

BovIS

Bovine Information System

A guide to the online BovIS carcass benchmarking application using worked examples.



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**Comparing terminal sires is only possible when the sire is registered with births on APHIS*



- What BovIS is and why this guide has been developed
- Accessing BovIS through online services
- Accessing the benchmarking application
- Interpreting the summary pages of the BovIS benchmarking application

What is BovIS?

The Bovine Information System (BovIS) was developed by the Agri-food and Biosciences Institute (AFBI) through funding from DARD and AgriSearch. BovIS incorporates carcass information from seven of the main Northern Ireland abattoirs (accounting for 90 % of the annual kill) and animal information from APHIS (Animal & Public Health Information System). The BovIS applications and database are hosted within the NICS secure network environment.

This booklet was developed to provide a practical guide to the BovIS carcass tool and, using worked examples, demonstrate the use of the application to inform management decisions. The case studies within this guide are fictitious, but bear resemblance to the main production systems in Northern Ireland. Each provides a short background on the farm's production system and how the BovIS carcass online application was used to help inform the decision making process.

Accessing BovIS through DARD online services

Department of
**Agriculture and
Rural Development**
www.dardni.gov.uk
AN ROINN
Talmhaíochta agus
Forbartha Tuaithe
MÁNSIONN O
Fairsins an
Kintra Foirleirín

>Online Services Home

>>DARD Services

- APHIS
- SAF Submission
- OnLine Maps
- Benchmarking
- Nutrient Calculators
- Business Tools**
- BovIS**
- PIG PAC
- Payment Summary
- Farm Structure Survey

DARD Online Services

Login to DARD Online Services

Please enter your Government Gateway User ID and password for online government services then click the Login button below.

I need a [Government Gateway Account](#).

I wish to operate as an [Online Agent](#).

I need some [help or more information](#).

Note: - You must be logged in to use these Services

Login Details

Govt Gateway User ID:
(12 digit User ID)

Password:

Remember my User ID

Login

DARD online services offer a suite of online applications and business tools specifically developed to meet the needs of Northern Ireland farmers.

One of these tools is the Bovine Information System (BovIS). BovIS offers a collection of management decision support tools designed to provide information to inform management decisions. To access the range of powerful tools, simply log on to your gateway account and select BovIS from the options listed under “DARD services” (highlighted in the red box).

This allows exclusive access to your own herd details and use of BovIS applications.

If you don't already have a government gateway account, information on how to sign up is available at: www.dardni.gov.uk/index/online-services

Accessing the benchmarking application

Once you have logged on and selected the BovIS benchmarking application, you will be presented with the benchmarking home page (below). On the right hand side of the screen is the “Recent Factory Visits” menu. By clicking the “View Records” button, a list of all your cattle killed at that abattoir on that date will be listed by ear tag, alongside further information including each animal’s date of birth, type, breed, age at slaughter, carcass weight, conformation grade, fat class and daily carcass gain. To the left is the “Benchmark My Data” heading, which links to the benchmarking application. *(Please note: there is up to a 2 week delay between slaughter date and data becoming available on BovIS).*

BovIS - Benchmarking

Welcome

Funded by DARD and AgriSearch, the BovIS benchmarking application has been developed by AFBI to provide beef producers with a facility to view, analyse and rank the performance of slaughtered animals which have passed through Northern Ireland abattoirs.

To run a benchmark report for your herd, please click the link below. You can also view the details of individual animals slaughtered on a specific date by clicking the 'View Records' button, in the 'Recent Factory Visits' table.



[Benchmark My Data](#)

Generate reports based on your cattle data and benchmark your data against the top producers.



[User Guide](#) (PDF 1.1MB)

Step by step guide on how to use the BovIS benchmarking application to view your animal data and compare with the top producers.

Recent Factory Visits

Kill Date	Abattoir	Cattle	
08/07/2013	ABP Lurgan	6	View Records
13/05/2013	Linden foods	8	View Records
06/03/2013	W. D. Meats	12	View Records
13/02/2013	Foyle Campsie	11	View Records
12/02/2013	Dunbia, Dungannon	7	View Records
16/01/2013	ABP Newry	8	View Records
16/12/2012	Foyle Omagh	12	View Records

1 2

Click the “Benchmark My Data” link to run a benchmarking report for your herd.

(For more information on how to generate a benchmarking report, please see page 8)

To view details of individuals slaughtered on a specific date, click the “View Records” button.

(Please see overleaf)

Recent factory visits

BovIS - Benchmarking

Recent Factory Visits

[« Return to Slaughter History](#)

Details of Cattle for:

Kill Date: 08 July 2013

Abattoir: ABP Lurgan

Animal Tag	Date of birth	Type	Breed	Dam breed	Age at slaughter (months)	Weight	Grade	Fat Class	Carcass gain (kg/day)	
UK 9 XXXXXX XXXX 1	05/06/2011	Steer	Limousin	Charolais	25.0	330.2	U=	3-	0.43	View Dam View Sire
UK 9 XXXXXX XXXX 2	21/05/2011	Steer	Limousin	Charolais	25.5	335.1	U-	3=	0.43	View Dam View Sire
UK 9 XXXXXX XXXX 3	30/05/2011	Steer	Limousin	Limousin	25.2	320.1	U=	3-	0.42	View Dam View Sire
UK 9 XXXXXX XXXX 4	26/05/2011	Steer	Limousin	Limousin	25.4	319.2	U+	3=	0.41	View Dam View Sire
UK 9 XXXXXX XXXX 5	30/05/2011	Steer	Limousin	Limousin	25.2	325.1	U-	3+	0.42	View Dam View Sire
UK 9 XXXXXX XXXX 6	26/05/2011	Heifer	Limousin	Limousin	25.4	321.5	U+	3=	0.42	View Dam View Sire

On the recent factory visits page, each of your individual animals slaughtered at that abattoir on that day and their carcass characteristics are listed.

To return to the benchmarking home page, click the “<<Return to Slaughter History” button.

Selecting animals to generate a benchmarking report

Once you have accessed the “Benchmark My Data” page (see page 6 for instructions); two simple steps generate the benchmarking report.

1. “Select Report Date Range” (*the date range refers to the slaughter dates of the cattle*)
2. “Select Report Animal Type” (*only one animal type can be chosen per report*)

In this example a report of all steers slaughtered between 1st March 2013 and 30th April 2013 will be generated.

BovIS - Benchmarking

Benchmark My Data

To generate a BovIS benchmarking report, select the date range and animal type below.

Step 1: Select Report Date Range

From Date:

To Date:

Please note: Selected months are inclusive (e.g., Nov 2009 to Nov 2010 will span 1st Nov 2009 to 30th Nov 2010)

Step 2: Select Report Animal Type

Animal Type: Young Bulls Bulls Steers Cows Heifers

[Generate Report](#)

Interpreting the summary

Once a report has been generated, the first page of the report is the summary. In this example, the performance of steers of all breeds and categories slaughtered between 1st March 2013 and 30th April 2013 is reported.

Select Breed/Breed Category: ALL STEERS View Report

Summary
Conformation
Fatness
Weight
Carcass Gain
Animal Data

Summary Data

Report Date Range: 01/03/2013 to 30/04/2013

Animal Type:	Steers
Breed Category:	All Breed Categories
Breed:	All Breeds
Animal Count:	23

Animal Counts

Heifer	3
Steer	23
Total:	26

Summary of Your Performance

	Animal Count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass Gain (kg/day)	In Spec (%)
Native Sire x Dairy	2	322.1	3+	O=	23.8	0.46	50.0
Continental Sire x Dairy	5	345.8	3=	O+	25.2	0.45	80.0
Continental Sire x Native	12	338.3	3+	R+	21.7	0.51	91.7
Pure Continental	4	361.2	3=	U=	21.7	0.54	75.0

• Unless specified, all values in performance summary table are averages.

This is the date range in which the animals were slaughtered.

This lists the “Animal Type” selected in the second step when generating a benchmarking report.

In this example “Steers” of “All Breed Categories” and “All Breeds” are shown.

This shows the number of each animal type slaughtered in the reporting period; in this example, 3 heifers and 23 steers.

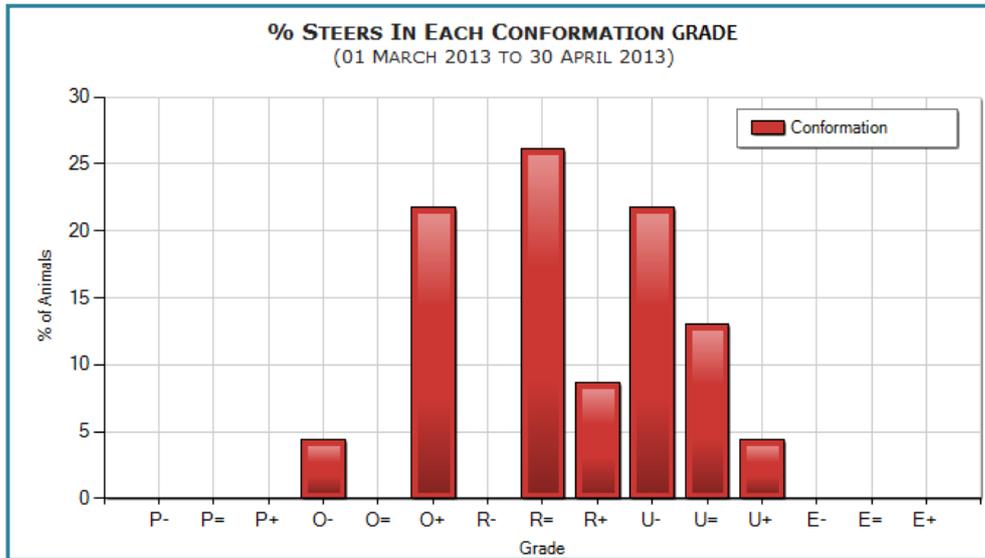
The “Summary of Your Performance” table shows a breakdown of carcass characteristics of the animals reported on by breed category.

Interpreting the distribution charts

Conformation grade distribution

Summary | **Conformation** | Fatness | Weight | Carcass Gain | Animal Data

Conformation Grade Distribution



To view the distribution of the carcass characteristics of animals selected in your report, click any of the tabs at the top of the report. In this example, conformation has been selected.

A detailed breakdown of each conformation grade is shown in the distribution graph. In this example, 26% of the steers achieved grade "R=".

Conformation Grade Summary

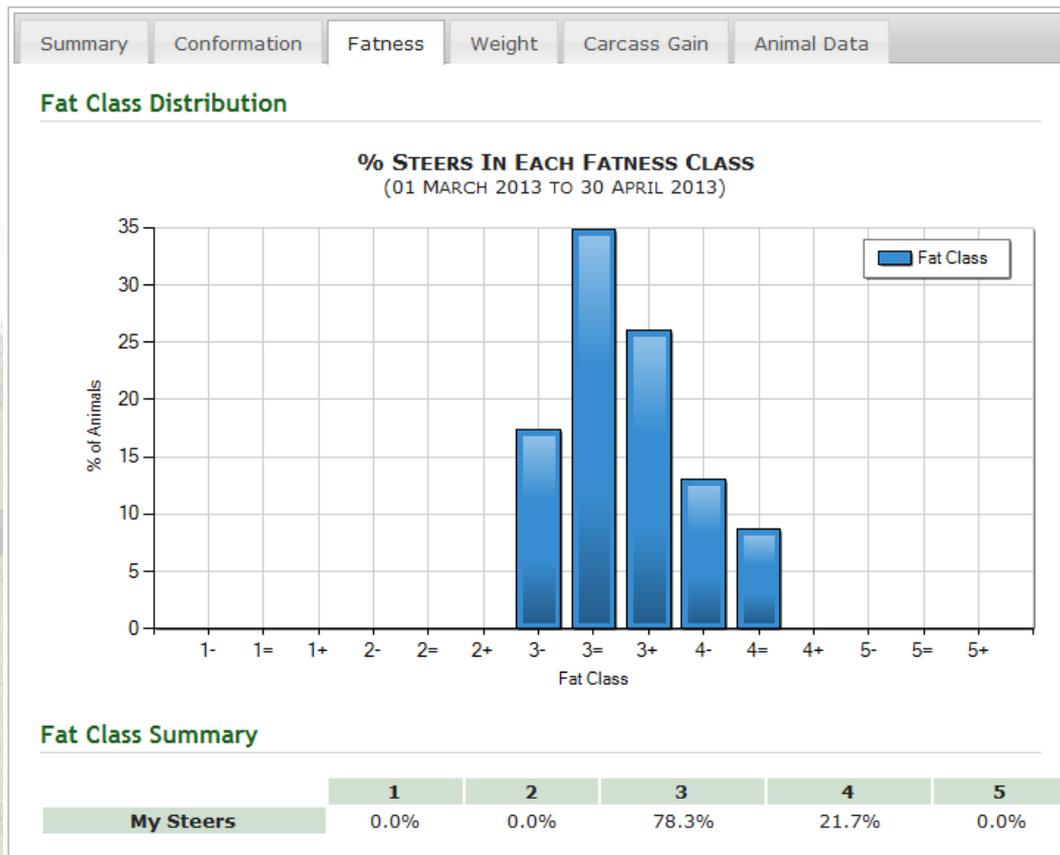
	P	O	R	U	E
My Steers	0.0%	26.1%	34.8%	39.1%	0.0%

The summary table at the bottom of the page shows the distribution of the five main conformation groups.

Fat class distribution

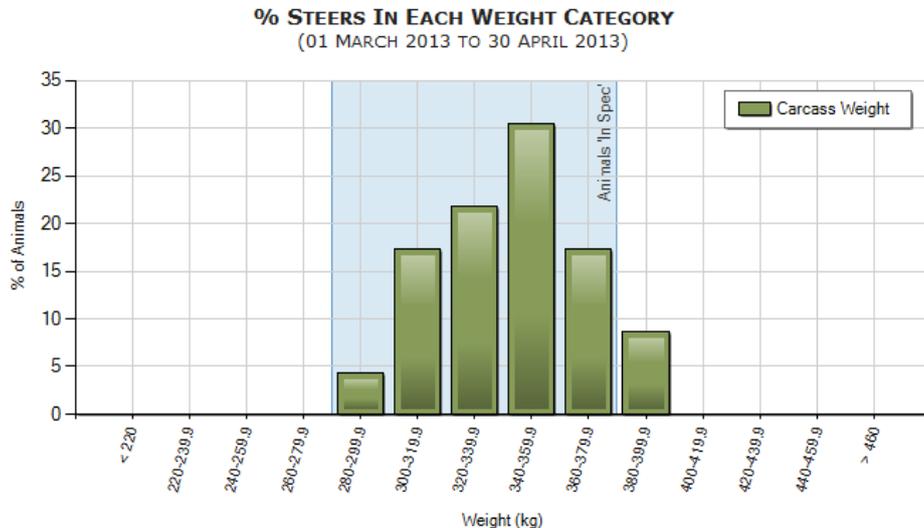
Similar to the conformation grade distribution on the previous page, a clear distribution of the fat class is shown both across the 5 fat bands and then further broken down in the chart across the 15 classes.

In this example, over 78 % of animals achieve a fat class 3.



Carcass weight distribution

Carcass Weight Distribution



The carcass weight summary is split over weight ranges 0-280 kg, 280-380 kg, and 380 kg and above; corresponding to below, within and above current in-spec weight requirements. The current in-spec weight range is also shown in blue on the graph.

In this example, 91 % of steers were slaughtered within the in-spec weight range.

Carcass Weight Summary (kg/day)

	0 - 280 kg	280 - 380 kg	380kg and above
My Steers	0.0%	91.3%	8.7%

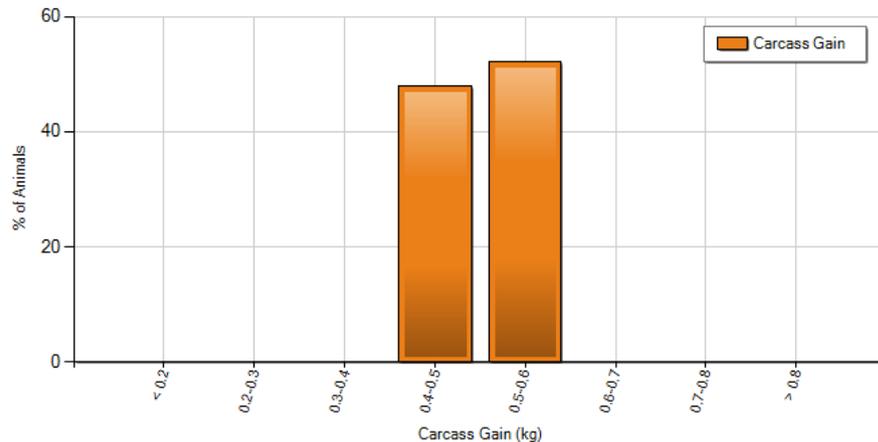
Daily carcass gain distribution

Daily carcass gain is automatically calculated from the cattle's age and weight, in this example all cattle fall within the 0.4 to 0.6 kg/day daily carcass gain band.

For a guide to daily carcass gain specific to breed type, please refer to page 16 of this booklet.

Carcass Gain Distribution

% STEERS IN EACH CARCASS GAIN CATEGORY
(01 MARCH 2013 TO 30 APRIL 2013)



Carcass Gain Summary

	< 0.2 kg	0.2-0.3 kg	0.3-0.4 kg	0.4-0.5 kg	0.5-0.6 kg	0.6-0.7 kg	0.7-0.8 kg	> 0.8kg
My Steers	0.0%	0.0%	0.0%	47.8%	52.2%	0.0%	0.0%	0.0%

Analysis at an individual animal level

The distribution of conformation, fat class, weight and carcass gain shown in the previous pages are useful for an overview of performance. A more in depth look at how individual animals performed can be found on the “Animal Data” tab.

Detailed carcass characteristics are provided for each individual animal, dam and sire (if recorded at time of birth) and the option to “Export to CSV” which allows the user to download the data and manipulate it (please see Appendix, page 56).

Summary	Conformation	Fatness	Weight	Carcass Gain	Animal Data					
Animal Data										
View Animal Records View Dam Records View Sire Records										
Individual Animal Records					Export to CSV					
Animal Tag	Date of birth	Breed	Dam breed	Kill date	Age at slaughter (months)	Weight	Grade	Fat Class	Carcass gain (kg/day)	
UK 9 XXXXXX XXXX 1	05-12-2010	BreedX	BreedX	08-03-2013	26.8	339.5	O+	4-	0.42	View Dam View Sire
UK 9 XXXXXX XXXX 2	21-12-2010	BreedY	BreedX	08-03-2013	26.2	326.6	O+	3=	0.41	View Dam View Sire
UK 9 XXXXXX XXXX 3	06-01-2011	BreedX	BreedX	08-03-2013	25.9	347.7	R=	4-	0.44	View Dam View Sire
UK 9 XXXXXX XXXX 4	16-01-2011	BreedX	BreedY	08-03-2013	25.6	351.8	O+	3=	0.45	View Dam View Sire

Comparing your cattle to other producers' cattle

To benchmark your data against other producers' cattle it is necessary to choose a breed or breed category for comparison. In the example below, the breed category "Pure Dairy" has been selected. The summary of your performance table then compares your kill in the selected time period to the average of the top 10 % of producers and the average of all producers. (Top 10 % is calculated on daily carcass gain, this is discussed further in pages 16-22).

Select Breed/Breed Category: Pure Dairy (100) [View Report](#) [Compare Breed](#) [Compare Date Range](#)

Summary | Conformation | Fatness | Weight | Carcass Gain | Animal Data

Summary data

Report date range: 01/03/2013 to 30/04/2013

Animal Type: Young Bulls
Breed category: Pure Dairy
Breed: All "Pure Dairy" Breeds

Animal Count: 100
Carcass gain rank: 106 out of 356

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
My Young Bulls	100	287.8	3-	O-	16.4	0.58	3.2
Top 10 %	157	304.1	3-	O-	14.4	0.71	5.7
All Producers	2,382	268.8	2+	O-	16.9	0.53	0.8

Select a specific breed or breed category then click "View report"

The "Summary of Your Performance" table shows a breakdown of carcass characteristics of the animals reported and the average of the top 10 % of producers and the NI average.

(Please note the top 10 % is based on carcass gain and may not represent the most profitable production method).

How does BovIS calculate daily carcass gain (DCG)?

BovIS calculates the DCG of cattle slaughtered by dividing the weight at slaughter by the animal age in days. This assumes 0 kg carcass weight at birth.

How to interpret the daily carcass gain values

BovIS offers the opportunity to compare your performance to both the overall average of producers and the top 10 % of producers. The top 10 % are calculated by the daily carcass gain (DCG), however to achieve the highest DCG may not be the most profitable production method. Typical DCGs required to achieve in-spec weight requirements for a range of cattle types and production systems are provided in pages 17-22.

Continental breeds carcass gain guide

Continental	Target age at slaughter (months)	Target daily carcass gain (kg/day)
Young Bulls	16	0.68 - 0.78
Steers	22	0.49 - 0.57
	24	0.45 - 0.52
Heifers	20	0.54 - 0.59
	24	0.45 - 0.49

Native breeds carcass gain guide

Native	Target age at slaughter (months)	Target daily carcass gain (kg/day)
Young Bulls	16	0.64 - 0.74
Steers	22	0.49 - 0.54
	24	0.45 - 0.49
Heifers	20	0.52 - 0.56
	24	0.44 - 0.46

Dairy breeds carcass gain guide

Pure Dairy	Target age at slaughter (months)	Target daily carcass gain (kg/day)
Young Bulls	16	0.61 - 0.68
Steers	22	0.48 - 0.51
	24	0.44 - 0.46

Continental x dairy carcass gain guide

Continental x dairy	Target age at slaughter (months)	Target daily carcass gain (kg/day)
Young Bulls	16	0.66 - 0.76
Steers	22	0.48 - 0.54
	24	0.44 - 0.49
Heifers	20	0.52 - 0.56
	24	0.44 - 0.46

Continental x native carcass gain guide

Continental x native	Target age at slaughter (months)	Target daily carcass gain (kg/day)
Young Bulls	16	0.68 - 0.78
Steers	22	0.49 - 0.55
	24	0.45 - 0.51
Heifers	20	0.56 - 0.59
	24	0.46 - 0.49

Continental x dairy carcass gain guide

Native x dairy	Target age at slaughter (months)	Target daily carcass gain (kg/day)
Young Bulls	16	0.66 - 0.72
Steers	22	0.48 - 0.52
	24	0.44 - 0.48
Heifers	20	0.51 - 0.54
	24	0.42 - 0.45

Case studies for the suckler farmer (page 24)

This section includes examples of how the BovIS benchmarking application can be used by suckler farmers. The fictional case studies show examples of how the commercial farmer can use the programme to help when: selecting replacement heifers, comparing different breeds within the herd and comparing terminal sires.



Case studies for the finishing farmer (page 36)

This section includes examples of how the BovIS benchmarking application can be used by farmers who are finishing beef cattle. The fictional case studies show examples of how the commercial farmer can use the programme to help when: comparing the performance of home-grown and bought in cattle, comparing animals slaughtered over different date ranges, calculating a margin over feed cost, and comparing livestock purchased from different suppliers.



Suckler farmer case studies

How the BovIS carcass benchmarking tool can be used by the commercial suckler farmer to-

- Help select replacement heifers
- Compare different breeds within the herd
- Compare terminal sires used on farm



Case study 1: Using BovIS to help to select replacement heifers



Mr Graham wants to breed replacement heifers. His main priority is to breed replacements which will have a high milk yield to support calf needs. Alongside using a proven sire which has high estimated breeding values (EBV) for milk yield, he wants to examine the performance of dams to see which produced higher quantities of milk. Each year, the dams were served by the same bull and progeny were reared in groups subject to the same finishing diet and slaughtered at 22 months. Working on the assumption that dams which produce more milk will produce progeny with a higher daily carcass gain, Mr Graham uses BovIS to help select which dams to breed replacement heifers from.

Using BovIS to help to select replacement heifers

Select Breed/Breed Category: ALL HEIFERS
View Report
Compare Breed
Compare Date Range

Summary
Conformation
Fatness
Weight
Carcass Gain
Animal Data

Summary data

Report date range: 01/01/2009 to 30/11/2013

Animal Type: Heifers

Breed category: All Breed Categories

Breed: All Breeds

Animal Count: 32

Animal Counts

Heifer	32
Steer	51
Total	83

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
Native Sire x Continental	32	335.6	3+	R-	22.6	0.49	18.9

Mr Graham logged onto the BovIS benchmarking application and selected the widest date range possible (starting on the 1st January 2009); then selected “Heifer” as the animal type. This generated a report of all heifers Mr Graham had slaughtered since January 2009.

Mr Graham had slaughtered 83 animals in that time, 32 of which were native sire x continental heifers. To look at the dam information of each animal, Mr Graham clicks the “Animal Data” tab.

Using BovIS to help to select replacement heifers

Mr Graham selected “View Dam Records”, this brought up the dam information of the animals reported on (in this example: all the heifers that had been slaughtered since 2009). The dams are listed by “Animal Tag” with a note if the cow had been killed through a BovIS plant. Mr Graham then sorted the data by average carcass gain, and identified the cows with the highest average calf carcass gain. Assuming these cows had higher milk yield, the extracted data can help Mr Graham to make an informed choice of which cows would be most suitable to breed with a maternal sire with the aim of breeding suitable replacement heifers.



The screenshot shows the BovIS software interface with the 'Animal Data' tab selected. The 'View Dam Records' heading is highlighted in grey. Below it, the 'Dam Records' table is displayed, sorted by 'Average Calf Carcass Gain' in descending order. The table has the following data:

Animal Tag	Breed	Date of Birth	Number of Calves	Average Calf Carcass Gain
UK 9 XXXXXX 1234 1	Blonde D'Aquitaine	16/07/2006	5	0.69
UK 9 XXXXXX 1235 2	Limousin	05/08/2008	3	0.62
UK 9 XXXXXX 1236 3	Limousin	06/07/2009	2	0.55
UK 9 XXXXXX 1237 4	Charolais	09/08/2006	5	0.48
UK 9 XXXXXX 1238 5	Blonde D'Aquitaine	03/08/2007	4	0.45
UK 9 XXXXXX 1239 6 (killed 01-02-2007)	Charolais	05/07/2000	3	0.35

“View Dam Records” is selected by clicking this heading. Once selected, the heading turns grey.

By clicking the heading on any of these columns the data is sorted in ascending order; if clicked twice the information is sorted in descending order.

Case study 2: Using BovIS to compare different breeds within your herd



The Johnson family have 36 Limousin cows. Each year, 18 were served to a native breed (Breed N) and the other 18 were served to a continental breed (Breed C). Mr Johnson is curious to see the impact that sire choice had on the proportion of his steers meeting in-spec requirements.

Using BovIS to compare different breeds within your herd

Mr Johnson selected January 2009 to July 2013 (his last slaughter date) and “Steer” as the animal type. The Johnson family had slaughtered 81 steers in this time, 45 were sired by Breed N (native sire x continental) and 36 were sired by Breed C (pure continental).

The summary shows that a higher proportion of the Breed N (native sire x continental) progeny were meeting in-spec requirements. Mr Johnson wants to compare the two breeds in more depth, so he selected the breed category “Native x continental”, and then clicked “View Report”. Once the report was generated he clicked on the “Compare Breed” button.

When using BovIS to compare two different breeds within your herd, it is necessary to select a breed or breed category which will be the basis of the comparison.

Select Breed/Breed Category: ALL STEERS View Report Compare Breed Compare Date Range

Summary
Conformation
Fatness
Weight
Carcass Gain
Animal Data

Summary data

Report date range: 01/01/2009 to 31/06/2013

Animal Type: Steers

Breed category: All Breed Categories

Breed: All Breeds

Animal Count: 81

Animal Counts

Heifer	63
Steer	81
Cow	2
Total	146

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
Native Sire x Continental	45	329.2	4-	R=	21.8	0.50	77.5
Pure Continental	36	391.2	3+	U=	22.5	0.57	39.6

Once a report has been generated on a specific breed or breed category, they can be compared to other breed/ breed categories within your herd.

Using BovIS to compare different breeds within your herd

Mr Johnson chooses to compare to cattle within his own herd and selects category “Pure Continental”. This will allow him to compare these steers to his previous report on “Native Sire x Continental” steers.

Once the appropriate data and breed category has been selected Mr Johnson clicks “Run comparison”.

Benchmarking Report

Compare with Breed Category

Use Data From: My Herd Only All Herds

Category:
 -- Select Breed --
 -- Select Breed --
 Pure Continental
 Breed C

If “My Herd Only” is selected this will run a comparison of the different breeds in your herd. However, there is also an option to compare your breed against the average of all herds.

The drop down menu allows simple selection of the breed or breed type you wish to compare to.

Using BovIS to compare different breeds within your herd

Select Breed/Breed Category: Native Sire x Continental (45) [View Report](#) [Compare Breed](#) [Compare Date Range](#)

Summary **Conformation** Fatness Weight Carcass Gain Animal Data

Summary data

Report date range: 01/01/2009 to 31/06/2013

Animal Type: Steers
Breed category: Native Sire x Continental
Breed: All "Native Sire x Continental" Breeds

Animal Count: 45

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
Native Sire x Continental	45	329.2	4-	R=	21.8	0.50	77.5
Top 10 %	1,510	347.0	3=	R=	18.5	0.64	57.3
All Producers	23,721	340.3	3+	R-	24.2	0.48	55.9
Pure Continental	36	391.2	3+	U=	22.5	0.57	39.6

Once Mr Johnson has generated the comparison report he can see that 77.5 % of his “Native Sire x Continental” cattle are in-spec and only 39.6 % of his “Pure Continental” are in-spec.

For a detailed examination of why the pure continental steers were not achieving in-spec grades, Mr Johnson can click the “Conformation”, “Fatness” and “Weight” tabs to compare the performance of each breed type for each carcass characteristic.

Using BovIS to compare different breeds within your herd

Conformation Summary

	P	O	R	U	E	Average
My Steers	0.0%	16.7%	80.6%	2.8%	0.0%	R=
Top 10%	0.1%	15.4%	59.6%	24.2%	0.6%	R=
All Producers	0.4%	33.6%	56.2%	9.8%	0.1%	R-
My Pure Continental	0.0%	0.0%	25.8%	74.2%	0.0%	U=

Fat Class Summary

	1	2	3	4	5	Average
My Steers	1.4%	0.0%	26.4%	72.2%	0.0%	4-
Top 10%	0.4%	9.7%	60.3%	29.5%	0.2%	3=
All Producers	0.4%	6.1%	54.4%	38.4%	0.7%	3+
My Pure Continental	0.0%	0.0%	64.5%	35.5%	0.0%	3+

Carcass Weight Summary (kg/day)

	0 -280 kg	280 -380 kg	380kg and above	Average
My Steers	4.2%	88.9%	6.9%	329.2 kg
Top 10%	6.8%	70.9%	22.3%	347.0 kg
All Producers	7.2%	75.0%	17.8%	340.3 kg
My Pure Continental	0.0%	41.9%	58.1%	391.2 kg

Mr Johnson can see from the three tables that for conformation grade and fat class, the average values for both his “Pure Continental” and “Native Sire x Continental” steers were all achieving average in-spec values.

When Mr Johnson looks at the weight of his steers, he can see the average weight of his “Pure Continental” is 391.2 kg, which is above the in-spec requirements (280-380 kg). The distribution table shows that only 41.9 % of “Pure Continental” are within the in-spec criteria for weight compared to 88.9 % of “Native Sire x Continental” steers.

Using this information, Mr Johnson can adjust his management practices for his “Pure Continental” steers and slaughter them at lower weight to meet in-spec requirements.

*Case study 3: Comparing the performance of terminal sires used on farm**



Mr Thompson has a herd of 100 Limousin x Holstein cows purchased as heifer calves from five dairy farms. He uses three sires: an early maturing native breed selected for calving ease (Breed N), and has two bulls of a late maturing, continental breed selected for growth and carcass weight (Breed X). Breed N is used with heifers and Breed X is used with mature cows. The progeny of both Breed X sires are managed together and subject to the same finishing regime. Using BovIS, Mr Thompson wants to compare the performance of progeny from the two Breed X sires.

Comparing the performance terminal sires used on farm*

Mr Thompson selected the date range January to December 2012 and steers as the animal type. This gave Mr Thompson a summary of all the steers slaughtered in 2012. As shown below, Mr Thompson selected the “Pure Continental” breed type (highlighted in the red box).

To compare the performance of the two pure continental sires, Mr Thompson clicks the Animal Data tab to view the sire records.

Mr Thompson is only interested in the performance of his pure continental cattle, so he selects “Pure continental” in the breed category drop down menu then clicks “View Report”.

Select Breed/Breed Category: Pure Continental [View Report](#) [Compare Breed](#) [Compare Date Range](#)

Summary Conformation Fatness Weight Carcass Gain **Animal Data**

Summary data

Report date range: 01/01/2012 to 01/12/2012

Animal Type: Steers
Breed category: All Breed Categories
Breed: All Breeds

Animal Count: 19

Animal Counts

Heifer	17
Steer	19
Cow	2
Total	38

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
Native Sire x Continental	10	335.6	3+	O-	24.1	0.46	18.9
Pure Continental	9	376.5	3-	R+	24.1	0.51	12.5

As expected, heifers crossed with the native bull produced progeny with an average carcass weight lower than the progeny of mature cows crossed with the continental bulls.

Comparing the performance terminal sires used on farm*

Mr Thompson had recorded the sires of calves when registering births on APHIS so he could easily view and compare bulls. To compare individual progeny of the two Breed X bulls (SIRE 1 and SIRE 2), Mr Thompson clicked the “+” box beside the desired bull to expand the information. This details progeny performance for each Breed X bull showing the weight, age, conformation grade, fat class, and daily carcass gain for each animal and the overall progeny average for each. All progeny were subject to the same production system (finishing diet and period). Mr Thompson saw that the SIRE 2 was producing progeny with higher carcass weight and better conformation grade and was able to use this data to inform breeding decisions.

*This information is only available to Mr Thompson because he records sire information when registering calves on APHIS

These links allow you select from Animal/ Dam/ or Sire records

The “+” expands the record and shows the individual progeny records.

Once expanded, the sire record turns green and a table displaying the progeny of that animal is displayed.

Summary
Conformation
Fatness
Weight
Carcass Gain
Animal Data

Animal Data

View Animal Records
View Dam Records
View Sire Records

Export to CSV

Sire Records

Animal Tag	Breed	Number of Calves	Average Calf Carcass Gain
<input type="checkbox"/> UK 9 XXXXXX SIRE 1	Breed X	39	0.47
<input checked="" type="checkbox"/> UK 9 XXXXXX SIRE 2	Breed X	37	0.54

Animal Tag	Date of birth	Type	Breed	Kill Date	Age at Slaughter	Weight (kg)	Grade	Fat class	Carcass gain (kg/day)
UK 9 XXXXXX XXX0 9	05/03/2010	Steer	Breed X	08/03/2012	24.1	381.2	U-	3=	0.54
UK 9 XXXXXX XXX1 0	22/02/2010	Heifer	Breed X	09/03/2012	24.5	378.5	U-	3=	0.55
UK 9 XXXXXX XXX1 1	20/01/2010	Heifer	Breed X	10/01/2012	23.6	374.1	U=	3-	0.53
UK 9 XXXXXX XXX1 2	03/06/2010	Steer	Breed X	11/06/2012	24.2	377.1	R+	3+	0.55
UK 9 XXXXXX XXX1 3	21/03/2010	Steer	Breed X	12/03/2012	23.7	380.2	U-	3=	0.53
Average	-	-	-	-	24.0	378.2	U-	3=	0.54

Case studies for the finisher

How the BovIS carcass benchmarking tool can be used by the commercial finisher to-

- Compare the performance of home grown cattle against those bought in
- Compare performance of animals slaughtered over date ranges
- Calculate a margin over feed cost
- Compare the quality and performance of livestock



Case study 4: Comparing the performance of home grown cattle against those bought in

Mrs O'Hara has a herd of 100 cows producing cattle for finishing. In 2012, she slaughtered 36 home bred heifers and 59 home bred steers. In addition to home bred cattle, she bought in 100 steers for finishing. Using BovIS she compared the performance of home grown steers against the performance of those bought in.



Comparing the performance of home grown cattle against those bought in

Select Breed/Breed Category: ALL STEERS View Report Compare Breed Compare Date Range

Summary Conformation Fatness Weight Carcass Gain Animal Data

Summary data

Report date range: 01/01/2012 to 01/01/2013

Animal Type: Steers

Breed category: All Breed Categories

Breed: All Breeds

Animal Count: 159

Animal Counts

Heifer	36
Steer	159
Total	195

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
Pure Native	159	329.4	4-	R=	22.6	0.48	9.4

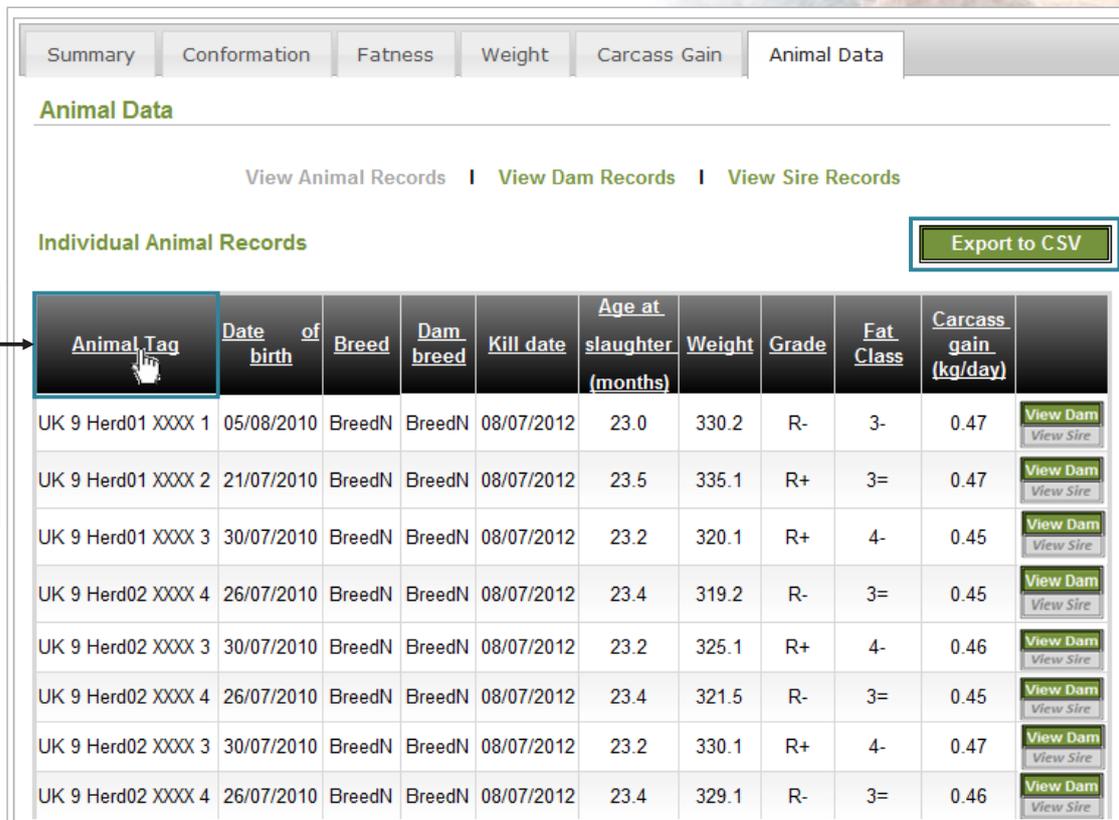
A report for steers slaughtered between January 2012 and January 2013 was generated. This showed Mrs O'Hara that she had slaughtered 159 steers in that period.

To take a detailed look at the performance of each individual steer slaughtered in that time frame Mrs O'Hara clicked on the "Animal Data" tab.

Comparing the performance of home grown cattle against those bought in

On the Animal data page, Mrs O'Hara used the "Export to CSV" button* (located above the carcass gain list), and saved the document to her computer.

*For more information and a guide to exporting data from BovIS please refer to page 56.



The screenshot shows the BovIS Animal Data page. At the top, there are tabs for Summary, Conformation, Fatness, Weight, Carcass Gain, and Animal Data. Below the tabs, the page title is "Animal Data". There are three links: "View Animal Records", "View Dam Records", and "View Sire Records". Below these links is the section "Individual Animal Records". To the right of this section is a green button labeled "Export to CSV". Below the button is a table with the following columns: Animal Tag, Date of birth, Breed, Dam breed, Kill date, Age at slaughter (months), Weight, Grade, Fat Class, Carcass gain (kg/day), and two columns for "View Dam" and "View Sire" links. The table contains eight rows of data.

Animal Tag	Date of birth	Breed	Dam breed	Kill date	Age at slaughter (months)	Weight	Grade	Fat Class	Carcass gain (kg/day)	View Dam	View Sire
UK 9 Herd01 XXXX 1	05/08/2010	BreedN	BreedN	08/07/2012	23.0	330.2	R-	3-	0.47	View Dam	View Sire
UK 9 Herd01 XXXX 2	21/07/2010	BreedN	BreedN	08/07/2012	23.5	335.1	R+	3=	0.47	View Dam	View Sire
UK 9 Herd01 XXXX 3	30/07/2010	BreedN	BreedN	08/07/2012	23.2	320.1	R+	4-	0.45	View Dam	View Sire
UK 9 Herd02 XXXX 4	26/07/2010	BreedN	BreedN	08/07/2012	23.4	319.2	R-	3=	0.45	View Dam	View Sire
UK 9 Herd02 XXXX 3	30/07/2010	BreedN	BreedN	08/07/2012	23.2	325.1	R+	4-	0.46	View Dam	View Sire
UK 9 Herd02 XXXX 4	26/07/2010	BreedN	BreedN	08/07/2012	23.4	321.5	R-	3=	0.45	View Dam	View Sire
UK 9 Herd02 XXXX 3	30/07/2010	BreedN	BreedN	08/07/2012	23.2	330.1	R+	4-	0.47	View Dam	View Sire
UK 9 Herd02 XXXX 4	26/07/2010	BreedN	BreedN	08/07/2012	23.4	329.1	R-	3=	0.46	View Dam	View Sire

Clicking the headings of any of the columns will sort that data into numerical/ alphabetical order

The "Export to CSV" button allows data to be saved to your computer

Comparing the performance of home grown cattle against those bought in

Once the data had been exported, Mrs O'Hara was able to interrogate the data* and she calculated the average age, weight and carcass gain of the two herds and compared them, finding that Herd02 (her own herd) gave a better average carcass weight.

*For hints and tips on using Microsoft Excel to analyse your herd data, please refer to page 56.

	A	B	C	D	E	F	G	H	I	J
1	Animal Tag	Date of Birth	Breed	Dam Breed	Kill Date	Age at Slaughter (months)	Weight (kg)	Grade	Fat Class	Carcass Gain
2	UK 9 Herd01 XXXX 1	05/08/2010	BreedN	BreedN	08/07/2012	23.0	330.2	R-	3-	0.47
3	UK 9 Herd01 XXXX 2	21/07/2010	BreedN	BreedN	08/07/2012	23.5	335.1	R+	3=	0.47
4	UK 9 Herd01 XXXX 3	30/07/2010	BreedN	BreedN	08/07/2012	23.2	320.1	R+	4-	0.45
5	UK 9 Herd02 XXXX 4	26/07/2010	BreedN	BreedN	08/07/2012	23.4	319.2	R-	3=	0.45
6	UK 9 Herd02 XXXX 3	30/07/2010	BreedN	BreedN	08/07/2012	23.2	325.1	R+	4-	0.46
7	UK 9 Herd02 XXXX 4	26/07/2010								0.45
8	UK 9 Herd02 XXXX 3	30/07/2010								0.47
9	UK 9 Herd02 XXXX 4	26/07/2010								0.46
						Average age (m)	Average weight (kg)	Carcass gain (kg/day)		
			Herd01			23.5	302	0.42		
			Herd02			22.1	342	0.51		

Case study 5: Comparing performance of animals slaughtered in different years



In 2011, Mrs Cole offered steers grass silage which was harvested in late June and had a D-value of 60 and offered 5 kg concentrates per day. Mrs Cole changed her management practice to harvest grass in mid May 2012 producing higher quality grass silage with a D-value of 70. Mrs Cole continued to feed 5 kg concentrates. Using BovIS Mrs Cole compared the performance of steers slaughtered in early 2012 with steers slaughtered in early 2013.

Comparing two date ranges



The screenshot shows the BovIS web application interface. At the top, there is a navigation bar with a dropdown menu for 'Select Breed/Breed Category' set to 'Pure Continental (24)'. To the right of the dropdown are three buttons: 'View Report', 'Compare Breed', and 'Compare Date Range'. A mouse cursor is clicking on the 'Compare Date Range' button. Below the navigation bar is a tabbed interface with tabs for 'Summary', 'Conformation', 'Fatness', 'Weight', 'Carcass Gain', and 'Animal Data'. The 'Summary' tab is selected. Under the 'Summary' tab, there is a section titled 'Summary data' with the following information:

Report date range: 01/01/2013 to 31/08/2013

Animal Type: Steers
Breed category: Pure Continental
Breed: All "Pure Continental" Breeds

Animal Count: 24
Carcass gain rank: 44 out of 356

Below this is a section titled 'Summary of your performance' which contains a table comparing the user's performance to other producers.

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
My Pure Continental	24	382.1	3+	R+	22.1	0.57	36.2
Top 10 %	176	384.2	3+	R+	21.3	0.60	57.8
All Producers	3,073	374.7	3+	R+	24.9	0.51	34.0

Mrs Cole logged onto BovIS and selected the date range January 2013 - August 2013 and selected steers.

Mrs Cole finishes Charolais cattle, so she selected "Pure continental" from the "Select Breed/Breed Category" dropdown menu and then clicked "View Report". This gave her the information on her cattle finished in 2013. She wanted to compare to animals slaughtered in 2012 when she was feeding poorer quality silage. To do this, she clicked the "Compare date range" button.

Comparing two date ranges

BovIS - Benchmarking

Benchmarking Report

Compare With Alternative Date Range

From: Jan ▼ 2012 ▼

To: Aug ▼ 2009 ▼

- 2009
- 2010
- 2011
- 2012
- 2013

Run Comparison

Cancel

Once the “Compare date range” button had been pressed, Mrs Cole was taken to the “Compare with alternative date range” page, which allowed her to choose a range of dates to compare with the range selected in the current report.

Mrs Cole viewed the data for January 2013 to August 2013, so for a direct comparison from the previous year, she selected January 2012 to August 2012, then clicked “Run comparison” and a report comparing pure continental cattle slaughtered in the two date ranges is generated (overleaf).

Comparing two date ranges

Select Breed/Breed Category: Pure Continental (24) View Report Compare Breed Compare Date Range

Summary | Conformation | Fatness | Weight | Carcass Gain | Animal Data

Summary data

Report date range: 01/01/2013 to 31/08/2013

Animal Type: Steers
 Breed category: Pure Continental
 Breed: All "Pure Continental" Breeds

Animal Count: 24
 Carcass gain rank: 44 out of 356

Summary of your performance

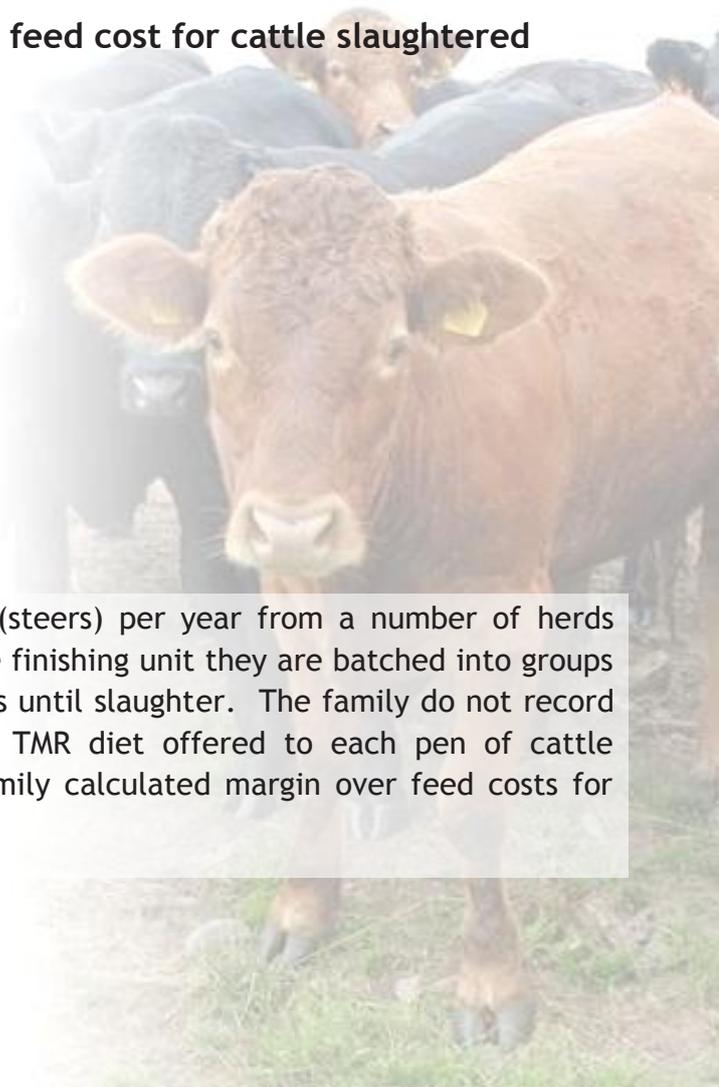
	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
My Pure Continental	24	382.1	3+	R=	22.1	0.57	36.2
Top 10 %	176	384.2	3+	R+	21.3	0.60	57.8
All Producers	20,458	375.5	3=	R+	25.8	0.49	34.9
Jan 2012 - Aug 2012	26	365.4	3-	R=	22.1	0.54	24.2

The comparison of Mrs Cole's continental steers slaughtered in 2013 compared to those slaughtered in the same period in 2012 showed a marked improvement when the better quality of silage was fed. The average carcass weight increased by 16.7 kg; with conformation and fat class also improved.

From this, Mrs Cole can see the benefits of high quality silage, because carcass characteristics improved without increasing the quantity of concentrates fed.

Case study 6: Using BovIS to work out margin over feed cost for cattle slaughtered

The Brown family purchase 500 heavy store cattle (steers) per year from a number of herds across Northern Ireland. Once the cattle arrive on the finishing unit they are batched into groups of 25 per pen. The cattle remain within these groups until slaughter. The family do not record any live weights but did record the quantity of a TMR diet offered to each pen of cattle throughout the finishing period. Using BovIS, the family calculated margin over feed costs for cattle slaughtered during 2012.



Calculating margin over feed

Select Breed/Breed Category: Pure Continental(500) ▼
[View Report](#)
[Compare Breed](#)
[Compare Date Range](#)

Summary | Conformation | Fatness | Weight | Carcass Gain | Animal Data

Summary data

Report date range: 01/01/2012 to 31/12/2012

Animal Type: Steers
Breed category: Pure Continental
Breed: All "Pure Continental" Breeds

Animal Count: 500
Carcass gain rank: 203 out of 656

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
My Steers	500	380.6	3=	R+	23.1	0.54	29.3
Top 10 %	1,819	388.1	3-	U-	22.1	0.61	39.3
All Producers	50,226	383.0	3=	R+	25.5	0.51	30.9

Mrs Brown wanted to know specifically about steers slaughtered in 2012, so selected a date range of January 2012-December 2012 and generated a report. Then Mrs Brown selected "Pure Continental" as the Breed type/Category and clicked view Report.

The "Summary of your performance" report showed 500 cattle had been slaughtered in this time, and they had similar carcass characteristics to the average of all pure continental steers slaughtered at BovIS plants during this time, although they were slaughtered at a slightly younger age.

The Brown family's cattle are predominantly made up of two breeds, and they would like to compare performance and feed utilisation of the breeds.

Exporting animal data

The Brown family have on farm records of each animal including which batch it belonged to and how much that batch was fed. The Browns also have records of when each animal was bought and how much it cost. Using this information and the information from BovIS, the Browns can easily work out the average feed consumed per animal within each group and the margin over feed costs.

Mrs Brown navigated to the “Animal data” tab which listed the 500 cattle slaughtered in 2012. She clicked “Export to CSV” and saves the file to her computer. She then used the information from BovIS and the information she already has to calculate her profit margins per animal.

Summary	Conformation	Fatness	Weight	Carcass Gain	Animal Data					
Animal Data										
View Animal Records View Dam Records View Sire Records										
Individual Animal Records					Export to CSV					
Animal Tag	Date of birth	Breed	Dam breed	Kill date	Age at slaughter (months)	Weight	Grade	Fat Class	Carcass gain (kg/day)	
UK 9 XXXXXX XXXX 1	05-08-2011	BreedX	BreedX	08-07-2013	23.0	365.2	U-	3-	0.52	View Dam View Sire
UK 9 XXXXXX XXXX 2	21-07-2011	BreedY	BreedX	08-07-2013	23.5	398.8	R+	3=	0.56	View Dam View Sire
UK 9 XXXXXX XXXX 3	30-07-2011	BreedX	BreedX	08-07-2013	23.2	385.2	R+	3+	0.54	View Dam View Sire
UK 9 XXXXXX XXXX 4	26-07-2011	BreedX	BreedY	08-07-2013	23.4	375.6	U-	3=	0.53	View Dam View Sire

Margin over feed per animal

Using the spreadsheet she had created, Mrs Brown used simple calculations to work out her margin over feed per animal. As all of this information is available and easily accessed, Mrs Brown can further breakdown the information and compare the individual performance of the two breeds and their respective margins over feed cost.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Animal Tag	Date of Birth	Breed	Dam Breed	Kill Date	Age at Slaughter (months)	Weight (kg)	Grade	Fat Class	Carcass Gain (kg/day)	Date Purchased	Days on farm	Cost of TMR per batch (£)	Cost of feed per animal (£)	Price at purchase £/hd	Price per kilo (£/kg)	Gross Value £/hd	Margin over feed
1	UK 9 XXXXXX XXXX 1	05/08/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
2	UK 9 XXXXXX XXXX 2	21/07/2010	BreedY	BreedY	08/07/2012	23.5	388.8	R+	3-	0.54	09/02/2012	150	7500	300	1054	3.60	1399.68	45.68
3	UK 9 XXXXXX XXXX 3	30/07/2010	BreedX	BreedX	08/07/2012	23.2	385.2	R+	3+	0.55	09/02/2012	150	7500	300	1052	3.60	1386.72	34.72
4	UK 9 XXXXXX XXXX 4	26/07/2010	BreedX	BreedX	08/07/2012	23.4	388.8	U-	3-	0.55	09/02/2012	150	7500	300	1052	3.60	1386.72	34.72
5	UK 9 XXXXXX XXXX 5	01/08/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
6	UK 9 XXXXXX XXXX 6	06/08/2010	BreedX	BreedX	08/07/2012	23.2	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1052	3.60	1386.72	34.72
7	UK 9 XXXXXX XXXX 7	23/07/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
8	UK 9 XXXXXX XXXX 8	06/08/2010	BreedX	BreedX	08/07/2012	23.2	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1052	3.60	1386.72	34.72
9	UK 9 XXXXXX XXXX 9	19/07/2010	BreedY	BreedY	08/07/2012	23.6	390.1	U-	3-	0.54	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
10	UK 9 XXXXXX XXXX 10	06/07/2010	BreedX	BreedY	08/07/2012	24.0	394.9	R-	3-	0.55	09/02/2012	150	7500	300	1054	3.60	1399.68	45.68
11	UK 9 XXXXXX XXXX 11	01/08/2010	BreedX	BreedX	08/07/2012	23.2	385.2	U-	4-	0.56	09/02/2012	150	7500	300	1048	3.74	1366.848	17.85
12	UK 9 XXXXXX XXXX 12	30/07/2010	BreedY	BreedY	08/07/2012	23.2	385.2	U+	3+	0.52	09/02/2012	150	7500	300	1048	3.74	1366.848	17.85
13	UK 9 XXXXXX XXXX 13	26/07/2010	BreedX	BreedX	08/07/2012	23.4	388.8	U-	3-	0.55	09/02/2012	150	7500	300	1052	3.60	1386.72	34.72
14	UK 9 XXXXXX XXXX 14	01/08/2010	BreedX	BreedX	08/07/2012	23.2	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
15	UK 9 XXXXXX XXXX 15	06/08/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
16	UK 9 XXXXXX XXXX 16	23/07/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
17	UK 9 XXXXXX XXXX 17	06/08/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
18	UK 9 XXXXXX XXXX 18	06/08/2010	BreedX	BreedX	08/07/2012	23.0	385.2	U-	3-	0.55	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
19	UK 9 XXXXXX XXXX 19	19/07/2010	BreedY	BreedY	08/07/2012	23.6	390.1	U-	3-	0.54	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
20	UK 9 XXXXXX XXXX 20	06/07/2010	BreedX	BreedY	08/07/2012	24.0	396.6	U+	4-	0.52	09/02/2012	150	7500	300	1054	3.60	1399.68	45.68
21	UK 9 XXXXXX XXXX 21	05/08/2010	BreedX	BreedY	08/07/2012	23.0	390.2	U-	3-	0.56	09/02/2012	150	7500	300	1052	3.60	1386.72	34.72
22	UK 9 XXXXXX XXXX 22	21/07/2010	BreedY	BreedY	08/07/2012	23.5	388.8	U-	3-	0.54	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
23	UK 9 XXXXXX XXXX 23	30/07/2010	BreedX	BreedX	08/07/2012	23.2	385.2	U-	3+	0.51	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
24	UK 9 XXXXXX XXXX 24	04/08/2010	BreedY	BreedY	08/07/2012	23.1	389.9	R-	3-	0.54	09/02/2012	150	7500	300	1050	3.62	1394.424	44.42
25	UK 9 XXXXXX XXXX 25	26/07/2010	BreedY	BreedY	08/07/2012	23.4	369.2	U-	3+	0.54	09/02/2012	150	7500	300	1054	3.72	1373.424	19.42
26	UK 9 XXXXXX XXXX 26	03/02/2010	BreedY	BreedY	05/02/2012	24.0	378.5	U+	3-	0.53	05/09/2011	153	7650	306	1052	3.68	1392.88	34.88
27	UK 9 XXXXXX XXXX 27	15/02/2010	BreedY	BreedY	05/02/2012	23.6	390.2	U-	3-	0.54	05/09/2011	153	7650	306	1048	3.56	1389.112	35.11
28	UK 9 XXXXXX XXXX 28	28/02/2010	BreedY	BreedX	05/02/2012	23.2	382.1	U+	3-	0.52	05/09/2011	153	7650	306	1052	3.60	1375.56	17.56

Date Purchased **Days on farm** **Cost of TMR per batch (£)** **Cost of feed per animal (£)** **Price at purchase £/hd** **Price per kilo (£/kg)** **Gross Value £/hd** **Margin over feed**

↑

Entered by user

↑

Calculated by Kill date minus date purchased

↑

Calculated by cost of TMR per batch divided by number in batch

↑

Calculated by price per kg multiplied by weight

↑

Calculated by gross value minus price at purchase minus cost of feed per animal

Comparing two breeds' average performance

Select Breed/Breed Category: ALL STEERS

Summary Conformation

ALL STEERS
 Pure Continental (500)
 --- Breed X (250)
 --- Breed Y (250)

Benchmarking Report

Compare with Breed Category

Use Data From: My Herd Only All Herds

Category: -- Select Breed --

-- Select Breed --
 Pure Continental
 Breed Y

Run Comparison Cancel

On the previous page, Mrs Brown was looking at the records of all pure continental breeds. To compare the performance of two breeds, she selects a specific breed for comparison (Breed X) then view report. Once the report of Breed X cattle was generated, she clicked “compare breed”. This took her to the breed comparison screen, which allowed her to select a second breed (Breed Y) to compare Breed X’s performance to. Mrs Brown can choose to compare to animals from all herds or within their own herd. Once Breed Y has been selected and Mrs Brown clicked “Run Comparison,” BovIS automatically processed the information and presented her with a Summary of performance, comparing Breed X to the Top 10 % of Breed X producers, All Breed X Producers and Breed Y from their own herd (below).

Summary of your performance

	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
My Breed X	250	382.6	3-	U-	23.4	0.64	30.3
Top 10 %	793	375.8	3-	U-	21.9	0.68	29.2
All Producers	20,458	375.5	3=	R+	25.8	0.49	34.9
My Breed Y	250	378.6	3-	R-	22.9	0.52	28.3

Case study 7: Comparing the quality and performance of the livestock purchased from a number of suppliers



Mr and Mrs Smith, who own a beef rearing enterprise, purchase 100 weaned Holstein Friesian bull calves between February and March each year. Calves are purchased from three dairy farms at 10-12 weeks of age. The calves are reared as bulls and are intended for slaughter at 16 months of age with a carcass weight of 300 kg. Mr and Mrs Smith have always thought there was large variation in the performance of the bulls and using BovIS have compared the performance of the bulls sourced from the three suppliers.

Summary data

Select Breed/Breed Category: Pure Dairy (100) [View Report](#) [Compare Breed](#) [Compare Date Range](#)

Summary **Conformation** Fatness Weight Carcass Gain Animal Data

Summary data

Report date range: 01/03/2013 to 30/04/2013

Animal Type: Young Bulls
Breed category: Pure Dairy
Breed: All "Pure Dairy" Breeds

Animal Count: 100
Carcass gain rank: 240 out of 356

Summary of your performance

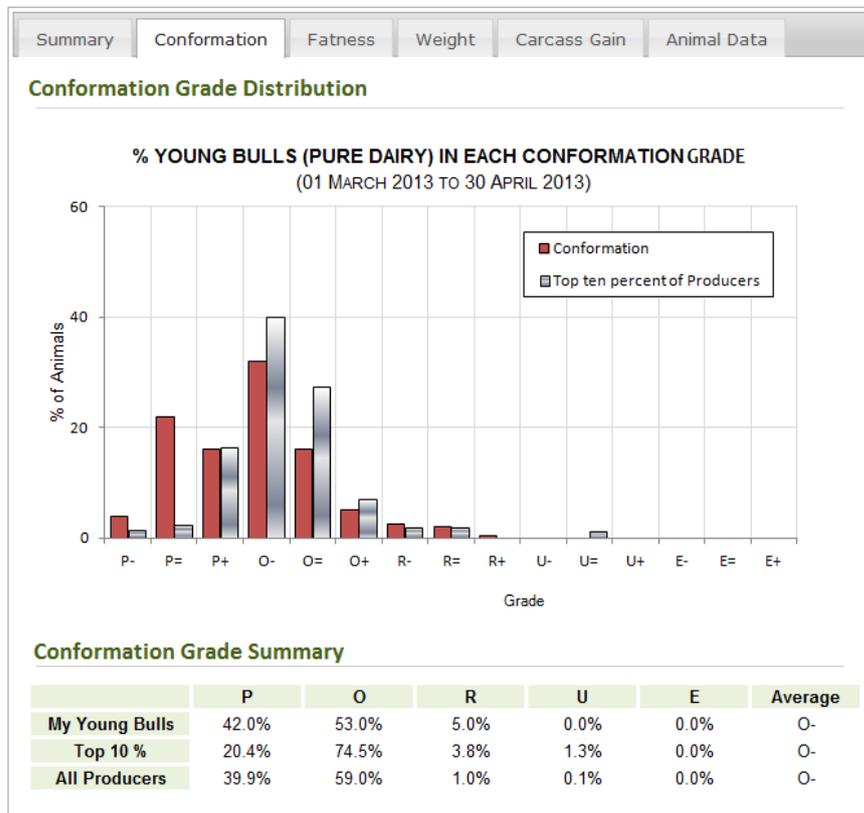
	Animal count	Weight (kg)	Fatness	Conformation	Age (mths)	Carcass gain (kg/ day)	In Spec (%)
My Young Bulls	100	287.8	3-	O-	16.4	0.58	3.2
Top 10 %	157	304.1	3-	O-	14.4	0.71	5.7
All Producers	2,382	268.8	2+	O-	16.9	0.53	0.8

Mr Smith generated a report of young bulls slaughtered between the 1st March 2013 and 30th April 2013, then selected "Pure dairy" from the "select breed/breed category" drop down menu and then the "View Report" button on the task bar.

This not only gave a summary table of Mr and Mrs Smith's pure dairy young bulls but also compared their performance to the top 10 % of producers and the average achieved by all producers of pure dairy young bulls. Mr and Mrs Smith found their average carcass weight fell short of their 300 kg target.

Mr Smith investigated the data further by clicking on the tab labelled "Conformation" (depicted by the pointer) and in turn examined the fatness, weight and carcass gain of his cattle.

Distribution of carcass characteristics



The summary table of conformation grade showed that although Mr and Mrs Smith's herd average was the same as the top ten percent of producers, the percentage of animals achieving a P grade was much higher than the top ten percent of producers, and was also higher than the average percentage achieved by all producers.

This is examined in further detail by the conformation chart, which shows a full break down of the 15 point conformation scale. The percentage of Mr and Mrs Smith's pure dairy, young bulls are shown in red, and it is apparent that a relatively high percentage of Mr and Mrs Smith's cattle achieve the "P=" conformation grade.

Mr and Mrs Smith used the navigation tabs to see the distribution of fat class, weight and carcass gain. In each case there are two peaks in the data, with some cattle performing well but there was a group of 30-40 young bulls underperforming in each category.

Animal data

Having found an uneven distribution of carcass characteristics in the young bulls slaughtered, Mr Smith wants to see if it is the same group of young bulls underperforming in each carcass characteristic. To examine the source of this variation at an individual animal level, Mr Smith clicked the Animal Data for an in-depth look at each animal's performance.

A small excerpt of the animal data is shown and lists

each animal's performance. Individual animal records can be sorted by clicking the headings of the table. Mr Smith clicks "Animal Tag" (note pointer) so that the cattle would be sorted by their tag number. It is also possible to view dam and (if available) sire details for each animal. However to examine the data in more detail Mr Smith clicks the "Export to CSV" button (above the carcass gain heading) and saves a copy of the data to his computer.

Animal Tag	Date of birth	Breed	Dam breed	Kill date	Age at slaughter (months)	Weight	Grade	Fat Class	Carcass gain (kg/day)	
UK 9 Herd-1 XXXX 1	01-11-2011	Holstein	Holstein	08-03-2013	16.2	260.1	P=	2-	0.53	View Dam View Sire
UK 9 Herd-1 XXXX 2	12-11-2011	Holstein	Holstein	08-03-2013	15.8	245.3	P=	2=	0.51	View Dam View Sire
UK 9 Herd-2 XXXX 1	31-10-2011	Holstein	Holstein	08-03-2013	16.2	302.6	O=	3-	0.61	View Dam View Sire
UK 9 Herd-2 XXXX 2	15-11-2011	Holstein	Holstein	08-03-2013	15.7	297.5	O-	3-	0.62	View Dam View Sire
UK 9 Herd-3 XXXX 1	14-11-2011	Holstein	Holstein	08-03-2013	15.7	294.5	O=	2-	0.62	View Dam View Sire
UK 9 Herd-3 XXXX 2	17-11-2011	Holstein	Holstein	08-03-2013	15.6	295.6	O-	3=	0.62	View Dam View Sire

Exported data

The first few rows of the exported file are shown. Using this information, Mr and Mrs Smith were able to calculate the average age, weight, and carcass gain (table inset). Mr and Mrs Smith also calculated the variation in weight from each supplier. It was apparent that cattle from Herd 1 were underperforming, with a low average weight and a wide variation in weight, despite being slaughtered at a similar age. Having identified the producer of the poorer performing cattle, Mr and Mrs Smith have the option of changing supplier or suggesting better calf management (for example increased colostrum intake) for calves at Herd 1.

	A	B	C	D	E	F	G	H	I	J
1	Animal Tag	Date of Birth	Breed	Dam Breed	Kill Date	Age at Slaughter (months)	Weight (kg)	Grade	Fat Class	Carcass Gain (kg/day)
2	UK 9 Herd-1 XXXX 1	01/11/2011	Holstein	Holstein	08/03/2013	16.2	260.1	P=	2-	0.53
3	UK 9 Herd-1 XXXX 2	12/11/2011	Holstein	Holstein	08/03/2013	15.8	245.3	P=	2=	0.51
4	UK 9 Herd-1 XXXX 3	06/11/2011	Holstein	Holstein	08/03/2013	16.0	230.2	P-	2-	0.47
5	UK 9 Herd-1 XXXX 4	18/11/2011	Holstein	Holstein	08/03/2013	15.6	225.2	P=	2-	0.47
6	UK 9 Herd-1 XXXX 5	06/11/2011	Holstein	Holstein	08/03/2013	16.0	250.1	P-	2=	0.51
7	UK 9 Herd-1 XXXX 6	15/11/2011	Holstein	Holstein	08/03/2013	15.7	241.9	P=	2=	0.51
8	UK 9 Herd-2 XXXX 1	31/10/2011	Holstein	Holstein	08/03/2013	16.2	302.6	O=	3-	0.61
9	UK 9 Herd-2 XXXX 2	15/11/2011	Holstein	Holstein	08/03/2013	15.7	297.5	O-	2-	0.62
10	UK 9 Herd-2 XXXX 3	29/10/2011	Holstein	Holstein	08/03/2013	16.3	292.4	O=	3-	0.59
11	UK 9 Herd-2 XXXX 4	09/11/2011	Holstein	Holstein	08/03/2013	15.9	290.3	O+	3=	0.60
12	UK 9 Herd-2 XXXX 5	28/10/2011	Holstein	Holstein	08/03/2013	16.3	305.0	O=	3-	0.61
13	UK 9 Herd-2 XXXX 6	05/11/2011	Holstein	Holstein	08/03/2013	16.0	300.2	O-	3-	0.61
14	UK 9 Herd-2 XXXX 7	11/11/2011	Holstein	Holstein	08/03/2013					
15	UK 9 Herd-3 XXXX 1	14-11-2011	Holstein	Holstein	08/03/2013					
16	UK 9 Herd-3 XXXX 2	17-11-2011	Holstein	Holstein	08/03/2013					
17	UK 9 Herd-3 XXXX 3	15/11/2011	Holstein	Holstein	08/03/2013					
18	UK 9 Herd-3 XXXX 4	07/11/2011	Holstein	Holstein	08/03/2013					
19	UK 9 Herd-3 XXXX 5	12/11/2011	Holstein	Holstein	08/03/2013					
20	UK 9 Herd-3 XXXX 6	15/11/2011	Holstein	Holstein	08/03/2013					
21	UK 9 Herd-3 XXXX 7	07/11/2011	Holstein	Holstein	08/03/2013					

	Average Age	Average Weight (kg)	Average Carcass gain (kg/d)
Herd 1	15.9	242.1	0.50
Herd 2	16.0	298.5	0.61
Herd 3	15.8	298.7	0.62

The BovIS online carcass benchmarking tool is one of a range of BovIS applications available for free to the Northern Ireland producer. The application provides information automatically to help inform breeding and management decisions.

Existing tools will continue to evolve and new applications will be developed to further assist producers in making informed management decisions.

If you have any queries about BovIS or suggestions, please contact your local CAFRE advisor or email:

Bovis.Administrator@afbini.gov.uk



The following pages provide a short introduction to exporting data from BovIS and how to use Microsoft Excel to analyse the data. This is a short guide to-

- Exporting data from BovIS
- Working with exported data
- Useful tools on MS excel

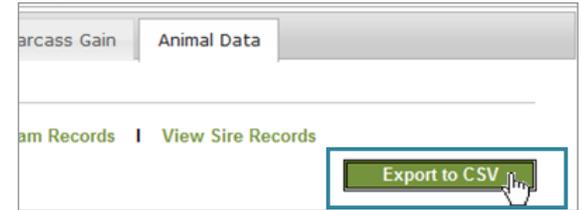
How to export data from BovIS

In these examples we will be using Microsoft Excel (2007), however the file downloaded from BovIS is in the “comma separated values” (.csv) format and as such can be read by most spreadsheet programs.

Step 1- Once you have generated a report on the desired animals, navigate to the “Animal Data” tab and select to view animal, dam or sire records. Once the records you want to manipulate are on screen, click the “Export to CSV” button.

Step 2- A prompt will appear, giving the option to “Open”, “Save”, or “Cancel”. Click “Save” then select where you want to save the exported data on your computer. The default name for all exports is “CattleRecords.csv”, so it is advisable to save the file with a name you will remember (for example the report date range and animal type). Once it has saved a copy on your computer you will be able to open the file and interrogate the data.

Step 1-



Step 2-



Working with exported data

To make full use of the information available on BovIS, it is useful to use MS Excel to analyse exported data. On a MS Excel sheet each cell (individual box) has a name, which is the column name followed by the row name, similar to the coordinates on a map (for example in the extract below the cell highlighted in red is in column 'F' and row '7' and so is called 'F7'). More than two adjacent cells (a range) can be referred to by the first cell in the range and the last cell in the range separated by a colon (for example, the four carcass gain values highlighted in green below can be referred to as 'I2:I5').

A few useful calculations are included in the next few pages which will help you to make use of this powerful program.

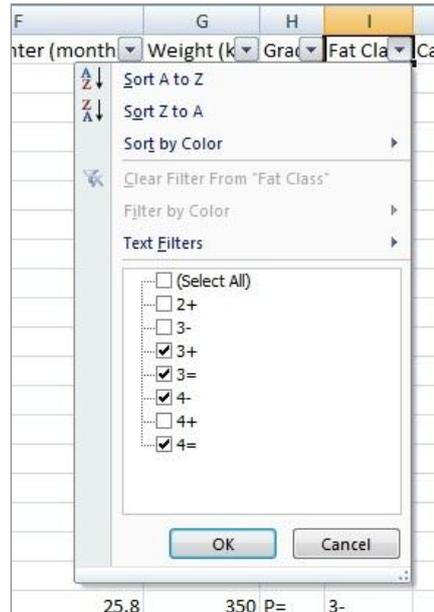
	A	B	C	D	E	F	G	H	I	J
1	Animal Tag	Date of Birth	Breed	Dam Breed	Kill Date	Age at Slaughter (months)	Weight (kg)	Grade	Fat Class	Carcass Gain (kg/day)
2	UK 9 XXXXXX XXXX 1	27/08/2010	Friesian	Holstein	07/11/2012	26.3	348.9	P=	3+	0.43
3	UK 9 XXXXXX XXXX 2	28/08/2010	Friesian	Friesian	07/11/2012	26.3	323.4	P+	2+	0.4
4	UK 9 XXXXXX XXXX 3	04/09/2010	Friesian	Friesian	07/11/2012	26.1	355.9	P+	3-	0.45
5	UK 9 XXXXXX XXXX 4	10/09/2010	Holstein	Holstein	07/11/2012	25.9	344.7	O-	3+	0.44
6	UK 9 XXXXXX XXXX 5	11/09/2010	Friesian	Friesian	07/11/2012	25.8	350	P=	3-	0.44
7	UK 9 XXXXXX XXXX 6	14/09/2010	Friesian	Friesian	07/11/2012	25.7	314.2	P=	3-	0.4
8	UK 9 XXXXXX XXXX 7	14/09/2010	Friesian	Friesian	07/11/2012	25.7	286.9	P=	2+	0.37
9	UK 9 XXXXXX XXXX 8	16/09/2010	Friesian	Friesian	07/11/2012	25.7	327.7	P+	3-	0.42
10	UK 9 XXXXXX XXXX 9	27/09/2010	Friesian	Friesian	07/11/2012	25.3	310.8	P=	3-	0.4
11	UK 9 XXXXXX XXX1 0	28/09/2010	Friesian	Friesian	07/11/2012	25.3	311.2	P+	3-	0.4
12	UK 9 XXXXXX XXX1 1	30/09/2010	Friesian	Friesian	07/11/2012	25.2	362.2	P+	3+	0.47
13	UK 9 XXXXXX XXX1 2	15/10/2010	Aberdeen-Angus	Friesian	13/02/2013	27.9	326.4	O=	4=	0.38
14	UK 9 XXXXXX XXX1 3	16/10/2010	Limousin	Friesian	13/02/2013	27.9	351	R-	3=	0.41
15	UK 9 XXXXXX XXX1 4	09/11/2010	Limousin	Holstein	08/02/2013	27	362	R-	3+	0.44
16	UK 9 XXXXXX XXX1 5	21/11/2010	Hereford	Friesian	21/12/2012	25	365	O=	3+	0.48

Useful tools on MS Excel

Filtering

When you are interrogating the BovIS data, you may wish to filter the data. In excel, filtering means setting one or more conditions on the data, and any rows which do not meet the criteria will be hidden.

This is done by clicking on the “Sort and Filter” button and selecting filter. Once the filter is in place, an arrow (▼) will appear in the cell heading each column. In the example below, “Fat Class” is being filtered for in-spec animals.



Useful calculations

	A	B	C	D	E	F	G	H	I	J
1	Animal Tag	Date of Birth	Breed	Dam Breed	Kill Date	Age at Slaughter (months)	Weight (kg)	Grade	Fat Class	Carcass Gain (kg/day)
2	UK 9 Herd-1 XXXX 1	01/11/2011	Holstein	Holstein	08/03/2013	16.2	260.1	P=	2-	0.53
3	UK 9 Herd-1 XXXX 2	12/11/2011	Holstein	Holstein	08/03/2013	15.8	245.3	P=	2=	0.51
4	UK 9 Herd-1 XXXX 3	06/11/2011	Holstein	Holstein	08/03/2013	16.0	230.2	P-	2-	0.47
5	UK 9 Herd-2 XXXX 4	18/11/2011	Holstein	Holstein	08/03/2013	15.6	225.2	P=	2-	0.47
6	UK 9 Herd-2 XXXX 5	06/11/2011	Holstein	Holstein	08/03/2013	16.0	250.1	P-	2=	0.51
7	UK 9 Herd-2 XXXX 6	15/11/2011	Holstein	Holstein	08/03/2013	15.7	241.9	P=	2=	0.51
8	UK 9 Herd-3 XXXX 1	31/10/2011	Holstein	Holstein	08/03/2013	16.2	302.6	O=	3-	0.61
9	UK 9 Herd-3 XXXX 2	15/11/2011	Holstein	Holstein	08/03/2013	15.7	297.5	O-	2-	0.62

Formula

Calculate average

=Average(range)

Wild card

*

Calculate average if

=AverageIF(range, criteria, averagerange)

Multiply

=(cell1*cell2)

Add

=(cell1+cell2)

Minus

=(cell1-cell2)

Example (typed into an empty cell)

To calculate the average slaughter age:

=average(F2:F10)

The asterisk can replace any figure in the spread sheet. This is useful if you wish to separate herd numbers from tag numbers as the tag number preceding and following the herd number can be replaced by the *

To calculate the average weight if the animal is from Herd-1 type:
=AverageIF(A:A, "**Herd-1*", F:F)

If you were to add your own information in column K (not pictured) of price per kilo at slaughter, Animal UK9Herd-1XXXX1's gross carcass value would be =(G2*J2)

Used when you wish to add the numerical contents of two cells.

The difference in days between two dates can be calculated by taking the earliest date away from the most recent, e.g. =(E2-B2) will give you the age in days of animal UK 9 Herd-1 XXXX 1.

Notes

Notes

Notes

