

Grass Patch 2016-17 Rotation Profitability Trial – 2016 Results

TRIAL DESIGN

In 2016 Ron and his agronomist, Greg Warren (Farm & General), initiated a two year trial to investigate the profitability of different cereal: break crop rotations on Ron's property 5km north west of Grass Patch. Five different break crop option treatments; Canola (3 plots), Field Peas (1 plot), Faba Beans (1 plot), Common Vetch (1 plot) and Lentils (1 plot), were seeded in to 72m x 579m treatment plots (ie 4.17ha) in April and May 2016. Plots were harvested with 6 header runs, each 12m x 579m. All header runs were weighed with a weigh trailer to get precise yields and ascertain variation within the plots. All of these plots will be sown to wheat in 2017, harvest yields will be measured at crop maturity and net returns calculated for both the 2017 wheat crop and the 2016-17 break crop : wheat rotation.

RESULTS

Table 1 below summarises the yield range and average yield achieved this year for each of the plots in which one of 5 break crop species were trialled.

Table 1: Summary of 2016 Break Crop Yields from 2016-17 Rotation Profitability Trial.

BREAK CROP	PLOT	Variety	Date Harvested	Yield Range kg/ha (6 runs)	Average Yield (kg/ha)
Canola 1	1	ATR Bonito	14 th Nov	1352 - 1525	1452
Vetch	2	Rasina	Brown Manured	N/A	N/A
Lentils	3	PBA Bolt	14 th Nov	1762 - 1956	1849
Canola 2	4	ATR Bonito	14 th Nov	1306 - 1532	1429
Faba Beans	5	PBA Samira	14 th Nov	2336 - 2993	2581
Field Peas	6	PBA Gunyah	10 th Nov	1804 - 2080	1888
Canola 3	7	ATR Bonito	14 th Nov	1390 - 1575	1468

The Faba bean plot yielded the highest of the 5 break crop species trialled followed by field peas and lentils, which produced yields that were almost the same. The 3 canola plots produced similar yields and were the lowest of the species trialled.

Table 2: 2016 Break Crop Average Yields & Crop Returns from the 5 Break Crop Species Trialled.

	Lentils	Canola	Field Peas	Vetch	Faba Beans
Harvest Yield (t/ha)	1.86 t/ha	1.45 t/ha	1.89 t/ha	Brown Manured	2.52 t/ha
Break Crop Net Return (\$/ha)	\$881/ha	\$590/ha	\$452/ha	-\$125/ha	\$662/ha

Note: Net Return = Farm Gate Grain Value less direct input costs

When commodity price and production costs were considered with crop yield, lentils were the most profitable break crop in 2016 followed by faba beans, then canola, then field peas and lastly vetch. The vetch plot was brown manured and left as there was no stock on the property to utilise the feed value provided by the vetch.