Lessons from the

Angus Sire
Benchmarking Program

Starting vs. Finishing EBVs
Did they change?

How much did the EBVs of sires in the ASBP change?

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How was it calculated?

Initial EBVs

EBVs and EBV accuracies were calculated as part of the TransTasman Angus Cattle Evaluation (TACE) analysis based on the pedigree and performance information available when the sires were first entered into the ASBP.

Final EBVs

EBVs and EBV accuracies were again calculated for each sire once they had been progeny tested in the ASBP and all progeny performance data have been included in the TACE analysis.
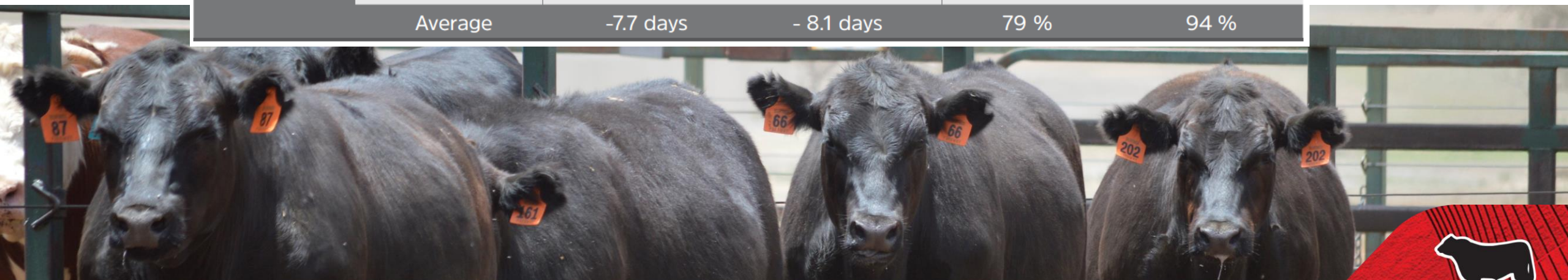
Birth Weight EBVs

Birth Weight (kg)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 6.1 kg	+ 6.2 kg	78 %	94 %
	6	+ 6.7 kg	+ 6.5 kg	74 %	92 %
	7	+ 6.0 kg	+ 6.3 kg	73 %	92 %
	Average	+ 6.3 kg	+ 6.3 kg	75 %	93 %
Average Lowest 10	5	+ 2.6 kg	+ 3.4 kg	77 %	94 %
	6	+ 2.7 kg	+ 3.2 kg	82 %	95 %
	7	+ 2.5 kg	+ 2.6 kg	85 %	96 %
	Average	+ 2.6 kg	+ 3.1 kg	81 %	95 %

Gestation Length EBVs

Gestation Length (days)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	- 1.5 days	- 1.9 days	69 %	94 %
	6	- 2.2 days	- 3.4 days	78 %	95 %
	7	- 2.7 days	- 3.2 days	80 %	95 %
	Average	- 2.1 days	- 2.8 days	76 %	95 %
Average Lowest 10	5	- 8.3 days	- 8.5 days	80 %	95 %
	6	- 7.9 days	- 7.7 days	82 %	94 %
	7	- 7.0 days	- 8.1 days	76 %	94 %
	Average	-7.7 days	- 8.1 days	79 %	94 %

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Growth EBVs

600 Day Weight (kg)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 138 kg	+ 138 kg	77 %	93 %
	6	+ 137 kg	+ 143 kg	77 %	91 %
	7	+ 138 kg	+ 143 kg	77 %	93 %
Average		+ 138 kg	+ 141 kg	77 %	92 %
Average Lowest 10	5	+ 82 kg	+ 83 kg	77 %	92 %
	6	+ 99 kg	+ 106 kg	78 %	93 %
	7	+ 106 kg	+ 114 kg	78 %	92 %
Average		+ 96 kg	+ 101 kg	78 %	92 %

200 Day Growth (kg)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 55 kg	+ 56 kg	72 %	91 %
	6	+ 56 kg	+ 57 kg	75 %	90 %
	7	+ 58 kg	+ 60 kg	77 %	93 %
Average		+ 56 kg	+ 58 kg	75 %	91 %
Average Lowest 10	5	+ 34 kg	+ 34 kg	73 %	91 %
	6	+ 40 kg	+ 43 kg	76 %	92 %
	7	+ 44 kg	+ 47 kg	76 %	91 %
Average		+ 39 kg	+ 41 kg	75 %	91 %

400 Day Weight (kg)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 103 kg	+ 102 kg	73 %	92 %
	6	+ 102 kg	+ 103 kg	75 %	90 %
	7	+ 106 kg	+ 110 kg	77 %	92 %
Average		+ 104 kg	+ 105 kg	75 %	91 %
Average Lowest 10	5	+ 64 kg	+ 67 kg	75 %	91 %
	6	+ 77 kg	+ 81 kg	77 %	92 %
	7	+ 82 kg	+ 85 kg	76 %	91 %
Average		+ 74 kg	+ 78 kg	76 %	91 %

Carcase Weight EBVs

Carcase Weight (kg)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 77 kg	+ 72 kg	66 %	88 %
	6	+ 83 kg	+ 80 kg	68 %	87 %
	7	+ 86 kg	+ 85 kg	66 %	89 %
	Average	+ 82 kg	+ 79 kg	67 %	88 %
Average Lowest 10	5	+ 41 kg	+ 42 kg	63 %	88 %
	6	+ 53 kg	+ 56 kg	69 %	88 %
	7	+ 61 kg	+ 64 kg	67 %	88 %
	Average	+ 52 kg	+ 54 kg	66 %	88 %
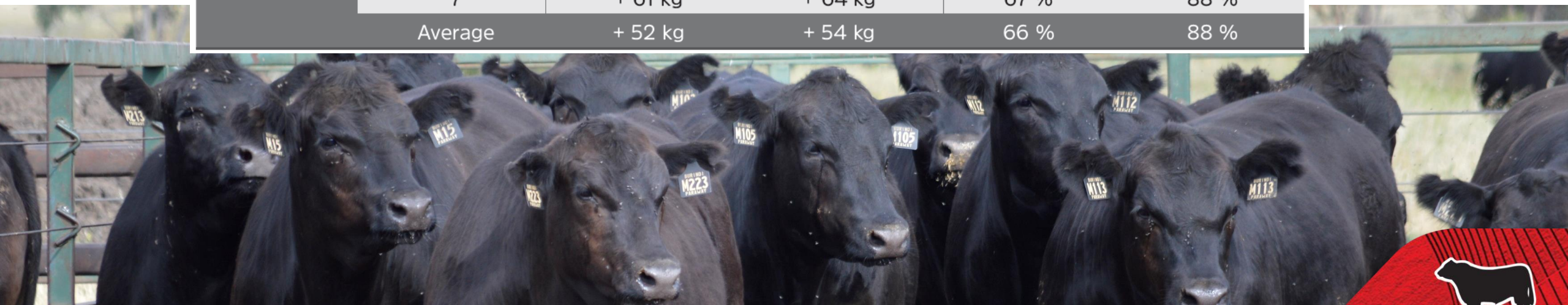
Carcase Composition EBVs

Carcase EMA (cm²)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 10.6 cm²	+ 8.1 cm²	66 %	88 %
	6	+ 11.1 cm²	+ 11.4 cm²	64 %	87 %
	7	+ 8.4 cm²	+ 8.3 cm²	66 %	88 %
	Average	+ 10.0 cm²	+ 9.3 cm²	65 %	88 %
Average Lowest 10	5	+ 2.8 cm²	+ 3.9 cm²	59 %	84 %
	6	+ 3.6 cm²	+ 4.8 cm²	62 %	84 %
	7	+ 3.6 cm²	+ 3.7 cm²	63 %	86 %
	Average	+ 3.3 cm²	+ 4.1 cm²	61 %	85 %

Carcase IMF (%)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 2.8 %	+ 2.9 %	60 %	85 %
	6	+ 3.9 %	+ 3.4 %	62 %	87 %
	7	+ 4.0 %	+ 3.5 %	63 %	88 %
	Average	+ 3.6 %	+ 3.3 %	62 %	87 %
Average Lowest 10	5	+ 0.5 %	+ 0.6 %	51 %	84 %
	6	+ 0.9 %	+ 0.6 %	58 %	85 %
	7	+ 1.4 %	+ 1.4 %	55 %	84 %
	Average	+ 0.9 %	+ 0.9 %	55 %	84 %

Carcase Rib Fat (mm)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 1.9 mm	+ 2.3 mm	66 %	89 %
	6	+ 2.1 mm	+ 0.4 mm	67 %	89 %
	7	+ 1.8 mm	+ 1.7 mm	65 %	90 %
	Average	+ 1.9 mm	+ 1.5 mm	66 %	89 %
Average Lowest 10	5	-2.2 mm	-1.9 mm	66 %	89 %
	6	-1.5 mm	-0.3 mm	67 %	89 %
	7	-1.6 mm	-2.1 mm	65 %	88 %
	Average	- 1.8 mm	- 1.4 mm	66 %	89 %

Carcase Rump Fat (mm)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 2.2 mm	+ 1.6 mm	64 %	86 %
	6	+ 1.9 mm	+ 0.4 mm	65 %	86 %
	7	+ 1.3 mm	+ 0.6 mm	66 %	88 %
	Average	+ 1.8 mm	+ 0.9 mm	65 %	87 %
Average Lowest 10	5	- 2.6 mm	- 1.9 mm	66 %	87 %
	6	- 1.9 mm	- 1.4 mm	66 %	86 %
	7	- 2.2 mm	- 2.7 mm	65 %	85 %
	Average	- 2.2 mm	- 2.0 mm	66 %	86 %

Days to Calving EBVs

Days to Calving (days)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	-1.3 days	-3.0 days	44 %	64 %
	6	-2.5 days	-2.5 days	41 %	61 %
	7	-3.5 days	-2.1 days	41 %	57 %
	Average	-2.4 days	-2.5 days	43 %	61 %
Average Lowest 10	5	-6.6 days	-6.0 days	44 %	64 %
	6	-6.5 days	-6.9 days	44 %	62 %
	7	-7.9 days	-6.8 days	45 %	61 %
	Average	-7.0 days	-6.6 days	44 %	62 %

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Net Feed Intake – Feedlot EBVs

Net Feed Intake - Feedlot (kg/day)	Cohort	Initial EBV	Final EBV	Initial Accuracy	Final Accuracy
Average Highest 10	5	+ 0.64 kg/day	+ 0.42 kg/day	48 %	82 %
	6	+ 0.57 kg/day	+ 0.32 kg/day	50 %	83 %
	7	+ 0.61 kg/day	+ 0.32 kg/day	51 %	82 %
	Average	+ 0.61 kg/day	+ 0.35 kg/day	50 %	82 %
Average Lowest 10	5	-0.30 kg/day	-0.32 kg/day	48 %	80 %
	6	-0.11 kg/day	-0.12 kg/day	45 %	80 %
	7	-0.01 kg/day	0.01 kg/day	42 %	79 %
	Average	-0.14 kg/day	-0.15 kg/day	45 %	80 %

Summary - EBV changes

While the EBVs for some individuals sires did change, as expected, there was, on average, minimal change in the EBVs of sires in cohorts 5,6 and 7 of the ASBP

The initial EBVs of the sires, despite being of low accuracy, described the relative genetic merit of the sires well.

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ABOUT

General Information

Consultative Committee

Bull Nominations

SIRE COHORTS

First Cohort

Second Cohort

Third Cohort

Fourth Cohort

Fifth Cohort

Sixth Cohort

Seventh Cohort

Eighth Cohort

Ninth Cohort

LESSONS FROM THE ASBP

Project Overview

Capitalising on genetic variation

EBVs reliably predict progeny perfor...

Starting vs. Finishing EBVs

Individual Sire EBV Changes

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