

# Benchmarking Genetic Change

**TakeStock**<sup>®</sup>

TakeStock collates all available BREEDPLAN and selection index information to provide beef cattle breeders with a tool that enables them to assess and improve the rate of genetic progress in their herds.

TakeStock enhances the ability of breeders to manage genetic change. It enables seedstock breeders to focus on the key variables affecting the rate of genetic gain being made for the particular breeding objective of their commercial clients.

## What does TakeStock do?

TakeStock uses the pedigree and performance information that has been recorded with each Breed Society to:

- Provide a range of statistics relating to the genetic structure of the breed and individual herds.
- Evaluate the rate of genetic progress that has been made by the breed and the individual herds within it. To do this, Takestock assesses the genetic progress that a herd has made for each Selection Index and benchmarks the individual herd's progress with the genetic progress that has been made by the breed as a whole.
- Determine the key factors that explain significant differences in the rate of genetic progress between herds within breed across a given period of years. These factors are known as Key Performance Indicators (KPIs). The KPIs help breeders identify the type of factors that had the greatest impact on the rate of genetic progress made by herds within their breed. Herds are rated for their performance against each KPI to bench mark the performance of their breeding program.



## What benefits does TakeStock have for individual herds?

TakeStock enables individual seedstock herds to:

- Benchmark the rate of genetic progress being made by their herd for each Selection Index against the average progress of the other herds within the breed.
- Identify the variables that are significantly influencing differences in the rate of genetic progress between herds for a particular Selection Index.
- Make changes to their breeding programme to increase the rate of genetic progress that is being made by their herd.

## What benefits does TakeStock have for individual breed societies?

TakeStock enables each Breed Society to:

- Monitor the performance of their breed for a number of key variables that influence genetic progress.
- Identify and monitor changes in the breeding programs and rate of genetic progress of their breed.

## Can a TakeStock report be produced for all seedstock herds?

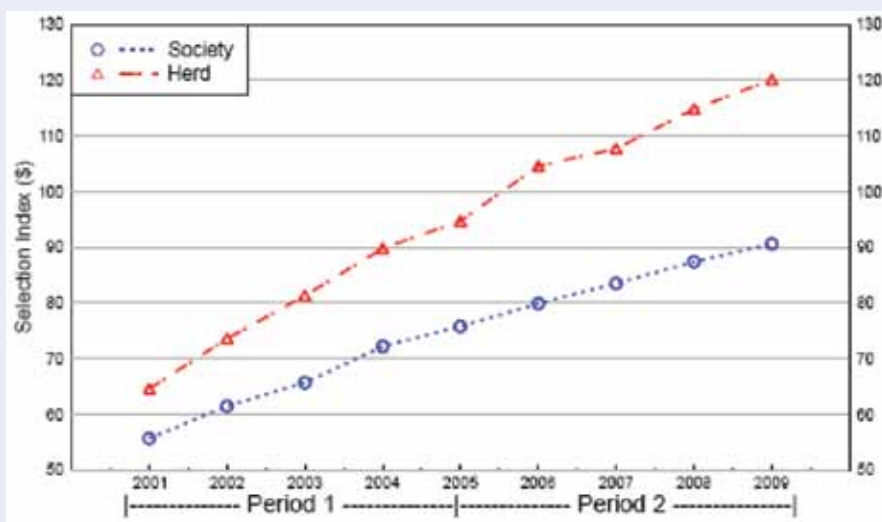
As TakeStock evaluates the rate of genetic progress being made over a certain time period for a particular Selection Index, a TakeStock report cannot be generated for all herds. In general, herds must meet the following criteria:

- Be a current member of BREEDPLAN.

- Be a member of a breed that has at least one Selection Index.
- Have been performance recording with BREEDPLAN for a minimum number of years (8-10 years).
- Have a minimum number of calves recorded each year (15 - 20 calves).

TakeStock reports are generally made available to eligible herds both in paper and electronic form.

## Example TakeStock Reports



*Figure 1:  
Herd Genetic Trend  
versus Breed  
Genetic Trend for  
Selection Index*

	Herd	Breed Average	Percentile Band
Average genetic progress in Period 1	\$7.59	\$4.87	10
Average genetic progress in Period 2	\$6.06	\$3.37	10
Average Index value in Period 2	\$108.79	\$83.97	5
<b>Key Performance Indicators</b>			
Selection differential of sires	\$32.07	\$24.90	20
Selection differential of dams	\$8.11	-\$2.33	5
Sire: dam mating correlation	0.20	0.08	20

*Figure 2:  
Selection Index  
Key Variables  
Period 1 - 2001 to 2005  
Period 2 - 2005 to 2009*



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