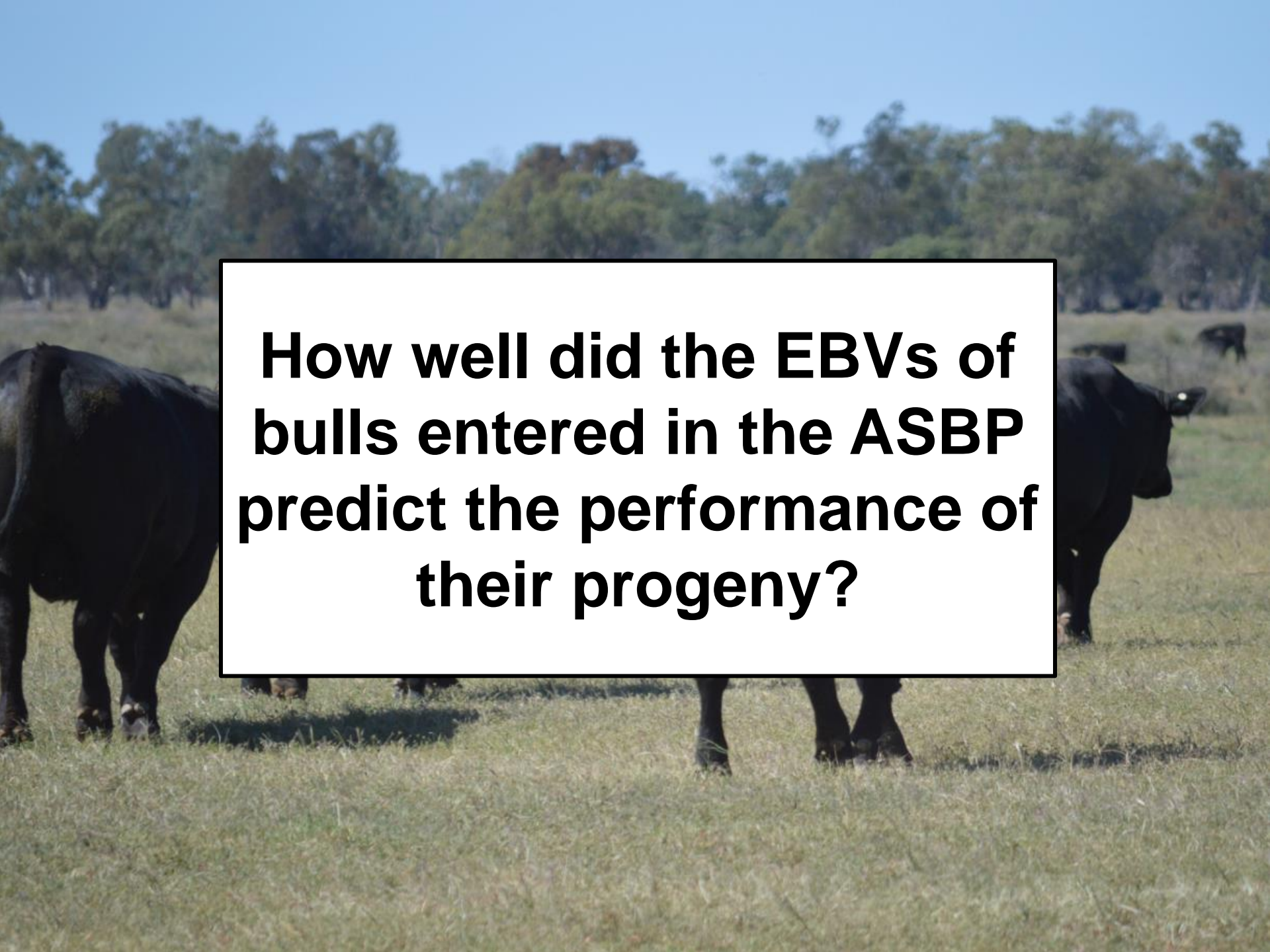


# LESSONS FROM THE



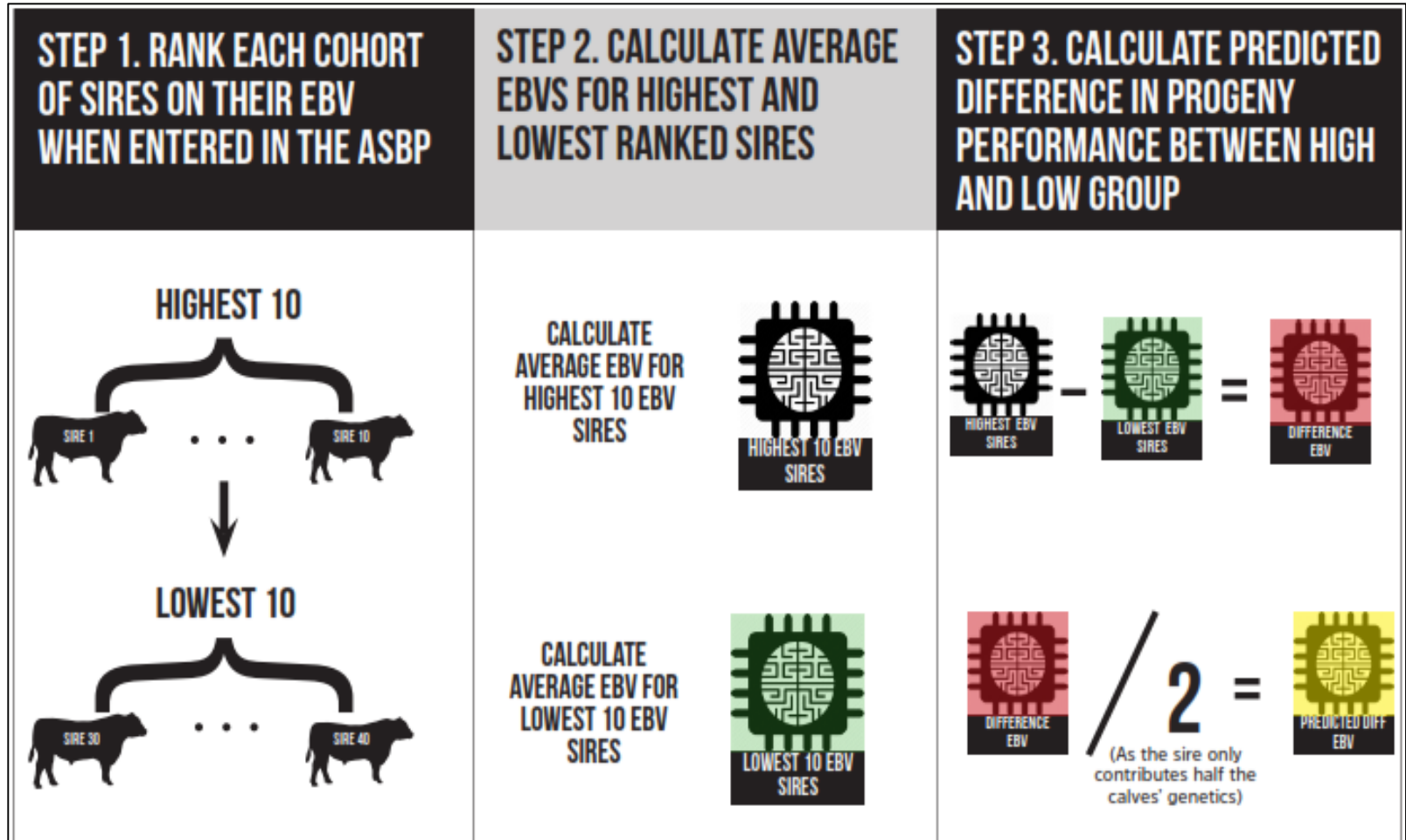
**Angus** **Sire**<sup>TM</sup>  
Benchmarking Program



**How well did the EBVs of  
bulls entered in the ASBP  
predict the performance of  
their progeny?**



# PROJECT DESIGN



# PROJECT DESIGN

## STEP 4. OBTAIN ACTUAL AVERAGE PERFORMANCE FOR THE PROGENY OF THE SIRES

measure average progeny performance for the highest EBV sires



measure average progeny performance for the lowest EBV sires



## STEP 5. CALCULATE DIFFERENCE IN PROGENY PERFORMANCE



PROGENY PERFORMANCE OF HIGHEST EBV SIRES

—



PROGENY PERFORMANCE OF LOWEST EBV SIRES

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ACTUAL DIFFERENCE IN PROGENY PERFORMANCE

## STEP 6. COMPARE PREDICTED DIFFERENCE TO ACTUAL DIFFERENCE IN PROGENY PERFORMANCE



=

OR

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**QUESTION:** DOES THE PREDICTED DIFFERENCE IN PROGENY PERFORMANCE REFLECT THE ACTUAL DIFFERENCE OBSERVED?

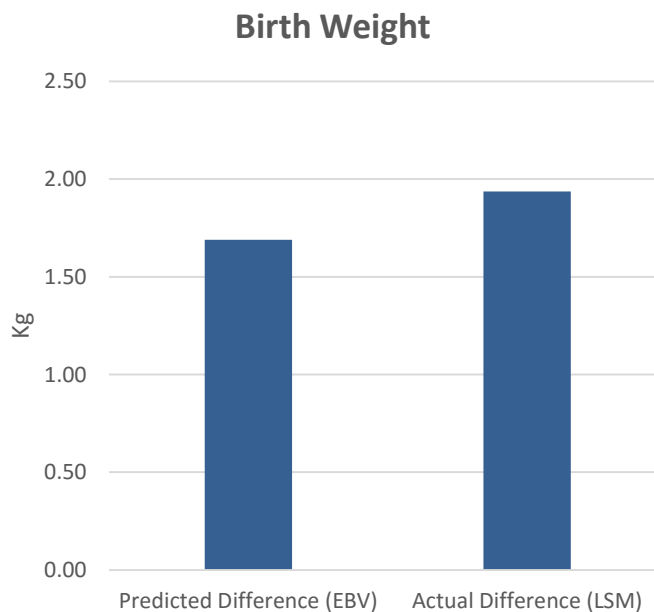


# PREDICTION (EBV) VS ACTUAL (LSM): BIRTH TRAITS

Birth Weight	Cohort 1	Cohort 2	Cohort 3	Average
Average High EBV	5.9 Kg	6.6 Kg	6.1 Kg	6.2 Kg
Average Low EBV	2.9 Kg	3.0 Kg	2.6 Kg	2.8 Kg
Diff EBV	3.0 Kg	3.6 Kg	3.5 Kg	3.4 Kg
Predicted Difference (EBV)	1.5 Kg	1.8 Kg	1.8 Kg	1.7 Kg

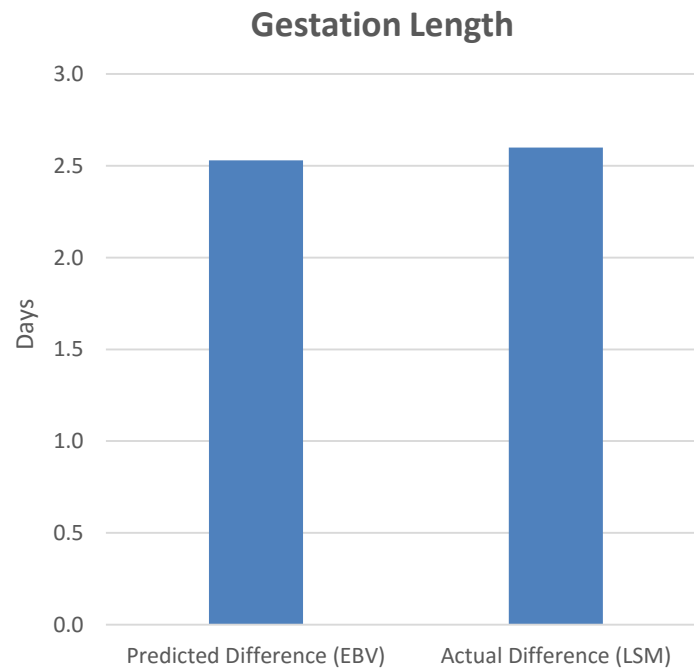
  

Average High LSM	37.0 Kg	39.7 Kg	38.5 Kg	38.4 Kg
Average Low LSM	35.7 Kg	37.1 Kg	36.5 Kg	36.4 Kg
Actual Difference (LSM)	1.29 Kg	2.55 Kg	1.97 Kg	1.9 Kg



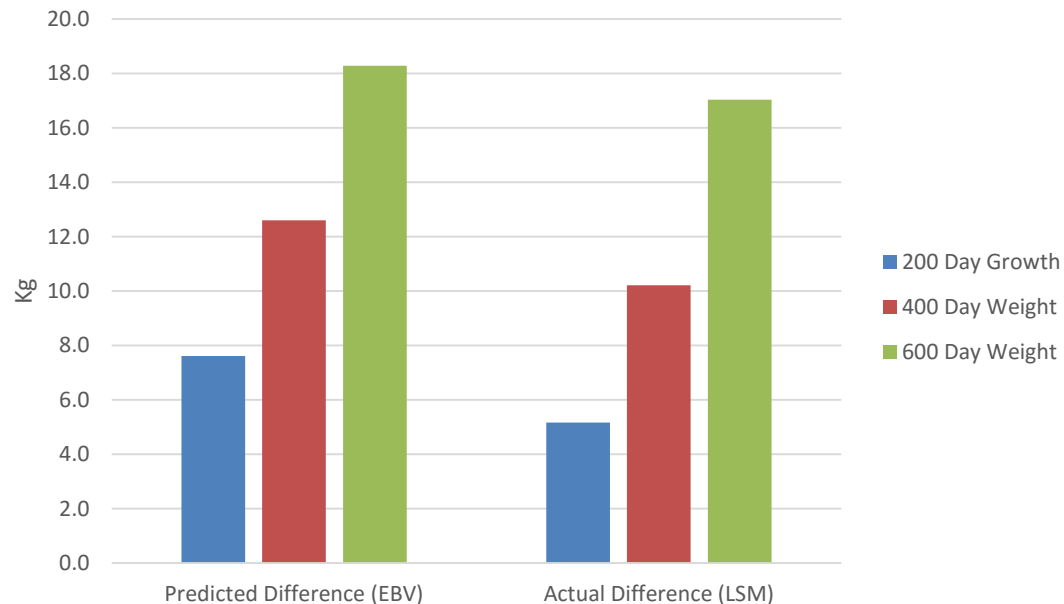
# PREDICTION VS ACTUAL: BIRTH TRAITS

Trait	Gestation Length
Predicted Difference (EBV)	2.5 days
Actual Difference (LSM)	2.6 days



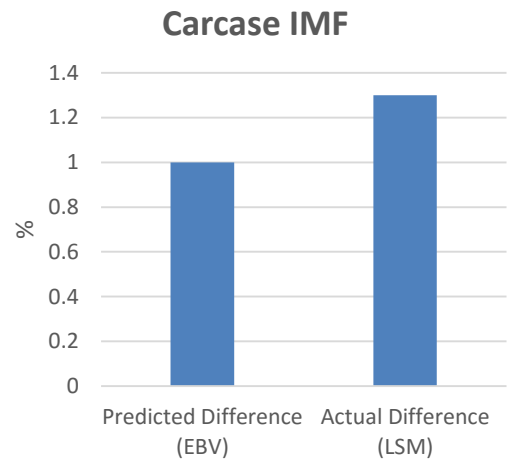
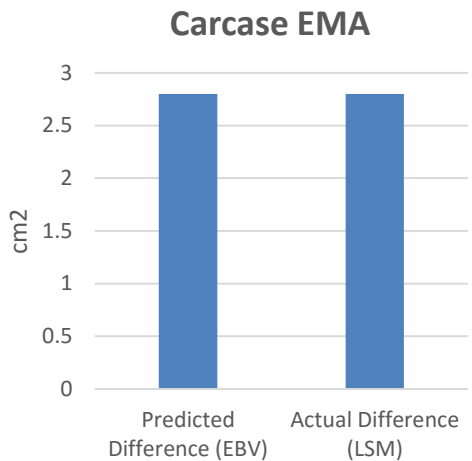
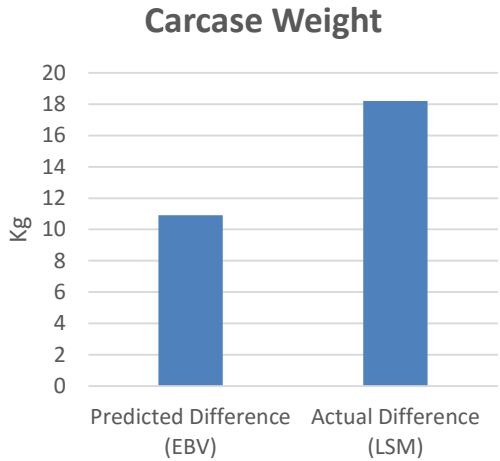
# PREDICTION VS ACTUAL: GROWTH TRAITS

Trait	200 Day Growth	400 Day Weight	600 Day Weight
Predicted Difference (EBV)	7.6 Kg	12.6 Kg	18.3 Kg
Actual Difference (LSM)	5.2 Kg	10.2 Kg	17.0 Kg



# PREDICTION VS ACTUAL: CARCASS COMPOSITION

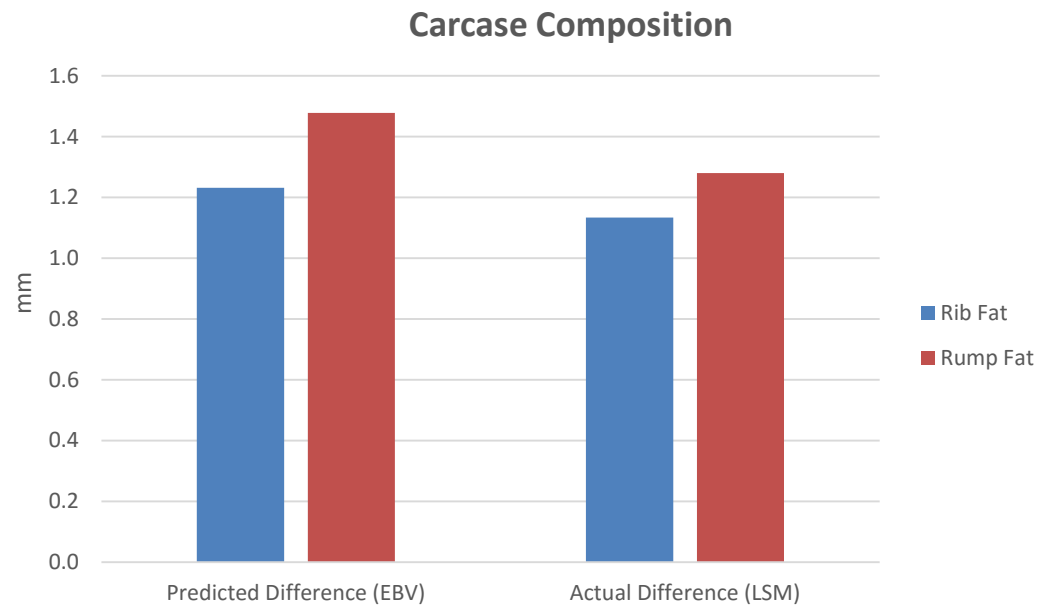
Trait	Carcass Wt	Carcass EMA	Carcass IMF
Predicted Difference (EBV)	10.9 Kg	2.8 cm <sup>2</sup>	1.0 %
Actual Difference (LSM)	18.2 Kg	2.8 cm <sup>2</sup>	1.3 %





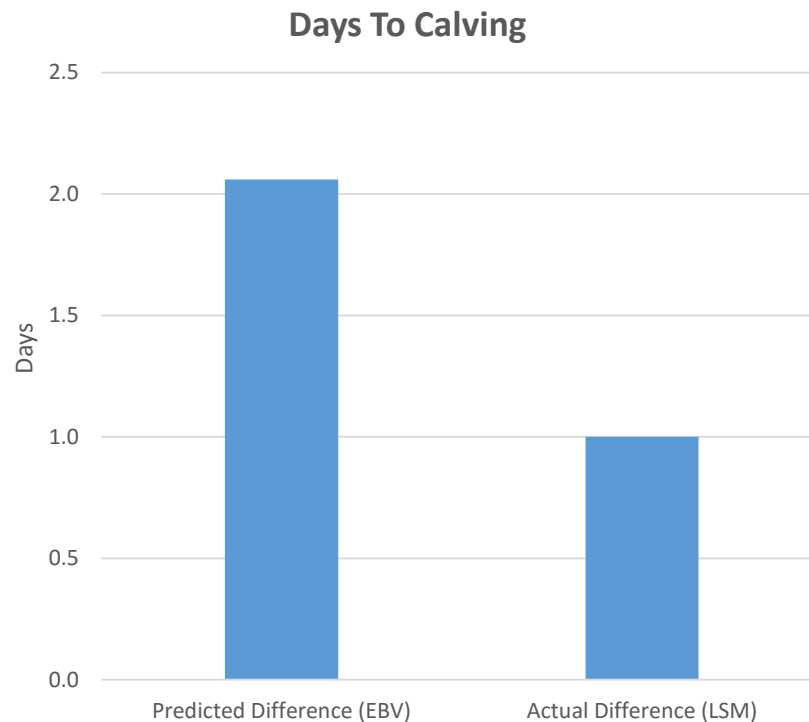
# PREDICTION VS ACTUAL: CARCASS COMPOSITION

Trait	Carcass Rib Fat	Carcass Rump Fat
Predicted Difference (EBV)	1.2 mm	1.5 mm
Actual Difference (LSM)	1.1 mm	1.3 mm



# PREDICTION VS ACTUAL: FERTILITY TRAITS

Trait	Days to Calving
Predicted Difference (EBV)	2.1 days
Actual Difference (LSM)	1.0 days

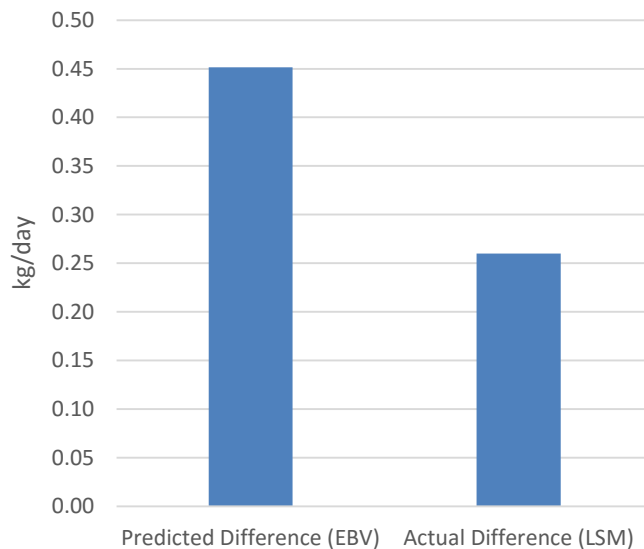


# PREDICTION VS ACTUAL: NFI-F



Trait	Net Feed Intake
Predicted Difference (EBV)	0.45 Kg/day
Actual Difference (LSM)	0.26 Kg/day

Net Feed Intake - Feedlot



# TAKE HOME MESSAGE

- This project has revealed that BREEDPLAN Estimated Breeding Values provide an accurate prediction of the breeding value of sires in cohorts 1, 2 and 3 of the Angus Sire Benchmarking Program.
- Coupled with the considerable genetic variation that is present within the Angus breed, the use of BREEDPLAN EBVs and selection index values when selecting animals for use within a breeding program, provides a considerable opportunity to improve the productivity and profitability of a beef breeding enterprise.



# FOR MORE INFORMATION:

The screenshot shows the Angus Australia website. At the top, there is a navigation bar with links for HOME, MEMBER SEARCH, ANIMAL SEARCH, EBV SEARCH, CATALOGUES, MATING PREDICTOR, MEMBER LOGIN, and SHOP. Social media icons for Facebook, Twitter, YouTube, and Instagram are also present. The main header features the Angus Australia logo (a silhouette of a cow above the word 'Angus' in a red box with 'AUSTRALIA' below it) and the tagline 'Enhancing & Promoting the value of Angus'. The central content area is a 'Producer Spotlight' for Bruce Derryhouse. It includes a photo of him kneeling in a field with several black Angus cows. A quote from him reads: "THE ANGUS COWS HAVE BEEN IDEAL. THEY ARE REALLY GOOD MOTHERS, & VERY GOOD MILKERS. THEY JUST SUIT US, THEY ARE EASY-CARE CATTLE." Below the photo, it states he has been breeding Angus cattle for 20 years and is impressed with the breed's evenness, mothering ability, and growth rate. His location is listed as "SUNSHINE", GLENELLEN, NORTH OF ALBURY, and the hashtag #ANGUSPREMIUM is shown. A navigation menu at the bottom lists various sections: ABOUT, NEWS & EVENTS, MEMBERS, REGISTRATIONS, BREEDPLAN, BREEDING, MARKETING, EXPORT, SIRE BENCHMARKING (highlighted in yellow), ANGUS FOUNDATION, and ANGUS YOUTH. Below this menu, three columns of content are visible: 'ABOUT' with links for General Information, Consultative Committee, and Bull Nominations; 'SIRE COHORTS' with links for First through Seventh Cohort; and 'LESSONS FROM THE ASBP' with links for Project Overview and Capitalising on genetic variation.

