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METHODOLOGICAL STUDY OF CATTLE IDENTIFICATION
FOR THE FARMER

THE value of management decisions in day-to-day dairy herd management, such as breeding, selection, and culling, depends on accurate identification of individual animals.

By
*R. C. BURKING, M.D.A.

A report on tests of some methods of cattle identification available to farmers.

This article is concerned only with methods of identification of cattle on the farm. It is the farmer’s responsibility to brand his stock with his registered brand to comply with the requirements of the Brands Act, in addition to any brands or tags applied for his own management purposes.

Any marks other than the registered brand or earmark must be clearly distinguishable from, and incapable of being confused with, the registered brand or earmark.

Many wider livestock programmes, such as dairy herd improvement schemes (herd recording), research on growth and development of cattle, and disease control and eradication programmes also depend on accurate identification.

This article reviews some of the methods of identification available to the farmer and reports evaluations carried out on the herd at the Denmark Research Station.

It is best to apply an identification method as soon after birth as possible, as there may be some doubt about the sire or dam if stock are left. Early identification can be in the form of an ear tattoo or ear tag method, and needs to be of a permanent nature unless some other method is to be applied at a later stage.

Identification methods

Identification methods may be classified as permanent or semi-permanent.

The permanent methods include ear and udder tattoo, photographs, and brands made with fire, acid, alkali or freeze techniques.

Semi-permanent methods include ear tags, dewlap tags, escutcheon tags, neck chains, neck straps, tail tags and hock clips.

Many farmers have made their selection from these methods, but no one method is ideal for every purpose. Such things as animal colour and age, size and type of brand or tag, and the position of the animal when it needs to be identified mean that different methods of identification are preferred by different stockmen.

Identification research in W.A.

Over the past year an extensive identification programme has been carried out at Denmark Research Station on dairy and beef cattle. The identification methods
tested included ear, brisket, tail and escutcheon tags, hock clips, freeze branding and udder tattoos.

**Branding methods**

Brands using the fire, acid and alkali at first appeared to be very legible but as the hair grew brands could not be identified at a distance and closer examination was necessary. Apart from the inconvenience of these methods (regular clipping of the hair was necessary) The hide may be damaged.

**Neck straps**

Neck straps were previously used in extensive trials at Wokalup Research Station. In design these proved effective but they had disadvantages such as price (due to importation from England) and unsuitability in herringbone sheds and many other types of dairies. Further trial work with this method was thought to be unnecessary.

**Neck chains**

Neck chains have been used at research stations as indicators in mastitis trials. Because of their position on the animal they are of little use in dairies, and changes in condition of the animals necessitate constant changing of the neck chain.

**BEEF CATTLE**

The following methods were tested for both field and raceway identification.

**Freeze branding**

A four inch brand using the dry ice method on the rump or shoulder gave very good results. Most brands were legible after 8 weeks, depending on hair growth (all animals were in good condition). For beef calves of six months and over two-inch freeze branding irons were used with similar results to the four-inch irons. Application was for 45 seconds. Except on light-coloured animals, freeze branding appeared to be the best form of permanent cattle identification tested during the trials.

**Dewlap or brisket tags**

Dewlap tags used in the trials at Denmark Research Station were the all-plastic design, including the pin. These proved to be very successful and only one tag was lost from the first 100 inserted. (The tag was not at fault in this case.) The tags were easy to read in paddocks, raceways and yards, and were very satisfactory at distances in the field.

As an alternative method of identification to freeze-branding, dewlap tags appear to be one answer to the beef farmer, but some farmers may experience a small percentage of tag losses.

**Ear tags**

From the large variety of ear tags used in the trial the following showed the greatest promise with regard to permanency and legibility.

**Self piercing stainless steel**

These are easy to apply to newly-born calves but care should be taken to allow for further growth of the outer ear. There were few losses, and these tags are recommended as a means of identification until a more permanent brand is applied after the animal reaches 5 to 6 months of age. Disadvantages were that they were unsuitable for paddock identification, although fairly easy to read in a crush. The ear needs to be held for the number to be identified.

**One piece plastic**

Though slightly larger than the stainless steel type this tag is difficult to read unless at close range. However, the tags are
fairly permanent and there is little likelihood of their being caught in a fence. They are recommended as an initial form of identification.

A disadvantage is that two operations are necessary: A hole must be punched before the tag is inserted.

**Mono and duo tags (New Zealand design)**

These are manufactured from soft malleable plastic and were easy to apply and easy to read under both field and yard conditions.

They are applied by a self piercing method and are suitable for both mature animals and calves. As they do not become brittle, there were no losses through tag failure. These tags are recommended for identification in any farm locality.

**DAIRY CATTLE**

The dairy farmer has to identify his stock more often than the beef farmer and identification of cows in the milking parlour is most important for production recording or disease control. Any system fails if the animals cannot be identified in the shed.

Farmers using walk-through or backout dairies have virtually no problem if the cows are identified by freeze brands on one or both sides of the rump. In well-lit sheds, large ear tags with numbers both back and front are also fairly successful.

In herringbone dairies however, because of the low position of the pit and the elevated position of the cows quick and accurate identification presents a problem. The following methods were tested:—

**Freeze branding**

Freeze branding appeared to be the most suitable form of permanent identification. By branding the lower hind legs on the outside just above the hock with a 2 or 4 inch iron, identification from either side of the herringbone pit was very good.

Another method tested was to use a 2-inch iron to brand the back leg in a downwards direction. Heifers freeze branded in this fashion at 5 to 6 months of age at Denmark Research Station have been easily recognised in the paddock, and in the herringbone after calving.

**Tail tags**

*Plastic belt type*

(Not to be confused with the Department of Agriculture Plastic Tail tapes which farmers must use when selling stock.)

Fifty of this type were tried but there were losses after a few days. Tags were readily caught in fences because of the low situation on the tail and were also subject to fouling with manure and mud; however, regular cleaning of the tags presented no great problem. The application method caused some tails to become infected due to pressure exerted by the tag and tail damage was apparent and some tail sections were lost. Farmers using this method should be aware of these risks.

**Escutcheon tags**

Because of their place of attachment, escutcheon tags are good for identification in herringbone sheds. However, testing losses in the Denmark dairy herd and in other herds throughout the districts were about 5 per cent. Some losses may be expected in commercial herds. (Since the initial trial a modified tag has become available and these are under trial at Denmark.)

The escutcheon tags produced no discomfort to the animal but farmers using this method should ensure that the areas to be used for attachment should be thoroughly cleaned with antiseptic and applicators and tags should be sterilised.
Udder tattoo

Udder tattoos appear to be a suitable permanent method of identification in herringbone dairies, but the operation is rather complex. Large quantities of local anaesthetic are needed and a skilled operator is required. The success of the tattoo also varies with the size, shape and colour of udder.

Hock clips (New Zealand manufacture)

This method of identification was found to be very successful in the herringbone shed. Six clips were used in the trial and after six months no losses had been recorded.

The clip is attached by placing it around the achilles tendon by the hock. Special applicators are required to do this but a benefit of this method is that the skin of the animal is in no way pierced or punched. The spring attachment ensures fairly permanent attachment with no hide damage, due to the tag's ability to move up and down the hock. Some hair on the legs was found to be lost by a slight rubbing motion but no bad damage has resulted.

As with other methods of rear-end identification, there is some fouling with manure and dirt but this is easily removed by normal washing with cold water.

CONCLUSIONS

The tests showed freeze branding to be the most effective method for both beef and dairy cattle. For the beef man who wants to use a tag in place of freeze branding, a dewlap tag or large soft nylon ear tag is suitable.

If tags are to be used in place of other methods, the tag should be
• of suitable design, so that it is easy to apply
• soft and malleable, so that it will not become brittle and disintegrate, and will not readily get caught in fences or other obstructions
• easily seen, so that identification can be established in both the yard and the paddock
• applied correctly. Follow the recommendations of the manufacturer.

In the tests, fences appeared to be the biggest problem with all types of tags. Where fences were in poor repair and loose wires were common, tag losses of all sizes and designs were high. Where fences were good, and the wires strained, cattle were not liable to try and walk through them, so there was less likelihood of tags being torn out.

External parasites

Where stock are infested with lice, the risk of tag losses was evident. Scratching
of body areas can be a threat to tag life-expectancy.

Although most types of tag available were included in the tests reported above, it is not claimed that this was a detailed comparison of all tags on the market. As more tags and other methods of identification become available they will be used in further research station trials.

Progress reports of tests on various tags will appear from time to time in the Department's quarterly publication "Dairy Notes".

Acknowledgment

The tests were carried out with the cooperation and assistance of Mr. N. McIntyre, Manager, Denmark Research Station, and his staff.

Urea not a profitable supplement for grazing sheep

"In spite of the great number of experimental observations recorded, this review is forced to the conclusion that no evidence is yet available to support the contention that urea can be employed profitably with low-quality roughages in genuine pastoral conditions."

The statement above* summarises the conclusions of many scientists about the use of urea supplements for grazing sheep. It appears in a recent United Nations technical report.

In theory, grazing sheep should respond to urea supplements, at least in some conditions. Urea can form a useful additive to some feedlot rations for sheep and the conditions necessary for pen-fed sheep to respond to urea are understood moderately well. However the grazing-sheep grazes selectively. In particular, it selects the higher protein feed out of a paddock of low protein feed.

Another reason for the difference in response is that lot-fed sheep, and experimental sheep fed urea in pens, are usually fed a well-mixed combination of urea and roughage. With most methods of feeding urea to grazing sheep however, the urea and roughage are eaten at different times leading to a surplus of urea in the rumen at some times of the day and a deficiency at other times.

In numerous experiments done by the Western Australian Department of Agriculture, to test the value of urea supplements for grazing sheep, only two showed any positive response to urea and both responses were unprofitable.

The only possible conclusion from these experiments is that urea supplements for grazing sheep are a poor proposition. It does not seem reasonable to expect grazing sheep to respond to urea until the necessary conditions are understood.

Grain supplements are more likely to produce an economic response. Grain feeding often pays if it prevents death or improves lambing percentages. In some cases grain feeding to improve the value of sheep when sold will also be profitable.

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