Welcome to American Herefords

In January this year, the American Hereford Association (AHA) made the historic decision to engage the Agricultural Business Research Institute (ABRI) to provide its future breed register computer system.

The Hereford breed is a major force in the American beef industry. It currently registers about 80,000 calves per year – only 37% fewer than the annual registrations of all beef breeds in Australia. Herefords are the number 2 breed in the US based on annual registrations. The AHA handles registrations for horned and polled cattle and its historic database is massive – including records of over 21 million animals.

Executive Vice President, Mr. Craig Huffhines said, “The Management and the Board of AHA conducted thorough evaluation of alternative breed register systems. The decision came down in favour of the ABRI system because of the experience of the ABRI team, the robust nature of their software, and the strong recommendations given by existing users. The ability of ABRI’s software to integrate breed registry recording with financial records and the availability of a female inventory recording option were strong pluses”.

We are delighted to have the American Herefords joining the ABRI service. Our company also provides similar services to the Australian Hereford Society, the Australian Poll Hereford Society and the New Zealand Hereford Association. This means that in the year 2000, over 135,000 Hereford cattle will be registered across three countries using ABRI software. Electronic exchange of pedigree and performance information will also be facilitated thus enhancing the power of future genetic evaluations of white-faced cattle.

Development of the AHA system will be managed by Mr. Murray Scholz – an Associate Director in ABRI’s team. Mr. Scholz recently spent a week in the AHA office in Kansas City developing the strategy for meeting the AHA’s requirements. He has eight (8) years of prior experience in developing, installing and supporting breed register systems for a range of North American clients.

When the AHA system is implemented towards the end of 1999, the ABRI will have its breed registry software running in nine computer centres throughout North America. This will make ABRI the largest supplier of breed registry technology to the huge livestock industries of that continent.

Arthur Rickards
EDITORIAL

There is always plenty to talk about in our annual Newsletter. This year we have some very substantial achievements to report.

The American Hereford contract is not only good business, but a further endorsement of BREEDPLAN’s international standing. The American Hereford Association also has important links in South America, where BREEDPLAN already has some well established business. Closer to home you will read of interesting developments in some South East Asian countries. The first BREEDPLAN herd from Mexico enrolled recently and collaboration is continuing with the Bonsmara breed in South Africa. Many of these contacts are also leading sales and exchange of Australian genetics.

In Australia and New Zealand, the new version of BREEDPLAN (V4.1) has been launched with several advanced features. The new carcase EBVs, including Intra Muscular Fat %, are creating considerable interest in some breeds. Mature Cow weight EBVs are another innovation, for those worried about their cows becoming too big. Introducing this major new version has been a challenging exercise. Many staff here and at AGBU, have literally worked “around the clock” to get the enhancements introduced over a six-month period from October 1998. We acknowledge the patience and cooperation of BREEDPLAN users through this period.

As for last year, this Newsletter will now go onto the website: http://breedplan.une.edu.au. I will then update it a couple of times during the year. Also on this site are all the Breednotes, continually updated. I hope to add to these soon a set of PowerPoint slides, explaining how BREEDPLAN works (in Spanish and English). So if you are called on to give a talk, or to explain something to a client, these may be useful.

Finally, in Australia this year we are eagerly anticipating the launch of our new MSA grading scheme. The latest cuts based concept, is really exciting specially if backed by a product brand. I do urge you to support this major industry advance, which among other things, will reward the users of better genetics.

BREEDPLAN EXPO, ARMIDALE

13th JULY, 1999

This Biennial event will again be staged prior to the Beef Improvement Association Conference. As organisers, we are determined to make full use of the Armidale venue. Features will be offered, not possible at the many regional extension activities carried out by myself, Breed Societies and other groups. Breed society staff will of course be actively participating and available for detailed consultation. Many speakers from AGBU/ABRI will also be on the program. Some topics include:

- Intramuscular fat scanning, with images projected onto a large screen. Discussion of latest results on scanning and EBVs.
- Carcase EBVs, mature cow wt and other features of the new BREEDPLAN Version 4.1.
- Importing overseas EPDs and adding them to Australian analyses.
- Multibreed EBVs.
- Herd recording software and electronic data transfer.
- Feed Efficiency EBVs, can they happen?
- Structural Soundness EBVs.
- A session with your Breed Society Technical Staff and the ABRI Breed Rep on breed specific matters.

The day will cost $100, including lunch, morning and afternoon teas. For a detailed program and application form, contact Graeme Mitchell on (02) 6772 9622, fax (02) 6772 2160 or myself.

Remember:

BREEDPLAN EXPO is adjacent to
B.I.A. CONFERENCE
Armidale 14/15 July
Guest Speaker:
Prof. Ron Green - Colorado

Sponsorship for Field Promotion of BREEDPLAN is provided by National Australia Bank
PHILIPPINES TO GO NATIONAL WITH BREEDPLAN

Arthur Rickards

The Government of the Philippines is expected to introduce BREEDPLAN technology to all of its ruminant species from July 1999. The project is to be funded jointly by the Australian Centre for International Agricultural Research (ACIAR) and various government agencies in the Philippines. ABRI’s Arthur Rickards will co-manage the project with Dr Pat Faylon of the Philippines Livestock Development Council. A small number of formalities remain to be completed to get the project underway.

The project is the result of several months of preparatory work undertaken in 1998 by Arthur Rickards, John Croaker (of the Australian Brahman Breeders’ Association), Dr Bob Dalgliesh of ACIAR and Dr Faylon. A number of Filipino animal scientists have undertaken training in Australia and their Australian counterparts have undertaken field evaluation work in the Philippines. BREEDPLAN has also been applied successfully to the beef herd at Busunga (see BREEDPLAN News, No. 7).

The project will act as a catalyst to bring the Australian and Philippines livestock industries closer together. The Philippines has a human population of 72M which is increasing at 2.3% pa. Its demand for beef can only be partially serviced by the national beef herd of 2.3M head. It is important to improve the productivity of this herd through BREEDPLAN and other management strategies and also import live cattle and beef. Despite the “Asian crisis”, the Philippines has still imported over 160,000 head of feeder cattle in the last 12 months from Australia.

In an exciting development, the BREEDPLAN technology will be extended to buffalo, dairy cattle and goats in the Philippines. It is anticipated that the multi-species BREEDPLAN system which will be developed over the next three years will provide a prototype for use in a wide range of developing country situations.

In July, AusAID will be sponsoring a visit of eighteen Filipino animal scientists to an intensive training course on BREEDPLAN and related technologies. This will include attendance of the BIA Conference.

THAI BREEDPLAN

Under Jack Allen’s supervision, a substantial database of breeding and performance records have been collected on beef cattle and buffalo from 36 Government breeding stations throughout Thailand. This data has now been analysed by researchers at AGBU, the Tropical Beef Centre and Thai scientists to generate Thai-specific genetic parameters to be used in Thai BREEDPLAN.

Semen from a number of Australian Brahman bulls with good EBVs on GROUP BREEDPLAN has been donated to Thailand by their Australian owners together with Queensland’s Beef Breeding Services. This semen will be used to improve the genetic linkage between the Thai and Australian populations of Brahman cattle.

The research component of the overall project has been funded by the Australian Centre for International Agricultural Research (ACIAR). With the project into its third year, ACIAR engaged Associate Professor Frank Nicholas, University of Sydney and Professor Charan Chantalakhan to conduct an independent review. They have strongly recommended that the project be extended for a further two years to ensure the effective long-term use of the technology.
**BREEDPLAN IN ARGENTINA**

**Michael Beattie**

1998 was an exciting year for BREEDPLAN in Argentina. The first scanning data has been collected and two new Angus herds; ESTANCIA LA JOSEFINA (Angela Behrendt) and LAS CATALPAS (Dr Andriano Malusardi) have enrolled. Both herds are using Sires bred by the original Argentine BREEDPLAN herds of the Bustingorri family. Several other herds have shown interest in joining.

The scanning was done by Australian scanner, Ross Anderson, during a recent visit accompanied by consultant Don Nicol. Ross scanned over 700 head in seven herds. Don is working with BREEDPLAN staff to see if a small GROUP BREEDPLAN run for the Argentine Angus herds can be done. Over the past two years, several of the Argentine BREEDPLAN herds have imported Australian semen. Te Mania K207, a proven Australian Angus AI Sire with a large number of progeny recorded was one of the initial sires chosen. Results from the performance data of his progeny in BREEDPLAN over the past 12 months were very pleasing.

Realising the genetic potential of Sires like K207, a need to import more semen was high on the agenda so in recent months more Angus semen has been imported from “Hazeldean”. The AI Centre owned by the Bustingorri family has also recently imported Murray Grey semen from “The Glen” and Belmont Red semen from “Mt Eugene” for their clients.

The implementation of new carcase traits such as Marbling in BREEDPLAN V4.1 has encouraged the Bustingorri family and their associates to set up a Carcase Evaluation Program with cooperation from INTA (the Official Institute in Argentina) so the Sires of their studs can be assessed for carcase quality. Preparation of this program is currently under way and we hope to have an updated report on the website version of this newsletter later this year.

**MEXICO**

Last November I was privileged to represent BREEDPLAN as part of a Cattle Council delegation to Mexico. We visited five states of this country, which is one third of the size of Australia, but has 29 million cattle. They have predominantly bos indicus breeds (Nellore, Brahman) and their crosses and composites with Continental European breeds (Simmental, Brown Swiss). There are also some straight Bos Taurus areas and composites with British breeds (Beefmaster).

Large numbers of feeder steers are sold to Southern US feedlots, and quite a lot of meat is imported back. Cattle finished in Mexico for their domestic market, seemed to be around 250kg dressed weight, and leaner than the Australian domestic product.

One highlight was to visit the excellent Droughtmaster herd of Srn Antonio Toledo. This is on the west coast, in a similar climatic zone to Townsville. The cattle are run together with a coconut plantation. Heifers, and more recently semen, have been imported from Australia, over many years. The herd now totals over 5,000 head of top quality stock. Srn Toledo said he looks forward to being able to use Droughtmaster Group BREEDPLAN to buy his genetics.

There was considerable interest in BREEDPLAN at meetings of Breed Associations and cattle organisations which I addressed. They could, of course, have genetic evaluations done in the US, but Australian experience with Bos Indicus breeds and the facts that we are grass based and metric, give us some advantages.

The first Mexican herd recently joined BREEDPLAN, and we hope the business will gradually develop.
NEW BEEF GENETICS EXTENSION POSITION

Meat New Zealand has recently created the new full time position of National Beef Genetics Co-ordinator. This is part of their R and D and Tech Transfer group. BREEDPLAN extension and technical support will be major roles, working closely with the NZ Beef Council.

This important and challenging position is being undertaken by Russell Priest, who has 25 years of experience in stud and commercial breeding.

Russell is a graduate of Massey and with his wife Jane, he built up successful Simmental and South Devon studs at Kiwitea. These have been dispersed as part of a move “to take on a new challenge” with this job which started in mid April.

“We used Beef Plan initially with our studs, but it wasn’t until BREEDPLAN came along that we really started to make some progress. Our policy was to use older bulls that were progeny tested but still sound and with improving figures”, says Russell.

“We preferred to sell bulls privately because it offered time with clients to explain our breeding program and BREEDPLAN. I believe there is a role for every breed. There are maternal breeds, terminal breeds and composites. All will have a place in my extension work”, he stresses.

Russell can be contacted at his home in Kiwitea on 0064 3 328 9852 or at the NZ Performance Beef Breeders office at Feilding on phone 0064 6 323 4484, fax 0064 3 323 3878 or Email: pbb@clear.net.nz.

The Locharburn Hereford stud, based at Cromwell on the South Island, is one of New Zealand’s earliest Hereford BREEDPLAN members. Geof and Joyce Brown’s 170 horned Hereford stud cows and 70 heifers have been performance recorded for 17 years and Geof’s enthusiasm remains high.

“BREEDPLAN is really good because you can tell where the genetics are - our sale bulls now get one third less feed and weigh 100 kg more at sale time,” said Geof.

“The calves are doing a lot better at 200 days with a lot less feed, and we have managed to improve our herd average for milk EBV from -2.4 kg in 1982 to +2.5 in 1998,” he added.

Breeding has always been about striking a balance between figures and the look of the bull for Geof. He has never been keen on big extreme bulls as he sells bulls to stations in hard and mountainous country similar to his own. Covering 2900 ha of spectacular Central Otago scenery, Locharburn station encompasses a huge range of terrain. From the 120 ha of irrigated flat land beside the Clutha River through 500 ha of flat dry land and 1000 ha of oversown and topdressed country the property rises into steep scrubby tussock at 4700 ft on top of the Pisa Range.

“The bulls need to be hardy and yet have the ability to produce good weaners, and the stud has managed to develop a good name for bulls that shift successfully to other properties,” said Geof. Some 30 horned bulls are sold annually to stations throughout Central Otago and the Southern Lakes and down into Southland. Winters are cold with up to 120 frosts, and summers are dry. Mean annual rainfall ranges from 450 mm at the lower end of the property to 750 mm at the top of the range. Cattle with lots of constitution and foraging ability are the norm, and the Herefords fit this bill. Locharburn also winters 5800 fine woolled Merino sheep. The cows are all grass wintered, with 45 ha of crop in the form of turnips and ryegrass being grown mainly for the sheep, with a small amount going to the bulls. Steers have in the past been finished at three years of age, however this is being reviewed in an attempt to finish them earlier, before the second winter.

BREEDPLAN’s carcase EBVs are of particular interest to Geof, as he feels that the carcase characteristics of the bulls he sells are becoming more and more important. “We have a fairly good understanding of the milk and growth EBVs,” said Geof, “and are now concentrating a bit more on the carcase side”. He is impressed with how his bull buyers have taken on board the use of EBVs when selecting bulls. “Of course the buyers still want to see the bulls on the ground, they are still wary, but are starting to understand and use the figures much more”, said Geof.
Lazy H Brahmans Win Qld. Seedstock Producers of the Year

Richard Apps

Tony & Marlene Hansen’s Lazy H Brahman Stud, at “Pondicherry” Dululu, in central Qld, has been awarded the prestigious BIA Queensland Seedstock Producers of the Year.

According to QDPI Beef Extension officer Vince Edmonston, who was one of four judges, the Hansen’s focus on female lines and selection for fertility was one aspect of the operation which caught their eye.

While the herd is accurately pedigree recorded with the Australian Brahman Breeders’ Association, Tony believes that objectively measured commercially relevant traits are more important than bloodlines. Brahman GROUP BREEDPLAN and a modified ratio system play important roles in this objective analysis and selection process. Although subjectively measured, temperament is also high among selection criteria.

The seedstock nucleus of 200 breeders is subjected to pressure many in the northern industry would consider excessive, but it is paying dividends for the Hansens. Heifers are joined at 14 months to yearling bulls. These bulls are expected to achieve a scrotal circumference of 27cm by around 420 days of age. The yearling bull policy results in an average sire age of 2.4 years on “Pondicherry”.

Heifers that fail to conceive are given another chance as two year olds after which they are strictly culled if they fail to wean a calf. The requirement to annually wean a calf is imposed on all cows. “Cows that fail to wean a calf are no more productive than a steer and are treated as such” said Mr Hansen.

This uncompromising attitude is imposed with a joining period of 12 weeks. While this is already considered by many to be a short breeding season in central Queensland the Hansens would ultimately like to bring that back to nine weeks. An effect of this pressure has been that over that last fifteen years 40% of cow families have been removed from the herd. Tony calculates that at present 98.5% of females in the stud go back to heifers that first calved at 24 months of age.

Age of puberty is a key factor in achieving acceptable conception rates under the Hansen’s management.

While there is emphasis placed on the reproductive performance of cow families when selecting bulls, the Hansens are also trying some novel ways to better identify which yearling bulls reach puberty the earliest. From this they hope to breed daughters who will also display an earlier onset of puberty which will better facilitate successful yearling mating with a restricted joining period.

Measurement of scrotal circumference is widely utilised in bull selection due to its correlation with mating load potential in yearling bulls, age at puberty for bulls and heifers and days to calving. In an attempt to create more selection pressure than is available from the correlation with a single scrotal measurement the Hansens are investigating serial scrotal and semen measurements. The first of a series of scrotal circumference measurements is taken when the oldest bull calf reaches 420 days of age. Scrotal size is measured three or four times, with a three to four week interval between measurements, in an attempt to identify changes in scrotal size to indicate the onset of puberty.

In addition to scrotal size, a selection of Lazy H bulls are also subject a series of semen examinations as yearlings for percentage forward motile sperm, again in an endeavor to identify puberty via the production of viable sperm. Tony acknowledges that percentage forward motile sperm is not considered a definitive indicator of bull fertility but is prepared to try such techniques to contribute to the selection process. Unfortunately at a cost of $35 per bull this is ultimately too expensive an option for long term usage.

The Hansens believe that their clients, who range as far afield as the Gulf and Northern Territory, should be given as much information as possible to help in bull selection. In addition to Brahman Group BREEDPLAN EBVs, buyers are offered a “Calving Success Score” for the sires dam and other female relatives representing age at first calf and subsequent calving performance, eg. 2.1 5/6

“Pondicherry” is stocked at a rate of one beast per 1.2ha. Acknowledging that many of their clients operate in harsher environments than they do, the Hansens’ expect their cattle to perform with no treatments for ticks, buffalo fly or worms.

Photo courtesy of Queensland Country Life
I had met Kevin Johnson a few times at cattle functions and been impressed with his knowledge of BREEDPLAN. When I was in South Australia recently, I was therefore pleased to assist with a small field day at “Kevlyn Downs”. At the same time, I gathered this story with the help of Kevin, wife Lyn and son Simon.

“Kevlyn Downs” is a 950ha property in the SE of South Australia, near Keith. This is a 500mm, Winter Spring rainfall area. The light loam, sandy soil has been sown to a mix of annual (sub clover, rye) and perennial pastures (cocksfoot, lucerne). There is also 70ha of flood irrigation. Stocking rate is 7.5 d.s.e per hectare. They run about 200 Shorthorn cows, Merino sheep and also grow out lambs for the heavy US market (25kg+).

Most of the cows, stud and commercial, are on BREEDPLAN, and the herd has been performance recorded since 1982. Some 30-40 bulls are sold per year. The remaining steers go to the AMH “Prime City” feedlot near Griffith. Steers leave the property around 14 months of age and 400-460kg liveweight, individually tagged for feedback purposes.

“Feedback such as this allows benchmarking”, Kevin told me, “something all breeders should do. It allows us to check our genetics and also to evaluate management changes. We are very happy with “Prime City” staff in their provision of feedback.”

The feedback shows that since 1995, they have reduced fat depth about 3mm, increased eye muscle area slightly and increased the % hitting 2 marble score from 75% to 100%. “We still have improvement to make of course”, added Simon, “but we’re confident of our progress in the carcase area. Another area we would like to monitor more closely with BREEDPLAN’s help, is calving ease, and we hope the Shorthorn Society will soon publish these EBVs.”

Calving time is being changed back from Autumn to late Winter/early Spring. This should greatly reduce the conserved fodder needs of the cow herd. “The lighter weaners catch up by 14 months anyway.”

Another move in the area of grazing management, was to move into Controlled time Grazing two years ago. “The main aim is to improve our pastures and their utilisation”, says Lyn, “but with mobs of up to 150 cows, we now also have the added benefit of much larger management groups for genetic evaluation.”

Jenny the donkey, who has taught up to 100 bulls to lead over the years. Three 8 hour shifts are used after one nights tying up. As the stud has now given up showing, her main role is to stop fighting in the young bulls. (In S.A. I also discussed bull fighting with people growing out dairy bulls for meat. Large mobs are grazed in small cells with frequent shifts. There has been very little fighting, probably because there is no time to set up territories before they move. It’s head down and eat).
SANTA GERTRUDIS

Another breed that has started to really utilise BREEDPLAN in recent years, is Santa Gertrudis. There are now 55 herds enrolled.

Clear price differentials are being seen for bulls with good EBVs. In 1998, some 2,000 bulls sold at 28 sales, averaging $3,400. The 500 of these bulls with BREEDPLAN figures averaged $4,000.

A positive relationship between 600 day weight EBV and price was observed.

The top priced bull ($32,000) Waco Juniper, purchased by Stanbroke Pastoral, is in the highest 5% of the breed for 600 day wt.

Santa Gertrudis steers in a progeny test at “Tullimba” feedlot. This was organised by the Society.

Brangus

Michael Hartmann

There are now 15 Brangus BREEDPLAN herds. The Society has recently worked with ABRI to set up a combined Performance and Pedigree system. The performance records from the herds in the original within-herd system have now been transferred to this new format.

The next step is to check if there is sufficient linkage for all (or most) of the herds to conduct a GROUP BREEDPLAN analysis. October is the target if the linkage is okay.

At the last two Rockhampton Brangus sales, surveys of registered buyers have shown 40 to 50% “believe BREEDPLAN figures would assist their buying”, encouraging the Society in these endeavours.

Droughtmaster Targets

GROUP BREEDPLAN in 1999

A growing band of performance enthusiasts among the Droughtmaster seedstock community have been building a base of weight data in BREEDPLAN.

The Society have recently completed programming of an integrated pedigree/performance database. All performance records held on the old within-herd system have been transferred to the Society system.

A recent test analysis of this data revealed that the Society now has an adequate number of records with sufficient linkage, to progress to an across-herd (Group) analysis.

The Society Directors welcomed this news at their last meeting. Having set a goal of August this year for the inaugural analysis the Society is now actively canvassing its members to build on the current core of performance recorders.
Tropical breeds
Technical Officer appointed
Late last year, several Australian Tropical cattle associations combined with ABRI and Meat and Livestock Australia to support a new Technical Officer position. This has been filled by Richard Apps (pictured right), who previously managed some of the smaller breed associations in Armidale. He has also run commercial and stud operations on family properties in Northern NSW.

While BREEDPLAN support is a key role for Richard, he is also assisting breeders with on farm computer record keeping and various marketing initiatives such as targeting MSA pathways. Two key BREEDPLAN goals this year include the first Droughtmaster and Brangus across herd analyses. Richard has prepared most articles on these two pages.

Richard can be contacted at Rockhampton (07) 4927 6066, fax (07) 4927 6036, mobile 0418 268158 or Email: richard.apps@tcts.une.edu.au

Beltmore Red Links with Bonsmara Progressing

Last year we reported on the initiative between the Australian Belmont Red Association and the South African Bonsmara Society. They took the first steps towards a combined international genetic evaluation for these two very similar breeds.

Three Australian breeders imported a total of 120 Bonsmara embryos and implanted these in cows of their BREEDPLAN herds. In turn, Belmont Red semen has been used in South Africa. The first calves were born in both countries last November. The Australian ET program yielding about 50% calves.

The aim of the project is to develop international evaluations for these tropical breeds. The particular traits of interest are carcase and meat quality, efficiency of feed utilisation, parasite resistance and female fertility. A formal ACIAR proposal is currently being refined in South Africa, with the aim of having the data collection phase of the project underway by about mid-2000.

BREEDPLAN-recorded Belmont Red heifers were used as embryo recipients. All calves were born at the same time as Belmont Red calves and are being reared in the same contemporary groups to allow valid comparisons of progeny of the different breeds.

Semen from selected Bonsmara calves born in Australia will be exported back to South Africa and also widely used in Australian Belmont Red herds to tighten genetic linkages between herds in both countries. Bonsmara semen was also obtained and used in 98/99 matings in Australia from Bonsmara bull calves exported as embryos to the USA.

Brahman Fertility EBVs
Geneticists at AGBU, led by David Johnston, have completed the R&D to allow the first female fertility EBVs for a Tropical breed in Australia. Key Brahman breeders, their Association and ABRI have cooperated for this to occur in mid 1999.

This is an important move for Brahman and all Tropical breeds. Hopefully it will lead to the collection of a lot more data and enhancements to the EBV.
BEEF CRC II

People close to the existing Meat Quality Co-operative Research Centre (CRC) will know it has a seven year life, ending in July 2000. Recently there has been a big industry effort to develop a case for a second seven years. In mid April, it was announced that this application was successful. This means an injection of $16M of Federal funding over 7 years, to add to the inputs of the Core Parties and Industry Sponsors. In total around $60m of resources will be available.

Example projects for the new CRC are shown below and on maps opposite (some are subject to review):

- Meat quality gene marker and other work with 3,000 Brahman and Composite cows made available by the Northern Pastoral industry.
- Development of new meat products from non grilling cuts eg. extrusion technology for the Asian market.
- Integration of genetic and nutritional techniques to concurrently improve eating quality, yield and fat characteristics.
- Expanded feed efficiency studies to different environments. Second and third generation of the Trangie selection lines will also be used for gene marker studies.

This is discussed in detail on the CRC Website in the document CRC NEWS, which also has the latest results from many CRC experiments. The address is: http://ansc.une.edu.au/beef-crc/

SIRE EVALUATION FOR CARCASE TRAITS

The Challenge

“You are trying to evaluate two Sires for marbling. For one sire you have some ultrasounds on his bull and heifer progeny. The other sire has had some steers slaughtered and by extreme perseverance, reliable individual ID chiller assessment has been obtained. There are other Australian and imported sires with various mixes of this type of information on cattle of all ages. How do you compare them?

On page 12 you will see how AGBU geneticists, using CRC results, have done this for BREEDPLAN (a world first!).

* CRC - Co-operative Research Centre for the cattle and beef industries. A research grouping of NSW Agriculture, CSIRO, QDPI and University of New England. The research includes purebreeding, crossbreeding and gene marker work, all with links to BREEDPLAN. The purebreeding experiment tests progeny groups of Angus, Hereford, Murray Grey, Shorthorn, Belmont Red and Brahman. The crossbreeding work is based on Brahman cows joined to the above breeds (except Murray Grey) and also Limousin, Charolais and Charbray. Cattle are finished on grain and grass to three market weights - domestic, Korean and Japanese.
**NET FEED INTAKE (NFI)**

The research work on the Feed Efficiency project at Trangie Research Centre and the Beef CRC continues to progress well. The High and Low feed efficiency cow lines are now well established and being used to study NFI and its correlation with other traits. The challenge now, however, is: “Can the Seedstock industry work out a practical and economical way to do the test?”

Some developments include:

* **NFI continues to prove highly heritable, similar to growth.**

* Four drops of steers from the High and Low lines have now gone through the CRC “Tullimba” feedlot. High line steers have been consistently more efficient saving approx $19 (8%) of feed on a 70 day domestic market finishing program. Recently lines of High and Low steers have been finished on pasture, with intakes measured by slow release capsules.

* The High line cattle are slightly leaner, but this explains at most 30% of the differences in NFI.

* The Rudd self feeders commercialised last year to measure individual intake on groups of cattle, have been further refined. An alternative concept has been developed by Bunge, and a commercial model may be built shortly.

* Such self feeders may allow on farm testing of bigger groups of cattle, at timing to better suit some studs. They are also being used at some central test stations eg. Rutherglen, Hamilton, Vasse. Plans are in hand to field test these units on NSW and Vic studs.

* Wherever the testing is done, there is still a considerable expense to the bull breeder for the 70 day test. With yearling bull sales, this can be partly offset as a sale preparation cost.

* **BREEDPLAN EBVs cannot be developed until larger amounts of data are submitted.** In the meantime Trangie research staff have calculated across herd research EBVs for Angus cattle tested there and on other linked properties and test stations. 70 sires had sufficient accuracy to have EBVs published as an appendix to the 1999 Australian Angus Sire Summary. Similar analyses for some Hereford and Murray Grey herds are being investigated. Trangie will endeavour to continue such analyses until BREEDPLAN EBVs are possible. It will now be up to the market place to decide how quickly this will progress.

Enquiries:  Steve Exton (02) 6888 7404

---

**Workshop on advances in gene marker and reproduction technology**

Prof Brian Kinghorn holds the Twynam Chair of Animal Breeding as part of the CRC at Armidale. Last September he organised a two day workshop on the latest breeding technologies. The two main areas covered were gene markers and reproduction techniques such as cloning and ET. A high powered group of speakers were assembled to lead discussions. The audience of sixty, included stud breeders, research and extension people and representatives from Breed Societies and pastoral companies.

I’m sure everyone would have gleaned different impressions of the status of this ‘high tech’ and rapidly changing field, but some of mine were:

* For many important production traits we now have linked markers, but not direct markers ie. markers on the chromosome close to the relevant genes, but not the actual genes. This means that to prepare a marker profile of a sire, you have to produce 30 to 50 progeny and measure the traits of interest on those progeny. Total cost $5,000 to $15,000 depending on the traits (major cost is measuring the traits). Having done this profile, bull progeny of the sire can then be profiled from a tissue sample ($50 to $200 depending on traits). People buying these young bulls will have these gene profiles to assist purchase decisions. The profiles give you information similar to that from progeny testing the young bull. Genetic evaluation systems such as BREEDPLAN will, in the long term, also be able to use this data to enhance EBVs.

* Semen sexing is now possible with about 80-90% confidence, but still costs $200 a straw in the US. Fort Collins researchers estimate these costs would have to drop to say $10, for widespread use?

* Cloning of adult, highly proven bulls, appears to be one of the most likely uses for cloning technology ie. commercial breeders (and studs) instead of buying sons or semen of an elite sire, could buy clones of the sire himself. Sandy McClintock, however, estimated there is still only about a 10% chance of this being commercially viable in the next 5-10 years.

As well as outlining these technologies, the Proceedings contain some papers on putting the technologies together in breeding programs of the future. Copies of the Proceedings are available from Brian Kinghorn (02 6773 2718).
SCANNING FOR MARBLING MOVES FORWARD

David Johnston

The research: Almost 40,000 ultrasound images of intra-muscular fat % (IMF%) taken by several accredited scanners between 1994 and 1998 have been used in this research. The images were assessed for their quality, prior to use in the genetic research. Many scans (particularly the early work) were of poor quality primarily due to the animals being too lean or too small making prediction of IMF% impossible. (Discussion on image quality, see Graser et al. Proceedings 6th WCGALP, Armidale, January 1998.)

Bulls and heifers scanned

Figure 1

Breeds included Angus, Brahman, Hereford, Murray Grey, Santa Gertrudis and Shorthorn, however after editing for image quality, only Angus, Hereford and Santa Gertrudis had sufficient records for robust statistical analyses. The following ultrasound IMF% readings from yearling bulls and heifers were used.

<table>
<thead>
<tr>
<th>Breed</th>
<th>Scans</th>
<th>Sires</th>
<th>Herds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angus</td>
<td>5,500</td>
<td>575</td>
<td>53</td>
</tr>
<tr>
<td>Hereford</td>
<td>1,400</td>
<td>287</td>
<td>18</td>
</tr>
<tr>
<td>Santa Gertrudis</td>
<td>700</td>
<td>106</td>
<td>4</td>
</tr>
</tbody>
</table>

The key feature of this research was that the relationship between scanned IMF% and abattoir IMF% could be estimated. This was possible due to common bulls producing both progeny that were scanned in the seedstock herds and progeny sent to the CRC. (Fig 1).

While results varied between breeds, some consistent trends could be observed. Genetic variability of ultrasound IMF% is larger in yearling heifers than in their half brothers (heritability of 24% versus 12%). Heritability of chemically extracted IMF% in carcasses of commercially finished steers and heifers was estimated at between 30% and 40%. These values are similar to results published overseas. Genetic correlations between ultrasound scans of IMF% from live animals and extracted IMF% from finished carcasses on relatives, were higher for heifer data than for bull data (0.85 versus 0.50). This can be explained by the increased level of IMF in heifers.

Implementation into BREEDPLAN: Results from this study has been implemented in BREEDPLAN version 4.1 as shown in Fig. 2.

Summary: Scanning for marbling is possible and selection based on EBVs calculated from scanned IMF will lead to changes in IMF% of commercially finished steers. Scanning of heifers will be particularly useful and scanners are advised to record 3-5 images on each animal. Pregnant heifers can also be scanned (See P19).

Molecular Genetics group

AGBU currently has a new team of people (pictured) working on using molecular genetic information in breeding programs. New software for detecting a significant gene acting among a continuously variable trait such as growth or fat depth has been developed. This system has been successfully used to locate genes for fatness in pigs, sheep and cattle and a gene for worm resistance in sheep. As each gene is found, considerable effort has been expended to test if other explanations are possible or likely. Investigations continue for other traits.

Survival traits

Animal geneticists and epidemiologists from several countries recently participated in a course on Survival Analysis presented by AGBU and the Department of Animal Science. The course was conducted by French expert Dr. Vincent Ducrocq. Survival analysis determines environmental or genetic factors affecting longevity or involuntary culling. Sophisticated statistical methods developed in the biomedical world have been extended to animal breeding and epidemiological applications. Visiting scientist from Mexico, Dr. Alex del Bosque, is putting his newly acquired training to the test and is examining a beef cattle dataset to investigate factors affecting longevity.
NEW BREEDOBJECT 4.1

Steve Barwick & Wayne Upton

BREEDOBJECT 4.1 is a software package for use with BREEDPLAN. It assists the targeting of breeding programs by calculating the optimum mix of EBVs for any situation. The package has just been updated to handle the new BREEDPLAN 4.1 EBVs. This allows, for example, calculation of how much emphasis to place on the new IMF% and Mature Cow Weight EBVs. The table below shows the emphasis for an example herd breeding steers for long term feeding for Japan.

Calving Ease (Direct) +6%
Calving Ease (Maternal) +6%
Milk +1%
600 Day Wt +22%
Days to Calving -14%
Intra Muscular Fat % +25%
Retail Yield % +13%
Mature Cow Weight -13%

(Cattle without all these EBVs would have other ones used eg. Birth Weight in place of Calving Ease and Fat and Eye Muscle in place of yield.)

AGBU geneticists have calculated that the new IMF% will increase by 30%, the rate of progress possible in breeding cattle most suited to this market. BREEDOBJECT now also has a new quick questionnaire to set the production scenario, with a new multiple choice format.

As part of the industry awareness program for BREEDOBJECT, Wayne Upton recently conducted a series of workshops in Victoria and South Australia. These were in conjunction with the BIA and State Agriculture Departments.

Sire selection always creates interest and discussion generally centred around topics such as ‘How important is marbling for the domestic or export market?’ or ‘Is too much emphasis given to growth?’ The customised approach of BREEDOBJECT to different market and production scenarios was used to show how the relative emphasis for individual traits will vary.

Plans for the future include using a Website to allow more people access to the program, specially bull and semen buyers.

AGBU STAFF NEWS

New Scientist - Dr. Luiz FRIES

Luiz is an Animal Breeding geneticist from Brazil who did his Ph. D. in Animal Breeding at Iowa State University. Since then he has been involved in Beef Cattle Breeding in positions where he could put together the academic and applied work.

His most recent work was with a private Brazilian genetics company doing evaluations for some very big (7,000 cows!) Brazilian herds.

Luiz will stay two years at AGBU. He has started work investigating retained hybrid vigour in advanced generations of crossbreds from the NSW Agriculture’s Grafton experiment. This will be important in progressing AGBU’s work in the area of multi-breed EBVs. Luiz is pictured discussing this with AGBU’s senior geneticist, David Johnston. (Luiz tells me in Brazil they analyse scrotal size against age and weight. A concept we could perhaps investigate to further enhance fertility EBV. - Ed).

PhD Student Michael BRADFIELD - Mating strategies in the North

Michael recently returned to South Africa having completed a PhD. In this work he examined a number of ways that BREEDPLAN could be more effective in evaluating cattle in Northern Australia.

One area he focussed on was the common management of running large groups of cows together for many years and mating them to the same bulls from year to year. Michael’s research showed that this data is of limited value to genetic evaluation and therefore requires that management strategies are developed that mix cow groups across paddocks prior to calving. He worked with several large Qld herds, and has passed on a set of recommendations.
Towards a Common Base - progress with the Multibreed Experiment

The term multibreed EBV is used by people to mean many things:
- Crossbred data contributing to EBVs of purebreds
- EBVs for crossbreds
- A common BREEDPLAN base for breeds wanting this.

The common base is foremost for many people, and is one of the main reasons for the MLA Multibreed experiment in Vic and SA. (Results will also facilitate the other two objectives, which are equally important in various situations.)

To achieve the three tasks above, requires comparative data where the breeds are run together. The Beef CRC and Struan crossbreeding trial provide some of this. Some breeds have already used a little of this crossbred data in the latest version of BREEDPLAN. Hereford and Poll Hereford had enough comparisons to allow a joint analysis and common base this year. Murray Grey and Angus have sufficient links to allow Angus animals to be analysed in this year’s Murray Grey analysis.

To really develop this concept widely however, and to have common bases for several breeds, requires the type of information currently being collected by the Southern multibreed experiment. 5,000 Angus and Hereford cows have been joined to 90 sires of either Angus, Hereford, Simmental or Limousin. 30 properties and 2 Research Centres are involved for 2 joinings. Calving and weaning records are being recorded by the co-operating private properties and on Hamilton and Struan research centres. Steers are being grown out and finished at Domestic and Export weights on both grain and grass. Some crossbred females will also be retained and recorded.

Some unadjusted birth, weaning and gestation data is shown below for 981 calves in the 1998 drop. The 1999 drop commenced this month.

Cattle breeders waiting on the common base will have to be patient until all these results are to hand. You could start however, by discussing this with your Breed Society. In my opinion, Society matters may be as big a challenge as collecting the data.

Breeders wanting EBVs on crossbred stock or composites can, in some instances, move towards that now, if suitable data is to hand. Some Breed Societies are willing to accept composite and crossbred data. If one of the breeds in your cross or composite is in GROUP BREEDPLAN and you wish to develop EBVs, it would be worth discussing options with the society. For most people, the priority will be to collect data, which can be used later on.

(Comments on the AI program conducted for this Multibreed experiment see P15 and their calf weighing techniques see P18).

Multibreed yearlings at Hamilton

Steve Skinner

Please note that the internet address for the BREEDPLAN home page has recently changed to http://breedplan.une.edu.au/.

One innovation is a facility enabling users to download BREEDPLAN and relevant extracts of Society files. This provides breeders with fast and reliable access to their BREEDPLAN results as soon as they become available. BREEDPLAN update files (ie Interim and GROUP EBVs) which were previously mailed out on floppy disk or sent via email are now available for direct transfer to the users PC.

Access to the files is provided after supplying a herd identifier and unique, user nominated password. Users ONLY have access to their data. To gain access to this facility, contact your BREEDPLAN person at ABRI who will issue a User Name and Password.

The BREEDPLAN home page continues to offer information on BREEDPLAN services including BREEDNOTES, Technical Articles and links to breed societies using BREEDPLAN. There are also links to the Animal Selection services offered by a number of societies. This service enables users to select animals by a number of possible criteria. The resulting report lists the relevant animals and their most recent GROUP EBVs.

BREEDPLAN Email Service

BREEDPLAN offers members a facility to submit data directly via Email. In return the BREEDPLAN results (the EBVs) can be returned to the member via Email. This electronic submission of data greatly reduces the length of time necessary to receive EBV results. It is particularly suited to those members who have a software package which creates files in the required BREEDPLAN input layout.

BREEDPLAN can accept data submitted electronically as either:
- fixed length fields or
- comma delimited packed fields (ASCII format)

Please contact your BREEDPLAN processor if you intend to submit or receive data electronically. BREEDPLAN data must be submitted in the required format.
AI Tips

AI is now integral to most studs. I’ve therefore included a couple of articles on improving conception rates and synchrony.

1. INSEMINATION AREA. Many people feel that insemination area which is darkened, away from the main crush is less stressful to cows and hence improves conception. A way of doing this is a separate race, with an insemination box. On larger properties, portable AI boxes have advantages. The following information was provided by Jim Litchfield, “Hazeldean” Angus Stud, Cooma NSW. My thanks to Bec Arnott, Beef Cattle Officer Cooma, for photos and text.

Portable AI boxes - “Hazeldean”

Portable A.I. boxes have been used successfully on “Hazeldean” for three years. Jim Litchfield saw the concept in the US and had similar boxes manufactured locally. A box comprises three fully enclosed stalls with a tarpaulin cover. Boxes and portable yards are readily moved around the property and take two people less than half an hour to assemble. Cost was approximately $900.

It is important for cows to be in good condition and ideally on a rising plane of nutrition. In the past, cows to be A.I.’ed were restricted to paddocks close to the yards for up to six weeks (natural heat detection). This put enormous grazing pressure on these paddocks and left better outlying pastures underutilised. It was also time consuming to move cows into the yards.

Now, with 3 A.I. boxes on “Hazeldean”, pastures are better utilised and cows have little distance to travel. Boxes are usually set up between two paddocks enabling cows to be moved in from either side as they come onto heat. David Shubert (pictured) does much of the AI and believes the boxes are less stressful on cattle than the standard crush. “The cows need to be quiet, and if so, walk in easily and are not stressed, as they can’t see out”. Tail paint is used to aid oestrus detection.

AI boxes are ideally suited for small numbers of cows coming onto natural heat each day. With synchronisation and greater numbers coming onto heat together, this process may be slower than the crush.

Enquiries: Jim Litchfield (02) 6453 5555, Bec Arnott (02) 6452 3411

2. SYNCHRONISING TECHNIQUES – This newsletter is not the place for detailed discussion on synchronisation techniques, but in the last year I’ve heard several very favourable comments about the use of oestrodiol. This prompted me to include the following extract from a recent Multibreed newsletter, compiled by John Graham at Hamilton (Vic) Research Centre. (The project involves large scale AI programs in commercial herds. See P14.)

“In 1997 CIDRs with attached oestrodiol capsule were used, together with an injection of PG on day six, with removal of the CIDRs on day 10. AI commenced on day 12.

In 1998 CIDRs without the capsule were used, but there was an injection of oestrodiol benzoate at CIDR insertion, plus PG at CIDR removal on day 9, and an oestrodiol benzoate injection on day 10, with AI on day 11.

With the 1998 program on most properties, there was only need to AI the cows on the first day of AI because nearly 100% came on heat then. With such high submission rates on that first day, this program looks worth trying for blanket AI on day 11, alleviating the need for heat detection”.

Pregnancy diagnosis for the Multibreed Autumn calving cows for 1997 and 1998

<table>
<thead>
<tr>
<th>Year</th>
<th>Cows Program’d / IA’d</th>
<th>Submission Rate</th>
<th>% pregnant to AI of cows</th>
<th>% pregnant to backup bull programmed</th>
<th>Overall Pregnant %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>2342 / 1720</td>
<td>73.0</td>
<td>42.0</td>
<td>32</td>
<td>74.0</td>
</tr>
<tr>
<td>1998</td>
<td>3145 / 3050</td>
<td>97.7</td>
<td>60.7</td>
<td>28</td>
<td>88.7</td>
</tr>
</tbody>
</table>
Jeff McCamley commenced development of “Lancefield”, a block of native country 150km south west of Rockhampton, in 1956. Needing to introduce more environmental adaptation to their then Poll Hereford herd, Jeff and his wife Anne were among the early users of Brahman genetics in Central Queensland. Lancefield Stud was registered in 1964 and has since expanded to over 2,200 cows. These are all registered with the Australian Brahman Breeders’ Association in single sire mating herds.

The Lancefield name has grown to be respected in the Australian beef industry as one of the country’s leading producers of Brahman seedstock. Its reputation is also growing internationally with exports of genetic material throughout Asia, the Pacific and South America. In 1997 Jeff was recipient of the prestigious “friend of the year” award of the American Brahman Breeders’ Association for his outstanding contribution to the advancement of Brahman cattle.

The stud has cattle on six properties run by Jeff & Ann and their sons Andrew, David, Scott, Mathew and families in the central Queensland region. They also run 3,000 commercial breeders which play an important role in evaluating Lancefield genetics under commercial conditions.

Jeff has long known the value of objective measurement and had been weighing and producing ratios for thirteen years before joining BREEDPLAN in 1989. With the move to BREEDPLAN recording, the McCamley’s made the decision to computerise their herd records on farm by purchasing Saltbush Software’s Herd Magic in 1990. There are now details of over 20,000 cattle stored on Lancefield’s Herd Magic database. That’s more records than quite a few of Australia’s smaller breed societies!

Herd Magic enables Lancefield to send their registrations to the Brahman Association on floppy disk or email, for which a significant discount is available. Similarly the transfer of weight and BREEDPLAN EBV data is undertaken electronically.

BREEDPLAN and Herd Magic reports are utilised by Lancefield to identify the performance of individuals and lines. This aids mating decisions to meet the herd’s breeding objectives, and provides objective information to assist clients with their bull buying. In particular BREEDPLAN has facilitated greater consistency in selection of bloodlines relative to economic performance.

At the 25th Tartrus-Lancefield production sale in October, 1998 Lancefield offered 81 bulls with 600-day weight EBVs from –16kg to +61kg. The highest EBV bull, Lancefield Ambition topped the sale at $60,000. Importantly, there was a strong trend in price paid versus the 600-day weight EBV.

Despite the success of their selection on 600-day weight, the McCamley’s are very conscious of balanced breeding objectives placing emphasis on six areas; growth rate, fertility, temperament, carcase conformation, structural soundness and breeding soundness.

Industry changes and involvement with the Cooperative Research Centre for Meat Quality have also brought meat quality issues to prominence. The high marbling sire Lancefield Prince Lopez has been identified through a cross breeding project run at Belmont Research Station by Dr John Frisch & Dr Carlo Gazzola at the Tropical Beef Centre, Rockhampton.

While not losing sight of current breeding objectives, Jeff McCamley would like to identify more Brahman bloodlines with a propensity to marble. This is now possible in BREEDPLAN. He also looks forward to further development in technologies to identify meat quality and their inclusion in BREEDPLAN.

Herd Magic assists “Bald Blair” feedlot compliance rate

“Bald Blair” is a well known Angus stud and commercial enterprise on the NSW Northern Tablelands. Herd Magic is used in the stud, and more recently also in the commercial herd. Feedlot and abattoir feedback is stored and analysed on Herd Magic. This is from the Pacific Pride (an alliance, between northern NSW breeders and a southern Queensland feedlot and abattoir) and also the Rangers Valley feedlot.

“Bald Blair” principal, Sam White faced a challenge in 1997 when only 11.5% of a deck of steers being fed for the Japanese market reached marble score 3. These steers were randomly selected from commercial cow and sire lines, had a drought set back and were fed for only 150 days.

In 1998, the steers were from sires proven either by industry or through the “Bald Blair” CRC involvement. They were yard weaned to avoid a setback, were heavier on entry to the feedlot and fed for 180 days. To Sam’s relief, 92% had marble score 3 or above – a dramatic improvement.

Encouraged by this success, Sam is extending identification across the whole herd and upgrading bulls to have more progeny available for finishing opportunities.
Getting the most from your Records with Herd Magic

Herd Magic for Windows is an important herd management tool used by an increasing number of Australian and overseas producers. BREEDPLAN users have found that an effort to incorporate computerised recording and analysis into their beef production system has paid dividends in terms of access to critical performance information and improved management decisions.

A series of practical, day to day benefits from using Herd Magic for Windows has been compiled by existing users:

**Calving**

Print a list of females due to calve to assist in checking heifers and recording birth weights. The list also includes other useful details such as the mating sire and any backup bull that was used. After checking the cows, enter the dam of any new calf onto a special screen and then add the calf details. Herd Magic automatically provides a lot of information about the dam for you (eg. the society ident.) to minimise your recording time.

**Marking**

Print a ‘worksheet’ to record heat detecting and mating details. Herd Magic has a very simple mating screen for entering the details from the paddock ‘worksheet’. To make life easy, all bulls used can be entered on the one screen and females can even be drafted into bull groups automatically at the same time as entering bull ‘in’ dates.

**Calf registrations**

Special features in Herd Magic ensure that details only ever have to be recorded once - a real time saver.

How many times do you have to record the same information (ie. the calves’ sire has to be written on the paddock book and on the calf registration form) on a manual form? Herd Magic already has all the calf, sire and dam details on the database, so it’s a simple matter of running the calf registration report! In many cases discounts are available for processing information supplied electronically from Herd Magic for Windows.

**Pregnancy testing**

Again, use a ‘worksheet’ to record the information, including any other treatments or measurements. When the results are entered into Herd Magic, the status of each mating record for the cow is automatically updated. For example, if the cow was empty, the appropriate mating record will be updated to failed.

**400 day weights and ultrasound scanning**

Results are recorded on ‘worksheets’, the scanners form or in electronic scales. These details are then loaded onto Herd Magic for Windows.

**Print performance measurements and send them to BREEDPLAN on disk**

A special report is printed and a disk file is also created. The report and disk are then posted or e-mailed to ABRI for processing in around 24 hours. In many cases discounts are available for processing information supplied electronically from Herd Magic for Windows.

**Receiving new EBV’s on floppy disk**

BREEDPLAN results are sent by mail or e-mail on disk. This disk is imported into Herd Magic and all the records are updated. Herd Magic can then print any number of reports. Various groups of animals can be selected for the report and the animals can be sorted by any field, eg. 600 day EBV or sire, to name only two options.

**Enquiry from bull buyers**

At any time an enquiry is received, it is a simple matter of printing out the pedigree report and sending it by e-mail, fax or mail. The pedigree report can also include weight, EBVs, treatment details, notes or progeny details. Many other options can also be selected by a click of the mouse! Herd Magic can also produce special performance and pedigree files for printing customised sale catalogues, a very popular feature.

**Print report to assist with culling**

When it’s time to replace some cows with the newer generation, Herd Magic makes it much easier and more simple to sort out all the information you have collected. You might just want to print a simple report of empty cows to cull. Alternatively you could print an extensive report covering a wide range of performance details for the cow. Herd Magic allows you to design your own reports instead of using one of the many pre set reports.

New Herd Magic for Windows clients can be sure they will also benefit from their investment in computerised recording and analysis. Saltbush offer a unique software guarantee system where the beef producer does not pay for the software until after the completion of a successful trial. Saltbush also have a professional team of software user support consultants. Pam, Scott and Jordie all have hands-on livestock experience, in addition to extensive computer experience.

A trial version of Saltbush products can be downloaded from the Saltbush home page at http://saltbush.une.edu.au or feel free to discuss any of your computing requirements with our friendly and professional support consultants by phone 02 6773 3310, fax 02 6773 3950 or email at support@Saltbush.une.edu.au.
In last year’s Newsletter I asked for stories and photographs of calf weighing systems people have devised.

Naturally, most replies came from Southern Australian areas, where cattle are closely handled and birth weighing is more required. Where the cow calf units are quiet enough, the most common system was to catch the calf, sling it then weigh on a clock face scale supported on a moveable bar on a 4WD vehicle or bike. The sling can be 2) canvas/leather, 4) cut down tyre, 3) metal. One operator also uses a winch 4). The dimensions of the sling are important. If the calf balances, you do not have far to lift and the whole operation is quicker.

An alternate concept 5) was to place a platform onto load cell scales on a tractor carry all. A version of this concept in more extensive conditions, used a closed wooden crate, rather than the platform.

Another correspondent from Queensland, unfortunately unable to provide photos, ropes the calves, ties three legs then slings the calf to weigh.

I look forward to any other suggestions, photos and have provided contact details for the people mentioned here.

Another option soon .... Michael Hartmann of ABRI and his father John have put their mind to the challenge of producing a quick release calf weighing device. Their prototype can be mounted on a 4-wheeled farm bike or other farm vehicle. As soon as a provisional patent is available on the release device, this calf weigher will be manufactured by Rudds and can be ordered through ABRI.
DUSTY STORIES

I met a Brazilian cattleman recently, who had also been visiting the US. He was amazed at the large scale corn-based grain feeding. His wry observation was “If I had the money to feed corn to cattle, I’d rather use it for a holiday in Rio and have something to remember for my old age.”

Scanning Heifers

As outlined on Page 12, heifers provide a valuable source of carcass information, particularly for IMF%. This can help evaluate their sires and male relatives.

To obtain the most useful information, cattle should be scanned when they are in the best condition. For heifers joined as yearlings this may be when they are pregnant.

A recent study by Karin Myer and David Johnston at AGBU found no effect of pregnancy on the scanning traits. ie. A green light to scan heifers at least up to 6 months in calf or as management dictates.

PADDOCK RECORD BOOK

Despite the trend to increasing use of electronic data recording, paddock notebooks continue to be very useful. The BREEDPLAN notebook was updated a few years ago. There are sufficient columns to record mating, calving and weaning information – or use the spare columns as you wish. These are available from your BREEDPLAN contact person (see list on back cover).

LISA VICKERY

Lisa joined ABRI in September 1998. She has extensive experience with the stud and commercial cattle at Bective Station, a family property near Gunnedah. Her UNE degree has recently been topped off with an advanced animal genetics course. Lisa is Executive Officer for Red Angus and in May 1999 she will be expanding her work profile to include Gelbvieh.

THUMBS UP FOR DIAMOND SELECT

In this Newsletter last year, I reported on DIAMOND SELECT, a new catalogue format developed by the Western Angus (Vic) group. (See below) I’m pleased to hear that this is going well.

Their clients have encouraged these studs to continue the idea, with some enhancements. At least one other cattle stud - “Wirruna” Poll Herefords, near Albury, has since successfully used the concept. I’m told a Merino stud has also adapted the concept.

FIONA THOMPSON

Fiona joined ABRI in 1998. She comes from the West Oak Merino/Santa Gertrudis Stud near Emmaville in the New England region of NSW.

Fiona completed a Bachelor of Economics at the University of New England, with a major in Econometrics, and a minor in Marketing. She then took up a position as a Consultant with Solutions Marketing Research Group in Sydney. In 1996 she became the proud recipient of one of the prestigious Rural Achievers awards given by the Royal Agricultural Society.

Fiona’s responsibilities at ABRI include Devon, Red Poll, Shorthorn and South Devon BREEDPLAN, and she is also Executive Officer of the South Devon Cattle Society.

Slide Set now on the Web

A set of 40 Powerpoint slides I use to teach about BREEDPLAN, has recently been added to the Website. This may be useful for people giving talks or explaining concepts to clients. In time I will add explanatory notes and perhaps a voice track.
The National has a long standing commitment to the Australian beef industry, and we understand the various challenges associated with agriculture.

Management tools, such as BREEDPLAN are becoming increasingly important for the efficient and effective beef producer going into the next century. The ability to objectively assess all components of a business is vital, and will allow that business to better understand its overall performance.

Our 135 specialist Rural Finance Teams across Australia are there to help your business, and provide you with the specialist service you require. Should you have any queries regarding your finances, please contact one of our Rural Finance Teams located in your area.

We look forward to continuing the strong relationship between BREEDPLAN and the National.

Mike Carroll
Head of Rural & Agribusiness Markets

Contact List for BREEDPLAN enquiries:

Enquiries of a general nature should, if possible, be handled by your nearest beef cattle officer. For more detailed information, each Australian State has a co-ordinator, listed opposite.

Breed specific enquiries should be directed to your breed society. To reach the BREEDPLAN head office, please contact the Agricultural Business Research Institute on Phone (02) 6773 3555, Fax (02) 6772 5376.

NZ Hereford Association President, Laurie Paterson, led a study tour of seven Hereford breeders to Australia in April. They spent two days in Armidale and discussions included BREEDPLAN, Herd Magic, Hereford Prime, breed society organisation and the research of the Co-operative Research Centre. This was followed up by visits to various Hereford and Poll Hereford studs and to feedlots. Bill Dangar, Geoff Taylor, Bob Freer and Arthur Rickards joined forces to put together an interesting program.

Laurie said that the tour was invaluable. “It’s important to get to the source of the BREEDPLAN technology whenever we can. We will now press on with our programs in New Zealand with renewed vigour.”

Dean Hansen (Te Kuawhata), Steve Skinner (ABRI), David Morrow (Canterbury) and Stuart Robbie (Otapawa) during the NZ visit to ABRI.