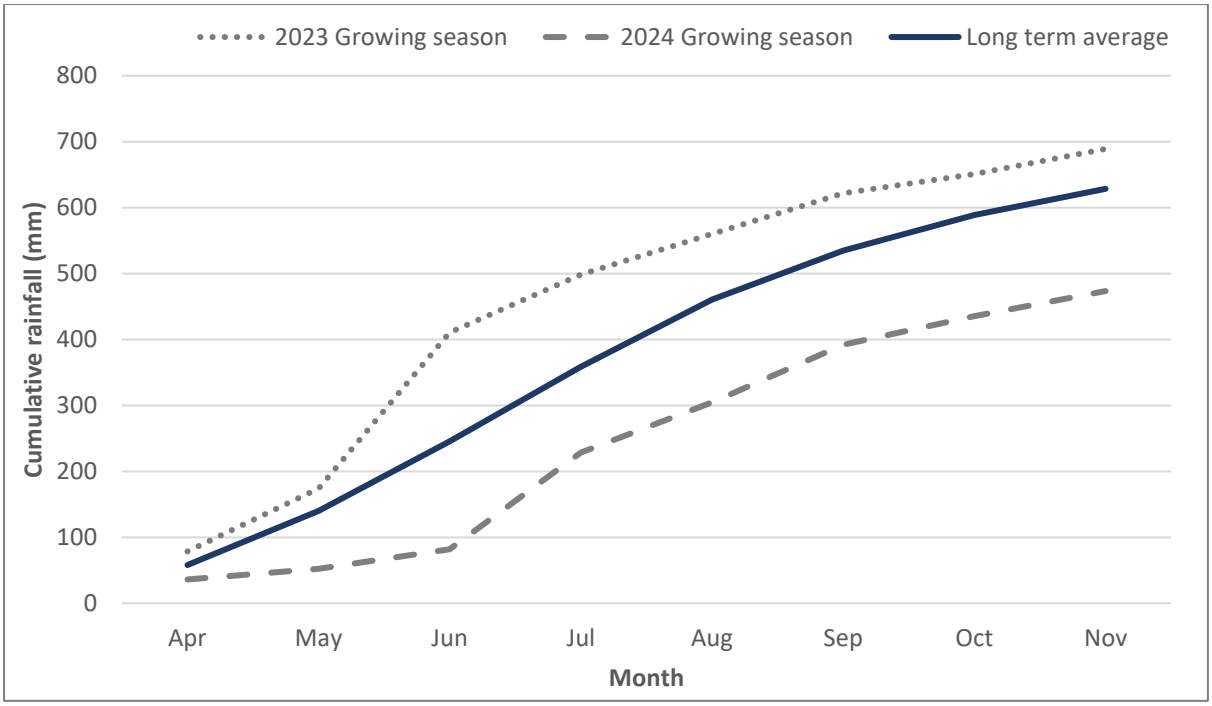

Figure 2. Cumulative growing season rainfall for 2023, 2024 and the long-term average for the growing season (April to November).

Table 1. Soil characterisation (Organosol) for Millicent trial site, 2024.

Depth	NH_3-N	NO_3-N	P (Colwell)	PBI-Col	K	S (KCl40)	OC	EC (1:5 water)	pH	pH
(cm)	(mg/kg)		(mg/kg)	(%)	(mg/kg)		%	(1:5 water)	CaCl2	(H_20)
0-10	7.6	86	35	94	200	190	8.13	0.70	7.6	7.9
10-30	2.1	24								
30-60	0.94	15								
60-100	0.65	5.4								

Depth	CEC	Exc Ca	Exc Mg	Exc K	Exc Na	Exc Al
(cm)	(cmol(+)/kg)					
0-10	39.8	36	2.3	0.52	0.58	<0.10

Disease management strategies - physiology, pathology & agrichemicals combined

Aim

These trials aim to test the efficacy of different fungicide regimes based around plant phenology. Although we possess a reasonable amount of knowledge regarding the disease and the conditions conducive to infection in broad beans, our understanding of which specific parts of the plant should be prioritised for disease protection remains somewhat limited. Consequently, the central question that the fungicide trials aim to address is: "When is the optimal timing for fungicide application within the canopy to maximise yield returns?"

Methodology

- Disease assessment – % infection severity in relation to leaf layers of 10 stems marked by the different spray timing tags.
- Grain yield (t/ha).
- Data was analysed using a one-way ANOVA in ARM.

Treatments

Variety (cv. Aquadulce) x 8 fungicide treatments x 4 replicates = 32 plots

Table 2. Fungicide treatment list with development stage and product rates.

Trt	4 nodes – GS 104	1st Flowers open on main stem – BBCH 61	1st Flower (BBCH 65) + 14 - 21 days	1st Flower (BBCH 69) + 28 -42 days
	27 September	2 October	16 October	4 November
1	----	----	----	----
2	----	----	----	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha
3	----	----	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha
4	----	Mancozeb 750 2.0kg/ha + Procymidone 240g/ha	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha
5	Tebuconazole 145 mL/ha	Mancozeb 750 2.0kg/ha + Procymidone 240g/ha	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha	Chlorothalonil 2.3 L/ha Carbendazim 0.5 L/ha
6	----	----	Miravis Star 0.75 L/ha	----
7	----	----	Miravis Star 0.75 L/ha	Veritas 0.75 L/ha
8	Tebuconazole 145 mL/ha	Mancozeb 750 2.0kg/ha + Procymidone 240g/ha	Miravis Star 0.75 L/ha	Veritas 0.75 L/ha

Table 3. Trial details, Millicent 2024.

Trial design	RCBD
Plot size	10 m x 4 m
Replicates	4
Sowing date	29 May 2024 (emerged on 17 June)
Plant density	15 plants/m^2
Row spacing	36 cm
Fertiliser	110 kg/ha (10-17-0-12) (N-P-K-S)
Harvest date	9 January 2025

Key messages

- Low disease pressure was observed in 2024 due to drier autumn and winter conditions. Grain yields ranged from 2.12 t/ha to 2.55 t/ha.
- There were significant differences in total percentage of plot infection of chocolate spot (0.7 to 9.8% of canopy infected in the top two thirds of the canopy), with the untreated control with the highest amount of the disease at 9.8% of the plot infected in the middle third of the canopy.
- There were significant differences in chocolate spot severity (%LAI) in both the top third of crop canopy and the middle third of crop canopy when assessed in early December.
- The untreated control had significantly more disease than all fungicide treated plots in the top third of the canopy while the 2 and 4 fungicide regimes containing SDHI chemistry had significantly less severity than all other treated plots other than the 3-fungicide unit treatment (Figure 3).
- The middle third of the broad bean canopy saw significantly less disease in the 'expensive treatments and 3 spray fungicide program when compared to the untreated which recorded 9.8% LAI chocolate spot severity (Figure 3).

Results and discussion

Plots were marked out in-crop in a paddock of Aquadulce broad beans sown by the grower on 29 May 2024. Plots were harvested on 9 January 2025. Results should be considered in the knowledge that the season was drier than average. Dry conditions, particularly prevalent in the autumn and early winter, led to reduced vigour and delayed canopy closure which may have contributed to reduced disease pressure.

Low levels of Chocolate spot, Ascochyta blight, and Alternaria leaf spot were first observed at application A (Table 4).

Table 4. Baseline disease measurements (% Leaf area infected) of untreated control measured 25 September 2025.

Crop layer	Chocolate spot	Alternaria	Ascochyta
Top third	0.0	0.0	0.0
Middle third	1.5	1.3	0.5
Lower third	2.3	2.3	2.3
Total %LAI	**1.3**	**1.3**	**0.9**

Towards the end of flowering there was a measurable difference in chocolate spot incidence in the top layer of the canopy (Table 5). Although disease levels were low, the 3F conventional treatment and all treatments comprising of an application of Miravis Star two weeks after the onset of flowering had reduce incidence of chocolate spot in the top 30 cm.

Table 5. Chocolate spot severity (% LAI) and incidence (%), 11 November, BBCH 69. Data labelled with the same letters within a column are not significantly different (P<0.05). F = fungicide, SDHI = Succinate dehydrogenase inhibitors. ns = not significant.

		Chocolate spot			
		Severity (% LAI)		Incidence (%)	
Treatment		**Top 30 cm**	**Mid 30 cm**	**Top 30 cm**	**Mid 30 cm**
1.	Untreated	1.1 -	2.3 -	70.0 a	82.5 -
2.	1 Fungicide	1.3 -	2.1 -	65.0 ab	82.5 -
3.	2 Fungicide	1.9 -	2.6 -	57.5 abc	72.5 -
4.	3 Fungicide	0.7 -	1.5 -	35.0 cde	75.0 -
5.	4 Fungicide	0.8 -	1.3 -	50.0 a-d	70.0 -
6.	1 Fungicide (SDHI) Expensive	0.6 -	1.2 -	40.0 b-e	57.5 -
7.	2 Fungicide (SDHI) Expensive	0.3 -	0.5 -	25.0 de	40.0 -
8.	4 Fungicide (SDHI) Expensive	0.2 -	1.2 -	20.0 e	42.5 -
Mean		0.9	1.6	45.3	65.3
LSD (P=0.05)		ns	ns	28.3	ns
P Val		0.081	0.131	0.010	0.055

Lower than average rainfall in August and October limited the progression of Chocolate spot in spring. Although temperature ranges were in the optimal range between 15-28 ˚C for *Botrytis* growth (Pulse Australia, 2021), the canopy density at the critical reproductive phase was not conducive to high disease levels. There were significant differences in total severity of chocolate spot in the top two thirds of the canopy (0.7 to 9.8%), with the untreated control having the highest level of disease at 9.8% of the plot infected in the middle third of the canopy. (Figure 3).

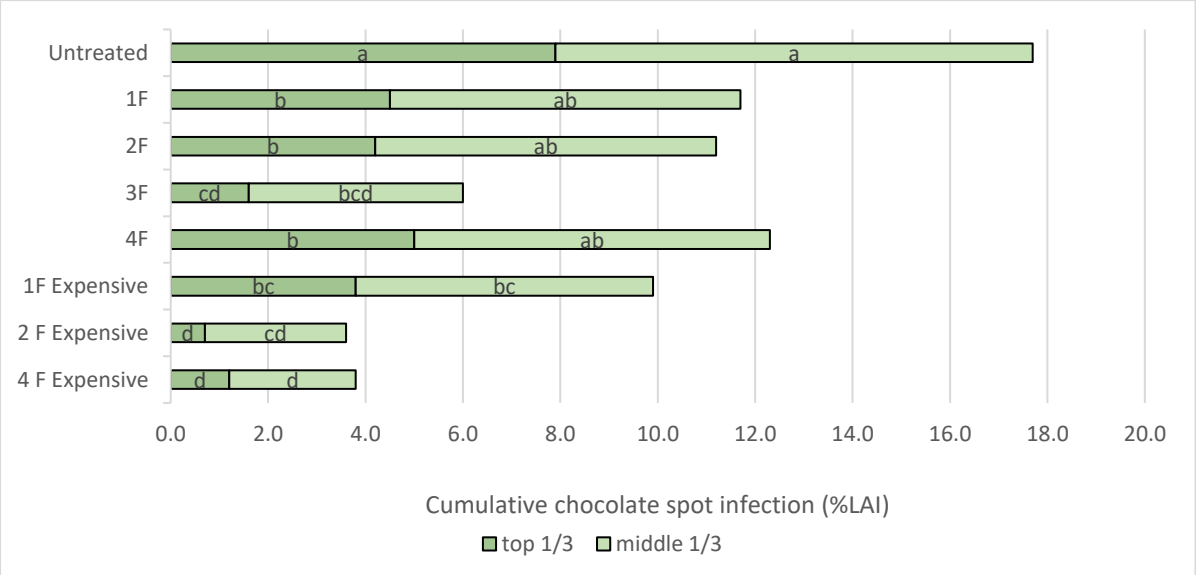

Figure 3. Broad bean chocolate spot (Botrytis fabae) infection (% of whole canopy) of eight fungicide regimes (Table 1) measured 5 December 2024, BBCH79. Bars with different letters are significantly different (LSD (P = 0.05) = 2.5 (top 1/3); 3.4 (middle 1/3)).

A season with low levels of foliar disease produced grain yields of 2.12 to 2.55 t/ha, with no significant statistical differences among the eight treatments (Figure 4). Although there was observable difference in chocolate spot in season, these treatment effects appeared too late to statistically effect yield.

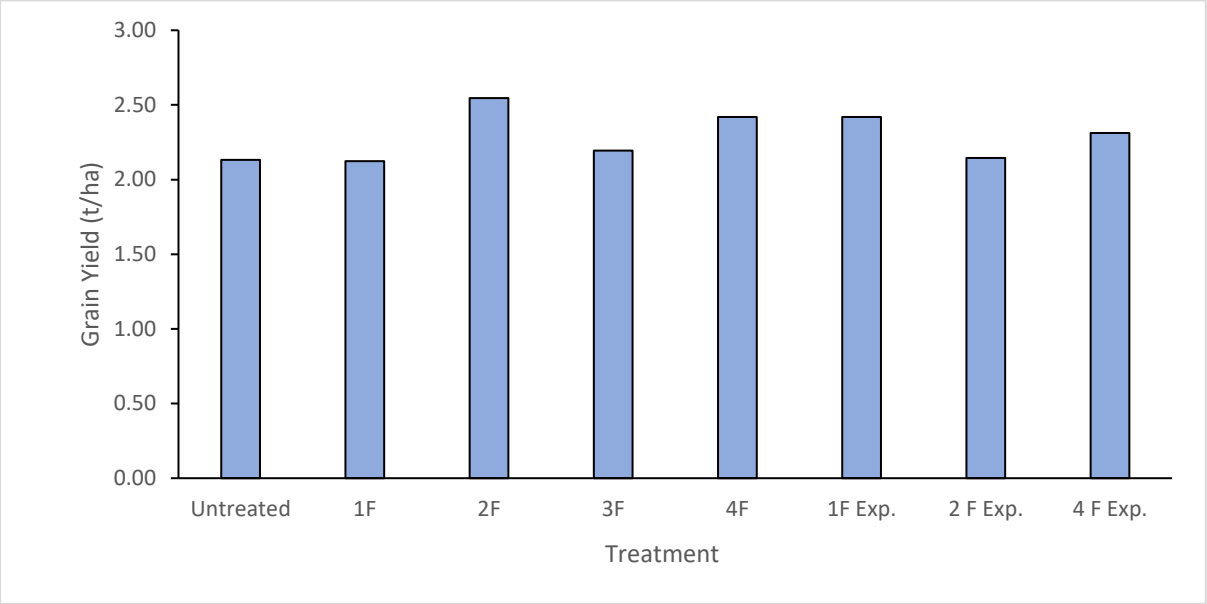

Figure 4. Grain yield (t/ha) of broad beans (cv. Aquadulce) across eight fungicide regimes measured 9 January 2024. No significant differences were observed (P=0.63).

Strategic phosphorus and iron applications in calcareous organosols

Aim

This trial aims to compare the relative yields of different nutrition approaches on broad beans and the impact of crop nutrition prior to the onset of flowering. In high organic matter soils with a pH of 7.6 ($CaCl_2$). This trial focuses on interplay of additional phosphorus (P) early in the season and foliar iron (Fe) application in spring.

Methodology

- Harvest biomass (DM t/ha, harvest index).
- Yield component measurements (branch number, pods/branch, pods/m^2, plant height).
- Grain yield (t/ha).
- 1000 seed weight (g).
- Data was analysed using a one-way ANOVA in ARM.

Treatments

Variety (cv. Aquadulce) x 5 nutrition treatments x 4 replicates = 20 plots (Table 6).

Table 6. Nutrition treatment list and product rates.

Trt No.	Description
1.	Untreated
2.	50 P kg/ha (additional to sowing application)
3.	RapiSol Fe (EDTA) 2 kg/ha (264 Fe g/ha)
4.	RapiSol EDDHA 4.4 kg/ha (264 Fe g/ha)
5.	100 kg/ha N (late flowering)

The trial was managed throughout the season for disease with fungicide and balanced with macro- and micro-nutrients to elicit the desired treatment effects

Table 7. Trial details, Millicent 2024.

Trial design	RCBD
Plot size	10 m x 4 m
Replicates	4
Sowing date	29 May 2024 (emerged on 17 June)
Plant density	15 plants/m^2
Row spacing	36 cm
Fertiliser	110 kg/ha (10-17-0-12) (N-P-K-S)
Harvest date	9 January 2024

Key messages

- Although additional P and Fe had some influence on crop height, treatments gave no statistical difference in any other canopy measurements or in grain yield (1.68 t/ha to 1.88 t/ha).
- Applied nutrition was observed to provide marginal gains, even in a later establishing crop, however results suggest more research could increase understanding around alternate iron application timing on organosols.

Results and Discussion

Plots were marked out in-crop in a paddock of Aquadulce broad beans sown by the grower on 29 May 2024, and emerged on 17 June. Plots were harvested on 9 January 2024.

There was a measurable difference in plant heights ranging from 65.6 to 77.2 cm (Figure 5). The application a phosphorus at sowing, iron (EDTA), and nitrogen at flowering produced taller crops at maturity. Although the plants were taller in these treatments, there were no difference in overall biomass, or any other plant component measured (Table 3).

Table 8. Yield component measurements (branch number, pods/branch, plant height, pod depth, harvest DM) measured 7 January 2025. Data labelled with the same letters within a column are not significantly different (P<0.05).

Treatment		Branch no. (branches/m²)		Pods/branch		Plant height (cm)		Pod depth (cm)		Harvest DM (t/ha)	
1.	**Untreated**	26.4	-	2.2	-	65.6	c	8.5	-	3.5	-
2.	**50 P (sowing)**	24.7	-	2.5	-	77.2	a	8.9	-	3.8	-
3.	**Fe EDTA**	20.9	-	2.7	-	74.6	ab	11.4	-	3.4	-
4.	**Fe EDDTA**	27.7	-	2.5	-	68.7	bc	8.0	-	3.5	-
5.	**100kg/ha N (late flower)**	32.2	-	2.3	-	74.3	ab	7.4	-	4.5	-
Mean		26.4		2.4		72.1		8.8		3.7	
LSD (P value=0.05)		*ns*		*ns*		8.1		*ns*		*ns*	
P value		0.351		0.710		0.050		0.747		0.719	

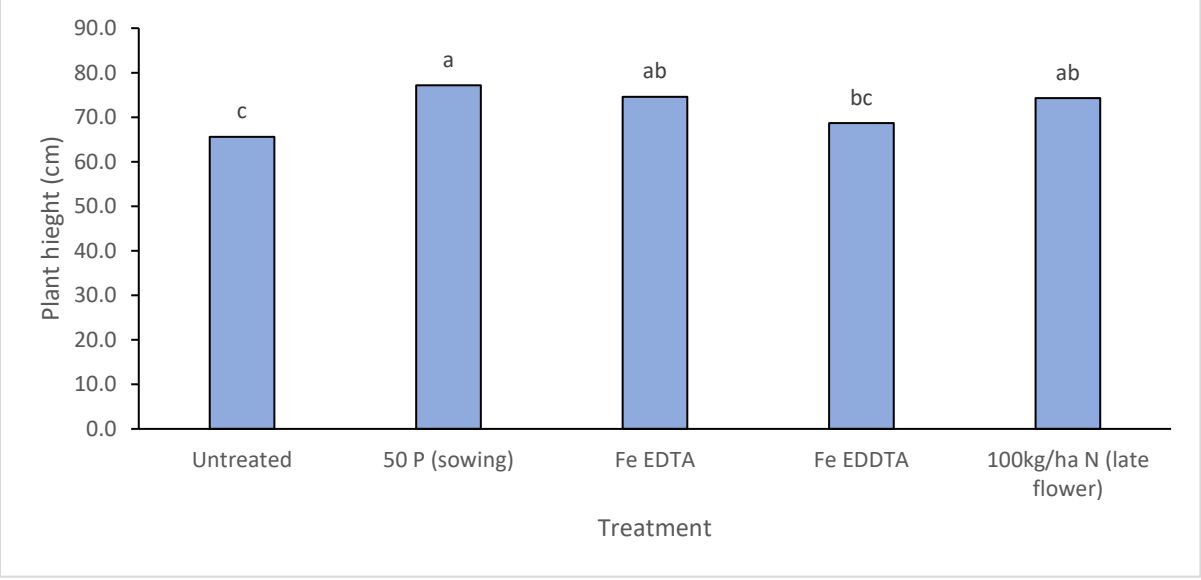

Figure 5. Plant height (cm), measured 7 January 2024. Columns with different letters are significantly different (LSD (P = 0.05) = 8.1).

The trial was harvested on 9 Jan 2025 with no statistical difference in grain yield or seed size (Table 5).

Table 9. Grain yield (t/ha) and 1000 seed weight (g) of faba bean, harvested 9 January 2024. ns = not significant.

Treatment		Grain yield		1000 seed weight	
		t/ha		g	
1.	**Untreated**	1.68	-	1271.4	-
2.	**50 P (sowing)**	1.83	-	1270.8	-
3.	**Fe EDTA**	1.88	-	1203.4	-
4.	**Fe EDDTA**	1.85	-	1223.0	-
5.	**100kg/ha N (late flower)**	1.86	-	1243.5	-
Mean		1.82		1242.4	
LSD (P value<0.05)		*ns*		*ns*	
P value		0.863		0.946	
CV		15.99			

Novel Canopy Management Strategies in Broad Beans

Aim

This trial aims to assess the effects of novel canopy management approaches using mechanical techniques on biomass and grain yield in broad beans. Establishing a robust canopy is essential for attaining high bean yields. The existing canopy management approaches for beans primarily involve decisions made at the time of sowing, including selecting the sowing date and determining plant density. However, there are limited options available during the growing season, posing challenges such as lodging, heightened disease susceptibility, and phenological inefficiencies. Despite progress in research regarding sowing density and sowing date, additional efforts are required to develop in-season agronomic management strategies that address annual environmental risks and enhance conversion of biomass into grain yield.

Methodology

- Harvest biomass (DM t/ha, harvest index)
- Yield component measurements (branch number, pods/branch, plant height, pod depth)
- Grain yield (t/ha)
- 1000 seed weight (g)
- Data was analysed using a one-way ANOVA in ARM.

Treatments

Variety (cv. Aquadulce) x 4 canopy management treatments x 4 replicates = 16 plots

Table 10. Canopy management treatment list, applied to bean at Millicent, 2024.

Treatment Number	Description
1.	Untreated
2.	Early graze (low), through mechanical defoliation
3.	Early graze (high), through mechanical defoliation
4.	Thinned (every second row mowed out)

All treatments managed for disease with fungicide throughout the season.

Table 11. Trial details, Millicent 2024.

Trial design	RCBD
Plot size	10 m x 4 m
Replicates	4
Sowing date	29 May 2024 (emerged on 17 June)
Plant density	15 plants/m^2
Row spacing	36 cm
Fertiliser	110 kg/ha (10-17-0-12) (N-P-K-S)
Harvest date	9 January 2025

Key messages

- Alternative canopy management strategies of grazing through mechanical defoliation significantly decreased plant height and grain yield.
- Grazing and 'thinning' of crops had no statistical influence on any other canopy measurements.

Results and Discussion

Building on promising results from 2023 trials which achieved a yield benefit of 0.7 t/ha with early mechanical defoliation compared to untreated, the opposite treatment effect was observed in 2024. The late emergence (which contrasted the more favourable start in 2023) mixed with the dry spring conditions were not conductive to create a canopy that required in-season management in 2024. The novel strategy of grazing at the 4-node growth stage to reduce above ground biomass while retaining root growth and increasing branching produced a shortened plant height in comparison to the untreated (Table 12). Branch number, pod/branch, podding depth, harvest dry matter, and harvest index were not affected by any treatment.

Table 12. Yield component measurements (branch number, pods/branch, plant height, pod depth) measured 9 January 2025. Data labelled with the same letters within a column are not significantly different (P<0.05). ns = not significant.

Treatment		Branch no. (branches/m²)		Pods/branch		Plant height (cm)		Pod depth (cm)		Harvest DM (t/ha)		Harvest index*	
1.	Untreated	39.7	-	2.3	-	63.7	a	8.3	-	5.2	-	0.51	-
2.	Graze Early (low)	28.1	-	2.4	-	40.9	c	4.5	-	2.5	-	0.61	-
3.	Grazing Early (high)	29.5	-	2.1	-	48.9	b	5.0	-	3.1	-	0.54	-
4.	Thinned	23.3	-	2.5	-	61.8	a	6.7	-	3.7	-	0.55	-
Mean		30.1		2.3		53.8		6.1		3.6		0.55	
LSD (P value=0.05)		*ns*		*ns*		6.2		*ns*		*ns*		*ns*	
P value		0.238		0.804		<0.001		0.409		0.062		0.222	

**Calculated by threshing harvest dry matter samples.*

Low height grazing through mechanical defoliation at the 4-node growth stage yielded lower than any other treatment (Table 13). The high cut grazing through mechanical defoliation yielded higher, however, there was still a yield detriment compared to the untreated. In the 2024 spring environment, alternative in-season canopy management methods did not recover to a point that provided an architectural benefit to the crop.

Table 13. Grain yield (t/ha) and 1000 seed weight (g) measured 9 Jan 2025. Data labelled with the same letters within a column are not significantly different (P<0.05). ns = not significant.

Treatment		Grain yield		1000 seed weight	
		t/ha		g	
1.	Untreated	1.65	a	1253.3	-
2.	Graze Early (low)	0.44	c	1100.1	-
4.	Grazing Early (high)	1.05	b	1141.5	-
5.	Thinned	1.59	a	1239.0	-
Mean		1.18		1183.5	
LSD (P value=0.05)		0.27		*ns*	
P value		<0.001		0.463	
CV		14.34			

Acknowledgements

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Host primary producer

FAR Australia would like to thank the host farmer for hosting the trials in 2024.

Funding bodies

Delivery partners and collaborators

Appendix I: Climate data

Table 14. Daily rainfall (mm) recorded at Millicent. BOM weather station #26018, 9.8 km distance from trial site.

2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1st	0	0	0	0	0	0	21.4	0	0	0.6	0
2nd	0	0	0	10.2	0	0	1.6	0	19.4	0	0
3rd	0	0	0	1.2	0	0	0	0	1	0	0
4th	0	0	0	0.6	0	0	0	0	0	5	0
5th	0	0	0	0	0	4.4	0	0	1.2	0	0
6th	0	0	0	0	0	0	0	0	19.8	0	0
7th	0	0	0	0	0	0	0	1	0	0	0
8th	17	0	0	3	0	0	0	0	0	10.4	9.6
9th	0	0	0	3.4	0	6.4	0	4.4	5	0	0
10th	0	0	0	0.8	0	0	0	0	0	0	0
11th	0	0	0	0	0	0.6	11.4	0	0.4	0	0
12th	0	0	0	0	0	0	2	0.8	4.2	0	0
13th	0	0	0	0	0	0	0	0	0	0	1
14th	0	0	0	0	3	0	0	3.2	0	0	0.2
15th	0	0	0	1.2	0	0	7.6	1.4	0	0.4	0
16th	0.4	0	0	0	0	0	2.2	22.8	0	2	0
17th	0	0	0	0	0	4.2	18.2	0	0.2	0.2	8
18th	0	0	0	0.6	0	0	2	0	2.2	22.4	0.8
19th	0	0	0	5.8	0	0.8	0	20.4	2	0	0.4
20th	0	0	0	0	0.8	1.8	0	0.6	7	0	0
21st	0	0	0	0	0	0	0	1.2	0	1	0
22nd	0	0	0	0.6	0	0	43	0	0	0	0
23rd	0	0	0	0	0	0	4	0	8	0	0
24th	0	0	0	5.8	0	0.8	0	0	1	0	0
25th	0	0	0	0	0	6.8	0	0	3.6	1.2	0.2
26th	0	0	1.8	0	0	2	10.2	8.2	0.6	0	0
27th	0	0	0	0	0	0	0	0	0	0	10.4
28th	0	0	0	0	0	2.2	0	10.4	0	0	6.8
29th	0	0	0	2.8	0	0	22.8	1.2	0	0	0.4
30th	0		0	-	0	0	0	0.8	11.8	0	0.2
31st	0		0		12.2		0	-		0	
Highest Daily	17	0	1.8	10.2	12.2	6.8	43	22.8	19.8	22.4	9.6
Monthly Total	17.4	0	1.8	36	16	30	146.4	76.4	87.4	43.2	38
Mean	25.3	24.3	32.4	57.9	82.3	105.3	113	101.9	74.4	53.7	40
No. Wet days	2	0	1	12	3	10	12	13	16	9	11

Table 15. Minimum daily temperature recorded at Mount Gambier Aero. BOM weather station #26021, 50.9 km distance from trial site.

2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1st	9.2	11.9	7.9	11.6	6.7	2	3.6	-	11.5	9.5	9.4
2nd	13.9	13.9	10.8	13.1	7.7	2.7	1.6	6.7	7.2	3	5.5
3rd	14.7	6.7	5.9	10.1	5.4	2.7	-0.2	4	4.3	7.1	8.8
4th	15.5	13.3	8	7.5	4.5	2.2	0	2.9	10	13.9	8.2
5th	12.8	12.4	7.8	11.9	6.5	3	2.7	0.4	11.8	10.5	4
6th	15.2	6.3	12.3	9.1	5.2	3.9	1.7	6	13.5	10.9	15.4
7th	20.3	7.7	12.5	12.6	4.7	3.8	0.7	7.4	7.1	12	5.2
8th	16	8.6	7.5	7.6	4.3	5.6	4.6	8.2	8.6	2.5	8.8
9th	14.6	10.2	13.1	7.4	5.3	5.1	6.5	4.5	9.5	2.2	6.7
10th	14.5	13.5	22.2	10.2	8.6	2.9	0.7	6.2	9.5	8.7	6.7
11th	10.2	10.6	21.2	12.2	9.7	6.7	6.2	2.4	7.6	5.7	6.5
12th	11.8	11	17.5	10.8	4.8	10.1	4.4	6.6	3.4	3.4	10.3
13th	15.7	12.9	14.8	9.4	9.4	5	5.4	11.8	10.1	7.4	10.2
14th	11.7	9.3	11.7	8.9	10.4	5.6	0.7	10.2	7	9.5	10.3
15th	12.9	4.2	9	6.6	3.8	3.4	4.2	7.8	4.1	10.4	4.9
16th	19.7	7.1	13.8	6.5	1.8	0.8	6.8	11.4	7.8	13.5	9.9
17th	13.2	10	14.7	10.2	5.8	4.5	9.5	9.5	8.4	15.8	10.9
18th	12.3	10.3	15.7	9.2	4	-1.9	6.2	7.4	7.1	13.9	10.3
19th	13.5	9.9	17	10	7.8	2.7	7.6	7.3	7.4	8.4	10.5
20th	12.5	13.8	8.8	11.5	8.1	7.2	7.4	11	7.6	9	6.5
21st	12.4	10.6	5.1	4.8	7.4	2.8	6.8	10.6	8.8	7.7	6.1
22nd	9.9	21.8	4.8	2	-0.2	2	11.2	7.3	9.7	13.3	15.4
23rd	9.5	14.7	11.1	5.2	-0.2	0.3	8.7	7.7	10.1	5.3	23.4
24th	16	13.8	10.8	5.5	6.9	4.7	9.1	10.9	10.3	5.8	14.5
25th	10.4	8.7	14.9	7.1	2.7	5.5	6.3	10.7	9.5	7.1	13.5
26th	13.4	11.1	13.2	7.1	0.5	6	4.7	11.2	2.8	4.7	12.4
27th	9.9	8.4	6.8	9.7	3.5	6.1	6.4	10.7	-0.2	10.1	14.8
28th	12.7	15.1	6.9	6.5	3	7	1.3	10.1	8.5	7.3	11.5
29th	10.1	15.9	5.3	9.5	6.6	8.2	2.8	8.3	11.2	6	11.4
30th	15.1		5.6	6.6	10.7	4.7	0	11.4	7.8	11.3	15.6
31st	8.3		9		9.9		-0.1	10.6		7	
Highest daily	20.3	21.8	22.2	13.1	10.7	10.1	11.2	11.8	13.5	15.8	23.4
Lowest daily	8.3	4.2	4.8	2	-0.2	-1.9	-0.2	0.4	-0.2	2.2	4
Monthly mean	13.2	11.2	11.2	8.7	5.7	4.2	4.4	8	8.1	8.5	10.3
Mean	11.3	11.8	10.6	8.8	7.4	5.8	5.2	5.6	6.4	7.2	8.5

Table 16. Maximum daily temperature recorded at Mount Gambier Aero. BOM weather station #26021, 50.9 km distance from trial site.

2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1st	25.7	23.4	24.5	23.3	18.1	14.7	13.1	-	16.9	17.9	18.8
2nd	30	24.7	22.4	16.6	18.3	13.4	12.7	15.4	13.7	20.4	27.1
3rd	29.8	30.6	21.3	17.5	19.9	12.3	11.9	15.3	17.1	27.7	18.9
4th	25.3	35.7	27	17.8	19.7	11.6	13.9	14.4	18.5	20.3	19.7
5th	28.8	22.7	32.6	21.8	19.5	16.6	15.2	15.8	16.8	15.7	26.5
6th	34.2	23.3	-	23	18.6	17.1	13.8	15.1	14.7	18.2	22.8
7th	27.3	24.4	25.6	17.6	17.6	15.7	16.3	17	16.4	15.8	18.7
8th	19.4	24.4	31.6	17.4	19.1	15.7	12.5	13.8	15.4	16	17.3
9th	24.5	24.4	41.2	16	21.9	15.4	15.9	15.2	15.2	20.4	19.4
10th	22.7	25.3	39.6	17.6	18.1	15.9	14.9	16.9	16.6	17.5	21.5
11th	27.2	31	40	15.9	21.6	16.8	12.1	17.7	15.3	17.4	21.5
12th	33.2	33.2	23.4	18.7	19.5	13.6	15.8	21.2	14.3	20.9	24.8
13th	20	26.4	20.9	17	17.4	12.8	13.3	21.2	14.4	22.4	20
14th	24.2	20.8	22.9	18.7	17.6	9.3	13.5	20.5	13.1	20.7	19.3
15th	32.1	23.2	29.1	20.5	17.8	15.4	12.7	19.7	14.5	22	24
16th	33.5	26.3	33	18.5	20.7	14.8	11.7	16.7	13	27.1	35
17th	19.8	28.1	31	18	17.8	13.5	12.9	17	15.3	-	18.3
18th	19.6	26.3	33.7	16	15.2	12.7	12.2	14.5	18.2	14.5	17.6
19th	24.7	27.9	22.5	18	15	13.3	11.2	18.8	14.9	17.6	19.1
20th	30	28.5	18.9	17.9	15.2	11.9	13.1	16.6	15.6	20.9	22.2
21st	22.7	37.5	20.9	18.1	14	13.9	15.6	17.6	15.3	25.5	32.5
22nd	25.1	31.9	21.4	22.5	15.7	12.5	15.3	16.6	17.2	17.6	37.7
23rd	36.9	20.2	21.1	24.8	15.1	13.2	18.2	17.4	16.8	18.2	25.6
24th	25.9	24.7	20.7	16.1	14.9	13.2	17.7	20.4	18.2	16.4	23.7
25th	23.7	24.1	19.5	16.1	17.4	14.2	14.9	19.2	12.7	17.5	27
26th	21.9	23.8	22.5	16	18.9	13	16.1	17	14.5	22.2	32
27th	21.9	32.6	22.3	16.4	20.9	15.2	11.2	20.4	17.5	20.6	21.9
28th	26.4	35.8	22	21.2	22.8	13.5	12.1	15.2	21.7	18.3	20
29th	26.1	26.8	26.1	17	20.6	13	13.6	20.1	17	19.3	28.5
30th	24.2		29.1	16.5	16.2	13.1	-	16.2	18	18.7	19.7
31st	24.6		30.6		15.8		-	16.1		18.3	
Highest daily	36.9	37.5	41.2	24.8	22.8	17.1	18.2	21.2	21.7	27.7	37.7
Lowest daily	19.4	20.2	18.9	15.9	14	9.3	11.2	13.8	12.7	14.5	17.3
Monthly mean	26.2	27.2	26.6	18.4	18.1	13.9	13.9	17.3	16	19.5	23.4
Mean	25.5	25.3	23.3	19.6	16.2	13.9	13.2	14.2	15.9	18.1	20.6