



Analysis for Herd: **ABC**

ABC Pastoral Company

ABC Pastoral

Utilising BREEDPLAN EBVs from :

The Angus Society Of Australia

November 2012 Angus Australia BREEDPLAN

MateSel parameter file :

SPRING/SUMMER 2012 MATINGS





Interpreting Your MateSel Report

Deciding which bull is mated to which cow has a major impact on the rate of genetic improvement, inbreeding levels and overall profitability being achieved by a herd. MateSel enables breeders to optimise breeding outcomes by creating a suggested mating list based on candidate sires and dams.

MateSel is a valuable addition to the BREEDPLAN suite of tools by providing beef cattle seedstock producers with a guide for objectively optimising mating allocations to reflect their breeding goals and creating long term, sustainable genetic gains.

The MateSel report includes 5 main sections being:

1. Run Parameters

The parameters and analysis details which underpin the MateSel run are listed including the herd, the run date and time, a description, a count of the candidate sires and dams, the selected breeding strategy and the target Selection Index.

2. Sire Mating List

The optimised matings, sorted by sire (based on age), are listed in this section. The allocated dams for each sire are listed and sorted by society identifier. A count of the dams allocated to each sire is also noted. For each recommended mating the potential progeny's inbreeding coefficient and mid-parent Estimated Breeding Values (EBVs) and Selection Indexes are included. The first two columns include the inbreeding coefficient and target Selection Index.

3. Dam Mating List

The optimised matings, sorted by dam (based on age), are listed in this section. The sire allocated is listed next to each dam. A count of all eligible candidate dams is noted. As with the Sire Mating List, for each recommended mating the potential progeny's inbreeding coefficient, mid-parent Estimated Breeding Values (EBVs) and Selection Indexes are included. The first two columns include the inbreeding coefficient and target Selection Index.

4. Summary Information

For comparison, summary statistics for the candidate dams, candidate sires and potential progeny from the recommended matings are tabled. For each group the minimum, maximum, average, standard deviation and range is listed for the inbreeding coefficient, EBV and Selection Index values. The first two columns include the inbreeding coefficient and target Selection Index.

Below the tabled statistics described above, the average inbreeding coefficient, EBV and Selection Index values are listed for the previous two calf drops (titled Herd Trends). The number of animals included in the statistics is listed in the brackets next to the calving year.

Note: The average values listed for recent calving years in the MateSel report may differ from the average values listed in the genetic trends section of your BREEDPLAN herd report.



5. Effect of MateSel Strategy (Graphs)

A range of graphs representing the effect of the MateSel strategy are included in the MateSel report. These include:

- Effect of MateSel Strategy on BREEDPLAN EBVs and Selection Indexes:

A graph for each BREEDPLAN EBV and Selection Index showing the distribution of values for the potential progeny compared to the candidate dams. The graph for the target Selection Index is listed first.

- Effect of MateSel Strategy - Potential Progeny Summary:

Two graphs are included which express the potential change across the EBV and Selection Index values based on genetic Standard Deviation (SD) units. By standardising the changes based on SD units we can validly compare the outcomes of the MateSel strategy across all the EBV and Selection Index values. The first graph compares the potential progeny from the MateSel strategy to the candidate dams. The second graph compares them to the current Breed Average.

- Summary Information - Inbreeding % and Age Structure:

Two graphs are included in this section. The first outlines the distribution of the inbreeding coefficients for the potential progeny compared to the candidate dams. The second graph shows the age structure through the sire and dam use (by year of birth) and number of potential progeny for each year group.

CSV File of Mating Allocations

For each MateSel run a .csv file of the mating allocations is provided. This file includes each mating allocation sorted by dam (based on age). For each recommended mating the potential progeny's inbreeding coefficient and mid-parent Estimated Breeding values (EBVs) and Selection Indexes are listed.

Further information on MateSel can be accessed from BREEDPLAN staff by contacting

E: matesel@breedplan.une.edu.au or P: (02) 6773 3555

DISCLAIMER:

Information contained in the MateSel report, and associated csv file, including but not limited to mating allocations, inbreeding coefficients, Estimated Breeding Values (EBVs) and Selection Index values, is based on data supplied by members and/or third parties. Whilst every effort is made to ensure the accuracy of this information, the Breed Society/Association and the Agricultural Business Research Institute (ABRI), their officers and employees, make no representations or warranties as to the accuracy or completeness of the information. The Breed Society/Association and ABRI disclaims all liability for all claims, expenses, losses, damages and costs any person may incur as a result of the information contained in the MateSel report, for any reason, being inaccurate, or incomplete in any way or incapable of achieving any purpose or desired outcome.

Run Parameters

ABC ABC Pastoral

January 11, 2013 12:01 PM

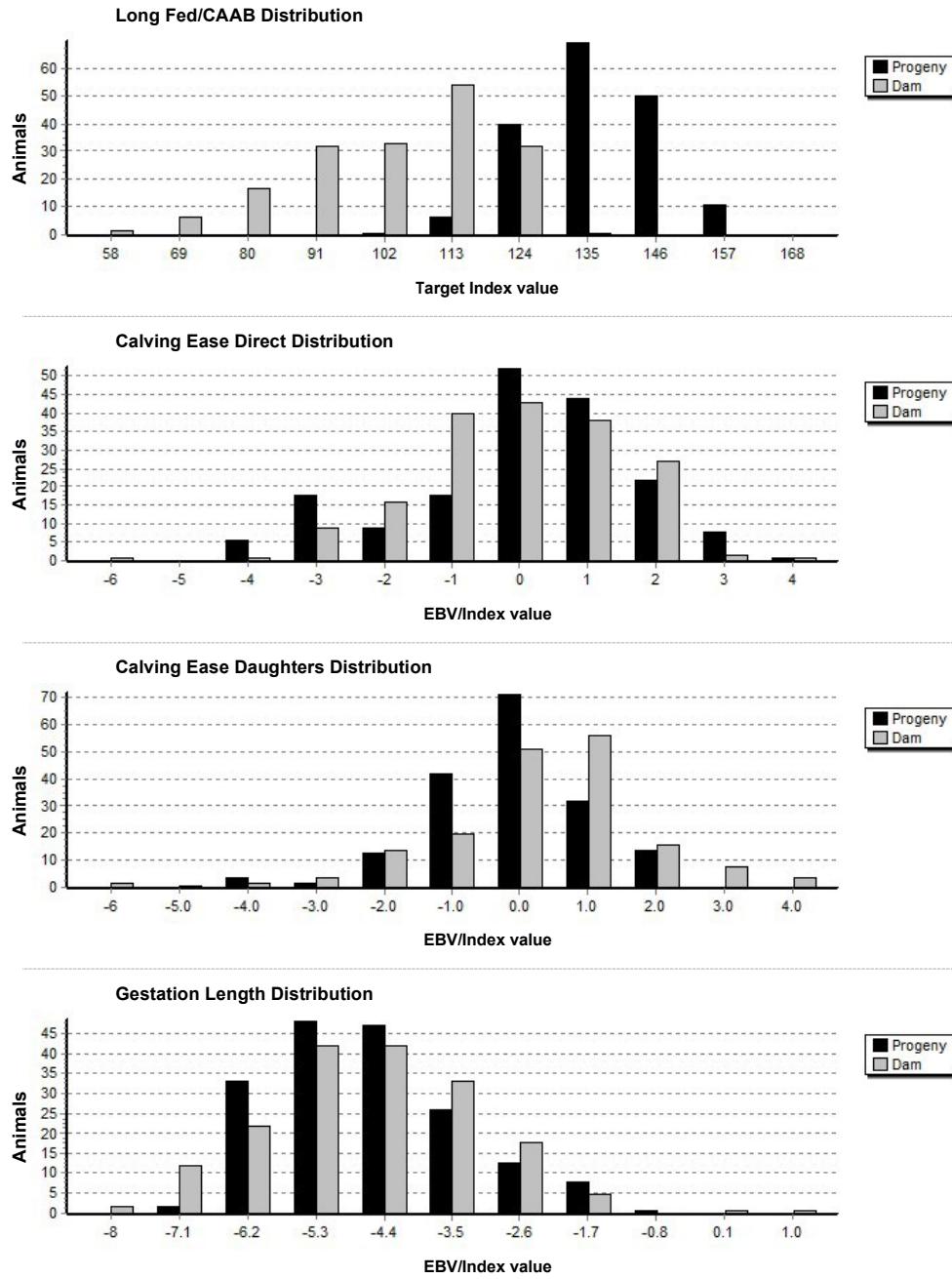
MateSel Run Descriptor : Spring/Summer 2012 Matings

Candidate Animals : 15 Sires, 178 Dams {loaded from Breeder submitted CSV file}

Breeding Strategy : High Gain

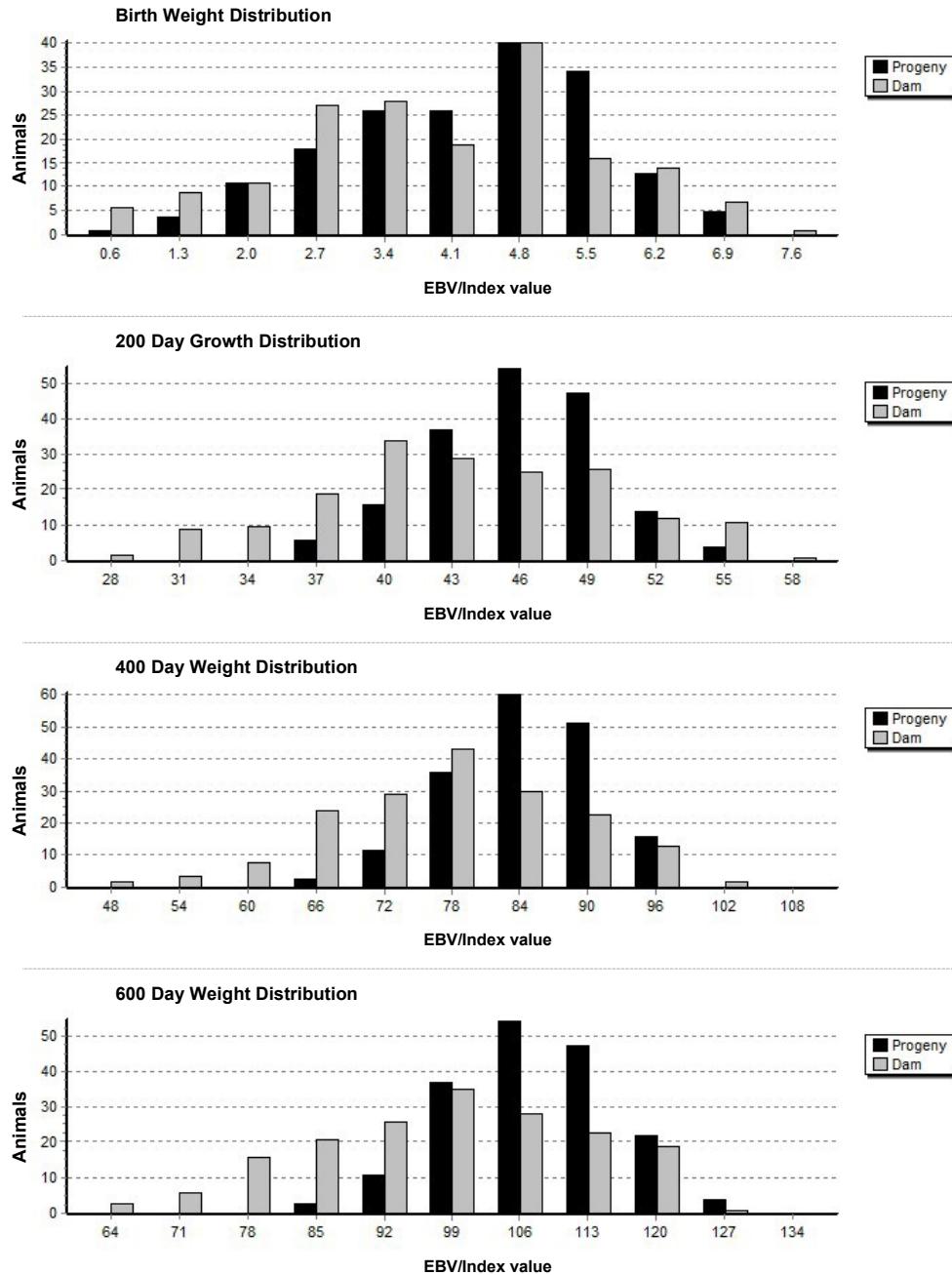
Target Index : Long Fed/CAAB

Effect of MateSel Strategy on BREEDPLAN EBVs & Selection Indexes



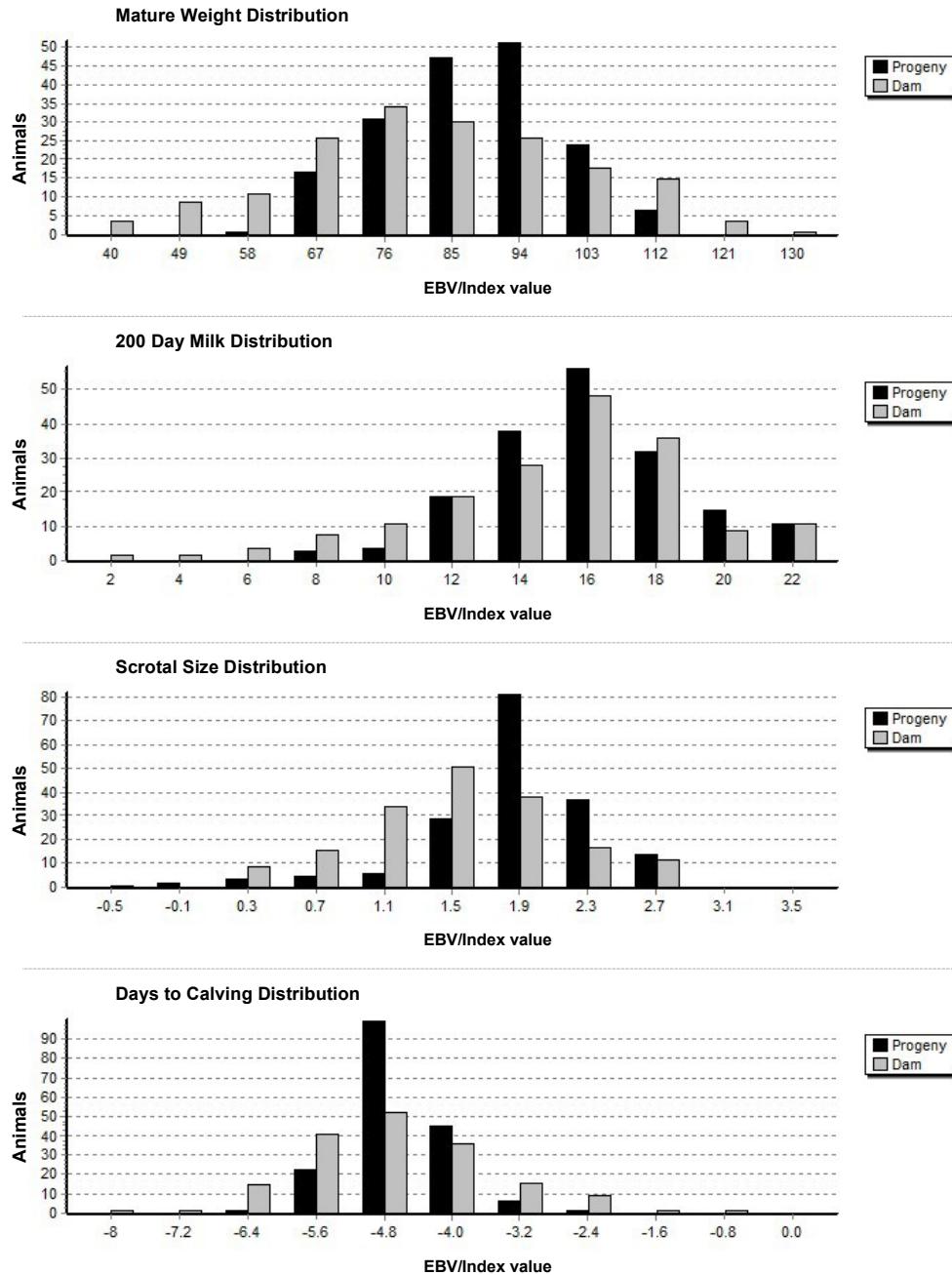
These graphs show the distribution of the potential progeny EBVs & Selection Indexes compared to the dams' current distribution.

Effect of MateSel Strategy on BREEDPLAN EBVs & Selection Indexes



These graphs show the distribution of the potential progeny EBVs & Selection Indexes compared to the dams' current distribution.

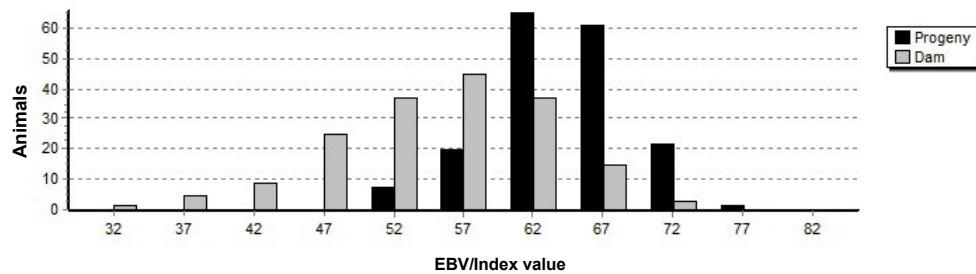
Effect of MateSel Strategy on BREEDPLAN EBVs & Selection Indexes



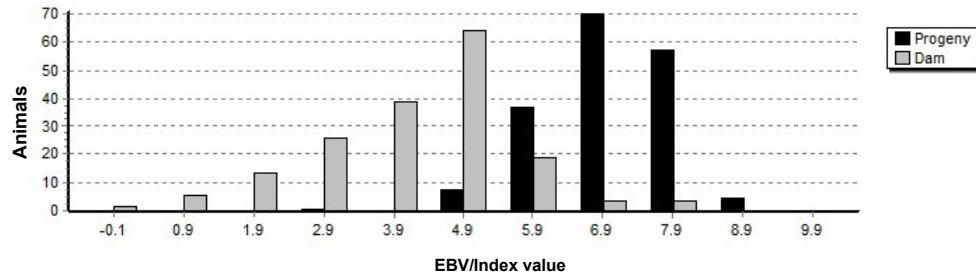
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Effect of MateSel Strategy on BREEDPLAN EBVs & Selection Indexes

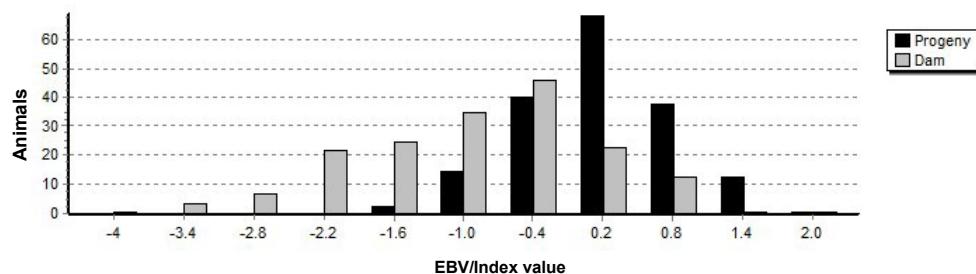
Carcase Weight Distribution



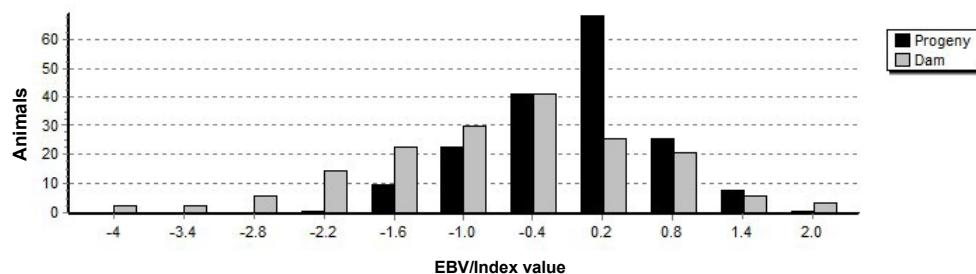
Carcase EMA Distribution



Carcase Rib Fat Distribution

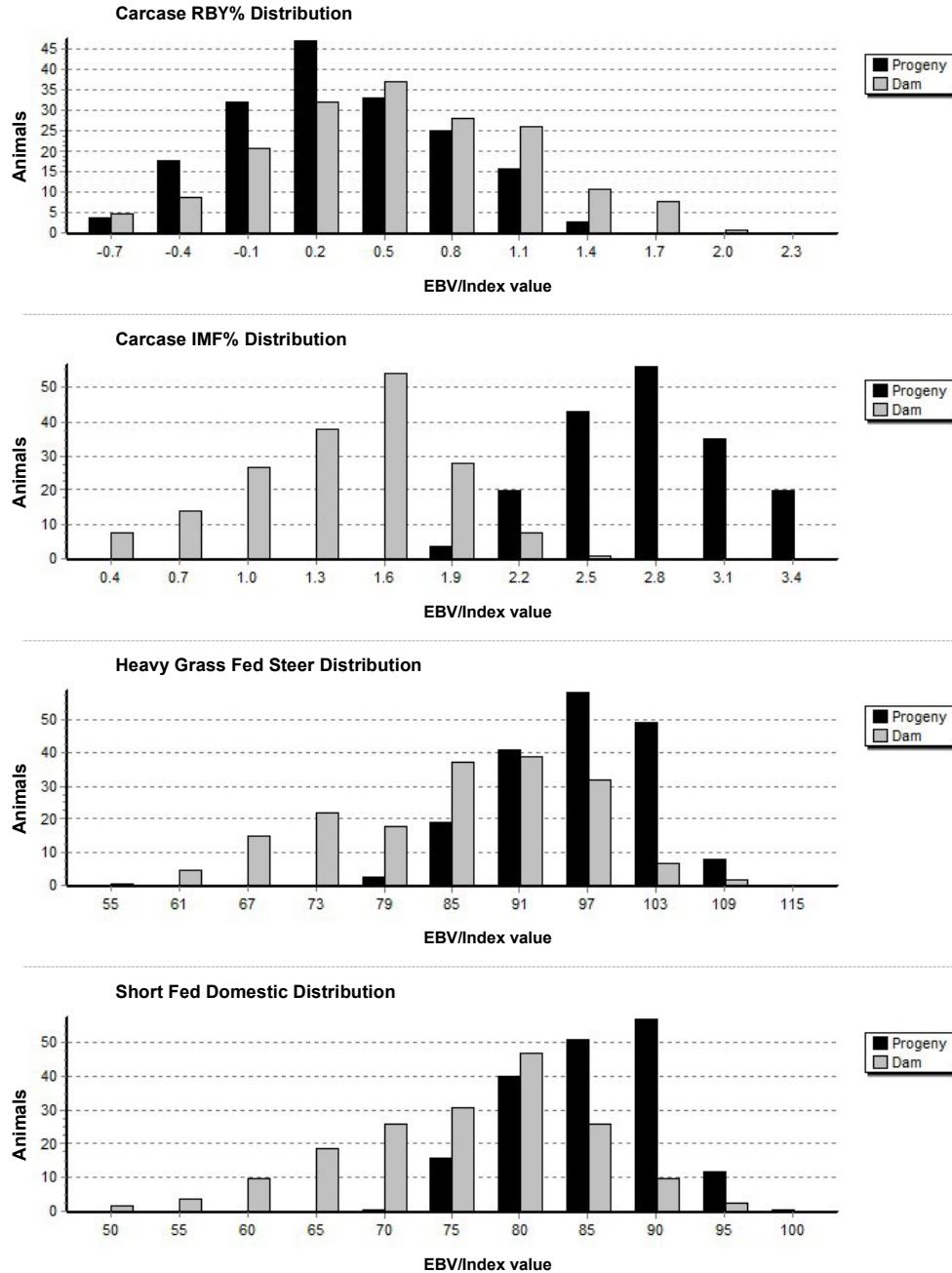


Carcase Rump Fat Distribution



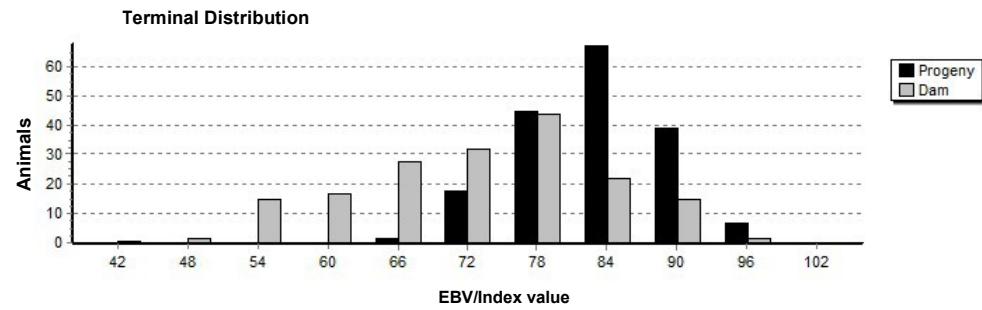
These graphs show the distribution of the potential progeny EBVs & Selection Indexes compared to the dams' current distribution.

Effect of MateSel Strategy on BREEDPLAN EBVs & Selection Indexes



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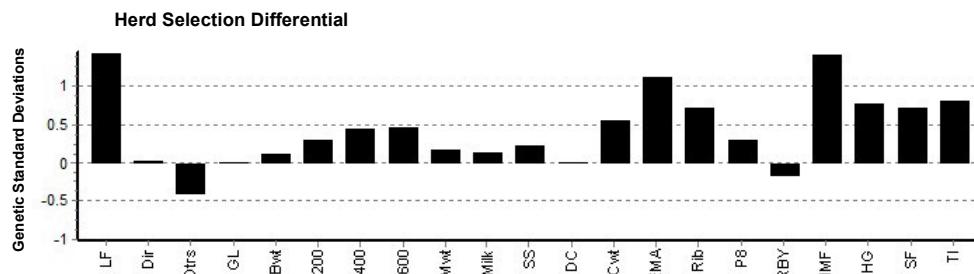
Effect of MateSel Strategy on BREEDPLAN EBVs & Selection Indexes



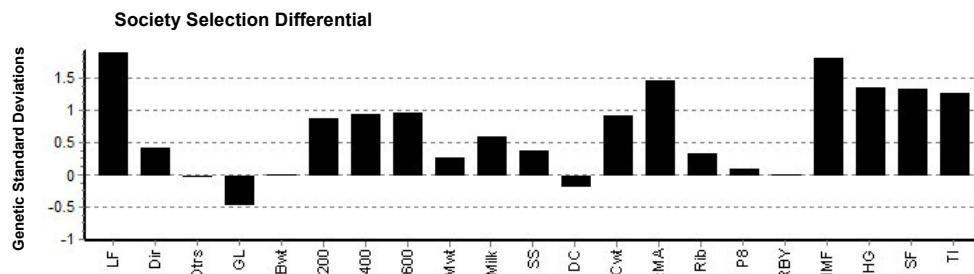
These graphs show the distribution of the potential progeny EBVs & Selection Indexes compared to the dams' current distribution.

Effect of MateSel Strategy - Potential Progeny Summary

We can't meaningfully compare trait changes for diverse traits like birth weight and 600 day weight. However by expressing the potential change in genetic standard deviation (SD) units, we can validly compare the relative effect on each trait. Larger SD movements indicate larger relative changes in the trait.



Average Index and EBV changes expected for potential progeny for mating allocations compared to the Average Index and EBVs of the candidate dams (candidate dam average is zero)



Average Index and EBV changes expected for potential progeny for mating allocations compared to the Average Index and EBVs for the current calves in the society analysis (society average is zero)

Summary Information - Inbreeding % and Age Structure

