



NLIS

The **National Livestock Identification System (NLIS)** is Australia's system for identifying and tracking beef and dairy cattle.

The South Australian Government and cattle industry organisations are working together to implement the NLIS so that consumers in Australia and overseas can have confidence in our beef and dairy products.

The NLIS enables all cattle to be reliably identified individually and tracked from their property of birth to slaughter, protecting the reputation of South Australia's cattle industry as a supplier of 'clean' wholesome beef and dairy products, and providing a competitive advantage in domestic and export markets.

What are the requirements?

At a glance:

NLIS identification

All cattle including bobby calves being moved to a property with a different Property Identification Code (PIC) must be identified with a NLIS device.

All cattle being sent to a saleyard or abattoir must be identified with an NLIS device, including cattle consigned for sale as breeding or store cattle.

The NLIS database must be notified when cattle are moved to a new property or location with a different PIC, this must be done within seven days of the movement of the cattle.

What are NLIS devices and when must they be used?

There are two types of NLIS devices endorsed for the permanent identification of cattle. They are known as Breeder devices and Post-breeder devices.

- NLIS Breeder devices are white and are used by a breeder to permanently identify cattle before they leave their property of birth.
- NLIS Post-breeder devices are orange and are used to permanently identify cattle that have left their property of birth and are not already identified with a Breeder device.

NLIS devices are stamped with the NLIS logo and the words 'Do not remove'. Cattle only need to be permanently identified once, either with a Breeder device or a Post-breeder device. If cattle you buy are already identified with an NLIS device, do not attach a second NLIS device.

Breeder devices and Post-breeder devices contain a microchip (transponder) encoded with a unique unalterable number that can be accurately read electronically in a fraction of a second with a suitable reader. Another unique number, known as the NLIS number, is printed on each NLIS device. This number can be read visually.

A special applicator designed for the attachment of NLIS devices must be used. If the wrong applicator is used, device retention will be compromised and the microchip may be damaged.

Producers selling cows with calves at foot must identify the calves with an NLIS Breeder device before they leave their property of birth. The NLIS identification of cattle can occur at any time before they leave their property of birth. A convenient time to attach a NLIS device is at marking on beef properties and at weaning on dairy farms. Cattle are easier to restrain for tagging when they are young.

Visit or call any PIRSA office to order NLIS devices.

NLIS devices

- Breeder and Post-breeder devices must be attached to the right (or offside) ear.
- Never attach a second NLIS device.
- Breeder and Post-breeder devices purchased for use on one property cannot be applied to cattle located on another property, unless they are registered under the same PIC.
- Breeder and Post-breeder devices cannot be sold, given away or reused.
- Breeder and Post-breeder devices cannot be removed until the animal is processed in an abattoir or slaughterhouse.
- The component of the tag containing the microchip must be placed on the inside of the ear.

Do I still need to identify NLIS tagged cattle with 'tailtags'?

Cattle no longer need to be identified with tailtags with exception of European Union (EU) eligible cattle. They continue to be identified with lime-green tailtags when they are consigned to EU accredited saleyards or direct to an EU listed abattoir.

What do I do if cattle are too dangerous to tag or there is no restraining facility on the property?

Contact your nearest PIRSA Animal Health Officer in the first instance. In genuine circumstances PIRSA may issue a written permit to dispatch cattle without NLIS tags - however conditions do apply.

Dangerous cattle must be transported under permit direct to a nominated abattoir for slaughter.

Where no facilities exist, permit cattle must be tagged following arrival at a saleyard with an emergency tag. A significant fee is charged for such tags, and buyers may still discount the price they pay for the animal - this is commercial reality.

Application of a vendors own NLIS tags after animals have arrived at a saleyard is not permitted.

Do adult cattle need to be NLIS identified?

All cattle that are being moved to a property that has a different PIC (tailtag number), saleyard or abattoir is required to be identified with an NLIS device prior to dispatch. This includes cattle consigned from a South Australian property for sale as breeding or store cattle, or to agistment.

If cattle are identified with an NLIS device attached by a former owner, they must not be re-identified with a second NLIS device. Because NLIS ear devices are small, it is relatively simple to place an NLIS device in the right (offside) ear of cattle even when the cattle already have a management tag in this ear.

What happens if an animal loses its Breeder or Post-breeder device?

Provided NLIS devices are applied using the correct applicator and in accordance with the instructions supplied by the manufacturer, the loss rates of NLIS devices is less than 1 % per year.

If an NLIS Breeder or Post-breeder device is lost from cattle, the owner must re-tag the animal with a Breeder device if the animal is still on its property of birth, or with a Post-breeder device if the animal is no longer on its property of birth.

Re-tagging can occur at any convenient time prior to the movement of the animal from the property on which the NLIS device was lost. NLIS devices that are lost, if located in yards or paddocks, cannot be reused.

If you locate a lost tag you can advise Meat and Livestock Australia (MLA) of the lost device and the replacement device to maintain lifetime traceability.

Do cattle need to be NLIS identified if they are moving from their property of birth to another property?

All cattle regardless of their age must be identified with an NLIS device before being moved to any property with a different PIC; this includes agistment or lease properties.

Importantly, they must also be transferred to the correct destination PIC on the NLIS database. The purchaser or party receiving the animals is responsible for ensuring the transfer is completed.

The NLIS database must be notified of the transfer of the cattle from one property to the next within seven days. The easiest means of notifying the NLIS database is through the use of a NLIS database account - www.nlis.mla.com.au

Are saleyards and abattoirs required to read the NLIS devices on my cattle?

MLA manages the NLIS database on behalf of Australia's cattle industry. All South Australian export and domestic abattoirs and saleyards have readers and links to the NLIS database which began operating in July 2004.

South Australian saleyards are required to read all NLIS devices and advise the NLIS database of the PIC of the purchaser's property.

Abattoirs are required to read the NLIS devices carried by the cattle they process, and notify the MLA that these cattle have been slaughtered.

Are producers required to notify the NLIS database when they buy, sell or move cattle?

Purchasers of cattle identified with an NLIS device must inform the MLA for updating of the NLIS database. In many cases the transfer will occur automatically when cattle are scanned at saleyards and the PIC of the purchaser is recorded. It is the responsibility of the purchaser to ensure the correct destination PIC number is provided. However, sales direct from property to property must also be recorded on the database by the purchaser. (Or authorised 3rd party such as a stock agent)

Non transaction movements such as agistment or between properties under the same ownership must be notified. The database needs to know where animals are residing, not who owns them.

Cattle producers, if they wish, can notify the NLIS database of cattle they sell. They can also update their information to take account of past transactions, deaths and losses. The easiest means of communicating with the NLIS database is via the internet, although MLA will accept written information for a small number of transfers of cattle.

The NLIS database must be notified of all (transfers within seven days of the cattle moving.

To access the NLIS database, visit www.nlis.mla.com.au.

For further information, contact MLA's NLIS Database Helpline on 1800 654 743.

Is it useful for producers to have an account with the NLIS database?

The simplest way for individual producers to notify the database when cattle are purchased privately, agisted, or moved between properties under the same ownership but with different PICs is to use a reader to scan the animals then upload the details directly via a NLIS database account.

Having an active account allows producers to

- Transfer cattle on and off.
- Check what tags/animals are registered to their PIC, including their Lifetime Traceable status.
- Look at the transaction history of animal movements.
- Check to confirm if cattle have been successfully transferred onto or off the property by saleyards, 3rd party operators and abattoirs.
- Record information about tags - deceased animals, lost/missing animals, replacement of lost tags.
- View carcass feedback information (where available)
- Generate linked lists of RFID and NLIS ID's for incorporation into on-farm management software.

An email is automatically sent to an account holder whenever cattle are incorrectly transferred from the PIC associated with that account. This can be very useful where animals are prone to straying or theft.

To set up a free database account visit www.nlis.mla.com.au then create a new account using the button on right of the home screen.

Can I remove, sell or reuse a Breeder or Post-breeder device?

Once a NLIS Breeder or Post-breeder device is attached to cattle, it must not be removed until the animal is slaughtered in an abattoir or slaughterhouse, unless written permission is first obtained from Primary Industries and Resources South Australia (PIRSA). The only exception is if the microchip in an NLIS device is damaged and cannot be read.

Breeder and Post-breeder devices cannot be sold or given away. Devices that have been lost from cattle, if found, cannot be reused.

What should I do if the microchip within an NLIS device cannot be read?

If the microchip within an NLIS device will not read, firstly check that the reader is functioning properly. Flat batteries and loose connections are often to blame.

If an NLIS device still will not read, a producer is permitted to remove it provided the animal is immediately re-tagged with either a Breeder device (if the animal was bred on the property) or a Post-breeder device (if the animal was introduced). You must then advise the NLIS database of the replacement of the device - providing the NLIS number of both the nonfunctioning device and its replacement. This is important for the animal to retain whole-of-life traceability.

Can I use my NLIS devices for on-farm herd management purposes?

NLIS Breeder and Post-breeder devices contain microchips that can be read electronically by cattle producers who purchase a suitable reader. Handheld readers are available from around \$1000. Panel readers with a read distance of over one metre are more expensive, but can be used to automatically read the NLIS devices of cattle entering a milking shed or moving along a race.

By linking a reader with a suitably programmed computer or scale indicator, cattle producers can use NLIS devices to record any information they want to improve the management of their herds. NLIS devices act as a 'back-up' if cattle are identified with a larger management ear tag and this tag is lost.

NLIS technology can be used on beef properties for the maintenance of herd and pedigree records, to better utilise carcass feedback information downloaded from the NLIS database and, when used in conjunction with a suitable scale, to accurately and quickly weigh cattle.

On dairy farms, the NLIS devices attached to cows can be read as they move onto a rotary platform or into the bails of a herringbone shed. This then allows electronic identification of cows at milking, and facilitates simplified herd recording, automatic drafting and computer-controlled feeding. Information on reader and software suppliers is available on the MLA website at www.mla.com.au. Further information can be obtained by calling MLA's NLIS Database Helpline on 1800 654 743.

What is the number printed on the outside of an NLIS Breeder or Post-breeder device?

The unique number printed on Breeder and Post-breeder devices is called the NLIS number. The following is an example of an NLIS number that might appear on a Breeder device issued for use on a South Australian property.

SA123456XBY00034 where:

- SA123456 is the eight character PIC of the property on which the tag is to be used.
- XB is the combination coding for the manufacturer (X) and device type (B), e.g. whether the device is a Breeder or Post-breeder device.
- Y is the year of supply (using the Australian Breedplan alpha character for that particular year).
Y=2003, Z=2004 etc.
- 00034 is the serial number. (Individual identification number of the animal).

Can I select the serial number sequence for the NLIS devices I order?

To allow NLIS devices to be used for on-farm herd management purposes, producers can specify the serial number sequence (the last 5 digits of the NLIS number on NLIS devices) they would like printed on their devices.

The serial number can consist of a letter and four numbers (Z0001) or five numbers (00001). Cattle producers, if they wish, can place a management tag in the ear of their cattle, printed with numbers matching the serial numbers on the NLIS devices they have used. The NLIS device can then act as a 'back up' if the management tag is lost.

What number is encoded in the microchip located within NLIS Breeder and Post-breeder devices?

Microchips within NLIS Breeder and Post-breeder devices are encoded with a number that is unique and unalterable. Microchip numbers, when read electronically with a suitable reader, have 16 characters in the following format - manufacturer's code, 3 numeric characters; space, 1 character; and individual chip number, 12 numeric characters. The following is an example of the microchip number that might be encoded on the microchip embedded in a Breeder or Post-breeder device - 982 000001234567.

How are the NLIS number and the corresponding microchip number for each NLIS Breeder and Post-breeder device linked?

Cattle producers applying for NLIS devices must specify the property on which the devices are to be used. An order is generated by PIRSA to the nominated device supplier, specifying the PIC (tail tag number) allocated to that property and a serial number sequence for the ordered devices.

The device supplier establishes a link between the NLIS number printed on each device, and the number encoded in the microchip. This information is uploaded to the NLIS database. Either the visually readable NLIS number printed on the external surface of the device or the electronic microchip number can then be used to identify the tagged animal.

Can I obtain a list of the NLIS numbers and associated microchip numbers for the NLIS devices I have, or the NLIS identified cattle I own?

For NLIS identified cattle registered on the NLIS database as residing on their property, producers can download from the NLIS database a list linking the NLIS number on the external surface of the Breeder and Post-breeder devices attached to these cattle and the associated microchip numbers. Contact the MLA's NLIS Database Helpline on 1800 654 743 for further information.

When ordering NLIS devices you can request a 'tag bucket file' containing the same information from some manufacturers.

Can I identify my cattle using NLIS endorsed rumen boluses?

NLIS Breeder and Post-breeder devices are available in the form of an ear tag, or an ear tag-rumen bolus combination. With ear tag-rumen bolus combinations, the visually readable NLIS number is printed on a large ear tag (white for NLIS Breeder devices and orange for NLIS Post-breeder devices) along with the letter 'R' or word 'RUMEN'. The bolus contains the microchip.

South Australian producers have the option of using NLIS endorsed ear tag-rumen bolus combinations instead of the NLIS endorsed ear devices if they wish. Rumen boluses cannot be administered to calves younger than three months of age; at least six months is preferable.

Can unused NLIS devices be transferred for use on another property?

Generally, Breeder and Post-breeder devices purchased for use on one property cannot be used to identify cattle located on a property with a different PIC.

Producers who move from one property to another may apply to PIRSA for permission to use unused Breeder and Post-breeder devices on their new property. For permission to transfer unused NLIS devices call PIRSA on 1800 654 688 before moving properties. Producers accredited by the Australian Quarantine Inspection Service (AQIS) to supply cattle for EU processing are not permitted to transfer

unused NLIS devices for use on a new property.

Do cattle leaving South Australia need to be identified with an NLIS device?

All cattle that are being moved to another state must be identified with an NLIS device prior to dispatch from their South Australian property.

What is the purpose of the NLIS database?

MLA operates the NLIS database on behalf of the cattle industry and state and Commonwealth governments.

The database's functions include registering the NLIS Breeder and Post-breeder devices supplied to producers, including the NLIS number and microchip number associated with each device, and supporting the national scheme for the production of cattle for the EU market. The database is being used to record the movement of cattle from their property of birth to those of subsequent properties, and finally to slaughter. Where applicable, the residue and disease status of NLIS identified cattle will be registered on the database.

The database is also used to facilitate the provision of carcass feedback to producers.

Contact the MLA's NLIS Database Helpline on 1800 654 743 if you would like further information on the operation of the NLIS database.

What makes the NLIS superior to other livestock identification systems?

Other countries, including Canada, New Zealand and throughout the European Union, have introduced schemes for the permanent identification of cattle based on either visually readable tags, or a combination of both bar coded and visually readable tags. These schemes in many instances require expensive and cumbersome paper-based systems for recording relevant information about specific animals, often with compromised accuracy. For example, in the United Kingdom, 550 people are employed to maintain the database operated by the British Cattle Movement Service, and in France 600 people manage that country's cattle identification and tracking database.

Recent cases of 'Mad Cow Disease' has resulted in other countries progressing the adoption of electronic identification systems to provide them with a reliable and efficient means of identifying and tracking their cattle herds.

The NLIS utilises devices that contain a microchip which can be read in a fraction of a second, enabling cattle to be quickly and accurately identified on-farm, and in saleyards, feedlots and abattoirs. Once the microchip is read, information can be efficiently transmitted to and from the NLIS database, at a fraction of the cost of cattle identification and tracking systems currently operating in other countries.

How do I order NLIS devices?

NLIS devices are ordered using the same system as tail tag orders. Contact your local PIRSA office and provide them with your details - PIC, name, address and the number of devices. An order will then be created for you to take to your local merchandiser or to send to the manufacturer.

NLIS contacts

PIRSA Helpline	1800 654 688
MLA NLIS Helpline	1800 654 743
MLA Support	nlis.support@mla.com.au www.nlis.com.au

AQIS

EU Cattle Accreditation Scheme 1800 305 544
eucascNaqis.gov.au

Why is the NLIS now mandatory?

The NLIS is required to give consumers in Australia and overseas confidence in our beef and dairy products.

Food safety, product integrity and traceability are non-negotiable requirements for food commodities, including beef and dairy products, in domestic and export markets.

The NLIS enhances our ability to quickly and successfully contain a major food safety or exotic disease incident.

Japan, the EU, New Zealand, Canada and several South American countries already have, or are currently implementing, cattle identification systems similar to the NLIS.

Glossary

Bobby Calf

A calf less than six weeks of age, which is not accompanied by its dam.

EUCAS

European Union Cattle Accreditation Scheme. Australia's system for producing cattle in accordance with EU requirements. Administered by AQIS under the Export Control Act. Phone 1800 305 544

Lifetime Traceable

A status assigned to NLIS identified cattle where every property of residence in an animal's life has been registered on the NLIS database in accordance with NLIS business rules.

MLA

Meat and Livestock Australia

Meat and Livestock Australia Microchip Number or RFID

Unique number encoded on each microchip which, when read electronically, has 16 characters in the following format:

- Manufacturers code: 3 numeric characters - Space: 1 character
- Individual chip number: 12 numeric characters. NLIS

National Livestock Identification System.

The national scheme operating throughout Australia for the identification and tracing of cattle.

NVD

National Vendor Declaration. Document completed by the vendor and accompanying consignments of cattle used to describe the cattle and their chemical treatment and exposure history.

NLIS Database

National database operated by MLA which holds the register of NLIS devices, including microchip and associated NLIS numbers, transaction records, and residue, disease and market access status information for PICs and NLIS identified cattle. The database also facilitates the provision of carcass feedback to producers.

NLIS Tag/Device

Ear tag or ear tag-rumen bolus combination approved by the NLIS Standards Committee for use as part of the NLIS. NLIS devices are stamped with the NLIS logo.

NLIS Logo

Registered Trade Mark [993748] belonging to Meat and Livestock Australia Limited ACN 081 678 364 used to designate that a livestock identification device has been approved as an NLIS device.

NLIS Number

Unique number printed on NLIS devices consisting of:

- 8 character PIC of the property
- 2 alphanumeric character identifying the manufacturer and device type, e.g. NLIS Breeder or Post-Breeder device
- alpha character for year of supply
- 5 character serial number, the first character of which may be an alpha character (not I or O).

NLIS Breeder Tag/Device

A white NLIS approved device for the permanent identification of cattle that were on their property of birth when they were tagged.

NLIS Post-Breeder Tag/Device

An orange NLIS approved device for the permanent identification of cattle that are no longer on their property of birth that are not already identified with an NLIS Breeder or Post-Breeder device.

PIC

Property Identification Code.

The eight character alphanumeric code for a property as allocated by the relevant state or territory authority.

Rumen Bolus

A device administered orally to cattle, which is designed to remain permanently in the rumen or reticulum. NLIS approved rumen boluses are supplied with a large ear tag (white for Breeder Tags and orange for Post-Breeder Tags) on which is printed the NLIS number and either 'R' or 'Rumen' indicating that a bolus has been applied.

Store Cattle

Cattle not for immediate slaughter, including heifers, cows and bulls consigned for sale or purchased for breeding purposes, and cattle purchased from designated prime cattle sales for further grazing or feeding. Does not include bobby calves.

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