

# DPI Primefact

## NLIS Cattle: NLIS: utilising carcass information

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The National Livestock Identification System (NLIS) protects and enhances Australia's reputation as a producer of quality beef by providing lifetime traceability of cattle. The NLIS also provides beef producers with a means of obtaining and utilising individual carcass feedback from processors. Information can be accessed when the producer opens an NLIS database account and if a processor uploads carcass data in the NLIS database.

### Why carcass information is important

It is important for beef producers to be able to utilise carcass feedback as a tool to improve production efficiency and increase both domestic and export beef demand.

Australia exports about 70 percent of its total beef and veal production to over 80 countries. Supplying beef cuts and carcasses that meet market specifications is crucial in ensuring that Australia remains competitive in the international marketplace.

The importance of meeting market specifications is reflected in the discounts incurred by carcasses that do not comply. These discounts can dramatically affect the economic performance of a beef production enterprise.

### Accessing carcass information

Beef processors in NSW can provide basic carcass information to the NLIS database for beef consigned directly from a property including:

- date of slaughter
- NLIS device numbers
- consignment property identification code (PIC)
- carcass weight

However such basic carcass information is of limited value and producers who directly consign cattle to slaughter are urged to seek more comprehensive information from processors.

Most of the major NSW beef processors can link NLIS numbers with the standard carcass feedback available to producers. This feedback contains a range of information and usually includes:

- bruise score
- hot standard carcase weight (HSCW)
- P8 fat depth
- dentition
- sex
- butt shape

Producers can access carcase information by opening an NLIS Producer account at [www.nlis.com.au](http://www.nlis.com.au) and access carcase feedback reports using following the steps:

On NLIS Home page: *I want to...* - *Carcase feedback query*.

**Figure 1.** NLIS Database Producer account

The screenshot shows the NLIS Database Producer account interface. At the top left, it says 'Producer home' with a 'Help' button. Below that, it says 'Welcome Anthony,' and provides instructions on how to change the email address. There is a 'Change' button. The main section is titled 'Which livestock do you want to work with?' and has a dropdown menu set to 'Cattle'. Below that, it says 'What do you want to do today?' and has a dropdown menu set to 'Carcase feedback query'. There is a 'Go' button at the bottom right.

## Using carcase information

Substantial discounts occur for carcasses that fail to meet specifications. This may vary between processors and between seasons.

Producers who can relate carcase information to live animals using NLIS numbers are in an excellent position to develop a plan to minimise the risk of carcasses not complying with market specifications.

Dark cutting or bruised carcasses can be heavily discounted. Being able to identify those animals may allow the producer to determine how the dark cutting may have occurred and make some adjustments:

- Increase nutrition. Ensure stock are gaining at least 0.6 kg/day in the weeks prior to slaughter or are being supplemented with a high energy ration.
- Improve stock handling. Reduce noise and stress during yarding, transport and lairage; wean calves in the yard to improve yard familiarity and socialising ability.
- Improve herd temperament; select for docility.

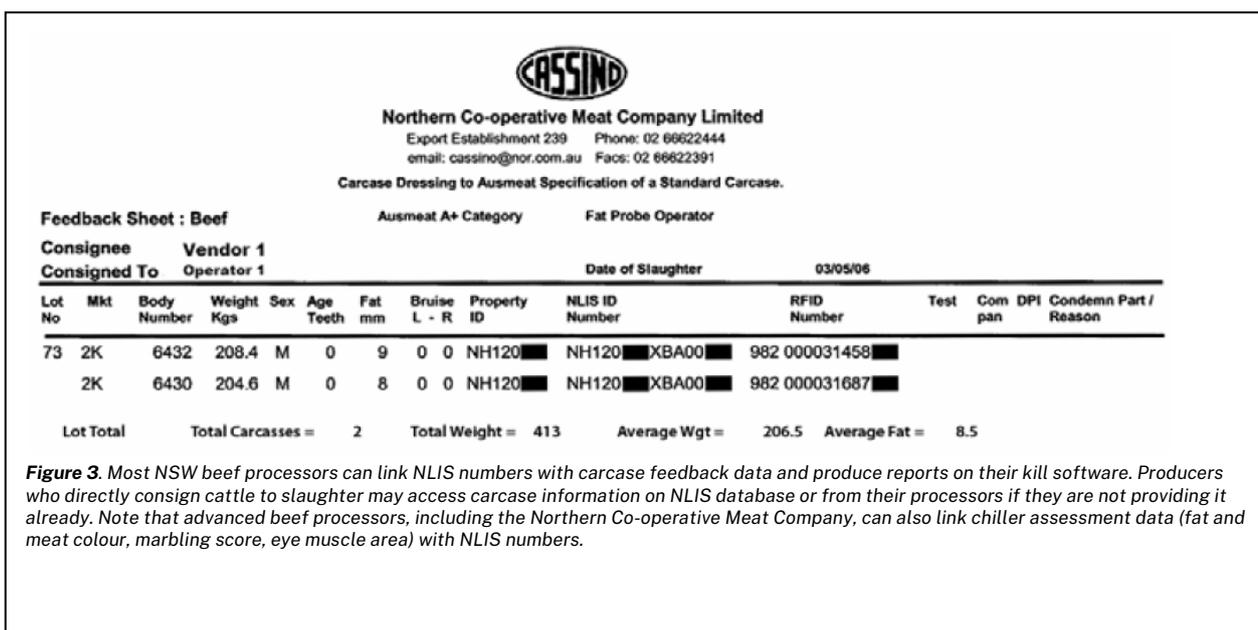
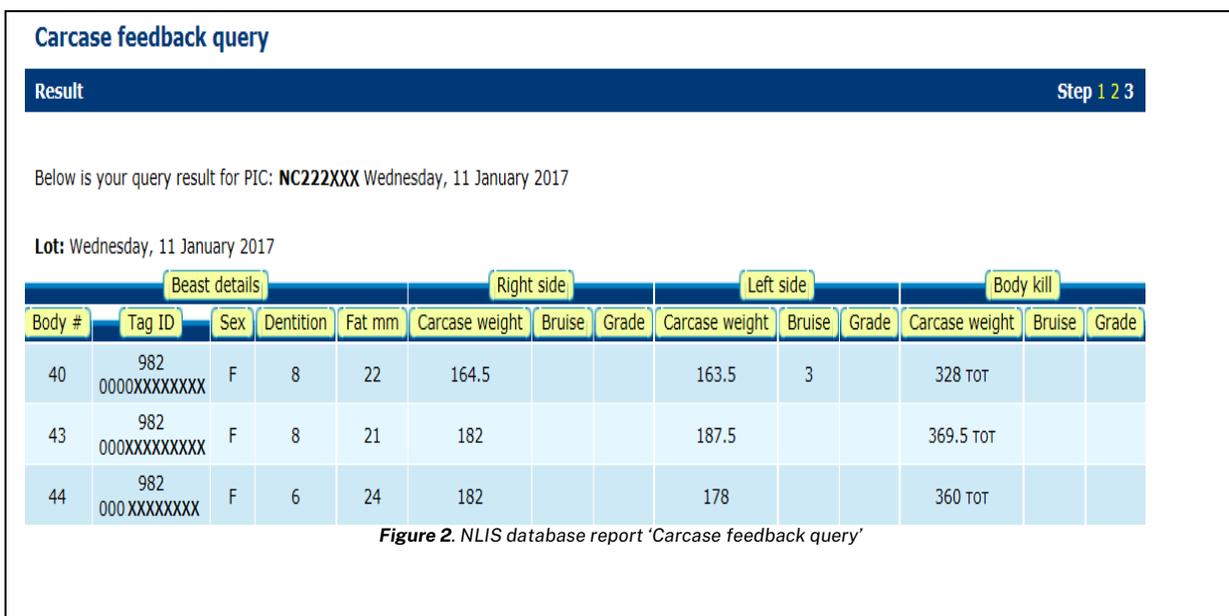
Less severe but more frequent discounts usually occur for carcasses that fail to meet the required **HSCW** or **P8 fat depth** specifications. Animal genetics and nutrition influence how animals can produce carcasses that meet specifications for these components.

The potential for animals to lay down subcutaneous fat while achieving specified HSCW is predetermined by their genetics, especially by **maturity pattern**.

**British breeds** and their crosses mature earlier than **European types** and will generally be fatter, or have the genetic potential to be fatter, at a given age or carcass weight. Animals with more European content will have heavier carcasses before achieving the same P8 fat depth as a British-bred animal.

Carcasses that are too lean at a specified HSCW or too heavy by the time they comply with specified P8 fat depth means the animals are maturing too slowly. A higher than optimal European breed content may be the reason. Using an earlier maturing, British breed bull may improve market compliance.

In addition to between-breed differences, there is a **range of maturity patterns** within breeds. BREEDPLAN EBVs and selection indices indicate the maturity pattern of bulls within a single breed (see [BREEDPLAN information on NSW DPI website](#)). This knowledge enables producers to choose genetics to produce carcasses that meet their market’s specifications.



**Nutrition** must also be adequate. The amount of time required for animals to grow and then fatten is most often limited by dietary energy content. Providing animals with high energy (ME > 12 MJ/kg) supplements such as grain, high quality silage or pelleted feed rations will increase growth rates and subsequent development of fat for a given age.

Ultimately, the consignor is responsible for ensuring animals sent to slaughter comply with market specifications.

Judging **liveweight** can be difficult so ensure your cattle scales are accurate. It is important that producers can assess the fat score of live animals to allow monitoring of their condition prior to sale.

Producers can enhance their **live animal appraisal** skills, such as muscle and fat scoring, by watching these YouTube videos developed by NSW Department of Primary Industries:

Muscle scoring: <https://www.youtube.com/watch?v=1xNBpg0Ki2Y>

Visual fat assessment:

<https://www.youtube.com/watch?v=pFWafG9fdEc>

Manual fat assessment: <https://www.youtube.com/watch?v=LLpSQea2CDo>

Some [Local Land Services](#) offices run Live Animal Assessment Courses.

The most advanced beef processors can provide **chiller assessment data** (fat colour, meat colour, marbling score, pH and eye muscle area). Such information provides producers with further opportunities to achieve premiums for carcasses that meet specifications for those characteristics.

## Comparing carcase information

Carcase feedback data is most useful to producers who consign stock directly to processors or to feedlots prior to slaughter as the nutritional and environmental history of animals may allow valid comparisons.

To **compare the carcase data** of different animals it is important that these animals are run under similar conditions prior to slaughter.

A producer wanting to **compare the carcase performance** of steers from different sires needs to run the steers in the same mob. A producer wanting to compare the impact of different nutrition programs on carcase performance needs to have animals from the same bull(s) in each of the nutrition 'treatments'.

An invalid comparison would be where a group of steers by Sire A were run separately from a group of steers by Sire B. In that case, it would be impossible to determine if any carcase differences were due to the genetics of the different sires or the environmental and nutritional effects of the different paddocks.

## In conclusion

The carcase feedback information that NLIS makes available to producers is a potentially rich resource for developing the herd to meet international and domestic market specifications.

## More information

NLIS database service at: [www.nlis.com.au](http://www.nlis.com.au) or 1800 654 743

NSW DPI website at: <http://www.dpi.nsw.gov.au/animals-and-livestock/nlis>

NSW DPI for NLIS enquiries: [enquiries.nlis@dpi.nsw.gov.au](mailto:enquiries.nlis@dpi.nsw.gov.au) or 1300 720 405

Local Lands Services: 1300 795 299 or go to <http://www.lls.nsw.gov.au/>

For updates go to: [www.dpi.nsw.gov.au/factsheets](http://www.dpi.nsw.gov.au/factsheets)

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