



Your Levy at Work



Department of
Primary Industries and
Regional Development

Milk production potential from the WA Seed Productivity trial 2017

The MPP index was calculated slightly differently in 2017 compared to 2018. It was calculated as an index that was relative to the lowest performing ryegrass rather than Oretet. This resulted in a positive index for all seed lines relative to the lowest performer.

Relative Milk Profit Potential (MPP \$/ha)

The MPP \$/ha was calculated as a value relative to the lowest ryegrass performer of the trial using the formula;

Extra milk yield (L) x estimated milk price (cents per L) – (the seed cost - the seed cost of lowest ryegrass performer)

Where;

Extra milk yield (L) = (The energy yield estimate less the energy yield estimate of the lowest performing ryegrass) x Litres of milk per MJ of ME

Energy yield estimate = (cumulative dry matter yield from harvests 1, 2 and 3 x ME harvest 2) + (cumulative dry matter yield from harvests 4 and 5 x ME harvest 4)

Litres of milk per MJ of ME = 25 L/215 MJ = 0.11628*

*Energy requirements for milk yield were 215 MJ/cow per day based on the assumption; maintenance requirements of 65 MJ/cow per day for a 600 kg non-pregnant cow, not using energy for growth or activity; and 150 MJ/cow per day for milk production of 25 L/day (6 MJ/L of milk).

Estimated milk price = 45c/L

Utilisation is the estimated proportion of pasture likely to be consumed by grazing cows and was estimated at 0.75 (15% wastage)

Seed cost = \$/kg seed x 25 kg/ha sowing rate

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T DM/haTotal

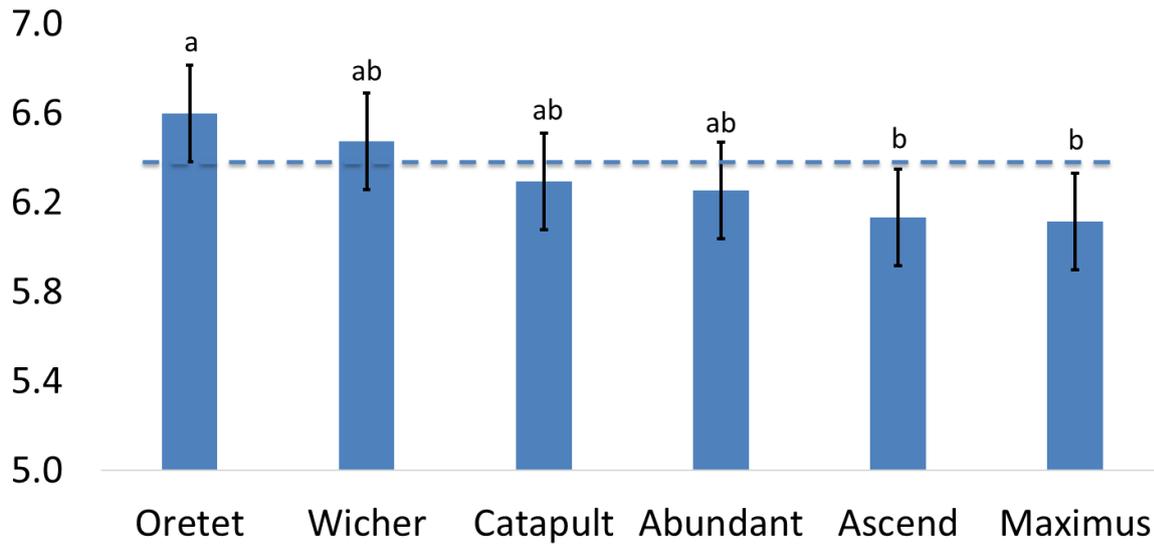


Figure 1. Cumulative dry matter yield for WASP 2017. Means with no common superscript differ significantly

Oretet produced a significantly higher dry matter yield than Ascend and Maximus. Standard error bars and a dashed blue line are included in Figure 1 to illustrate the significant differences. When error bars do not overlap it is likely that the means differ when analysed statistically. Oretet also produced a significantly higher MPP (\$/ha) than Ascend and Maximus (Table 1).

Table 1. Cumulative dry matter yield and milk production potential

Milk Production Potential WASP 2017

	* <u>OreTet</u>	* <u>Wicher</u>	Abundant	Catapult	Maximus	Ascend
Yield T DM/ha	6.6 ^a	6.5 ^{ab}	6.3 ^{ab}	6.3 ^{ab}	6.1 ^b	6.1 ^b
MPP \$/ha	244 ^a	141 ^{ab}	123 ^{ab}	114 ^{ab}	37 ^b	0 ^b

*Ryegrass brand

Means with no common superscript within a row differ significantly