



SECTION 1: Changes to AWA Selection Indexes – November 2024

The AWA will publish the new AbacusBio Fullblood Terminal Index, F1 Terminal Index and Breeder Feeder Index, along with the BreedObject Self Replacing Index. The prior BreedObject Terminal Indexes will be turned off. The AWA will continue to publish the BreedObject Self Replacing Index (SRI) although we acknowledge that it uses a different economic model and that its \$Index values have a different distribution range compared to the three AbacusBio selection indexes. The SRI will now be phased out over the coming 6 months as its' parameter development is unable to be updated as required by the AWA.

1. New parameters for AbacusBio Fullblood Wagyu Selection Indexes

The original parameter set defined for Fullblood Wagyu slaughter cattle was defined in 2018, in line with development of the Self Replacing Index (SRI). These parameters used lighter feedlot entry weights and long days on feed, with a difference in feeding regime and slaughter age for Steers vs Heifers.

The new parameters for Fullblood Wagyu Selection Indexes have been updated to reflect heavier entry weights (high growth calves) with shorter days on feed and equivalent feeding regimes and slaughter age. These new parameters are now applied to the AbacusBio BFI and FTI.

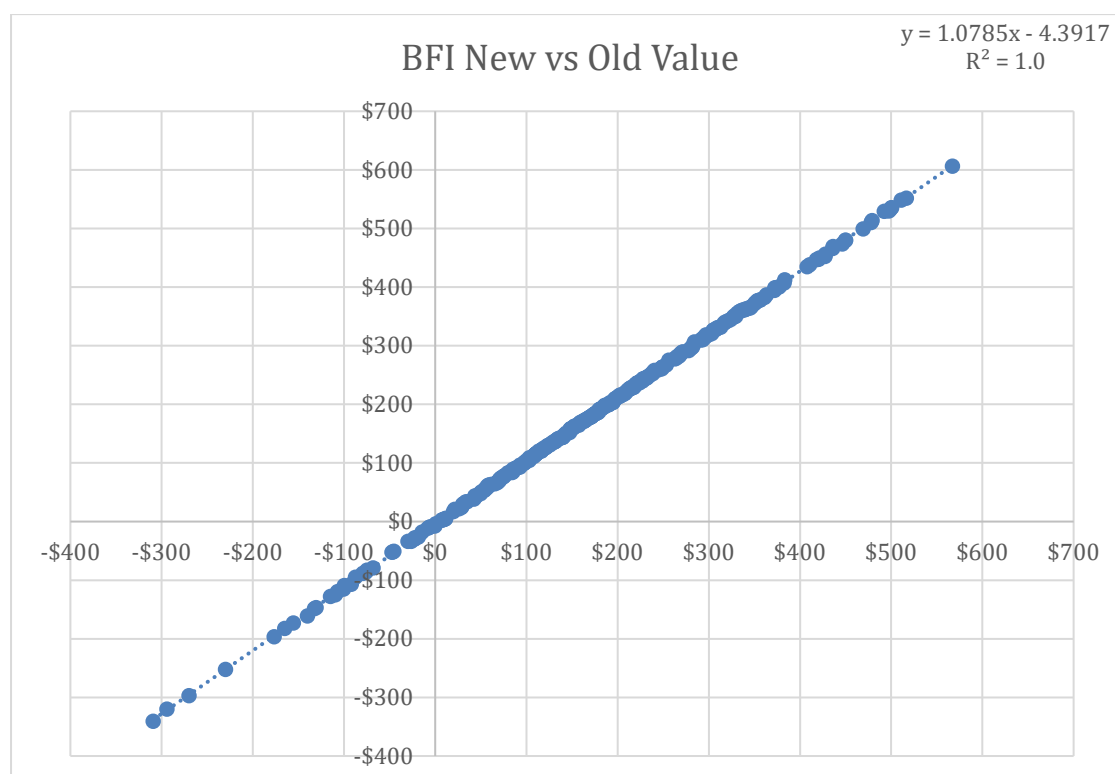
OLD BreedObject Parameters			NEW AbacusBio Parameters		
Fullblood Indexes		Value	Fullblood Indexes		Value
Feedlot entry weight			Feedlot entry weight		
	Steers	330kg		Steers	400kg
	Heifers	270kg		Heifers	380kg
Days on feed			Days on feed		
	Steers	550 days		Steers	450 days
	Heifers	450 days		Heifers	450 days
Slaughter age			Slaughter age		
	Steers	32 months		Steers	30 months
	Heifers	29 months		Heifers	30 months
Carcase wight			Carcase wight		
	Steers	435kg		Steers	440kg
	Heifers	385kg		Heifers	420kg
Base carcase price \$/kg			Base carcase price \$/kg		
	Steers	\$11.25		Steers	\$11.25
	Heifers	\$11.25		Heifers	\$11.25



The net effect of changing the Index inputs is that the AbacusBio economic models account for a faster rate of gain early in life, with less days on feed and earlier age of slaughter; meaning that there is more potential profit to be made through the Fullblood production system. This increases the range of values for both the BFI and the FTI.

2. Updated Wagyu Breeder Feeder Index based on new Fullblood parameters

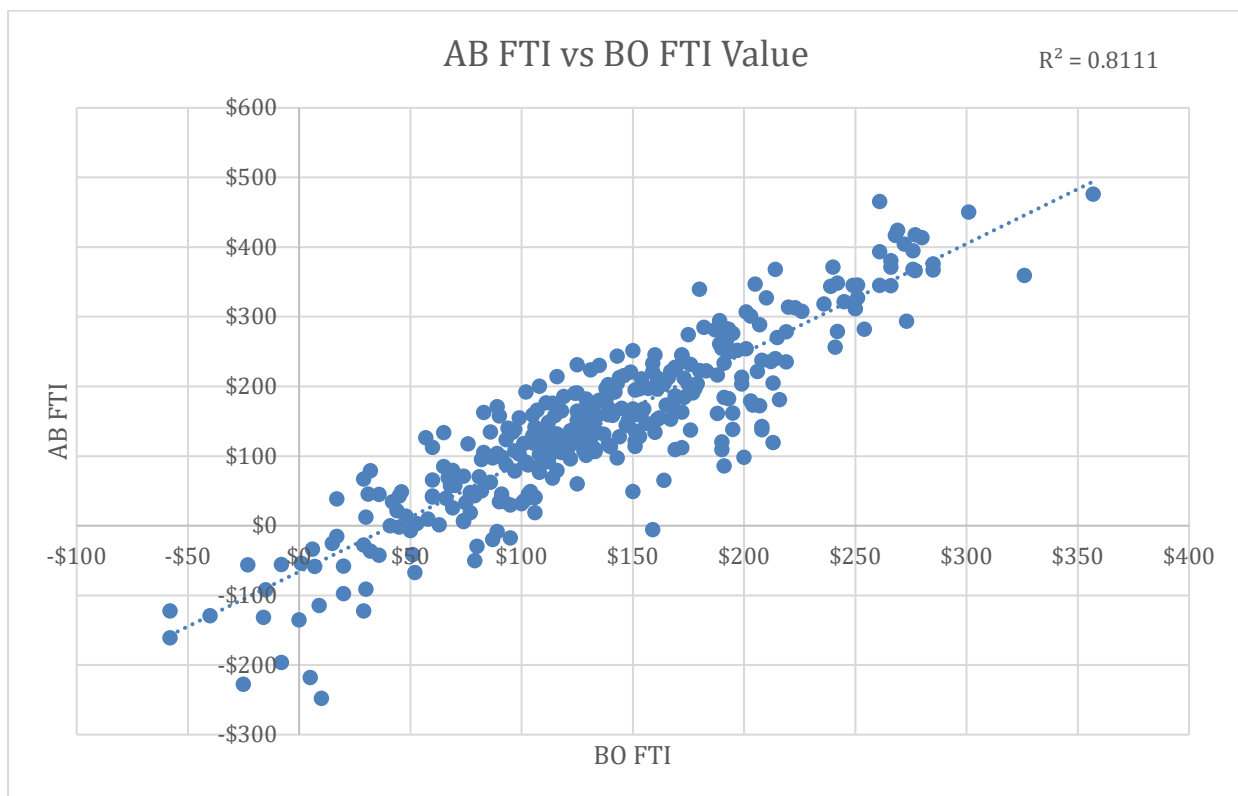
As a result of the change to the base Fullblood parameters within the AbacusBio Fullblood Indexes, we see a slight increase in range for the BFI. As shown in the below figure which plots the relationship between the New and Old BFI calculation for 400 high accuracy sires, the ranking of animals is the same between the New BFI calculation (Y-axis) and the Old BFI calculation (X-axis), with a correlation of 1.0. There is a slight increase in range around +\$40 for top ranked animals and -\$40 for bottom ranked animals.



3. New Fullblood Terminal Index based on new Fullblood parameters and change to AbacusBio economic models and Selection index

As part of the AWA's continual review of the Indexes that it publishes, a review of the Fullblood Terminal Index (FTI) was commenced in early 2024 to evaluate its parameters and to assess its application within the AbacusBio Fullblood Wagyu economic model system. This has resulted in transition of the FTI from the prior BreedObject model to the AbacusBio model.

The figure below shows that although there is a strong relationship between the prior BreedObject FTI (BO FTI) and the AbacusBio FTI (AB FTI), there is some re-ranking of animals.



The reranking of animals is because the new AB FTI:

1. Produces a higher early growth response by shifting its emphasis from 600 to 400 day EBVs;
2. Places direct positive pressure on Carcase Weight;
3. Delivers a high response for Marble Score and Eye Muscle Area;
4. Results in more negative response (less) Rump Fat; and
5. Results in a slight increased response for Retail Meat Yield.



Although the average of the AB FTI and BO FTI are similar, there is a significant increase in value range within the AB FTI compared to the BO FTI, with the AB FTI demonstrating a far greater spread of values across the Fullblood population.

The new AB FTI is a Terminal Selection Index, to assist Wagyu breeders to select the most profitable animals for breeding to produce slaughter progeny, where all males and females are slaughtered.

4. New F1 Terminal Index based on new F1 parameters and change to AbacusBio economic models and Selection index

The original parameter set defined for F1 Terminal Index (F1TI) cattle was defined in 2018, in line with development of the Self Replacing Index (SRI). These parameters used light feedlot entry weights and longer days on feed, with a difference in feeding regime and slaughter age for Steers vs Heifers.

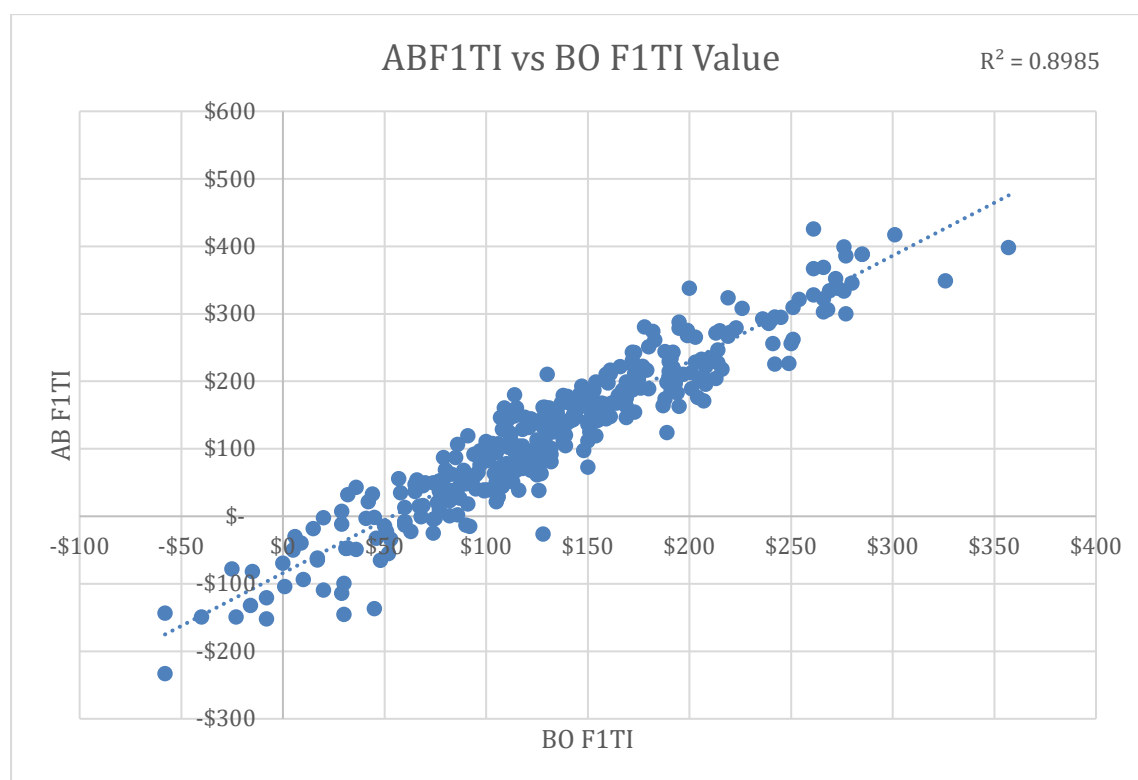
The new parameters for Fullblood Wagyu Selection Indexes have been updated to reflect heavier entry weights (high growth calves) with shorter days on feed and equivalent feeding regimes and slaughter age for Steers vs Heifers. These new parameters are now applied to the AbacusBio F1TI.

OLD			NEW		
F1 Index Parameters		Value	F1 Index Parameters		Value
Feedlot entry weight			Feedlot entry weight		
	Steers	370kg		Steers	420kg
	Heifers	350kg		Heifers	420kg
Days on feed			Days on feed		
	Steers	370 days		Steers	350 days
	Heifers	370 days		Heifers	350 days
Slaughter age			Slaughter age		
	Steers	28 months		Steers	26 months
	Heifers	28 months		Heifers	26 months
Carcase wight			Carcase wight		
	Steers	420kg		Steers	440kg
	Heifers	387kg		Heifers	420kg
Base carcass price \$/kg			Base carcass price \$/kg		
	Steers	\$8.75		Steers	\$8.75
	Heifers	\$8.75		Heifers	\$8.75
Marbling score			Marbling score		
		~\$1.00/MS			~\$0.75/MS



To reflect a slight difference in marble score premium for F1 cattle, the per marble score additive premium applied has been reduced to \$0.75/marble score in the new F1TI. The relative weaning rate as a proportion of cows PTIC has also been reduced to 92% to more accurately reflect industry averages.

The figure below shows that although there is a moderate relationship between the prior BreedObject FTI (BO F1TI) and the AbacusBio F1TI (AB F1TI), there is some re-ranking of animals.



The reranking of animals is because the new AB F1TI:

1. Includes weighting of the CWT EBV directly
2. Places moderate pressure on lower birthweight, considering most females used for terminal carcase progeny production would not be heifers;
3. Maintains high pressure on Eye Muscle Area and Marble Score; and
4. Focuses more on increasing weight gain in early life



Although the average of the AB F1TI and BO F1TI are similar, there is a significant increase in value range within the AB F1TI compared to the BO F1TI, with the AB F1TI demonstrating a far greater spread of values across the population.

The new AB F1TI is a Terminal Selection Index, to assist Wagyu breeders to select the most profitable animals for breeding to produce crossbred slaughter progeny, where all males and females are slaughtered.