

Lentil, Sowing Date, HRZ South West (Inverleigh), Victoria

Authors

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Aim

To evaluate the adaptability of lentil cultivars to the Victorian HRZ with an autumn or spring sowing date.

Treatments

Varieties: See Table 2.

Sowing dates: 4 May; 4 September (spring crop failed)

Table 1. Site Details

Inverleigh	
Sowing dates	4 May, 4 September
Stubble	Burnt
Plant density (plant/m ²)	114
Row spacing (cm)	20
Fertiliser (kg/ha) ¹	60

1. MAP (9.2, 20.2, 0, 2.7)

Results and Interpretation

- Key messages: Average yield of autumn sown lentils were 1.7 t/ha in 2019 with a range from 1.0 to 2.1 t/ha between cultivars. PBA Hallmark XT, PBA Bolt, Jumbo2 and CIPAL1701 had the highest yields of the eight varieties tested (Table 2).
- Grain yield: In 2019 harvest conditions were unfavourable. Yields were delayed and lowered due to late rainfall and heavy winds causing higher percentage of pod drop and lodging. Despite the challenges at harvest, lentils remained a profitable crop with an average gross margin of \$603/ha for a grain price of \$570/t, which is the long-term median price at the Adelaide port. The gross margin of PBA Hallmark XT was significantly greater than all other treatments at \$871/ha (Table 2).

Table 2. Grain yield (t/ha) and gross margin of lentil varieties at Inverleigh Victoria sown in autumn.

Variety	Grain yield (t/ha)	Gross margin (\$/ha)*
PBA Hallmark XT	2.1	871
PBA Bolt	1.9	716
PBA Jumbo2	1.8	692
CIPAL 1701	1.8	676
PBA Hurricane XT	1.7	614
PBA Giant	1.5	486
CIPAL 1522	1.5	507
PBA Ace	1.0	265
LSD	0.3	150
P-value	<0.001	<0.001

*Calculated at the long-term median price of \$570/t at Adelaide port

Spring-sown lentils failed to perform adequately to make harvest. Rainfall from July was below the long-term median at Inverleigh and the spring-sown plots failed to produce adequate biomass. As a result, the crop was low yielding, closer to the ground, difficult to harvest and was overwhelmed by weeds in two of four replicates. The average yield of the remaining replicates was 130 kg/ha (Table 3).

Table 3. Mean grain yield (t/ha) of two recoverable replicates of spring-sown lentils at Inverleigh, Victoria.

Variety	Grain yield (t/ha)
PBA Hallmark XT	0.10
PBA Bolt	0.17
PBA Jumbo2	0.14
CIPAL 1701	0.18
PBA Hurricane XT	0.14
PBA Giant	0.09
CIPAL 1522	0.15
PBA Ace	0.08