

finalreport

Project code: BFGEN.033

Prepared by: Wayne Upton, Don Nicol, Bob Freer

Date published: Jan 2008

ISBN: 9781741914290

PUBLISHED BY

Meat & Livestock Australia Limited
Locked Bag 991
NORTH SYDNEY NSW 2059

Implementation of the National Beef Genetics Plan - Part 2

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

This publication is published by Meat & Livestock Australia Limited ABN 39 081 678 364 (MLA). Care is taken to ensure the accuracy of the information contained in this publication. However MLA cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests. Reproduction in whole or in part of this publication is prohibited without prior written consent of MLA.

Contents

Executive Summary	3
Key Project Outcomes:	3
Other Project Outcomes:	4
Recommendations	5
Introduction	7
Focus group Meetings	7
Breed Society Executives – North and South	8
Ultrasound Scanning Contractors	9
Semen Importers	10
Feedlot Operators (Toowoomba and Wagga Wagga)	11
Livestock Agents (Commercial and Seedstock)	12
High School Teachers	12
Western Australia Beef Expo – Beef Business	13
Crossbreeding CD Rom	13
Appendix A - Breed Society Executives notes from feedback	15
Appendix B: Breed Society Executives - Survey of attitudes and resources – Genetic Technologies plus Results summary	18
EBVs	18
How well have your members accepted EBVs	18
Selection Indexes	18
How well have your members accepted Selection Indexes?	19
EBVs	21
How well have your members accepted EBVs	21
3	21
18	21
7	21
Selection Indexes	21
How well have your members accepted Selection Indexes?	21
2	21
9	21
16	21
Appendix C: : Program for Scanners Focus Group	23
Appendix D: Program for Semen Importers Focus Group	24
Appendix E: Summary from Agents Workshop	25
Summary of outcomes from commercial agents:	25
Summary of outcomes from seedstock agents:	25
Preferred sources of genetic information	25
Appendix F: ALPA Commercial Agents Questionnaire – Summary of Results	26
Appendix G Program and Registration for Western Australian Beef Expo	30
Appendix H: Press article concerning presentations WA	35
Appendix I: Samples of the screen for the Crossbreeding CD Rom	37
.....	37
Appendix J: Summary of paper submitted to AAABG 2007	38
Summary	38
Appendix K: Summary of AAABG paper describing the BreedLeader	39

Executive Summary

This project addressed technology transfer to some new sectors of the beef supply chain following the recommendations from the Foresight Plan (2003) from the National Beef Genetics Extension Team, that identified influencer groups within the beef industry. To date, these sectors have received scant attention despite having an influence on uptake and utilisation of beef breeding practices. Previous projects that have emanated from the National Beef Genetics Extension Team Foresight Report (Proof of Profit Workshop, BFGEN.017, Development of BreedLeader) have focused on sectors of the beef supply chain who have direct influence on genetics ie. seedstock or commercial breeders. The major component of this project; influencer focus group meetings, were designed to evaluate the interest and the influence of groups from within the beef supply chain who in the past have not been regarded as primary extension agents..

Six specialised, influencer groups were delivered a focus group meeting as part of the project:

- Breed Society Executives and Board members: temperate and tropical breeds
- Real-Time Ultrasound scanning contractors
- Beef semen importers, exporters and re-sellers
- Feedlot livestock managers – 2 meetings held, Toowoomba and Wagga Wagga
- Livestock agents – stud and commercial
- High School teachers (agricultural responsibilities)

These groups were selected as examples of influencer groups because of their significant influence and the potential impact they can have on genetics extension in the beef industry. The Foresight Plan in fact identified twenty such groups that, if serviced, could have an important role in beef genetics extension.

Key Project Outcomes:

A significant number of ‘influencers’ in the beef supply chain that are not normally regarded as extension agents for beef genetics & breeding messages were updated technically on the latest tools and surveyed as to their preferred methods of continuing updating and education.

1. Breed Society Executives and elected representatives provide governance for BREEDPLAN and other developments in the genetic evaluation field for the Australian beef industry. To be effective they need continual technical updating on beef genetic tools and breeding advances. There was a strong request from them for an annual update session.
2. Real-time Ultrasound Scanning contractors are front line representatives of BREEDPLAN and require specific updating **as it occurs** because they are talking to seedstock businesses on a daily basis. Ideally they should be updated by email on a regular basis plus have access to an ‘expert list’ to answer high priority questions recurring on their herd visits.

3. Semen importers, sellers and re-sellers have a unique and specialist influence on the genetics of the beef industry especially in the genetic profiles of bulls they bring into the country for breeds with high percentages of AI & ET-bred seedstock. They require email-based technical updating and access to a 'genetics expert list' as well as technical access to BREEDPLAN technical staff in respect of EBV change between Group BREEDPLAN analyses.
4. Stock Agents recognise their responsibility in assisting clients buy the best genetics they can afford. They are keen to increase their role in extension of beef genetics but require training opportunities.
5. Livestock personnel from lotfeeding companies create a 'pull-through' potential for beef genetics in the beef supply chain. Their involvement with accurate feedback up the supply chain is crucial to genetic improvement especially for carcase traits. They meet and discuss with hundreds of commercial producers & backgrounders and they are the link in the supply chain that talk to the processors & value-adders. This group would like to see regular 'genetics' stories and articles through the ALFA magazine as well as email updating, as for other groups.

Other Project Outcomes:

The project also built on some activities that could not be conducted in a previous project (BFGEN.017). These included a Western Australian Beef Genetics Expo based on similar Expos held at Armidale, NSW and Hamilton, Victoria in the previous project.

A DVD on crossbreeding, mainly for temperate zones, was developed to complement the messages laid out in the MLA Beef Genetics Tool Kit CD-Rom developed mainly for straightbreeders.

Development work begun in the National Beef Genetics Extension Team, followed up in these two extension projects (BFGEN.017 and BFGEN.033) formed the basis a paper submitted to the Australasian Association for the Advancement of Breeding and Genetics (AAABG) held in Armidale in 2007 (Appendix J; Upton et. al. 2007). Further a paper outlining the BreedLeader course for seedstock breeders also published in the same proceeding (Appendix K; Nicol & Upton 2007) detailed another initiative that was developed as a direct influence of the Foresight Plan.

A key component in the MLA Beef Genetics Strategic Plan 2001-2006, that would enhance the industries ability to make better use of the knowledge, was to be a focussed, integrated national cattle breeding information program.

The effectiveness of one-off activities under this project BFGEN.033 (and BFGEN.017) highlights the potential for making better use of the knowledge of genetics for the profitability and sustainability of the Australian beef industry. However as MLA implements the Beef Genetics Strategic Plan 2007-2011, a focussed, integrated cattle breeding and genetics information delivery program still remains as 'an unmet need for the beef industry'.

At a time when input costs are skyrocketing, industry's investment in genetic tools plus breeding technologies can provide permanent and cumulative improvement in beef production, cheaply.

There is no better time than the present for a move to coordination in beef genetics technology transfer as part of the Beef Genetics Strategic Plan 2007-2011.

Recommendations

It is the firm belief of the authors that the major component of this project, which was to demonstrate that many influencers in various sectors of the beef supply chain have a role to play in beef genetics extension is strongly reinforced by the results of this project. These are influencers separate to the traditional channels of extension agents. Any extension effort that ignores these other elements of the industry supply chain will be flawed.

Also it is clear to the authors that if a national impact is desired then coordination of efforts at the national level is crucial. In the last few years we have seen a piecemeal, uncoordinated approach to national beef genetics extension, in fact the opposite to the recommendations of the Foresight Plan.

A key strategy would be to appoint highly-competent staff to coordinate industry's adoption & utilisation of the tools on a national level and to facilitate coordination across the national beef genetic extension network .

Some specific recommendations follow:

- Electronic media is accepted by most of these groups as a source of information and inputs to this form of technology transfer should be increased.
- A specific Beef Genetics e-bulletin (contracted) should be sent out by MLA, monthly
- The facility to link easily to relevant sites such as the Beef CRC, BREEDPLAN, X-Prime etc. should be used in conjunction with the e-bulletin.
- Workshops are generally welcomed as a method of transferring detailed information. The 'one-to-a-few' design is welcomed by most groups as is a tailored program to meet individual needs.
- National Coordination of groups and individuals operating in the technology transfer area should be given high priority. This project demonstrated the effectiveness of including other groups such as Southern Beef Technology Services (SBTS), the Beef CRC and the Beef Improvement Association (BIA) in organized technology transfer activities.
- A readily accessible technical phone or email support service may be required by many of these groups for timely answers to questions that arise. This answer service & the national beef genetic extension network should be supported by an 'expert list'. A list of experts who can give informed responses to genetic improvement related topics. Some of these experts may need to be funded to provide this service.
- Special consideration should be given to the rapidly emerging role of DNA technologies. With the rapid expansion of this technology the need for technology translation has never been greater. The 'expert list' should include

people skilled in translating the DNA technologies into appropriate language for the beef breeder.

- If this industry cannot put in place an organisation or at least an annual meeting to discuss beef genetic technologies and trends then there are major questions about the ability for national coordination of genetics extension. Our final recommendation is that MLA fund an annual conference on beef genetics, that revolves between states.

Introduction

This project featured three major activities.

1. Conduct of a major awareness activity in Western Australia,
2. Development of a CD Rom on crossbreeding
3. A series of focus group meetings for sectors of the beef supply chain not normally targeted by the technology transfer fraternity.

The first two activities were designed to create awareness and the third activity was planned as an assisted adoption activity where the information was tailored to the target audience and participants were given an opportunity to integrate the information into their sphere of operation.

The National Beef Genetics Extension Team Report (Foresight Plan - March 2003) detailed constraints to adoption of genetic technologies and made suggestions for overcoming these constraints. Focus group meetings, the main technology transfer technique demonstrated in this project, are of major assistance in three of the four constraints to adoption, namely assisted adoption (follow-up), the problems caused by the fragmented industry and the declining extension resources.

As described in the Foresight Plan, the focus group concept is pivotal to establishing the new model of genetics extension. These focus groups provide an initial technical updating but also provide a conduit for continuous support by the providers of genetic information.

This project developed a format for focus group meetings that fulfilled the requirements as described in the Foresight Plan and conducted trial meetings to further test the value of such meetings.

In addition it continued some work begun in the earlier project (BFGEN.017) in taking an awareness activity to Western Australia and producing a companion CD for the Beef Genetics Toolkit detailing the role of crossbreeding to the Australian Beef Industry.

Focus group Meetings.

The Foresight Plan submitted by the National Beef Genetics Extension Team in March 2003 and the accompanying Action Plan made strong recommendations that these focus group meetings should be conducted to ensure that all sectors of the beef supply chain recognized the value of genetic improvement and that each sector had access to reliable and current information on genetic improvement. Each workshop sampled a group from the beef supply chain representing a different sector and or geographic location. However not all groups listed in the Foresight Plan were catered for in this project. The groups in this project were selected to be as diverse as possible but still representative of some of the more influential sectors of the industry. Most of the groups had no direct ownership of cattle or product in the beef supply chain; the exception being the feedlotter. All the other groups supply services to the industry but are acknowledged to have an influence on the information transfer within the industry.

Each meeting had three major aims:

1. To establish with each group their responsibility with respect to genetic improvement in the beef industry
2. To provide a technical update on genetic technologies and then ascertain the interest of the group in these
3. To ascertain the most appropriate method of communicating new developments in the genetic technologies field

Establishing the groups responsibility to genetic improvement was achieved in the introductory session ‘What is Genetic Improvement?’ where after a few brief background slides the group was asked to describe in their words their role in genetic improvement. The description of the role of each group shown is an interpretation by the authors of these discussions.

Most of the technical sessions were adapted from the BreedLeader course where the group’s main focus was on the seedstock sector or the More Beef from Breeding when the audience was focused on the commercial sector. The relevance of and interest of the audience in the genetics area was subjectively assessed in the open feedback session at the end of the day.

The preferred form of updating and source of information on genetics was extracted from an open forum at the end of the day, after the technical briefing had been completed.

All sectors targeted by these focus group meetings had a genuine interest in genetic improvement within the beef industry. Most of them had a low standard of education in cattle breeding technologies. These meetings demonstrated that the message for each group is different as is their role in genetic improvement. There was however one common feedback theme; that they appreciated the opportunity to be updated and most expressed appreciation that this is targeted and conducted ‘in-camera’ allowing some relaxed interaction. In public forums there is often a need to save face and appear to be knowledgeable. Common themes from all workshops were:

- Most prepared to commit to a training exercise in the animal breeding area on an annual or bi-annual basis
- Electronic forms such as a subscribed email list were generally thought to be accepted as means of quick updates
- Requirement for ready access to reliable technical information via phone, email or website

Breed Society Executives – North and South

The meeting for the southern based breed societies was held on February 19th & 20th, 2007 and the northern based meeting on February 27th & 28th, 2007. 26 executives attended the southern and eight attended the northern meeting. The program for these meetings is shown in Appendix A along with feedback points from the open forum. The pre-workshop survey and results are shown in Appendix B.

These meetings were attended by executive officers (15), specialist technical officers (6) and board members (7) from 10 breed societies who are primarily based in the

southern temperate zone and four breed societies who are northern based. All participants saw genetics as very important to their business in the future and considered it very important to supply information on genetics to their members. They considered that they had a major role in governance of the genetic evaluation system. They had an average age of approximately 46 years had greater than 10 years in the role and had been associated with the beef industry for more than 20 years (see results Appendix B).

As a group these representatives have a role in governance of the genetic improvement program and need to be able to converse with members on the genetic technologies being offered by the society.

The 'genetic message' was seen as very important and assistance to ensure that the message was simple but accurate for their members would be welcomed. The group considered that all members of the breed society executive should have adequate knowledge of the genetic technologies to be able to make governance decisions and to be able to discuss the technologies with members.

In the pre-workshop survey (Appendix B) the preferred method sourcing information was email, newsletters and workshops but in the evaluation sessions at the end of the workshop there was considerable support for a regular technical workshop with the preferred frequency varying from annually in the south to bi-annually in the north. When asked where they got credible information, workshops were considered as the most important. The highest ranking current source of information on genetic technologies was ABRI/AGBU with private companies and beef CRC also considered.

Ultrasound Scanning Contractors

The focus group meeting was held in Armidale for the ultrasound scanning contractors who are responsible for collecting all of the ultrasound scanning data used in BREEDPLAN to estimate carcass traits of fat, eye muscle area and intra-muscular fat. These contractors are very influential in the industry and collectively talk to most of the people using BREEDPLAN (all of those who submit scan data) at least once per year. Crush side conversations during a scanning session regularly feature discussion on BREEDPLAN and related issues. It is vital that these professional contractors be well informed on all aspects of BREEDPLAN and especially on data recording and data submission issues.

This group accept that they have a responsibility for maintaining data quality but also accept a role as technical support for BREEDPLAN. At times this responsibility is accepted with reluctance but they recognize that it is impossible to avoid. They require adequate technical back-up.

It was opportune to conduct this focus group meeting in conjunction with the Southern Beef Technology (SBTS) team to expose this team as a source of information and to use their expertise in the area of data collection. The program for this meeting is shown as Appendix C.

Scanners are generally time poor but need to understand the genetic improvement technology in more detail than their clients. Plans to service this sector should be regular contact via email and newsletter plus easy access to 'at-call' support.

Semen Importers

Semen importers are a very professional group of operators who see themselves as influencers within the industry. Their role in genetic improvement is clearly very important as they make the decisions on what AI sires will be imported and these sires are highly represented in the Australian industry. They try to gauge the required genetic merit of the imported sires on the feedback from clients.

Genetics is their main tool of trade and they consider very seriously estimates of genetic merit. Due to their role of supplying semen they take a marketing slant on most things. Their main product for the beef industry is Angus semen imports and they use whatever information they have available to them to select the best genetics for their market. They commonly compare the US EPDs to Australian EBVs, but they also use some contemporary comparison data.

As a group the semen importers tend to be skeptical of EBVs (and EPDs) partially driven by changes that occur. In their game they invest quite heavily in individual bulls which they then market intensely. A change in EBV can be quite costly. The costs associated with getting a bull into the semen market means that in breeds like Angus they are inclined to use the power of population size and select bulls out of the US population that tests many more bulls. Hence they rely heavily on US EPDs and raise serious questions about differences between the two systems.

These operators hate change! Especially change in the unfavourable direction.

Accuracy is important to them because of its effect on reliability and change of EBVs. Their impression is that our accuracies are too high compared to the US system. They see that at high accuracies (>90%) there is still too much possible change.

Driven by their use of two different systems they requested a common language to describe technologies and products, which they could then use to relay information to their clients.

This group have some quite specific requirements much of it involving accuracy of young highly used bulls whose EBV values change. They need continued easy access to reliable answers for topical questions. They are using the technology at the highest level for decisions that are financially important. To use the information at this level this group needs a high level of knowledge.

The group's request for support included 'at-call' access to answers, regular technical updating and some specific knowledge on how to manage problems such as low accuracy. Preferred avenues for information include an annual workshop and email newsletters.

Feedlot Operators (Toowoomba and Wagga Wagga)

These two workshops were conducted by Don Nicol and Wayne Upton with assistance from Des Rinehart, Feedlot R&D Project Manager and Alison Buchanan, Communications Manager for the Beef CRC.

Feedlot operators are a unique group of people in the industry who are integral to the supply of high quality beef, both for export and domestic markets. They can also provide feedback to commercial producers on cattle performance. A total of 16 feedlot operators attended the two meetings with the Wagga (10) meeting having the greater attendance but the Toowoomba(6) meeting represented larger numbers of cattle on feed. High feed costs and the strong Australian dollar are causing economic problems in the feedlot business and this reduced the ability of feedlot operators to attend these meetings.

The relationship of the feedlot operators with their cattle suppliers was recognised as an important link in the two-way flow of information regarding genetics. Feedback of feedlot performance has an influence on the breeding objective of breeders.

Some general outcomes from the two workshops were:

- Genetics are important to their business with at least one feedlot offering results of a study that showed the economic importance of growth, mature size and marbling
- Most recommend the use of EBVs to improve genetics
- Feedback is important but the feedlot operators are generally disheartened by the interest that is shown in the feedback supplied
 - They believe there is a need for a standard language for feedback
 - Some privacy issues need to be resolved
- There is skepticism about the value of gene markers

Feedback emerged as the single most important issue to be considered for this sector of the industry. They clearly recognize that genetics is important to their business and that feedback is the only way they can influence genetics, but they express frustration at the way the feedback is used or misused. Both MLA and the Beef CRC have projects in this area and there was general support for these initiatives.

Preferred sources of genetic information for the feedlot operators, (listed below) are similar to other groups.

- Website (breed societies/google/Beef CRC)
- Consultants
- Seedstock producers
- DPI Advisors
- Comparisons of US data

They further considered that these could be enhanced by the use of:

- DVD's
- SMS messages
- Video messages

- Workshops
- Australian Lot Feeders Association Magazine
- ½ day workshop on farm

Livestock Agents (Commercial and Seedstock)

Livestock agents were included in this project as representatives of the service sector to the beef supply chain. They have no ownership of product but have a considerable influence on the operators within the supply chain. One of the aims with this group was to ascertain how influential they are in assisting breeders to make selection decisions and influencing breeding programs. Two separate groups were identified, commercial agents, who service mainly commercial breeders, and seedstock agents who as the name suggests are more involved with the seedstock or stud sector. The two workshops were conducted concurrently with 17 commercial agents in attendance but due to late withdrawls and 'no-shows', only 3 seedstock agents able to attend on the day. Post workshop, another three seedstock agents were interviewed by Bob Freer and given a one-on-one exposure to information and their responses to a number of important questions collected.

Assistance to organise these two workshops was sought from Australian Livestock and Property Agents (ALPA). ALPA took the opportunity to trial this workshop as part of the continued development program that all agents are required to undertake to maintain their agency license. The sample of agents represented by this group was geographically small but the agents association assured us that the results would be representative of the broader agent community.

The survey results (Appendix F) show that the commercial agents have a large influence on the commercial breeder's bull buying decisions and as such some education with this group would have a high cost benefit ratio. The agents accept that they have a responsibility to buy the best genetics they can for their clients and the post workshop questionnaire indicated that all of them recognised the value of the technical information presented.

Preferred follow-up and contact was email and articles in the Australian Livestock and Property Agents (ALPA) newsletter.

The workshop was conducted by Bob Freer and Wayne Upton with assistance from Southern Beef Technology Services (SBTS). SBTS represented by Andrew Byrne, were invited to participate in the workshop as a likely first point of contact for this group. Bob Freer conducted the one-on-one sessions with the additional seedstock agents.

High School Teachers

While not formally programmed as a focus group workshop the opportunity arose to address two groups of high school teachers on genetics in the beef industry. The first group was organised by the Beef CRC and the second by the Primary Industries

Centre for Science Education (PICSE). Both were well attended and participants expressed genuine interest in the topic and further education opportunities. Teachers were identified by the National Beef Genetics Advisory Committee as being an important target audience for the diffusion of genetic information to the beef supply chain. Some general observations from feedback from these groups were:

- They were generally not well informed about genetics as it is used in the animal industries
- Access to information is limited except for those with a special interest
- Readily accessible information in student ready form would enhance teaching opportunities

Western Australia Beef Expo – Beef Business

Following the success of Beef Genetics Expos in eastern states (BeefGen.017) there were requests to conduct a similar event in Western Australia. The south west of Western Australia is a significant seedstock and commercial beef cattle breeding region that has received little direct input in the last few years. An event similar to the eastern states Genetics Expos was conducted to provide a forum for all sectors of the beef industry supply chain and service sectors in the region to interact and be updated on the latest beef breeding technologies. Messages targeted the latest developments in BREEDPLAN, CRC research and DNA technologies.

Industry intelligence assured the organizers that the Western Australian audience is difficult to attract and that combining with the Beef Improvement Association (BIA), that is quite active in that area, and using a professional organizer was recommended. BIA readily agreed and the events management company ‘Esther Price Promotions’ was employed by BIA to conduct the event. This meant that the BeefGen.033 was not financially exposed for any losses that may have occurred, but of course profits also belonged to BIA. The event was launched as ‘Beef Business’ and an a resort venue was booked. In hindsight the demographics of the potential audience may have been misjudged and the numbers attending were lower than target but still represented a significant section of the industry in that part of the world. The audience of 75 full paying participants included a good mix of practicing beef producers and service sector representatives such as semen importing companies and meat companies.

As an awareness event it was successful and received some good press coverage (Appendix H) in Western Australia. Provided it is not too long before another event is held it should assist with a coordinated campaign in that state.

Crossbreeding CD Rom

Following on from the Genetics Tool Kit CD produced in BFGEN.017 it was thought that the topic that needed to be covered was crossbreeding. This production has many hours of technical inputs on the ‘how’ of crossbreeding plus comments from practicing breeders as to the practicality of several different crossbreeding systems.

The value of these productions will only be recognized if they are made readily available to the interested public. Anyone on MLA beef mailing lists, such as More

Beef from Pastures should receive one free. In addition they should be made available to teaching institutions.

The design of the CD main screen can be seen in Appendix I.

Appendix A - Breed Society Executives notes from feedback

There was considered enthusiasm for the content and acceptance that the breed society governing sector had a role to play in the promotion of genetic improvement. Although not being the main thrust of the focus group meeting considerable time at both meetings was spent discussing the 'genetics message' and how it should be delivered. The following is a summary of responses from south and north meetings. A summary of points made for breed societies answering criticisms of the genetic evaluation system and for positive promotion of the system;

- Don't appear to be 'defending your patch'
- Better if a response comes from a breeder
- Ensure that all key people are well informed; board directors and technical specialists should be technically up to date with issues
- System of technical support necessary
- Simple is good but read the audience, complex subjects eg. indexes, may need advanced levels for some audiences
- Build confidence in the product with positive messages – don't always be seen as fire-fighting
- Need to employ professional marketing strategies

Preferred method of updating for breed society staff and boards:

- BTLG – first conduit for discussion of technical issues – SBTS to support smaller societies.
- Subscribed emails
- Workshop environment – some support for an annual MLA update + technical workshop
- Boards need to be encouraged to seek technical advice when needed
- Need to make known available avenues for support
- Press releases for use in breed society publications

Some additional points from northern breeds:

- Volume of technical information is high for non-technical people to handle
- In north BREEDPLAN, has been used for single trait selection – opinion
- Need to facilitate debate in northern breeds on the value of growth vs fertility
- Important for seedstock to recognize commercial requirements
- Warning against top-down extension, 'don't ram EBVs down their throat'
- Make sure all deliveries use appropriate examples ie. Brahman and Santa rather than Hereford and Angus
- Proof of Profit must be current and local – eg. need northern Proof of Profit, can't rely solely on southern outputs
- TBTS recognized as conduit for technical issues

Program MLA Breed Society Executives Focus Group: Armidale 19-20th February 2007

Armidale Ex-Services Club - Dumaresq Street Armidale

Day 1 - 19th Feb 2007

10.00am	Meeting outline and overview - what the two days are about	
10.30am	International benchmarking of beef genetics	Alex McDonald
11.10am	Morning Tea	
11.40am	What is genetic improvement and what is the breed society role in genetic improvement?	Wayne Upton
12.20pm	Factors affecting genetic change + exercise Hi v Lo accuracy	Don & Wayne
1.00pm	Lunch	
1.45pm	Proof of Profit & EBVs plus case studies (Uralla + O'Brien)	Don Nicol
3.15pm	Afternoon Tea	
3.45pm	\$Indexes or Selection Indexes	Wayne Upton
6.30pm	Round table dinner - re-visit key issues of the day	

Day 2 - 20th Feb 2007

8.00am	TakeStock - a soon to be released herd genetic audit tool from the BREEDPLAN stable	Wayne Upton
8.40am	DNA technology outline plus opportunities and challenges	Don Nicol
10.15am	Morning Tea	
10.45am	"Roadmap" for integration of DNA info into EBVs	Don Nicol Bob Freer
11.15am	Education opportunities for society members - BreedLeader, Edge, SBTS	Christian Duff
12.30pm	Lunch	
1.30pm	Breeds, genes and the future - discussion on issues that impact on breed society operations	Bob Freer, Kath Donoghue
2.30pm	Future information needs and delivery	Bob Freer, Kath Donoghue

3.30 pm **Evaluation and close**

Appendix B: Breed Society Executives - Survey of attitudes and resources – Genetic Technologies plus Results summary

This survey is anonymous. Answers will be used in discussion at the end of the workshop to stimulate response on preferred methods of receiving genetic information. **Please fill this out and bring it with you to the workshop.**

Your Profile

What is your primary role in the breed Society you represent ?

CEO/Admin , Technical /Extension, Board Member

Your age 20-30 ; 30 – 40 ; 40-50 ; 50 – 60 ; > 60 ;

Education level ; primary ; secondary/TAFE ; College/Uni ; post grad ;

Years in your present position <10 yrs 10 – 20 yrs 20 – 30 yrs >30 yrs ;

Years in the beef industry; <10 yrs , 10-20 yrs, , 20-30 yrs, > 30yrs

Importance of genetic technologies to your Society

What percentage of your total time is spent attending to matters related to genetic evaluation (eg Breedplan), genetic improvement or extension activities

-.....%

What percentage of your organisation's annual budget is allocated to genetic evaluation/improvement and extension activities -

.....%

How important to your Societies future do you consider it is for your members to be kept informed about, and to adopt developments in genetic technologies

very important indifferent not important

How do you see your Societies role in providing that information to your members

very important indifferent not important

EBVs.

How well do you understand EBVs (**please mark one or more of the boxes**)

- not well enough to discuss the subject with members

- well enough to explain to members how to use them in selecting breeding stock

- well enough to explain to members how they are calculated

- well enough to advise your board re modifications etc eg. new traits

How well have your members accepted EBVs -

very well moderately poorly

Selection Indexes.

How well do you understand Selection Indexes

- not well enough to discuss the subject with members

- well enough to explain to members how to use them in selecting breeding stock
- well enough to explain to members how they are calculated
- well enough to advise your board re modifications etc to breed-based indexes

How well have your members accepted Selection Indexes? -

very well moderately poorly

Gene Markers

How important do you believe gene marker technology will be to the development of your breed in the future?

- Very important
- important
- not important
- not familiar enough to comment

How do you see the relationship of gene marker technology with BREEDPLAN?

- replacing
- complimentary
- independent
- irrelevant

Where do you currently get information on developments in genetic technologies - **Rank in order of importance.(eg, 1 = most important)**

- Other breed societies
- Private companies (eg. Genetic Solutions)
- ABRI/AGBU
- Scientific journals
- Producer magazines, eg Feedback, Farm Magazine. etc
- Overseas sources
- MLA (including sponsored workshops etc.)
- Consultants (DPI/Private)
- Beef CRC
- Rural Press
- Stud Stock Agents
- Other please
- specify.....

How do you presently receive/find credible information on developments in genetic technologies - **rank in order of importance eg, (1 = most important)**

- Written – eg regular newsletter etc.
- Written – press releases
- Internet – own search
- Internet – subscribed newsletter
- Workshops – specialized/ targeted

Other - please
specify.....

What is your preferred method of being kept up to date on developments in genetic technologies- please specify below

.....

Results of Survey

What is your primary role in the breed Society you represent ?						
CEO/Admin	15 CEO	6 Techn ical	7 Board			
	Mean	range				
Your age #	46	25 - 65				
Education level	9 secon dary	15 univer sity	4 post gradu ate			
Years in your present position	11	5 - 35				
Years in the beef industry	23	5 - 35				
<u>Importance of genetic technologies to your Society</u>						
What percentage of your total time is spent attending to matters related to genetic evaluation (eg Breedplan), genetic improvement or extension activities	25	1 - 100				
What percentage of your organisation's annual budget is allocated to genetic evaluation/improvement and extension activities -	18	0 - 90				
	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5	
How important to your Societies future do you consider it is for your members to be kept informed about, and to adopt developments in genetic technologies	1 (100 %)					
How do you see your Societies role in providing that information to your members	1 (100 %)					
<u>EBVs.</u>						
How well do you understand EBVs (please mark one or more of the boxes)	4	10	6	8		
How well have your members accepted EBVs -	3	18	7			
<u>Selection Indexes.</u>						
How well do you understand Selection Indexes	6	10	7	5		
How well have your members accepted Selection Indexes? -	2	9	16			
<u>Gene Markers</u>						
How important do you	13	14		1		

believe gene marker technology will be to the development of your breed in the future?						
How do you see the relationship of gene marker technology with BREEDPLAN?	2	24	2			
	AGB U/AB RI	Private Company	Beef CRC	Maga zines	MLA	Journ als/Br eed Soc.
Where do you <u>currently</u> get information on developments in genetic technologies - Rank in order of importance.(eg, 1 = most important) **	63	28	14	8	6	5
	Work shops	Newsl etter	Press	Intern et - own	Intern et - subscr ibed	
How do you presently receive/find <u>credible</u> information on developments in genetic technologies - rank in order of importance eg, (1 = most important) **	30	26	26	22	8	
	Email	Newsl etter /writt en	work shops			
<i>What is your <u>preferred</u> method of being kept up to date on developments in genetic technologies- please specify below **</i>	9	7	3			

For data collected in categories the average was calculated using the midpoint of the category as the value eg. for age category 40-50 a value of 45 was used to calculate average.

** The scores given are a weighted average with first choice given the highest numerical value and last choice given the lowest value – as high scores show greater importance.

Appendix C: : Program for Scanners Focus Group

Day 1 - 14th May 2007

3.30pm	Afternoon tea		
4.00pm	Genetic improvement in the Australian beef industry	Kath Donoghue	
4.40 pm	Role of scanners in genetic improvement	Wayne Upton	
5.20 pm	EBVs - Do they work?	Christian Byrne	Duff/Andrew
7.00pm	Dinner at Whitebull Hotel		

Day 2 - 15th May 2007

8.00am	Effective Performance Recording	Christian Byrne	Duff/Andrew
9.00am	Understanding Selection Indexes	Wayne Upton	
9.45am	Using Internet Solutions	Andrew Byrne	
10.00am	Morning Tea		
10.15am	DNA technology	Kath Donoghue	
10.45am	Feedback session- discussion on issues impacting operations of ultrasound scanners	Wayne Upton	
12.15pm	Lunch		

Appendix D: Program for Semen Importers Focus Group MLA AI Focus Group: Albury July 4 & 5 2007

Presenters *Don Nicol, Wayne Upton and Kath Donoghue*

Day 1 Wednesday July 4

- 9.00am **Meeting outline and overview - what the two days are about**
- 10.30am **International benchmarking of beef genetics**
Morning Tea
What is genetic improvement?
Factors affecting genetic change
- 1.00pm *Lunch*
Proof of Profit from EBVs
\$Indexes or Selection Indexes
- 3.30pm *Afternoon Tea*
Sourcing genetics on the web
Introduction to TakeStock
- 7.00pm **Round table dinner - re-visit key issues of the day**

Day 2 Thursday July 5

- 8.00am **TakeStock - a soon to be released herd genetic audit tool from the BREEDPLAN stable**
DNA technology outline
- 10.00am *Morning Tea*
DNA - opportunities and challenges
"Roadmap" for integration of DNA info into EBVs
- 12.30pm *Lunch*
AI Industry role in cranking up genetic gains in the beef industry
AI industry future information needs and delivery session
- 3.00pm **Evaluation and close**

Appendix E: Summary from Agents Workshop

Summary of outcomes from commercial agents:

- Agents are an aging profession; (55% of participants greater than 55 years)
- They have a low level of animal breeding training; (30% with tertiary training)
- They are a significant influencer of genetic improvement for commercial herds through the purchase of bulls.
- The role of commercial agents as genetic influencers has been underestimated in the past
- The role of stud stock agents as genetics influencers at commercial herd level has probably been over-estimated in the past (possibly higher influence at seed-stock level)
- The understanding of EBVs and other genetic tools is low
- Their source of genetic information is no better than producers they are advising
- All participants were keen to increase skills and knowledge with respect to breeding and genetics
- 65% participants were keen to have an increased role in genetics extension.

Summary of outcomes from seedstock agents:

- Seedstock agents sell bulls rather than buy bulls
 - As such they don't have a major effect on the breeding programs of clients
- Genetics and EBVs are primarily a marketing tool
- The big two agencies dominate, (Elders and Landmark)
- The level of education was similar to that of commercial agents

Preferred sources of genetic information

- All participants were keen for
 - An annual update workshop (not only genetics and not only beef)
 - Technical articles through ALPA newsletter; this may be a role for SBTS
 - SBTS to provide at-call technical information
- There is a huge potential to increase role of agents as genetic influencers through further training and support
- Agents don't have time to attend extended events or to travel long distances; workshops should be no more than one day duration and within two hours travel.

Appendix F: ALPA Commercial Agents Questionnaire – Summary of Results

Workshop 23/11/07, Attendance 21, Survey sample size 20, results rounded

Agencies represented - Elders 2, Landmark 5, Independent 14

Locality range – Armidale, Glen Innes, Inverell, Gunnedah, Coonabarabran, Guyra

Age

> 50	55%
30-50	35%
<30	10%

Years in agency business

30+	45%
20+	65%
<10	15%

Tertiary Education

% with tertiary education	20%
% with an sc tertiary ed	10%

Business

% income from beef sales	av 60%	(30-100)
% beef sales - saleyards	av 65%	(20-80)
% beef sales – Auction +	av 5%	(0-25)
% beef sales – direct	av 30%	(0-60)
% clients with well defined marketing program	av 50%	(0-90)
% attend bull sales with clients	95%	
% purchase bulls on behalf of clients	80%	
av number bulls purchased each year	25	(5-60)

Advice given to clients

breeding	95%	#, ^
crossbreeding	90%	*, ^
selecting bulls	100%	

“improving market performance/price” most common advice given

* “choice of breeds to use” most common advice given

^ where advice not given “not wanting to get involved in issues that create expectations” given as reason

Using EBVs when selecting bulls

Consider EBVs when selecting bulls	95%
How much notice	some 75%
	a lot 25%

How well do you understand

EBVs

not well enough to discuss with clients	10%
---	-----

well enough to explain how to use	85%
well enough to explain how calculated	5%
Indexes	
not well enough to discuss with clients	50%
well enough to explain how to use	45%
well enough to explain how calculate	5%
Gene Markers	
not well enough to discuss with clients	95%
well enough to explain how to use	5%
Where get info re breeding/genetics	rank in order of importance
Rural Press, Breed Societies	1
ALPA	2
parent company – big 2 agencies	2
Producer journals	3
other agents, workshops	4
stud stock agents	5
internet own search	6
consultants, DPI etc	7
parent company – independents	n/a
Most credible source of info	
Breed Societies/parent company	1
workshops	2
Rural Press	3
stud breeders	4
Preferred method of getting info	
pre-workshop- workshops	1
- Rural Press	2
- Breed Societies	3
post-workshop- annual update workshop	1
- ALPA newsletter	2
Consider genetics important to client business	
pre workshop-	
not important	10%
some importance	5%
very important	85%
post workshop	
very important	100%
Consider have role in breeding/genetics extension	
no role	5%
influence thru bulls purchased	95%
significant role in breeding strategy advice	40%
Should have increased role in breeding/genetics extension	

Yes	65%
No	35%

Key Points

- 1 aging profession
- 2 low level of animal breeding training
- 3 significant influencer of genetic improvement of commercial herds thru purchase of bulls, particularly independent agents
- 4 role of independent agents as genetic influencer at commercial herd levels has been underestimated in the past
- 5 role of stud stock agents as genetics influencers at commercial herd level has probably been over-estimated in the past (possibly higher influence at seed-stock level)
- 6 understanding of EBVs sub-optimal, other tools low
- 7 source of info re genetics no better than producers they are advising
- 8 all participants keen to increase skills/knowledge re breeding/genetics
- 9 65% participants keen to have increased extn role
- 10 all participants keen for
 - a. annual update workshop (not all genetics)
 - b. tech articles thru ALPA newsletter – role for SBTS to provide
 - c. SBTS to provide on-call tech info
- 11 huge potential to increase role of agents as genetic influencers – need to provide training and support.

General Comment – survey size very small but appeared fairly representative of agents at large – good participation from independent agents. ALPA has high potential as technology conduit to agents, particularly independent agents

Pre-workshop motivation to attend workshop clearly was to gain CPD points – post workshop, agents stated info received most important reason to attend, CPD points a bonus

Comment from participants – best training ever received

- need more of this type of training
- prepared to put a day aside each year for this
- need more info re breeding

- interested in other topics,
 - bull soundness,
 - CRC outcomes
 - marketing, welfare

Appendix G Program and Registration for Western Australian Beef Expo



Beef Business Program & Registration Form

May 3 at Broadwater Resort, Dunsborough
May 4 at Blackrock Angus Stud, Busselton

The Beef Improvement Association of WA, in conjunction with Meat and Livestock Australia and Esther Price Promotions is proud to deliver a 'must do' event for the WA beef industry.

"Beef Business" offers a program that combines technical with political, in a format that will keep delegates both informed, entertained and challenged.

"Beef Business" features a keynote address from Rob Luizzi from Mainsheet – the consulting firm who we believe is best placed to offer the most comprehensive, independent and hard-hitting review of the WA processing sector. But joining Rob is a team of foremost beef industry scientists and technicians who take a look at the "toolkit of the future" as they explore how beef business will change in the years to come, to ensure profitability is optimised.



Welcome to Beef Business

The Beef Improvement Association of WA is proud to offer what we believe to be a compelling conference program to the WA beef industry. This event will attract leading beef producers from throughout WA's main cattle regions.

Program

Day 1 (May 3) of the conference will be conducted all in plenary session at the Dunsborough Broadwater Resort, with an industry dinner that evening.

Day 2 (May 4) comprises a high practical and entertaining morning at the Blackrock Angus Stud – approximately 20 minutes away – and will culminate with lunch.

The event is supported by Farmbis, which will offer a 50% rebate on registration fees for all farmers attending the event.

Registration fees

The full conference registration fee is \$440, however farmers will be eligible for a **\$200 rebate from Farmbis**. The Industry dinner is by separate ticket and is priced at \$88.

There are extensive accommodation options at the Dunsborough Broadwater Resort. Delegates wishing to stay at the Resort will need to book via this registration form. Two standard sets of accommodation rates apply:

- Twin or Double Hotel Rooms - \$170 per night
- 2 bedroom apartments - \$210 per night

Terms & Conditions

Cancellation Policy

- A full refund on the registration fee will be made on any cancellations received by April 30, however we regret that accommodation is not refundable (although it is transferable if you can find an alternative delegate to take your booking).
- Any refunds owing will be not be paid until the conclusion of the conference

Disclaimer

Every effort is made to ensure that the contents of this registration brochure are correct. The organisers retain the right to make changes where necessary. Beef Improvement Association and the conference organisers, Esther Price Promotions, will not accept liability for any damages of any nature sustained by participants or their accompanying persons or loss or damage to their personal property as a result of the event.

Beef Business

A fascinating look at how breeding technologies can take your beef profits to a new level

May 3 and 4 at Dunsborough Broadwater and on-farm at Blackrock

Proudly brought to you by the Beef Improvement Association of WA, in conjunction with MLA and Esther Price Promotions

- 8.00 Registration open
8.45 Welcome – BIA WA president

Session one – Genes at work

- 9.00 **Powering Progress.** *Don Nicol* from Breedlink believes the Australian beef industry must be motivated to become lower cost and higher quality producers in the light of increasing competition from Brazil – and claims that our best weapon in this quest are not being optimised. Don gives us a snapshot of how genetics can help us to compete in the international market.
- 9.30 **World Series Genetics.** Beef consultant *Alex McDonald* considers the genetic progress made within and between breeds; compares Australia versus the rest of the world – and uses this to explore where the next decade of genetic progress could take us.
- 9.50 **Converting genes to dollars.** *Rob Banks* from MLA explores if superior genetics *really* make a difference to the bottom line – and draws comparison to the impact that genetic improvement has had on the prime lamb, wool and dairy industries.
- 10.10 Panel session – chaired by *Ken MacLeay*
- 10.30 Break

Session two – The EBV and cross breeding reality checks – are they really working?

- 11.00 **The bottom line – are they improving it?** An unadulterated look at what's really going down with EBVs and how much they are contributing to beef farm profits. *Wayne Upton and John Wilkins* examine the effect of selecting on EBVs and the interaction with different markets and production systems. Results of the latest CRC analysis of within breed differences and their interaction with different growth paths.
- 11.30 **The farmer perspective:** Guyra NSW Angus breeder *Sam White* has some strong opinions on the role of EBVs in effective management. He knows the performance of his bloodlines intimately, as he retains ownership of his cattle through a feedlot supply chain and uses this performance data to ratify his EBV information. Sam's story offers a great perspective as well as some practical take-home information.
- 11.50 Questions
- 12.00 **Are WA beef producers using cross breeding to its best advantage?** An honest appraisal of our southern beef herd and questions the effectiveness of cross breeding programs: Can we be doing it better? *With Alan Peggs and John Wilkins.*
- 12.30 **The farmer perspective II:** Former Hereford stud breeder turned supply-chain manager *Guy Lord*, from Walcha, NSW, has chosen a three-way cross breeding program in order to best hit the specifications of the Sydney butcher to whom he delivers 50 (?) head every fortnight, from his 3000-cow breeding herd.

To do this effectively, Guy has to be sure that a three-way cross is the optimum performer. Today he explains why he knows this is so.

12.50 Questions

1.00 Lunch

Session 3 – Beef Business

2.00 **A critique of WA's processing infrastructure.** In this sure-to-be controversial segment, Rob Liuzzi, a director of corporate advising company Mainsheet, and fellow director Veronica White (formerly a director of Rabobank) take a critical look at the WA processing infrastructure. Together, they analyse our ratio of processing plants to the numbers of grass and grain fed cattle – contexted against the pallet of WA's seasonal restrictions – and then, they pose what they see as some possible solutions to the bind in which we find ourselves. *Mainsheet was the advisors appointed by Harmony during the acquisition of EG Green and as a consequence they have a detailed and truly independent view of the WA beef processing sector.

2.45 **Q&A panel session involving WA's meat processors – including Scott Henderson, CEO of Harvey Beef. Chaired by Mario Camarri**

3.30 Break

Session 4 – Breeding Business

4.00 **The Nuts and Bolts of dollar indexes:** ABRI's *Wayne Upton* provides the ultimate justification for using indexes to drive profit

4.15 **The commercial reality of DNA – its here:** Genetic Solutions sales manager *Jason Strong* provides the commercial application of Genestar technology

4.50 **Questions – with special comments from Sam White**

5.00 Close

6.00 Drinks, followed by Dinner at 7pm

Day 2 Beef Business in Practise

8.30 **Welcome to Blackrock.** Stud principals *Don and Ken MacLeay* provide an overview of the Blackrock story – and their steps to genetic success

9.00 **Future Genetics – The Big Picture.** *Hans Graser*, from AGBU takes a futuristic look at what genetic tools will be available in the future and where genetics can take us.

9.30 Satellite sessions – in the yards

- DNA technologies explained – *Jason Strong* in the yards – with producer case study from 4.30 slot day 1
- Is temperament a genetic decision? With *Alex MacDonald*

10.30 Break

11.00

- Herd recording practises and data quality – are we good enough? *Don Nicol*, with comment from *Guy Lord*
- Using Breedplan – Hans Graser/Wayne Upton – with comment from *Sam White*

- Five steps to buying a better bull – buying a bull is the nuts and bolts of genetic improvement in the commercial beef supply chain – a panel of speakers will consider the five most important considerations in this decision

1.00 Lunch and open forum

Livestock

Quality brand beefs up business

Bob Garnant

Australian beef business is backed by dedicated scientists and advisers who know only too well that whenever Aussie beef is listed on a menu, either domestically or overseas, it must be a world leader in quality.

Each bite of flavoursome, home-grown red juicy beef needs special preparation by producers who will not accept being outpaced in world genetic technology that is growing at a sizzling pace.

This was the message tabled at the Beef Improvement Association's 'Beef Business Proceedings', held in Dunshorough last week.

"The drive of the Australian producer should be to make better use of the genetic tools available, especially to improve quality of beef to the consumer," breeding consultant Don Nicol, of Breedlink Pty Ltd, Kenmore, Queensland, said.

As Brazil has overcome Australia in beef exports, and North America spends heavily on genetic catch-up research, Australia is still the leader in the continued development of technologies.

"Since the release of Breedplan in 1985 the industry has steadily adapted to using technology," Mr Nicol said.

But continued development of technologies, including Breedplan, changes using more estimated breeding values (EBVs) and the newer DNA marker technology, had outpaced acceptance by the industry, he said.

"With the cost of grain and fuel going up we will have to rely more and more on genetics to produce quality beef and keep costs down," Mr Nicol said.

"Today's EBV indexes are the single most important indicator of profitability for the commercial bull buyer.

"The genetic tools, especially for meat quality traits, will increase in their importance in helping us to compete in premium markets and to keep cost of production down."

He said commercial beef breeders should consider the following criteria:

- Choose a \$Index that is most suitable to their production and market system.
- Select bulls that are high on that \$Index.
- Use independent culling levels on EBVs of concern within their herd.
- Ensure that marketing of the progeny emphasises potential.
- Use feedback from the market to refine the index used for selection.
- Attitude to risk should influence bull buying decisions — buying more bulls will increase the certainty of the outcome in the progeny.

Wayne Upton, of the Animal Genetics and Breeding Unit at the University of New England, Armidale, New South Wales, said the best way to manage the risk of EBVs and make sure genetics were improving was by using more bulls and turning them over faster.



Beef consultants Don Nicol and Wayne Upton headed up the BIA Beef Business forum.

"EBVs are only ever estimates of genetic merit and as such may change as more information is submitted," he said.

"Selection indexes that rank animals for a single selection goal, take the hard work out of knowing how much emphasis to give each of the many EBVs when selecting breeding animals."

Mr Upton referred to research by

Jason Strong, of Catapult Genetics, said producers could confidently select for tenderness by breeding for more 5, 6, 7 and 8 GeneSTAR rated animals.

"With the new GeneSTAR feed efficiency tests, the feedlotter will have the ability to sort cattle into two groups — high and low efficiency animals — prior to making feeding decisions," Mr Strong said.



Sam White, of Bald Blair Pastoral Company, Guyra, NSW, was a visitor to Blackrock Angus stud last week for the BIA Beef Business forum.

Countryman

INDEMNITY AND WARRANTY

WEST AUSTRALIAN NEWSPAPERS LIMITED CONDITIONS OF ACCEPTANCE

The advertiser (or agent) indemnifies the Company (and its employees and agents) against all actions, proceedings, claims, demands, losses, damages, costs and expenses arising out of or in connection with the publication of the advertisement (including any relating to defamation, malicious falsehood, infringement of copyright, trademark or design, or breach of the Trade Practices Act 1974, the Consumer Credit Code, or the Fair Trading Act 1997) and warrants that publication of the advertisement will not give rise to any legal, equitable or statutory rights against the Company and will not breach any laws or regulations including the prohibitions relating to advertising in the Trade Practices Act 1974, the Consumer Credit Code, and the Fair Trading Act 1987.

All advertisements are accepted on the following terms and conditions:

RIGHT TO REFUSE - The Company has the right to publish or republish any advertisement without giving any reason.

DISCLAIMER OF LIABILITY - No liability will be incurred by the Company by reason of any amendment to or error or inaccuracy in, or the partial or total omission of, an advertisement (single or multiple insertion) or by reason of any delay or default or from any other cause whatsoever. If an error occurs which in the opinion of the Company clearly lessens the value of the advertisement and which is in no way the fault of the advertiser and the advertiser notifies the Company of the error prior to the advertisement deadline on the first day of the error was published, then a refund will be provided on the cost of the advertisement proportionate to the Company's opinion of its reduced value.

ADJUSTMENT AND CLAIMS - The advertiser must notify the Company of any error in the invoice for an advertisement within 30 days from the end of the month in which the advertisement was published. The Company will not consider claims for an invoice error lodged outside this period.

Breedplan index to higher profit

Bob Garnant

Seventh generation beef producer Sam White, of Bald Blair Pastoral Company, Guyra, New South Wales, was a guest speaker at the BIA Beef Business forum last week.

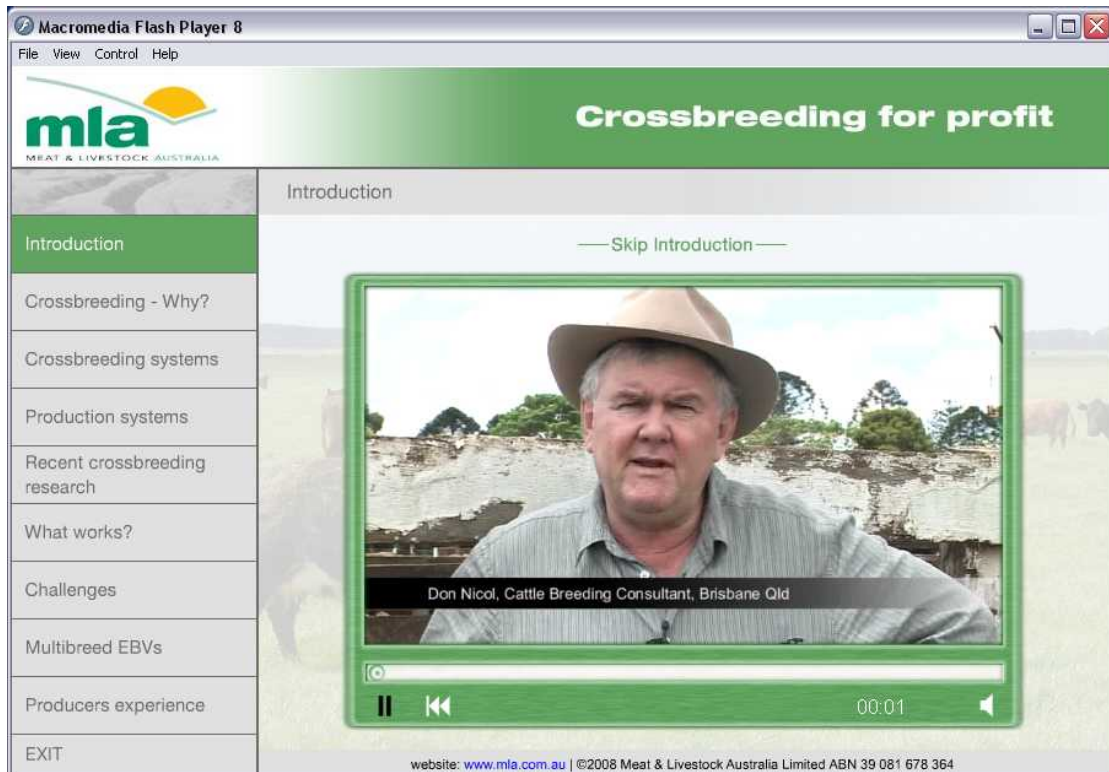
Making full use of the Angus Group Breedplan and three indexes, Mr White's Bald Blair herd of 200 stud and 500 commercial breeding cows and their progeny are being managed by measuring with Breedplan to produce better profits.

"Our commercial herd genetically mirrors our stud herd, with most likely a two-year time lag on genetic improvement," he said.

He said using Breedplan and visual appraisal to select sires for the commercial herd matings, a reliance on calving ease, 600Dwt, EMA, IMF and age of turn-off plus the Jap B3 index were the most important profitability indicators.

The Bald Blair commercial herd is accredited under the Japanese Agriculture Standards system and is also EU accredited.

Appendix I: Samples of the screen for the Crossbreeding CD Rom



Appendix J: Summary of paper submitted to AAABG 2007

OVERCOMING BARRIERS TO ADOPTION OF GENETIC TECHNOLOGIES IN THE BEEF INDUSTRY

W. H. Upton¹, D. C. Nicol² and R.E. Freer³

¹ Animal Genetics and Breeding Unit*, University of New England, Armidale, NSW 2351

² BreedLink Pty. Ltd., Brisbane, Qld 4010.

³Antek Pty. Ltd., Armidale, NSW 2350.

Summary

The Australian beef industry has used genetic technologies extensively for many years and economic analyses have suggested very positive economic benefits have accrued. However with the rapid expansion of tools available to the Australian beef breeder, new extension and technology transfer initiatives are necessary if maximum industry benefit is to be realized.

Meat and Livestock Australia commissioned a working group entitled the National Beef Genetics Extension Team to report on barriers to adoption of genetic technologies in the beef industry and methods for overcoming these barriers. Four major barriers were identified;

- Lack of 'PROOF of PROFIT'
- Lack of FOLLOW UP (assistance with adoption) after initial exposure to awareness programs
- Extension in a diverse and fragmented industry
- Decline of traditional extension resources

Profit is the most compelling of reasons for producers to adopt a new technology hence relevant demonstrations that profitability will be improved are essential. Due to the complex nature of the technologies available, most producers need support after the awareness phase. The fragmented structure of the beef industry is such that extension will only be effective if all sectors that influence the uptake of technologies are included in a coordinated extension effort. Political and economic pressures have resulted in changes to traditional extension resources requiring a restructuring of extension programs.

The proposed extension model for genetics in the beef industry involves identification of influencers in all important sectors of the beef industry and a coordinated continuing education program to support these influencers.

Proc. Assoc. Advmt. Anim. Breed. Genet. 17: 158-166

* AGBU is a joint venture of NSW Department of Primary Industries and the University of New England

Appendix K: Summary of AAABG paper describing the BreedLeader

BREEDLEADER™ - ADVANCED BREEDING AND GENETICS SHORT COURSE FOR BEEF SEEDSTOCK PRODUCERS

D.C. Nicol ¹, **W.H. Upton** ²

¹ Breedlink Pty Ltd, PO Box 1140, Kenmore Qld 4069

²Animal Genetics and Breeding Unit, University of New England, Armidale, NSW 2351

SUMMARY

Descriptions of, and early experiences from a 3-day course for seedstock producers called BreedLeader™ are reported. It is an advanced course on currently available genetic tools and their use in Australian beef breeding programs. The course is the first that takes the seedstock sector beyond awareness of new technologies to the level of assisted adoption such that the participants are given the opportunity to make decisions about improvements to their breeding program before leaving the course. The target audience for the course are key breeders in the seedstock sector who can have a major influence on genetic improvement for the beef industry and who are likely to have an impact on uptake of genetic technologies because they are influencers in the industry.

Proc. Assoc. Advmt. Anim. Breed. Genet. **17**: 175-178