

TakeStock Report for herd XYZ

EXAMPLE HERD

Produced from March 2009 ANGUS GROUP BREEDPLAN

TakeStock[®]

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TakeStock

TakeStock provides a tool to assist cattle breeders to assess and improve the rate of genetic progress in their breed and herds. TakeStock software has been developed by the Animal Breeding and Genetics Unit (AGBU), a joint venture of the University of New England and NSW Department of Primary Industries, with support from Meat and Livestock Australia (MLA).

The TakeStock Analysis

TakeStock uses data recorded on the integrated pedigree/performance database of the respective breed society and the related BREEDPLAN analysis files to provide a number of statistics that describe both the structure of the breed, and changes in the structure over time. All variables are computed for animals **born in the nominated herd** during each of two defined 5-year periods. In addition, the analysis identifies the key performance indicators (KPI) for the breed. The KPI are the variables that significantly explain the differences between herds for genetic progress in the most recent 5-year period.

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 other herds within their breed. TakeStock also allows seedstock herds to identify the variables that are significantly influencing the rate of genetic progress being made across herds for each particular selection index.

Not all herds are included in the TakeStock analysis. Data from herds that do not meet certain criteria are excluded from the analysis. In general, these criteria relate to the number of animals in the herd and to the number of years of performance recording of the herd. Where herds are associated, the associated herd's animals are also included.

The TakeStock Report

The TakeStock report is divided into a number of different sections. There is a separate section for each selection index that is produced for the breed, with each individual section providing the TakeStock results for that particular selection index. The different sections are clearly identified by the blue divider pages.

Within each section, there are a number of pages.

- ❑ The first page provides a description of the selection index and an overview of the key variables that the TakeStock analysis has identified as having had a significant influence on the rate of genetic progress for that selection index.
- ❑ The second page contains information about the rate of the genetic progress being made by the herd and the average selection index values of their animals.
- ❑ The third page details the key factors that are explaining differences in the rate of genetic progress being made between herds for the selection index, and the performance of the herd for each of these factors.
- ❑ The remaining pages summarise a number of variables that are affecting the selection differential and generation length in the herd, and hence the rate of genetic progress being made by the herd

Details of the BREEDPLAN analysis from which the TakeStock information has been compiled will be printed on the front of the TakeStock report.

Interpreting the TakeStock Report

The following explanatory notes should be of assistance in explaining the terminology used and the variables presented in this report.

General

Herd	The average performance for the herd for the relevant variable. The performance for the herd will be calculated based on animals born in that herd.
Breed Average	The average performance for all herds (considered in the TakeStock analysis) for the relevant variable.
Percentile band	The percentile band ranking for the key variables (including the KPI traits). A value of 10 indicates a ranking in the top 10% of the herds considered in the TakeStock analysis. That is, if there were 100 herds in the analysis then the herd would be in the top 10 herds for that variable.
Index value	Index values for the nominated selection index.
Period 1 & Period 2	The TakeStock analysis computes results for animals born in 2 defined periods of time. Each period extends for 5 years. The last year in Period 1 is also the first year in Period 2 and therefore the combined length of the analysis is 9 years. The most recent year for the analysis is defined as 2 years prior to the relevant GROUP BREEDPLAN analysis. That is, for 2009 GROUP BREEDPLAN analyses, 2007 is the last year for inclusion in the TakeStock analysis.

Summary Report

Average Index value in Period 2	Average Index value of animals born in the herd in Period 2. Average values are given for all animals and for males, females and steers.
Average Index value of parents in Period 2	Average Index value of all sires and dams with progeny born in the herd in Period 2, weighted by number of progeny.
Average Index value in Period 1	Average Index value of all animals born in the herd in Period 1.
Average genetic progress in Period 2	Average change (increase or decrease) in average Index value per year for animals born in the herd in Period 2.
Average genetic progress in Period 1	Average change (increase or decrease) in average Index value per year for animals born in the herd in Period 1.
Average number of progeny per year in Period 2	The average number of animals born in the herd each year for Period 2.

Key Variables Report

Average genetic progress in Period 1	Average change (increase or decrease) in average Index value per year for animals born in the herd in Period 1.
Average genetic progress in Period 2	Average change (increase or decrease) in average Index value per year for animals born in the herd in Period 2.
Average Index value in Period 2	Average Index value of all animals born in the herd in Period 2.
Key Performance Indicators	<p>the KPI are the variables that are determined by the analysis as being significant in explaining differences in genetic progress across herds. These are the variables that have had the greatest impact on genetic gain for the breed in Period 2. KPI vary according to breed and the relevant Index, and are also likely to change over time.</p> <p>Detailed explanations of the specific KPI are provided in the following sections.</p>

Report of Variables affecting Selection Differential

Relating to Sires:

Selection differential of sires	The sire selection differential for Period 2 is the difference of the mean Index value of sires producing calves born in each year of Period 2 compared with the mean Index value of all males born in the herd 3 years previously. A positive selection differential indicates that the herd used better sires than the young males that were available in the herd at that time.
Selection differential of sires used on 2yr old dams	The selection differential of sires used to mate with 2-year-old heifers in Period 2 is the difference of the mean Index value of sires producing calves from 2-year-old heifers born in each year of period 2 with the mean Index value of males born in the herd 3 years previously. A positive selection differential indicates that the herd used better sires to mate with the two year old heifers than the young males that were available in the herd at that time.
Sire: dam mating correlation	The correlation between the Index value of the sire and the Index value of the dam from all matings in Period 2. A high positive correlation indicates that the herd has mated the better sires to the better dams (ie positive assortative mating).
Maximum sire selection differential	Maximum sire selection differential is the difference in the Index values of the equivalent number of the best males born in the herd 3 years previously compared with the sires that

were actually used. If the maximum selection differential is negative then the 5 sires used were not better than the top 5 males born in the herd 3 years previously.

Sire Index: number of calves

The correlation between the sire's Index value and the number of progeny from the sire in Period 2. A higher value indicates that the sires with higher Index values had more progeny.

Percentage of calves born from AI

The percentage of calves born in the herd in Period 2 from an AI mating (includes both natural and ET calves).

Relating to Dams:

Selection differential of dams

The dam selection differential for Period 2 is the difference between the mean Index value of dams producing calves born in each year of period 2 and the mean Index value of females born in the herd 3 years previously. A positive selection differential indicates that the herd used better dams than the young females that were available in the herd at that time.

Maximum dam selection differential

Maximum dam selection differential is the difference in the Index values of the equivalent number of the **best** females born in the herd 3 years previously compared to the dams that were actually used. If the maximum selection differential is negative then the 15 dams used were not better than the top 15 females born in the herd 3 years previously.

Percentage of calves born from ET

The percentage of calves born in the herd in Period 2 using Embryo Transfer.

Selection differential of dams used for ET

The selection differential of ET donor dams for Period 2 is the difference of the mean Index value of donor ET dams producing calves born in each year of period 2 compared with the mean Index value of females born in the herd 3 years previously.

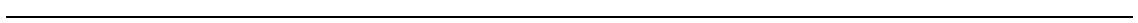
A positive selection differential indicates that the herd used better dams as the ET donor dams than the young females that were available in the herd at that time.

This variable is only relevant if there were ET calves born in the herd in period 2 ie if the variable "Percentage of calves born from ET" is greater than 0.

Relating to Accuracy of EBVs:

Number of herds connected by common sires

The number of herds that the herd is connected to in Period 2, through having common sires with progeny in both herds.



Percentage of sire connectedness	The average of the connections with connected herds in Period 2, expressed as a percentage. The amount of connections between connected herds is calculated as the number of progeny from common sires divided by the total number of animals in both herds.
Percentage of animals with common ancestry	The number of animals born in the herd in Period 2 with common ancestry as a percentage of the total number of animals born in the herd in Period 2.
Average inbreeding of animals that have common ancestry	The average level of inbreeding of all animals born in the herd in Period 2 that have common ancestry.
Average inbreeding for current herd	The average inbreeding in the current herd is the average inbreeding coefficient for all animals born in the herd in Period 2. It is calculated as the sum of inbreeding coefficients for all animals born in period 2 divided by the number of animals born in Period 2.
Standard deviation of Index	Standard deviation of the Index in Period 2 is a statistical measure of the spread in Index values for animals born in the herd in Period 2. The greater the standard deviation, the greater the range of EBVs in the herd, and this indicates higher levels of performance recording.
Calf sex ratio	The ratio of the number of females to the number of males born in the herd in Period 2. A value of 1.2 indicates that there were 120 females for every 100 males in the herd..
Percentage of steers (to total males)	The percentage of steers (compared to all males) born in the herd in Period 2.
Calving day spread within week	<p>This is an indicator of the spread in the recorded day of birth across a week (Monday-Sunday) for animals born in the herd in Period 2. Relative spread of the dates of birth is described as VHIGH (very high), HIGH, MOD (moderate) or LOW.</p> <p>Care should be taken with interpreting this variable if the herd has low progeny numbers or significant numbers of progeny from synchronised AI joinings or ET programs.</p>
Calving day spread within month	<p>This is an indicator of the spread in the recorded day of birth across a month (1-31) for animals born in the herd in Period 2. Relative spread of the dates of birth is described as VHIGH (very high), HIGH, MOD (moderate) or LOW.</p> <p>Care should be taken with interpreting this variable if the herd has low progeny numbers, very restricted calving periods, or significant numbers of progeny from synchronised AI joinings or ET programs.</p>

Average number of progeny per year The average number of animals born in the herd per year for Period 2.

Report of Variables affecting Generation Length

Average age of dams at first calving The average age of dams (at 1st calving) whose first calf was born in Period 2.

Average age of all sires used The average age of all sires with progeny born in the herd in Period 2.

Average age of all dams used The average age of all dams with progeny born in the herd in Period 2.

Sire replacement rate The sire replacement rate is the number of all sires used in the herd in Period 2 (including AI) expressed as a percentage of the total number of males born in period 2.

Dam replacement rate The dam replacement rate is the percentage of the number of all dams used in the herd in Period 2 compared to the number of females born in the herd in Period 2.

Care should be taken with interpreting this variable, particularly if the herd has been increasing or decreasing the number of breeding females. Higher values will generally indicate high replacement rates.

Mating ratio The total number of dams compared to the number of sires (based on the number of progeny recorded) in Period 2. A value of 10 indicates that there were 10 dams to every sire used in the herd in Period 2.

Average number of progeny per year The average number of animals born in the herd per year for Period 2.

Long Fed / CAAB Index

This section provides the TakeStock results for the Angus Long Fed / CAAB Index.

Description of the Index

The Angus Long Fed / CAAB Index estimates the genetic differences between animals in net profitability per cow joined for an example high fertility self replacing commercial Angus herd in temperate Australia targeting pasture grown steers with a 270 day feedlot finishing period for the high quality, high marbled Japanese export market. Steers are assumed marketed at 740 kg live weight (420 kg HSCW and 25 mm P8 fat depth) at 26 months of age. Significant emphasis is placed on marbling and 600 day growth.

Key Performance Indicators

As detailed on the Key Variables page, the TakeStock analysis has identified the following variables as Key Performance Indicators (KPI) for the Angus Long Fed / CAAB Index. These KPI identify the variables that have significantly influenced the different rates of genetic progress being made between herds for the Long Fed / CAAB Index during Period 2.

Selection differential of sires

The selection differential of sires is the difference of the mean Index value of sires producing calves born in each year of Period 2 compared with the mean Index value of all males born in the herd 3 years previously. A positive selection differential indicates that the herd used better sires than the young males that were available in the herd at that time.

The identification of selection differential of sires as a KPI indicates that the herds that made more genetic progress used sires that had an Index value that was higher than the average Index value of the bulls available for selection.

Selection differential of dams

The selection differential of dams is the difference between the mean Index value of dams producing calves born in each year of period 2 and the mean Index value of females born in the herd 3 years previously. A positive selection differential indicates that the herd used better dams than the young females that were available in the herd at that time.

The identification of selection differential of dams as a KPI indicates that the herds that made more genetic progress used dams that had an Index value that was higher than the average Index value of the females available for selection.

Sire: dam mating correlation

The sire:dam mating correlation is the correlation between the Index value of the sire and the Index value of the dam from all matings in Period 2. A high positive correlation indicates that the herd has mated the better sires to the better dams (ie positive assortative mating).

The identification of sire:dam mating correlation as a KPI indicates that the herds that made more genetic progress mated their higher indexing sires to their higher indexing dams.

Percentage of calves born from ET

The percentage of calves born in the herd in Period 2 using Embryo Transfer.

The identification of percentage of calves born from ET as a KPI indicates that the herds that made more genetic progress were using less Embryo Transfer than other herds.

Calving day spread within week

Calving day spread within week is an indicator of the spread in the recorded day of birth across a week (Monday-Sunday) for animals born in the herd in Period 2. Relative spread of the dates of birth is described as VHIGH (very high), HIGH, MOD (moderate) or LOW. Care

should be taken with interpreting this variable if the herd has low progeny numbers or significant numbers of progeny from synchronised AI joinings or ET programs.

The identification of calving day spread within a week as a KPI indicates that the herds that made more genetic progress had calves born in a more even distribution across the days of the week.

Average age of dams at first calving

The average age of dams (at 1st calving) whose first calf was born in Period 2.

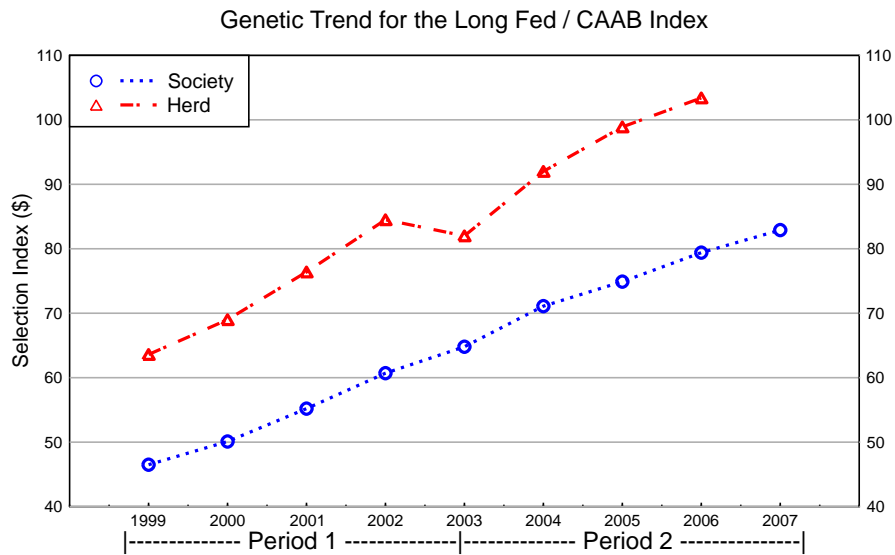
The identification of average age of dams at first calving as a KPI indicates that the herds that made more genetic progress were calving their heifers down at an earlier age than other herds. That is, calving heifers at 2 years of age as opposed to calving at 2.5 or 3 years of age.

Long Fed / CAAB Index

Summary Report

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

		Herd	Breed Average
Average Index value in Period 2	Males (bulls & steers)	\$94.55	\$74.98
	Females	\$94.09	\$75.00
	Steers	\$82.90	\$53.68
Average Index value of parents in Period 2	Sires	\$108.74	\$89.87
	Dams	\$79.45	\$60.31
Average Index value in Period 2		\$94.33	\$74.98
Average Index value in Period 1		\$75.53	\$58.18
Average genetic progress in Period 2		\$7.07	\$4.01
Average genetic progress in Period 1		\$5.20	\$4.66
Average number of progeny per year in Period 2		520	149



Long Fed / CAAB Index

Key Variables

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

	Herd	Breed Average	Percentile Band
Average genetic progress in Period 1	\$5.20	\$4.66	35
Average genetic progress in Period 2	\$7.07	\$4.01	10
Average Index value in Period 2	\$94.33	\$74.98	5

Key Performance Indicators

Selection differential of sires	\$30.30	\$28.02	35
Selection differential of dams	\$1.50	-\$1.46	20
Standard deviation of Index (quality of information)	\$11.64	\$13.18	35
Sire: dam mating correlation	0.22	0.10	20
Calving day spread within week	HIGH	HIGH	40
Average age of dams at first calving	2.0	2.1	10

Long Fed / CAAB Index

Variables affecting Selection Differential

(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Relating to Sires		
Selection differential of sires	\$30.30	\$28.02
Selection differential of sires used on 2 yr old dams	\$0.00	\$24.09
Sire: dam mating correlation	0.22	0.10
Maximum sire selection differential	\$7.37	\$7.79
Sire Index: number of calves	0.22	0.08
Percentage of calves born from AI	66%	45%
Relating to Dams		
Selection differential of dams	\$1.50	-\$1.46
Maximum dam selection differential	\$1.50	-\$1.83
Percentage of calves born from ET	0%	10%
Selection differential of dams used for ET	\$0.00	\$2.36
Relating to Accuracy of EBVs		
Number of herds connected by common sires	291	226
Percentage of sire connectedness	13%	8%
Percentage of animals with common ancestry	69.5%	50.7%
Average inbreeding of animals that have common ancestry	3.8%	2.6%
Average inbreeding for current herd	0.0%	0.0%
Standard deviation of Index (quality of information)	\$11.64	\$13.18
Calf sex ratio (ratio of females to males)	0.95	0.98
Percentage of steers (to total males)	29.7%	17.4%
Calving day spread within week	HIGH	HIGH
Calving day spread within month	VHIGH	VHIGH
Average number of progeny per year	520	149

Long Fed / CAAB Index
Variables affecting Generation Length
(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Average age of dams at first calving	2.0	2.1
Average age of all sires used	5.2	4.9
Average age of all dams used	3.4	4.6
Sire replacement rate (percentage of sires to males)	2.8	2.1
Dam replacement rate (percentage of dams to females)	39.1	35.0
Mating ratio (number of dams/number of sires)	11.6	11.9
Average number of progeny per year	520	149

Heavy Grass Fed Steer Index

This section provides the TakeStock results for the Angus Heavy Grass Fed Steer Index.

Description of the Index

The Angus Heavy Grass Fed Steer Index estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial Angus herd in temperate Australia that sells heavy grass fed steers for markets like the EU and light grass fed Jap Ox. Steers are assumed marketed at 600 kg live weight (330 kg HSCW and 15 mm P8 fat depth) at 22 months of age. Emphasis is placed on growth and carcass yield while maintaining fertility and marbling.

Key Performance Indicators

As detailed on the Key Variables page, the TakeStock analysis has identified the following variables as Key Performance Indicators (KPI) for the Angus Heavy Grass Fed Steer Index. These KPI identify the variables that have significantly influenced the different rates of genetic progress being made between herds for the Heavy Grass Fed Steer Index during Period 2.

Selection differential of sires

The selection differential of sires is the difference of the mean Index value of sires producing calves born in each year of Period 2 compared with the mean Index value of all males born in the herd 3 years previously. A positive selection differential indicates that the herd used better sires than the young males that were available in the herd at that time.

The identification of selection differential of sires as a KPI indicates that the herds that made more genetic progress used sires that had an Index value that was higher than the average Index value of the bulls available for selection.

Selection differential of dams

The selection differential of dams is the difference between the mean Index value of dams producing calves born in each year of period 2 and the mean Index value of females born in the herd 3 years previously. A positive selection differential indicates that the herd used better dams than the young females that were available in the herd at that time.

The identification of selection differential of dams as a KPI indicates that the herds that made more genetic progress used dams that had an Index value that was higher than the average Index value of the females available for selection.

Sire: dam mating correlation

The sire:dam mating correlation is the correlation between the Index value of the sire and the Index value of the dam from all matings in Period 2. A high positive correlation indicates that the herd has mated the better sires to the better dams (ie positive assortative mating).

The identification of sire:dam mating correlation as a KPI indicates that the herds that made more genetic progress mated their higher indexing sires to their higher indexing dams.

Average age of dams at first calving

The average age of dams (at 1st calving) whose first calf was born in Period 2.

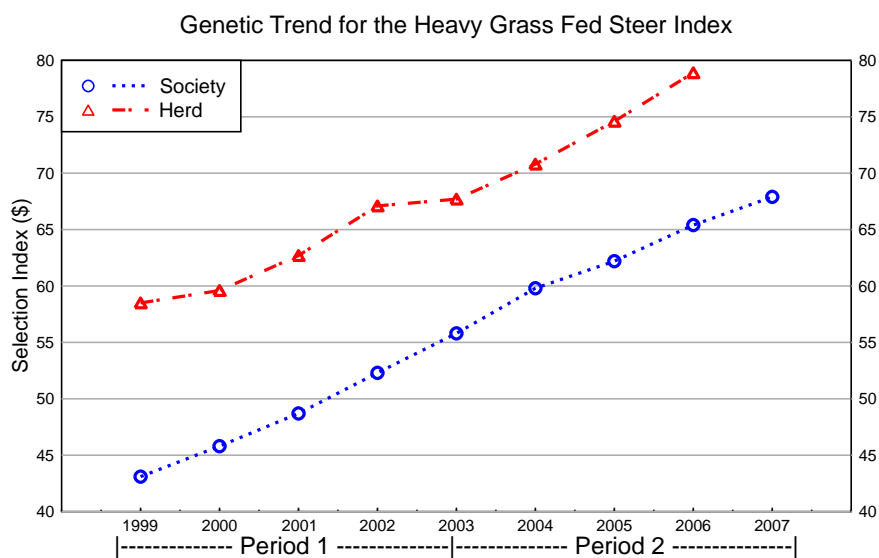
The identification of average age of dams at first calving as a KPI indicates that the herds that made more genetic progress were calving their heifers down at an earlier age than other herds. That is, calving heifers closer to 2 years of age as opposed to calving at 2.5 or 3 years of age.

Heavy Grass Fed Steer Index

Summary Report

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

		Herd	Breed Average
Average Index value in Period 2	Males (bulls & steers)	\$73.47	\$62.38
	Females	\$72.65	\$62.40
	Steers	\$66.92	\$44.56
Average Index value of parents in Period 2	Sires	\$80.68	\$72.36
	Dams	\$64.99	\$52.54
Average Index value in Period 2		\$73.07	\$62.38
Average Index value in Period 1		\$63.31	\$50.89
Average genetic progress in Period 2		\$3.75	\$2.66
Average genetic progress in Period 1		\$2.61	\$3.16
Average number of progeny per year in Period 2		520	149



Heavy Grass Fed Steer Index

Key Variables

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

	Herd	Breed Average	Percentile Band
Average genetic progress in Period 1	\$2.61	\$3.16	60
Average genetic progress in Period 2	\$3.75	\$2.66	20
Average Index value in Period 2	\$73.07	\$62.38	5

Key Performance Indicators

Selection differential of sires	\$16.04	\$18.99	65
Selection differential of dams	\$0.86	-\$0.83	25
Sire: dam mating correlation	0.11	0.07	35
Average age of dams at first calving	2.0	2.1	10

Heavy Grass Fed Steer Index

Variables affecting Selection Differential

(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Relating to Sires		
Selection differential of sires	\$16.04	\$18.99
Selection differential of sires used on 2 yr old dams	\$0.00	\$14.88
Sire: dam mating correlation	0.11	0.07
Maximum sire selection differential	\$1.16	\$4.24
Sire Index: number of calves	0.10	0.05
Percentage of calves born from AI	66%	45%
Relating to Dams		
Selection differential of dams	\$0.86	-\$0.83
Maximum dam selection differential	\$0.86	-\$1.11
Percentage of calves born from ET	0%	10%
Selection differential of dams used for ET	\$0.00	\$2.03
Relating to Accuracy of EBVs		
Number of herds connected by common sires	291	226
Percentage of sire connectedness	13%	8%
Percentage of animals with common ancestry	69.5%	50.7%
Average inbreeding of animals that have common ancestry	3.8%	2.6%
Average inbreeding for current herd	0.0%	0.0%
Standard deviation of Index (quality of information)	\$8.38	\$9.61
Calf sex ratio (ratio of females to males)	0.95	0.98
Percentage of steers (to total males)	29.7%	17.4%
Calving day spread within week	HIGH	HIGH
Calving day spread within month	VHIGH	VHIGH
Average number of progeny per year	520	149

Heavy Grass Fed Steer Index
Variables affecting Generation Length
(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Average age of dams at first calving	2.0	2.1
Average age of all sires used	5.2	4.9
Average age of all dams used	3.4	4.6
Sire replacement rate (percentage of sires to males)	2.8	2.1
Dam replacement rate (percentage of dams to females)	39.1	35.0
Mating ratio (number of dams/number of sires)	11.6	11.9
Average number of progeny per year	520	149

Short Fed Domestic Index

This section provides the TakeStock results for the Angus Short Fed Domestic Index.

Description of the Index

The Angus Short Fed Domestic Index estimates the genetic differences between animals in net profitability per cow joined for an example high fertility self replacing commercial Angus herd selling feeder steers and heifers for the short fed domestic feedlot trade. Steers are assumed marketed at 445 kg live weight (245 kg HSCW and 10 mm P8 fat depth) at 15 months of age. Emphasis is placed on growth to 400 days and high carcase yield while maintaining fertility and marbling.

Key Performance Indicators

As detailed on the Key Variables page, the TakeStock analysis has identified the following variables as Key Performance Indicators (KPI) for the Angus Short Fed Domestic Index. These KPI identify the variables that have significantly influenced the different rates of genetic progress being made between herds for the Short Fed Domestic Index during Period 2.

Average Index value in Period 1

Average Index value in Period 1 is the average Index of all animals born in the herd in Period 1.

The identification of average Index value in Period 1 as a KPI indicates that the herds that made more genetic progress in Period 2 had animals with relatively lower Index values in Period 1. Care should be taken when interpreting this KPI – an above average percentile ranking indicates that your animals had relatively low Index values in Period 1. This KPI is consequently of limited value in identifying areas that can be altered to increase the rate of genetic progress being made by your herd.

Selection differential of sires

The selection differential of sires is the difference of the mean Index value of sires producing calves born in each year of Period 2 compared with the mean Index value of all males born in the herd 3 years previously. A positive selection differential indicates that the herd used better sires than the young males that were available in the herd at that time.

The identification of selection differential of sires as a KPI indicates that the herds that made more genetic progress used sires that had an Index value that was higher than the average Index value of the bulls available for selection.

Selection differential of dams

The selection differential of dams is the difference between the mean Index value of dams producing calves born in each year of period 2 and the mean Index value of females born in the herd 3 years previously. A positive selection differential indicates that the herd used better dams than the young females that were available in the herd at that time.

The identification of selection differential of dams as a KPI indicates that the herds that made more genetic progress used dams that had an Index value that was higher than the average Index value of the females available for selection.

Sire: dam mating correlation

The sire:dam mating correlation is the correlation between the Index value of the sire and the Index value of the dam from all matings in Period 2. A high positive correlation indicates that the herd has mated the better sires to the better dams (ie positive assortative mating).

The identification of sire:dam mating correlation as a KPI indicates that the herds that made more genetic progress mated their higher indexing sires to their higher indexing dams.

Percentage of calves born from AI

The percentage of calves born in the herd in Period 2 from an AI mating (includes both natural and ET calves).

The identification of percentage of calves born from AI as a KPI indicates that the herds that made more genetic progress were using a greater amount of AI than other herds.

Average age of dams at first calving

The average age of dams (at 1st calving) whose first calf was born in Period 2.

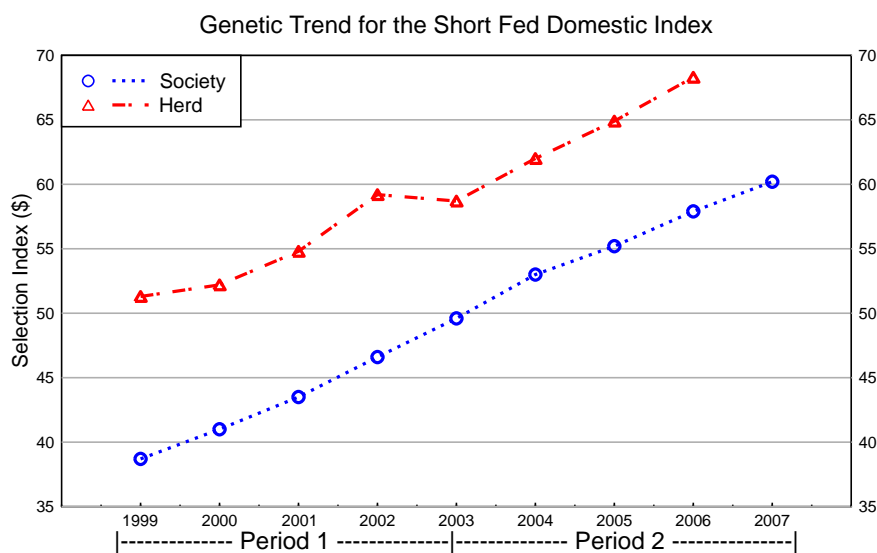
The identification of average age of dams at first calving as a KPI indicates that the herds that made more genetic progress were calving their heifers down at an earlier age than other herds. That is, calving heifers closer to 2 years of age as opposed to calving at 2.5 or 3 years of age.

Short Fed Domestic Index

Summary Report

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

		Herd	Breed Average
Average Index value in Period 2	Males (bulls & steers)	\$63.89	\$55.35
	Females	\$63.27	\$55.37
	Steers	\$58.75	\$39.63
Average Index value of parents in Period 2	Sires	\$70.16	\$64.13
	Dams	\$56.62	\$46.72
Average Index value in Period 2		\$63.59	\$55.36
Average Index value in Period 1		\$55.40	\$45.40
Average genetic progress in Period 2		\$3.16	\$2.34
Average genetic progress in Period 1		\$2.20	\$2.73
Average number of progeny per year in Period 2		520	149



Short Fed Domestic Index

Key Variables

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

	Herd	Breed Average	Percentile Band
Average genetic progress in Period 1	\$2.20	\$2.73	65
Average genetic progress in Period 2	\$3.16	\$2.34	25
Average Index value in Period 2	\$63.59	\$55.36	5

Key Performance Indicators

Selection differential of sires	\$13.63	\$16.65	75
Selection differential of dams	\$0.52	-\$0.85	25
Sire: dam mating correlation	0.18	0.09	25
Average age of dams at first calving	2.0	2.1	10

Short Fed Domestic Index

Variables affecting Selection Differential

(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Relating to Sires		
Selection differential of sires	\$13.63	\$16.65
Selection differential of sires used on 2 yr old dams	\$0.00	\$13.61
Sire: dam mating correlation	0.18	0.09
Maximum sire selection differential	\$1.42	\$3.90
Sire Index: number of calves	0.09	0.03
Percentage of calves born from AI	66%	45%
Relating to Dams		
Selection differential of dams	\$0.52	-\$0.85
Maximum dam selection differential	\$0.52	-\$1.09
Percentage of calves born from ET	0%	10%
Selection differential of dams used for ET	\$0.00	\$1.33
Relating to Accuracy of EBVs		
Number of herds connected by common sires	291	226
Percentage of sire connectedness	13%	8%
Percentage of animals with common ancestry	69.5%	50.7%
Average inbreeding of animals that have common ancestry	3.8%	2.6%
Average inbreeding for current herd	0.0%	0.0%
Standard deviation of Index (quality of information)	\$6.97	\$8.49
Calf sex ratio (ratio of females to males)	0.95	0.98
Percentage of steers (to total males)	29.7%	17.4%
Calving day spread within week	HIGH	HIGH
Calving day spread within month	VHIGH	VHIGH
Average number of progeny per year	520	149

Short Fed Domestic Index
Variables affecting Generation Length
(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Average age of dams at first calving	2.0	2.1
Average age of all sires used	5.2	4.9
Average age of all dams used	3.4	4.6
Sire replacement rate (percentage of sires to males)	2.8	2.1
Dam replacement rate (percentage of dams to females)	39.1	35.0
Mating ratio (number of dams/number of sires)	11.6	11.9
Average number of progeny per year	520	149

Terminal Index

This section provides the TakeStock results for the Angus Terminal Index.

Description of the Index

The Angus Terminal Index estimates the genetic differences between animals in net profitability for an example commercial crossbred herd where no animals are kept for breeding. For example using Angus bulls over tropical cows targeting pasture grown steers and heifers with a 100 day feedlot finishing period. Progeny are assumed marketed at 600 kg live weight (325 kg HSCW and 17 mm P8 fat depth) at 23 months of age. Emphasis is on growth and carcass yield with no weighting placed on calving ease, female fertility or milk.

Key Performance Indicators

As detailed on the Key Variables page, the TakeStock analysis has identified the following variables as Key Performance Indicators (KPI) for the Angus Terminal Index. These KPI identify the variables that have significantly influenced the different rates of genetic progress being made between herds for the Terminal Index during Period 2.

Selection differential of sires

The selection differential of sires is the difference of the mean Index value of sires producing calves born in each year of Period 2 compared with the mean Index value of all males born in the herd 3 years previously. A positive selection differential indicates that the herd used better sires than the young males that were available in the herd at that time.

The identification of selection differential of sires as a KPI indicates that the herds that made more genetic progress used sires that had an Index value that was higher than the average Index value of the bulls available for selection.

Selection differential of dams

The selection differential of dams is the difference between the mean Index value of dams producing calves born in each year of period 2 and the mean Index value of females born in the herd 3 years previously. A positive selection differential indicates that the herd used better dams than the young females that were available in the herd at that time.

The identification of selection differential of dams as a KPI indicates that the herds that made more genetic progress used dams that had an Index value that was higher than the average Index value of the females available for selection.

Sire: dam mating correlation

The sire:dam mating correlation is the correlation between the Index value of the sire and the Index value of the dam from all matings in Period 2. A high positive correlation indicates that the herd has mated the better sires to the better dams (ie positive assortative mating).

The identification of sire:dam mating correlation as a KPI indicates that the herds that made more genetic progress mated their higher indexing sires to their higher indexing dams.

Average age of dams at first calving

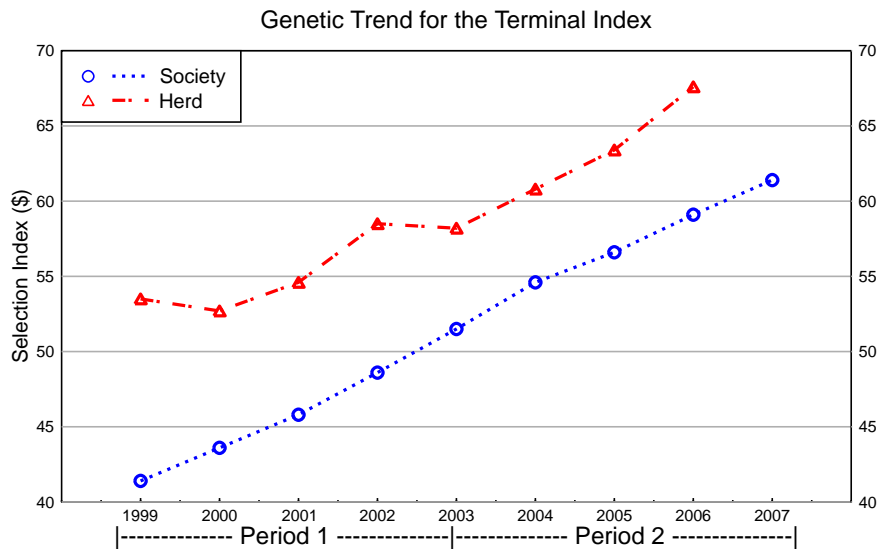
The average age of dams (at 1st calving) whose first calf was born in Period 2.

The identification of average age of dams at first calving as a KPI indicates that the herds that made more genetic progress were calving their heifers down at an earlier age than other herds. That is, calving heifers closer to 2 years of age as opposed to calving at 2.5 or 3 years of age.

Terminal Index Summary Report

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

		Herd	Breed Average
Average Index value in Period 2	Males (bulls & steers)	\$62.85	\$56.78
	Females	\$62.30	\$56.70
	Steers	\$57.16	\$40.71
Average Index value of parents in Period 2	Sires	\$68.77	\$64.75
	Dams	\$56.33	\$48.80
Average Index value in Period 2		\$62.58	\$56.74
Average Index value in Period 1		\$55.58	\$47.53
Average genetic progress in Period 2		\$3.08	\$2.18
Average genetic progress in Period 1		\$1.56	\$2.49
Average number of progeny per year in Period 2		520	149



Terminal Index

Key Variables

(Period 1 - 1999 to 2003 & Period 2 - 2003 to 2007)

	Herd	Breed Average	Percentile Band
Average genetic progress in Period 1	\$1.56	\$2.49	75
Average genetic progress in Period 2	\$3.08	\$2.18	20
Average Index value in Period 2	\$62.58	\$56.74	15

Key Performance Indicators

Selection differential of sires	\$12.46	\$15.16	70
Selection differential of dams	\$0.47	-\$0.60	30
Sire: dam mating correlation	0.05	0.02	35
Average age of dams at first calving	2.0	2.1	10

Terminal Index

Variables affecting Selection Differential

(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Relating to Sires		
Selection differential of sires	\$12.46	\$15.16
Selection differential of sires used on 2 yr old dams	\$0.00	\$10.41
Sire: dam mating correlation	0.05	0.02
Maximum sire selection differential	-\$2.05	\$1.40
Sire Index: number of calves	0.06	0.04
Percentage of calves born from AI	66%	45%
Relating to Dams		
Selection differential of dams	\$0.47	-\$0.60
Maximum dam selection differential	\$0.47	-\$0.86
Percentage of calves born from ET	0%	10%
Selection differential of dams used for ET	\$0.00	\$2.04
Relating to Accuracy of EBVs		
Number of herds connected by common sires	291	226
Percentage of sire connectedness	13%	8%
Percentage of animals with common ancestry	69.5%	50.7%
Average inbreeding of animals that have common ancestry	3.8%	2.6%
Average inbreeding for current herd	0.0%	0.0%
Standard deviation of Index (quality of information)	\$8.81	\$8.92
Calf sex ratio (ratio of females to males)	0.95	0.98
Percentage of steers (to total males)	29.7%	17.4%
Calving day spread within week	HIGH	HIGH
Calving day spread within month	VHIGH	VHIGH
Average number of progeny per year	520	149

Terminal Index
Variables affecting Generation Length
(values relate to Period 2 - 2003 to 2007)

	Herd	Breed Average
Average age of dams at first calving	2.0	2.1
Average age of all sires used	5.2	4.9
Average age of all dams used	3.4	4.6
Sire replacement rate (percentage of sires to males)	2.8	2.1
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