Lentil, Herbicide strategies to control wild radish, MRZ South East (Coomandook), South Australia
Faba bean, Herbicide strategies to control wild radish, MRZ South East (Coomandook), South Australia

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Aim
To evaluate the efficacy of different herbicides to control radish in pulses.

Treatments
Factor 1: Three varieties (Table 2)
Factor 1: Four herbicide treatments

Treatments	Lentil	Faba bean
Un-weeded control	Herbicides not applied	Herbicides not applied
Group B	Post-emergent application of Imazethapyr (3 July)	Post-emergent application of Imazamox and Imazapyr (3 July)
Group C	Metribuzin (IBS)	Simazine (IBS)
Group B + Group C	Metribuzin (IBS) + Imazethapyr (post-emergent)	Simazine (IBS) + Imazamox and Imazapyr (post-emergent)

Table 2. Trial site details

	Coomandook
Varieties	Lentil: PBA Hallmark XT and PBA Hurricane XT Faba bean: PBA Bendoc
Sowing date	22 May
Sowing density (plants/m^2)	Lentil: 120 Faba bean: 24
Row spacing (cm)	21
Inoculant	Group E and F
Fertiliser (kg/ha) [1]	80
Harvest date	25 November

[1]MAP (9.2, 20.2, 0, 2.7) + Zn (2.5)

Results and Interpretation

- Key messages: Herbicide damage on crops was negligible. Grain yield of PBA Hurricane XT (1.94 t/ha) was 150 kg/ha greater than PBA Hallmark XT, at Coomandook, 2019.

- Herbicide damage: Herbicide damage was assessed by scoring the level of symptoms visible on plants at regular intervals following herbicide applications. In faba bean the symptoms were very mild and negligible. Further, the herbicide damage was not different between herbicide treatments. In lentil, low to moderate levels of chlorosis were observed on 25 June in all treatments, including the nil. This indicates the high likelihood of residual herbicide effects at the site, which was not from the herbicides used in the trial.

- Biomass yield: Dry biomass of plants was measured during flowering. The biomass was not different between herbicide treatments for lentil or faba bean. Mean faba bean biomass production was 3.2 t/ha and 4.7 t/ha for lentil.

- Grain yield: Herbicides did not cause yield losses in faba bean or lentil. Average faba bean grain yield was 2.8 t/ha. Grain yield of PBA Hurricane XT (1.94 t/ha) was 150 kg/ha more than PBA Hallmark XT.

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