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WORKSHOP DISCUSSION PAPER
ON
HERD IMPROVEMENT SERVICES

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**NHIA WORKSHOP DISCUSSION PAPER
ON
IMPROVING THE FINANCIAL VIABILITY OF THE HERD IMPROVEMENT
INDUSTRY**

1. INTRODUCTION

This Discussion Paper has been prepared for a Workshop to be conducted by the NHIA for the Herd Improvement (HI) industry. The objective of the Workshop is to guide development of the HI industry through improving the financial viability of the industry and the participants in the industry. The Workshop will address the core issues of increasing the overall size of the HI market and capturing more of the HI client's business.

The Workshop will specifically address:

- (a) improving current HI services provided by HI Centres throughout Australia
- (b) increasing the market for current HI services provided by HI Centres
- (c) developing new services that can be provided by HI Centres to assist dairyfarmers in the management of their businesses.

The anticipated outcomes of the workshop will be:

- Identification and agreement on research projects that can be undertaken by the NHIA and or other research agencies on behalf of HI Centres, to improve current services provided by HI Centres, and expand the market for these services
- Identification of improvements that can be made to current services and ideas on expanding the market for current services, that can be immediately considered by individual HI Centres for implementation
- Identification of potential new services that can be researched and developed for introduction by HI Centres

The Workshop paper has been prepared from information obtained from nine Focus Groups of Victorian dairyfarmers who Herd Record, individual interviews of Victorian dairyfarmers who do not Herd Record, and questionnaires completed by interstate HI organisations.

The information and views recorded in this Workshop paper are expressly the views of the farmers obtained in the Focus Groups and individual interviews. No attempt has been made to screen and evaluate the views and points made by the dairyfarmers participating in the Focus Groups and interviews. Workshop participants will need to consider the views expressed in the paper on this basis.

Where a view has been expressed by more than one Group or individual the number of times expressed has been bracketed after each point.

In considering this paper Workshop participants should recognise that the views expressed are the views of the participants in the Focus Groups and the individual dairyfarmers interviewed. The views expressed in this paper do exist and in certain cases need further examination before being taken as having any validity for further consideration by the HI industry. In some cases the views are based on wrong assumptions and HI Centres need to

implement communication programs to their clients and potential clients to create a better understanding of the issue concerning the HI service.

The Workshop Discussion Paper is set out below under the following headings:

- ❑ Profile of participants in survey of HI services
- ❑ Current status of Herd Recording
- ❑ Improvements to Herd Recording
- ❑ Current status of Artificial Breeding
- ❑ Improvements to Artificial Breeding services
- ❑ Current status of cow identification
- ❑ Improvements to cow identification
- ❑ Current status to calf dehorning
- ❑ Improvements to calf dehorning
- ❑ Current status of HI supplies
- ❑ Improvements to HI supplies
- ❑ Status of computers, internet and herd software use
- ❑ Improvements to computers, internet and herd software
- ❑ Additional services that could be provided by HI Centres

2. PROFILE OF PARTICIPANTS IN SURVEY OF HI SERVICES

In assessing the information and views presented in this paper it is important that there is an understanding of the profile of the dairyfarmers who formed the Focus Groups and those who participated in the individual interviews. This understanding is important to relate the information obtained to the total HI client base (both current and potential), in case there was any bias evident, particularly in considering the impact on the market for improved HI services and the development of new services.

Profile of Focus Groups

Focus Groups were used to obtain views on current HI services provided by HI Centres. All the participants used Artificial Insemination and used Herd Recording.

There were nine Focus Groups conducted in the three main dairying regions of Victoria as follows:

Northern Victoria - Cohuna, Waaia, and Tatura

Western District – Warrnambool, Timboon and Colac

Gippsland – Maffra, Warragul and Korumburra

There were 76 participants in the Focus Groups representing 69 farms. The local HI Centre invited the participants in the Focus Groups and arranged the meeting facilities.

The dairyfarms represented at the Focus Groups had the following profile:

<p>Scale: Average herd size 280 cows (minimum 100 cows and maximum 800 cows) Breed: 75% Holstein, Holstein/Jersey cross (11 herds), Jersey (5 herds) & Ayrshire (1 herd) Herds: Commercial herds 71% and registered herds were 29% Sheds: 58% Herringbone swing over, 22% Herringbone double up & 20% Rotary Cup Sets: Average 26 sets (minimum 10 sets and maximum 60 sets) Cup Removers: 22% had automatic cup removers & 78% did not</p>

The profile of the Focus Group participants were considered reasonably representative of dairyfarms involved in AI and HR relative to scale, breed, commercial and registered herds, and milking sheds and equipment. In looking at the total dairyfarmer population it must be understood that dairyfarmers who HR, have a 35% higher production per cow than dairyfarmers who do not Herd Record.

Profile of dairyfarmers interviewed who do not Herd Record

Two to three dairyfarmers in the areas where Focus Groups were conducted were interviewed on their farm or by telephone. A total of 20 dairyfarmers were interviewed with the following profile:

Scale: Average herd size 260 cows (minimum 100 cows and maximum 600 cows)
Breed: Predominantly Holstein herds with some Holstein cross and part Jersey
Sheds: 50% Herringbone swing over, 30% Herringbone double up & 20% Rotary
Cup Sets: Average 25 sets (minimum 10 sets and maximum 50 sets)
Cup Removers: 20% had automatic cup removers & 80% did not

The profile of the dairyfarmers who did not Herd Record was broadly similar to the dairyfarmers who did not Herd Record, with the exception there were no registered Stud herds amongst the dairyfarmers who did not HR.

3. CURRENT STATUS OF HERD RECORDING

All participants in the Focus Groups were currently HR with the exception of one participant who was installing in-line milk meters.

Reasons for Herd Recording

The reasons submitted why farmers use HR were:

- Obtain SCC on each cow to treat or cull high SCC cows to achieve required BMCC to qualify for Factory quality payment (9)
- To maximise production payment (and profit) by factory based on milk yield and composition (8)
- Cull poor performing cows subject to sufficient replacements available (7)
- Provides a marketing tool in selling cows/heifers with production and breeding record (5)
- Comparing daughters to mothers and selecting cows for breeding and heifers to raise for the herd (4)
- Provides a discipline for record keeping for tax purposes, tracing family history for disease, eliminating genetic disease, providing cow joining dates and drying off dates, joining and calving dates and conforming to Factory QA program (4)
- To group cows for better management including mating, feeding, culling, drying off (4)
- To qualify for Progeny Testing and to proof AB bulls including Progeny Testing (4)
- Verifying decisions made in selecting AI semen (3)
- To provide a management tool with information on cow performance for Spring and Autumn calvers to improve herd production (3)
- Provides individual stock I/D for management purposes and staff instruction (2)
- To satisfy farmer and family interest in progress of cows in the herd (2)
- Provide a breeding and production history of cows (2)
- Improve herd fertility by tracking cow conception performance
- Keep an eye on induced cows and observe their condition
- To benchmark the performance of cows and the herd

- To maximise longevity of cows
- Use for calving performance for rejoining
- To dry off low production cows earlier at end of season
- For stud purposes to record production performance and breeding
- HT saves blanket dry cow treatment (only need to do 20%) and saving covers cost of HT
- HT is required for management of large herds

One farmer claimed that high SCC indicates likely infertile cows

Reasons why dairyfarmers do not HR

The following suggestions were made by members of Focus Groups who Herd Record on why farmers do not Herd Record:

- The cost is considered too high or there is no perceived cost/benefit (8)
- HT is too much hassle (5)
- More labour required on HT day (4)
- Farmers feel they are going OK (2)
- Farmers have their own idea on which are their best cows (2)
- The accuracy of HT is not as desired (2)
- Limited opportunity to cull when building up herd numbers (2)
- Cows need to be identified for flask sorting (2)
- Cannot be bothered (2)
- Extra work required (2)
- Milking staff or family members have a resistance to HT (2)
- Farmers do not know why they do not HR
- HT causes stress amongst the cows and the milking operators
- No pressure to improve financial performance
- Desire to take it easy
- Setting up is required
- They only generally manage the herd
- Inconvenience
- Farmers set in their ways
- Keep the family peace
- No management approach to dairyfarming or not professional dairyfarmers (2)
- Have no I/D of cows

The following reasons for not HR were obtained from individual interviews with dairyfarmers who do not HR.

- See no value in HR as building up the herd and little opportunity to cull low production cows (7)
- Inconvenience and hassle (7)
- Too labour intensive requiring additional labour (5)
- Farmer's time is limited to take on extra work (4)
- Cost too much particularly when milk prices are low (3)
- Getting old (55 years) and on own on farm – HT would require additional labour (2)
- Cannot see the value with a large herd
- Have stray voltage and not able to cull on production
- Do not AB so not interested much in cow production – breed vealers and buy young cows
- Was not using the results so ceased HR
- Current employees not interested in HT
- Savings by HR put into buying proven semen for all cows
- Dairy shed too small

Broadly the reasons for not HR raised in interviews with individual farmers who do not record were similar to the reasons provided by the participants in the Focus Groups who do HR. There were a few exceptions such as vealer production and stray voltage.

How dairyfarmers who do not HR, handle high BMCC

The following submissions on how high BMCC is reduced were obtained from individual interviews with dairyfarmers who do not HR.

- When BMCC rises all cows are stripped (some get in an extra milker), to detect mastitis for treatment, or culling (if had repeated mastitis or severe case) (5)
- If cannot reduce BMCC then get ISCC done on suspect or all cows (4)
- Observe cows being milked for stress, watch for mastitis incidence and treat or cull (4)
- Use blanket Dry Cow treatment at end of season (5)
- Use a mastitis detector (RMT) and pick up clinical mastitis (3)
- Check machines and plant cleaning (3)
- Look at older cows and cull or get ISCC done (3)
- Treat the cows regularly and use Teat Dip (2)
- Have no problem with BMCC but will HR and get ISCC if get high count to get factory premium (2)
- Intensively look at staff milking and their milking practice
- BMCC is low through observing each cow when milking and detect high ISCC
- Get 3 spot tests per year and cull high SCC cows

How dairyfarmers who do not HR, cull their herd

The following submissions on how herds are culled were obtained from individual interviews with dairyfarmers who do not HR.

- Culling is limited to grounds other than production, eg mastitis, lameness, health problems, fertility problems, late calvers, deaths and old age (11)
- Building up the herd and even low producers are kept (4)
- Buy in replacements (raise vealers) so cull on health and old age (3)
- Observe low producers or lazy cows and cull (3)
- Observe body condition and udder and cull in addition to health problem cows
- Cull short lactation cows and in addition cull health problem cows
- In addition to health problem cows cull cows that have difficulty conceiving
- Benchmark herd production against other herds and State average and take action if slipping by intensive review of poor performing cows
- Culling on cows stressed with stray voltage plus health problems
- Do not have a set up to feed cows varying amount in the bale
- Cull old cows

What changes would have to be made to HR to get a non user of HR to take up HR

The following views on what changes would have to be made to HR to get a non-user of HR to take up HR, were obtained from individual interviews with dairyfarmers who do not HR.

- Make HT easier and less labour intensive and less hassle (6)
- Simplify flask handling and I/D (5)
- More ability to use auto cow I/D (3)
- Have a low cost in-line meter and cow auto cow I/D (3)
- Reduce cost of HT (2)
- Have less labour required (2)

- Change herd to registered herd
- Have equipment and set up fit into a small shed
- No suggestions (7)

4. IMPROVEMENTS TO HERD RECORDING

The following improvements were suggested to Herd Recording by participants in the Focus Groups.

Herd Recording General

- Get all dairyfarmers on to HR to reduce cost

Herd Testing Equipment Set Up and Removal

- Improve cleanliness of HT equipment that comes on to farm (3)
- Allow more time for farmer to wash up HT meters (2)
- Use less area in shed for HT set up (2)
- Improve setting up in shed for HT
- Make earlier deliveries of HT equipment
- Have the HI Centre set up HT meters
- Have the HI Centre pull down meters, wash up and pack up

Herd Testing Operation

- Make HT simpler, easier and more user friendly (5)
- Introduce more automation of current HT such as auto sorting of flasks for pm/am HT (5)
- Use scanning and bar code or electronic I/D on the flasks instead of stickers (3)
- Improve servicing of HT equipment to have work better on HT day (3)
- Minimise holes in lids, loose lids and dirty lids
- Have a smaller sample volume
- Have bigger mini flasks (HI Centre does not always have available)
- Remove HT stress on cows (affects HT results)
- Have more flexibility for date and time set for HT
- Provide numbers on flasks
- Solve problem of auto cup removers making it difficult to keep HT meters on
- Current HT technology needs updating after 15 years of no change
- Check delivery of HT equipment as occasionally not all delivered

Herd Testing Accuracy

- Check calibration on meters (2)
- Improve accuracy of milk volume measurement (up to 2 litres/cow out against vat) (2)
- Set standard for acceptable variance between HT result and vat reading
- Bi-monthly testing needs to be more accurate
- Improve mini meters accuracy in the Spring
- Flasks do not measure properly and should be improved

Automation of HT

- Improve cow I/D and sampling matching (automate) (3)
- Introduce a more affordable auto in-line volume meter and sampler (3)
- Improve functioning of NLIS Electronic Ear Tag for use in HT
- Provide scrutiny for DIY auto milk measurement herd testing farms

HR Software and Reports

- Improve accessibility of HR data (2)
- HI Centre to advise farmer of all calving dates

- Remove some of the HR information such as hectare information
- Provide more management data
- Improve software for farmer to simply manipulate HR information
- Have a computer that can operate in the dairy
- Provide HI Centre link to ADHIS to provide access on internet for farmer to pull off reports
- Provide a PI on milk fat and protein
- Show on computer record a column for with-holding period before sale of animal or mastitis with-holding period

Other

- Make HR mandatory for Progeny Testing

5. CURRENT STATUS OF ARTIFICIAL BREEDING

All participants in the Focus Groups used AB. All farmers (with the exception of one), and including those who did DIY AI, used a bull on farm to mop up after AI.

All participants purchase their AI semen from the local HI Centre with a few farmers purchasing additional semen from other agencies such as breed societies.

Reasons for AB

The following reasons were submitted by participants in the Focus Groups on why farmers use AB :

- Improve production and profit performance of the cows in the herd at a faster rate than can be achieved by natural breeding (9)
- AI saves carrying a number of bulls on farm at an added cost and requiring special care and containment with greater on-farm safety and less hassle (9)
- AI adds value to the sale price of a herd (5)
- AI spreads the number of bulls and increases the gene pool that can be used for a herd compared to natural mating (5)
- Proven production and trait data is available on AI bulls compared to natural mating (5)
- Maintain good herd health

One Group suggested that farmers can obtain information on semen from Herd Assessment people and farmers do have an input into semen to be purchased from the local HI Centre.

It should be noted that when raised, **all Groups commented that fertility was a major concern** for dairyfarmers and a significant improvement in conception rates should be targeted by the industry.

Reasons why dairyfarmers do not use AB

The following reasons for not using AB were obtained from individual interviews with dairyfarmers who do not HR or use AB.

- Use natural mating with beef bulls to raise vealers and sell (buy in young heifers and first calvers for replacements) (2)
- Use natural mating because AB conception rate poor and insufficient heifers
- Stray voltage has caused problems with the herd, and natural mating has had to be used to achieve reasonable conception rate

Reasons for purchasing AI semen from the local HI Centre

The following reasons were submitted by participants in the Focus Groups on why farmers purchase AI semen from the local HI Centre :

- The HI Centre adds value by providing advice on semen to suit farmer's herd requirements and budget (6)
- Convenient as no organisation required if semen purchased through the HI Centre and less time used in selecting semen (5)
- Semen prices were no different for direct supply (1)
- The HI Centre provides the AI service (1)

Dairyfarmers who do not HR and were individually interviewed submitted similar reasons for purchasing semen from the HI Center as dairyfarmers who do HR.

How cows are inseminated

The following AI methods were used by Focus Group participants:

AI METHOD	No OF FARMERS
Use local HI Centre technicians only	(23%)
Use DIY AI only	(38%)
Use HI Centre for most of AI & then DIY	(33%)
Use private individual for most of AI & then DIY	(6%)

Over 80% of the farmers use a mop up bull after AI by the HI Centre and DIY.

Dairyfarmers who do not HR and were individually interviewed broadly used the same AI methods as dairyfarmers who do HR.

Reasons for using the HI Centre for AI

The following reasons were submitted by participants in the Focus Groups on why the HI Centre is used for AI service :

- Limited time of farmer available to DIY (6)
- The conception rate is perceived to be higher (5)
- Convenience particularly when synchronising large herds (3)
- AI Technician is more skilled (2)
- Herd too large to DIY (2)
- Farmer limitation (age and large arm) (2)
- The AI service is part of a total package deal
- The service is quicker than DIY
- No inclination to do DIY
- Not experienced at DIY AI

Many of the farmers who use the HI Centre for AI, said they had limited time and when they synchronise the herd they use the Centre for AI and then use DIY to mop up the cows missed and finally use a mop up bull. This approach helped farmers where they had limited time available and was considered the most cost effective approach to AI.

Comment was made by 2 Groups that cows could be kept waiting for a short or long time dependent on when the AI Technician arrives. Also a Group said that a large number of

Technicians at the HI Centre meant a varying standard of stockmanship and performance by Technicians.

Dairyfarmers who do not HR and were individually interviewed, submitted similar reasons for using the HI Center for AI service as dairyfarmers who do HR.

Reasons using a private individual service provider for AI

The following reasons were submitted by participants in the Focus Groups on why a private individual service provider is used for AI service in preference to the HI Centre :

- The service is very good with excellent back up (3)
- The AI Technician is close by
- There are a range of services eg KAMAR
- Morning and evening AI service available
- Cows not waiting too long
- The conception rate is perceived to be higher

Dairyfarmers who do not HR and were individually interviewed submitted similar reasons for using a private individual service provider for AI service as dairyfarmers who do HR.

Reasons using DIY for AI

The following reasons were submitted by participants in the Focus Groups on why DIY is used for AI :

- No waiting time for cows (done twice per day) (7)
- Cost saving (6)
- Farmer's time is limited and no waiting time for farmer (5)
- AI management easier and if a cow is missed it can be inseminated next milking (3)
- Cows not hungry and not under stress particularly if there was only single cows kept waiting) (2)
- Small herd and can do AI (2)
- Happy with the conception rate (2)
- Convenience (2)
- Farmer was trained in DIY and liked doing AI
- Prefer to AI in the evening rather than the morning
- DIY is used for remainder of cows after AI by HI Centre
- The farm is a long distance from the HI Centre
- Makes farmer and staff more aware of heat detection
- Prefer own results

Dairyfarmers who do not HR and were individually interviewed submitted similar reasons for using DIY for AI of cows as dairyfarmers who do HR.

Reasons for Progeny Testing

Two thirds of the participants in the Focus Groups were involved in Progeny Testing on their farms. This ratio was significantly higher than the State average.

The following reasons were submitted by participants in the Focus Groups on why farmers become involved in Progeny Testing :

- Receive a financial benefit through lower priced proven semen (9)
- Support the HI industry achieve genetic gain through proven bulls (8)
- Have first opportunity in selection of better semen for the future (6)

- Achieve better genetic gain for own herd (4)
- Get a genetic check on the herd
- Get to use top bulls and genetics
- Undertake Progeny Testing because Herd Record
- Do not get to pick the bulls (but can exclude certain bulls)
- Get improved conception rates
- Use Progeny testing on lower conception cows
- PT across a number of farms gives a better average reading on bulls

Comments made on Progeny Testing by participants in Focus Groups included:

- PT has improved over the years, although it needs to be made more attractive to get more farmers involved (3)
- A better result is achieved from heifers than bulls
- The farmer can be disappointed if a bull used in PT is slaughtered
- Use low cost semen on late calvers and cows difficult to get in calf
- Too much emphasis on the Bull and not enough on the cow
- Luck was required to get a high number of heifers
- Farmers who do not PT get a free ride and more farmers could do PT to share the load and provide a better data base
- If in-line DIY measurement comes in less farmers would HT through a HI Centre and less will PT
- The HI Centre should not allow farmers to PT when they will not sign up straight away for Herd Testing
- Some farmers partially control PT semen used
- The Canadian practice of using Progeny Testing for 2 and 3 year olds is an issue
- PT should apply for poor cows as well as good cows
- Have reduced to 50% PT because of the cost

Why dairyfarmers do not Progeny Testing

Comments made by Focus Groups on why farmers do not Progeny Test were:

- Only a small % of bulls under PT make the Team (2)
- Operate a small scale herd so use proven bulls (2)
- Matching is difficult and could be improved (2)
- Proven semen is used instead of PT to get maximum improvement (2)
- Dissatisfied with the results
- Too much emphasis placed on high PI cows excluding other important factors
- Do not PT because have enough problem cows and do not want to add to this problem
- If the future of the farm is uncertain then proven semen is better than PT
- Do not have to Herd Test
- Did not get heifers when did PT
- Lack of confidence in bull selection for PT
- Too much emphasis on bull appearance

6. IMPROVEMENTS TO ARTIFICIAL BREEDING SERVICES

The following improvements to AB were suggested by participants in the Focus Groups.

Semen supply

- Reduce information available on sales of semen (2)
- Don't push hot shot bulls that sometimes fall over
- HI Centre to practice independency and no bias to high margin semen
- Make it easier to read I/D on semen straws and position at top of straw

- Have unique bull name I/D between breeds (can be same name)
- List fertility of bull on semen data
- Provide a single sex semen at reasonable cost
- Don't water down the semen so much
- Disclose genetic diseases on semen sold
- Provide information on semen motility (active)
- Assist people new to the industry understand Bull genetic diseases
- HI Centre should not promote cheap semen
- HI Centre promote ASI
- Information on semen should more truly describe the genetics and information withheld should be revealed
- Discount should be available for large bulk purchases
- The HI Centre should not be middle supply operator
- Provide for negotiation of semen packages (farmer puts up Bulls required and then negotiate price)
- Provide more assistance with evaluation service to advise on selection of semen in relation to cow traits eg lameness, frame for fertility
- Have more natural photos of AI animals and not staged photos

A dairyfarmer who does not HR or use AB submitted in an interview that cheaper beef semen may cause him to use AI for vealer progeny.

AI service

- Have AI service twice per day in peak particularly for high cost semen (3)
- Make sure all Technicians are skilled at handling stock (some not physically able to handle tough cows) (3)
- Achieve a higher conception rate – no change in years (2)
- Avoid delays in AI of cows (2)
- Make sure all ordered semen available when inseminating on a particular day including advertised bull (2)
- All AI Technicians should be accredited and licences reviewed regularly (2)
- Overcome cow not getting in calf after HD
- Obtain an immediate test to indicate cow has conceived
- Find a cheaper method of Heat Detection
- Publish conception rate for each Technician
- Improve longevity of cows
- Provide Bull index on longevity of cow life
- Advise farmer by phone when hold ups are experienced (farmer also keep AI Technician informed)
- Have more AI staff in the peak
- Study how NZ Technicians are trained and implement in Australia
- Have AI Technicians change gloves to reduce risk of spreading disease
- Better explain the conception rate for a farm
- Colour code guns – straws
- Conduct a refresher DIY start up school each season for all farmers
- Provide a service for use of KAMARS
- Provide more incentive for AI Technicians to detect infection and abnormalities and report to farmer
- Improve attitudes of some AI Technicians
- Improve conception rate through bulls used and AI Technicians used

Progeny Testing

- Make better selection and screening of bulls (2)
- Improve evaluation and classification traits
- More emphasis on the cow's ability
- Identify sons of bulls that have recessive genes and exclude asap
- Cull bulls below 90
- Have wider selection instead of narrow Aust. Profit Ranking
- Get all farmers doing Progeny Testing to get better proofs
- Reduce cost of semen
- Provide more frequent NASIS updates

7. CURRENT STATUS OF COW IDENTIFICATION (I/D)

All participants in the Focus Groups used multiple methods of cow I/D.

Responses from interviews with individual dairyfarmers who do not HR, on cow I/D and methods of I/D were similar to responses by Focus Groups of dairyfarmers who do HR.

Reasons for cow I/D

Cow I/D is undertaken by farmers because:

- Required for HT (6)
- For staff instruction , (heat detection, calving, drafting, mastitis) (6)
- To manage mating (Heat Detection and AI) (5)
- To administer cow treatment (5)
- Required by Law (NLIS Electronic Ear Tag) (5)
- For disease control (4)
- For records (4)
- Required for Registered Stud purposes (3)
- For control of individual cow feeding in the bale (2)
- Can trace cow family history (2)
- For sale off the farm
- For purchase of animals from external sources
- To tell the age of calves (calves numbered in sequence as born)

Animal I/D methods used

The following table shows the different animal identification methods used by Focus Group participants:

CALVES		COWS	
Small Plastic Ear Tag	19 farmers	Small Plastic Ear Tag	6 farmers
Medium Plastic Ear Tag	27 farmers	Medium Plastic Ear Tag	28 farmers
Large Plastic Ear Tag	7 farmers	Large Plastic Ear Tag	31 farmers
Tattoo	20 farmers	Tattoo	14 farmers
Brass Tag	19 farmers	Brass Tag (from calf)	18 farmers
Elec ear tag NLIS	*5 farmers	Elec ear tag NLIS	*24 farmers
Freeze Br (6 to 12 wks)	10 farmers	Freeze Brand	58 farmers
Photo	6 farmer	Photo	6 farmers
		Leg Strap	2 farmers
		Collars	2 farmers

* All farmers are required to have the NLIS eat tag fixed to the animal

In addition to the above methods, a number of farmers in the Focus Groups use visual sight methods to I/D cows, however this method is limited due to the trend towards larger herds (one farmer was able to call all cows in the herd to come up by name).

All participants in Focus Groups used multiple methods of calf and cow I/D as no one single method could be used that met the four requirements:

1. Permanently fixed to the animal for the life of the animal
2. Could be sighted in the paddock or yard (singly or in a group)
3. Could be sighted by the milking operator in a Herringbone or Rotary shed
4. Could be read by an electronic reader

A typical combination of I/D methods used by farmers participating in the Focus Groups was:

CALVES

Plastic Ear Tag (Medium)
Tattoo or Brass Tag
Electronic NLIS Tag

COWS

Plastic Ear Tag (Large)
Tattoo or Brass Tag
Electronic NLIS Tag
Freeze Brand

Apart from the Freeze Branding, most farmers applied all the other methods of I/D themselves.

Comments made on why multiple methods of I/D are used by farmers were:

- The type of I/D suits the individual farm set up
- Breed Societies require 2 forms of ID including photo
- The tattoo is permanent (and used for registered cattle)
- Brass tags stay in better but the Ear Tag is better for sighting so use both
- The photo is a permanent record
- Freeze Brand can be seen in the shed by the operator
- Some farmers know their cows by sight but still need other I/D for their workers
- The Freeze Brand and the Ear Tag give two opportunities to I/D a cow in the paddock, in the yard and in a race
- The quality of workmanship varies
- The NLIS tag is legal and will help farmers move to electronic I/D with benefits in drafting, bale feed control
- Cow I/D is required for local Factory milk supply QA program
- Two Plastic Ear Tags are used by one farmer on the one animal to make for easier reading as hair grows long
- Brass Tags save a Tattoo on the ear
- The Plastic Ear Tag is easy to read but can come off
- Leg straps were used by one farmer because splash guards are in the shed making Freeze Branding not an option (about 5% are replaced each year)
- Ankle straps are used in addition by some farmers on specific cows with health or other problems
- Young stock require different I/D to mature cows
- The Ear Tag is necessary in the Spring to I/D cows with Freeze Brand because of the manure on the hind quarter

Freeze Branding

Freeze Branding is applied by farmers because:

- It is permanent (7)

- It is visible in the shed by the operator (6)
- Makes HT easier (6)
- Used in conjunction with the Ear Tag to make it easier to I/D a cow in the day and night by torch (6)

A few farmers do not Freeze Brand because the cows are known individually

Just over 80% of the farmers who used Freeze Branding used the HI Centre to apply the Freeze Brand with the balance of the farmers using private individual service providers (15%) or DIY (4%).

Farmers use the HI Centre for Freeze Branding because:

- Happy with the service
- Have the equipment and expertise
- Want to support the HI Centre
- An even result is achieved
- Farmer's time is limited
- The cost of the service is reasonable
- It would cost more if done by the farmer

The private individual service provider is preferred to the HI Centre because:

- Has the equipment and experience
- The service is satisfactory
- The HI Centre staff change which creates variation in the standard of branding from year to year
- A good job is done

The farmers who DIY Freeze Branding, did so because :

- Had previously worked at the HI Centre and was skilled at Freeze Branding
- Always done it on the farm
- More care taken

Comments made by participants in the Focus Groups on Freeze Branding were :

- One farmer puts water on the Freeze Brand to make it easier to read
- Some cows need their Freeze Brand clipped for easier reading
- Tags were needed for young stock until the Freeze Brand was applied
- Some Freeze Brands lose their clarity

Electronic Cow I/D

Only about one third of the farmers have applied the NLIS Electronic Ear Tag to their cows with less having applied the Tags to calves.

Some of the farmers who use the NLIS Ear Tag use the tag to electronically I/D the cow in the bale and control the feed in the bale.

The following comments were made on the NLIS Ear Tag :

- The NLIS tag is not 100% permanent and a replacement tag with the same number is not available and a new number has to be obtained
- A low cost electronic reader is required for the NLIS Ear Tag that interfaces with a computer data base

- A new initiative is required to the NLIS tag in addition for meat production security by dairyfarmers. In particular low cost Electronic readers are required that will enable the farmer to input data in the paddock and the shed to record details on animal mating, mastitis, drenching, calving, health problems etc

8. IMPROVEMENTS TO COW IDENTIFICATION

Cow identification systems

The following improvements to cow I/D were suggested by Focus Group participants.

- Provide a electronic hand held reader at an economic cost to have data in the paddock and enter data (3)
- Provide a single permanent and universal method for I/D of cows (2)
- Have a replacement NLIS Electronic ear Tag with the same number as lost NLIS Tag (2)
- Put the HT number on NLIS Electronic Ear Tag
- Subsidise NLIS Electronic ear Tags
- Explain benefits of NLIS Electronic Ear Tag better to farmers
- Make NLIS electronic tags more permanent
- Provide a permanent electronic I/D on the hind rumps of cows

Freeze Branding

All Focus Groups commented that the local HI Centre or Private Operator provided a satisfactory Freeze Branding service and there was only one suggestion for improvement.

- Make Freeze Brand 100% effective

9. CURRENT STATUS OF CALF DEHORNING

All farmers in the Focus Groups dehorned their calves using either the local HI Centre, a Private Operator or DIY as follows:

SERVICE USED TO DEHORN CALVES	% OF FARMERS
HI Centre dehorning service	74%
Private individual service provider	6%
DIY by the farmer	20%

Reasons for using the HI Centre for dehorning

The following reasons were submitted by participants in Focus Groups on why farmers use the HI Centre or Contractor arranged by the HI Centre for dehorning :

- The HI Centre has the equipment and service (7)
- The HI Centre do an expert job (7)
- It is convenient to use the HI Centre and saves the farmer time (6)
- The cost is reasonable (3)
- It is easier to use the HI Centre (2)
- The HI Centre makes sure the job is done at the right time (2)
- The job is done quickly by the HI Centre
- The additional labour unit required is provided by the HI Centre
- Done for health reasons – done at same time calves vaccinated
- Done by the HI Centre when Freeze Branding
- Is a management tool
- Reduced stress on calves and farmer

- The HI Centre does Freeze Branding and dehorning at the same time

Reasons for using a private individual service provider for dehorning

The following reasons were submitted by participants in Focus Groups on why farmers use a private individual service provider for dehorning :

- The private individual service providers do a good job
- Private individual service providers are available

Reasons for using DIY for dehorning

The following reasons were submitted by participants in Focus Groups on why farmers use DIY for dehorning :

- Can dehorn when it suits the farmer when work program permits (4)
- The farmer has the equipment (2)
- More convenient
- Have the time to dehorn calves
- Have always done dehorning
- Smaller groups can be done at a time
- Cost saving

10. IMPROVEMENTS TO CALF DEHORNING

All Focus Groups commented that the local HI Centre or Private Operator provided a satisfactory Calf Dehorning service and there were only a few suggestions for improvement as follows :

- Breed horns out of cows
- Improve the skills of some operators

11. CURRENT STATUS OF HERD IMPROVEMENT SUPPLIES

All Focus Groups had farmers who had purchased some or all of their HI supplies (AI and HT items) from the local HI Centre. However only few of the participants purchased chemicals or other non-HI items from the HI Centre as there were alternative suppliers preferred.

All HI Centres supplied AI and HR items and chemicals with one or two HI Centres stocking additional items or services including milking machine parts, calf additives, workwear, filters, insurance, computer training, and book-keeping service.

Comments on purchasing of HI supplies

The following reasons were submitted by participants in the Focus Groups as to why the HI supplies are procured from the HI Centre:

- Convenience to order
- Convenience with AI supplies with AI service provided
- Convenience with HT supply items when doing HT
- Merchandise service is available
- Have an account
- Desire to support the HI Centre (Co-op)
- Value for money
- Alfa milking machine parts available for Alfa plant

- Mobile truck available for farmers a long distance from the HI Centre
- Saving in delivery cost
- Good quality proven detergents
- Advice available on detergents

Reasons advanced for not purchasing from the HI Centre were:

- Other supply services are more convenient
- No choice of product available
- Higher prices on some merchandise
- Personal relations with other suppliers
- Too long a distance to travel
- HI Centre is not a merchandiser
- There is plenty of competitive alternative suppliers
- The HI Centre should stick to its area of expertise

The following comments on HI supplies were made by Focus Group participants:

- There are many alternatives for HI supplies including the Factory Store, Vets, Merchants
- Few farmers purchase chemicals from HI Centre
- AI and HT supplies are purchased from the local HI Centre because of convenience
- The local HI Centre compile a master order of HI supplies from farmers, to get a deal
- Supplies of sheaths, gloves and tail paint are purchased because of convenience and reasonable cost, and other HI supplies are purchased from other sources
- The local HI Centre is not seen as a supplier of merchandise for the farm

12. IMPROVEMENT TO HERD IMPROVEMENT SUPPLIES

All Focus Groups commented that the local HI Centre or alternative suppliers provided a satisfactory HI supplies service and there were no suggestions for improvement.

13. STATUS OF COMPUTERS, INTERNET AND HERD SOFTWARE USE

Participants in the Focus Groups used computers, the internet and herd software on the farm as follows:

COMPUTERS, INTERNET & HERD SOFTWARE	% OF FARMERS
Had a computer on farm	75%
Had no computer on farm	25%
Had no herd management software	34%
Used Computer for herd details	65%
Used computer for HT results	56%
Used computer for animal I/D on farm	38%
Used internet for HR results	27%
Used internet for other uses (weather, banking, stud, factory farm program)	13%
Used software for herd details and performance	62%

There was an apparent significant difference in the use of computers on the farm between dairyfarmers who Herd Recorded and those who did not. While 65% of Focus Group dairyfarmers who HR used a computer for herd details, only 10% of farmers who were interviewed that do not HR, used herd software. No attempt was made to determine the reason for this difference, however it would seem reasonable that farmers who do not HR would not have the extent of use of software compared to farmers who did HR.

Reasons for using herd software on the farm

The following reasons were submitted by participants in the Focus Groups on why farmers use herd software on the farm :

- Convenience of instant access of current live information (6)
- Can print off details of cow for stud reasons or sale (4)
- Provides lists of cows to be dried off, to join, to calve, to be culled (4)
- Provides cow family history (2)
- Only get information required (2)
- The HI Centre software is user friendly and back up available (2)
- Provides conception history for each cow
- Have own lists on file
- Earlier interpretation of HT results
- Information is neatly stored
- Reduces paper management problems
- Information is easy to sort for requirements
- Computers are the way ahead
- Provides health record of cows including SCC and recurring problems (2)
- As sharefarmer can provide owner and staff with a copy of details
- Can inspect cow details when buying
- Can link to other software
- Got the Computer and the time
- Computers provide a challenge
- Management tool
- Breeding purposes
- Not really sure why use computer

Reasons why farmers do not use computers on farm

The following comments were made by participants in Focus Groups on why computers are not used on farm:

- The HI Centre can provide HT results by fax same or next day (2)
- No time available
- Rather be working outside on the farm
- Family not interested
- The HI Centre can provide information on request (2 to 5 days after HT)
- Do not like computers
- Can get lists of groups of cows from the HI Centre

Comments on use of computers and software on farm

The following comments were made by participants in the Focus Groups on the use of computers on farm:

- Palm held input devices have great potential if price is affordable (one HI Centre was trialing)
- Mobile phone has potential to be a computer input device through SMS or new product development
- Printout of HR results are used but only in addition to computer data
- A master software package is required to embrace all aspects of the dairyfarm management
- It takes time to input data
- There is still a need for a hard copy of information required

- Farmers are limited to the software provided by their local HI Centre

14. IMPROVEMENTS TO COMPUTERS, INTERNET AND HERD SOFTWARE

Generally there was satisfaction with herd software with the following suggestion made in one Focus Group:

- Make herd software more user friendly

15. ADDITIONAL SERVICES THAT COULD BE PROVIDED BY HI CENTRES

All nine Focus Groups submitted suggestions on services farmers need that are not adequately provided for at present and could potentially be provided by HI Centres. While suggestions were made by all Focus Groups three Groups, also commented that HI Centres should stick to their area of expertise and concentrate on delivering high quality HI services.

By far the most urgent and priority identified need was assistance required with the provision of trained, competent and reliable labour as included in the following list of suggested services submitted by members of the 9 Focus Groups.

(Apart from assistance with labour one Focus Group felt that the market adequately catered for services required by dairyfarmers.)

Farm Labour

- Provide trained Relief Milkers to cover for sickness, weekends, breaks, family reasons, emergencies, transition period (HI Centre could employ Relief Milkers and bill the farmer including service fee) (9)
- Help recruit better quality labour for farms including permanent labour (4)
- Provide a Relief Manager service for Farm Owner/Manager to be away during milking season (Overseas Study Trips, extended illness, holidays) (3)
- Provide a relief farm winter (non milking) minding service to check on stock, provide winter feed, take action on health problems while owner is away from property (3)
- Help farmers be better employers of labour/relief milkers by setting standards, advising on pay rates, operating a payroll service
- Train and accredit Relief Milkers and grade for competency (Relief Milker or assistant Relief Milker)
- Provide a peak season labour service (eg during calving and peak milking)

Participants in the Focus Groups submitted the following rationale for HI Centres providing labour services

- (a) The HI Centres have employment administration resource and more expertise than individual farmers to advertise, interview recruit labour, induct and train labour, pay labour and terminate labour
- (b) The HI Centre is more experienced in the employment of labour
- (c) The HI Centre could employ labour at the HI Centre and then on farm
- (d) HI Centre staff know each farm, (its location, herd size and make up, milking plant, owners and their families and staff, etc)
- (e) The farm has an account with the HI Centre for billing labour
- (f) HI Centres operate a staff payroll service
- (g) HI Centres are in towns with manned offices and are a focal point for labour recruitment

Farm supplies

- Provide a service to manage farm supplies to prevent run outs (keep a check on inventory and secure best price/quality supply source, operate a purchasing service)
- Prepare annual farm requirements for supply items for participating farms and place bulk order for all farms at discount price
- Buy electronic ear tags in bulk for a cheaper price to the farmer

Rationale suggested by Focus Groups for assisting with management of farm supplies

- (a) HI Centres have inventory system skills
- (b) HI Centres purchase supplies

Farm services

- Make farmers more aware of HI services and non HI services available in the area to assist the farmer

Veterinary Service

- Provide a competitive Veterinary Service in local area

Accounting/Bookkeeping Service

- Provide a secretarial and bookkeeping service
- Provide a farm accounting/book-keeping/secretarial service

Dairy Shed Cleaning

- Provide a dairy shed cleaning service – pressure wash (internal walls of shed)

Herd Evaluation

- Provide an unbiased herd evaluation service to better select genetics (2)
- Provide a comprehensive herd evaluation report at the end of the season
- Provide a benchmark report on herd performance

Herd Nutrition

- Provide an herd nutrition service independent to feed suppliers, fertilizer suppliers, pasture seed and crop seed suppliers (4)
- Provide a feed analysis service

Herd Health

- Provide a herd health service

Dairy Stock Trading

- Facilitate trading of dairy stock between farmers
- Operate cattle sales

Computer Service

- Provide advice or direct assistance to farmer to select and use computer
- Provide a herd data readout and input device

Communication

- Improve mobile phone coverage

Dairyfarm Equipment Hire

- Provide a hire service for mobile cattle scales
- Provide a hire service for dairy shed pressure cleaning equipment

Farm Management Advice

- Provide advice on what management system provides the best returns in the Goulburn Valley

Drenching

- Provide a cattle drenching service