World Brahman Congress 2002

Around 2500 breeders from many countries will be converging on Rockhampton from April 15-19 for the World Brahman Congress.

The program is varied and includes property visits, a technical conference, launch of gene marker tests for tenderness, prime and feeder cattle show, trade show, stud cattle show, rodeo and post conference tours.

The Brahman breed has a great deal to celebrate. From an initial importation of just 18 head in 1933, the Brahman population has grown to 3.2 million head and their genetics influence 50% of Australia’s beef herd. An independent evaluation, conducted in 2001, estimated the benefit of Brahman genetics at the farm gate to be $10.2 billion and the benefit to the total economy of $31 billion since 1970!

The Brahman animal and performance database is available on-line at www.brahman.com.au and receives over 100,000 enquiries per year. Each year the ABBA enters its Brahman Week catalogue of around 1000 lots on ABRI’s Internet-based sale cataloguing service. This catalogue receives thousands of hits prior to and during the sale and is the largest single catalogue entered on ABRI’s facilities.

ABBA's General Manager, John Croaker, has made a major contribution to the establishment of national BREEDPLAN projects in Thailand and the Philippines. Brahman has also been the first breed association in South Africa to install an integrated pedigree/performance system and their breeders will be represented by a large delegation.

A coup for the Congress will be a keynote address to be given by Dr Christopher Delgado on “The Livestock Revolution – What is in it for Beef”. Dr Delgado of the International Food Policy Institute in Washington USA was co-author of a landmark paper that has predicted a doubling in demand for meat and milk products in 40 years. Our beef industry needs to understand what is driving this revolution and how our producers can derive maximum benefit from it.

It will be an exciting time for Rockhampton in mid-April. Our BREEDPLAN team salutes the Brahman breed and sends our best wishes for a very successful World Congress.

Arthur Rickards
2002 sees the introduction of the new Version 4.2 BREEDPLAN, with several major enhancements. Those watching marbling and yield % will notice significant changes – a bigger range of IMF% EBVs and more consistent yield % EBVs. These improvements have been possible due to final analysis of carcase data from the 12,000-odd CRC progeny test cattle 1994 – 2001. (See page 14).

Another change in V4.2 is a link between leanness (low fat depth EBVs) and lower female fertility. This has long been talked about by breeders and suspected by researchers, but only recently did the AGBU geneticist have sufficient data to include this in the BREEDPLAN model. Other changes include: Net Feed Intake EBVs for Hereford and Angus and exciting research on a blood test to assist estimation of this trait (Page 15); Docility EBVs for Limousin now in the main BREEDPLAN analysis, allowing EBVs for cows and young cattle (Page 8); Improved Mature weight analysis.

For breeds/regions where calving difficulty is an issue, we have long advocated BREEDPLAN recorders weigh calves and obtain calving ease and birthweight EBVs. I was sorry to hear last year of serious injuries to two breeders in calf weighing incidents. Compared to the large number of people involved, this is a low proportion, but needs careful watching. Several new types of calf weighing equipment are now available. These and other ideas are discussed on page .

Internet options and usage to search for BREEDPLAN information are multiplying rapidly as discussed below. This is probably the biggest change I have seen over the past year.

Happy reading, and your feedback is welcomed.

Brian Sundstrom is Cattle Breeding Co-ordinator with NSW Agriculture. Part of this role involves Technical Specialist and Advisory work with BREEDPLAN from an office at ABRI. His other major extension responsibility is with the Beef CRC Group. All articles by Brian - noted BS

American Hereford

Australian Quarter Horse

Who will win the hit race?

ABRI’s Internet Solutions software has become a runaway success internationally. Total hits in January were 447,000. The race is on to see which corporate user generates the most enquiry. The American Hereford Association slipped into first place for the first time in January, 2002 with 96,083 hits. This corresponded to the release of the first BREEDPLAN EBVs which generated enormous interest. The traditional leader in use of ABRI’s internet technology has been the Australian Quarter Horse office in Tamworth which regularly records 80,000 – 90,000 enquiries per month. The top performer among Australian beef breeds is Angus which in January exceeded 50,000 enquiries in a month for the first time. The New Zealand beef industry has voted overwhelmingly to take up the Internet Technology which will be rolled out progressively in the first 6 months of 2002. NZ Hereford was the first out of the starting gate.

The services are diverse and include: Animal/member enquiries, $Index enquiries, distribution of BREEDPLAN EBVs, auction sale catalogues, private treaty sale catalogues and internet registrations.

Internet solutions continuously present the latest information on the seedstock industry to all participants in both the seedstock and commercial industry. Beef cattle researcher and former Breed Development Manager for the Angus Society of Australia, Dr Peter Parnell has commented, “The development of ABRI’s Internet Solutions is as big a milestone for the beef industry as was the introduction of BREEDPLAN”. Bob Freer claims “The introduction of $ Indices on the Internet has been a great innovation. Commercial enquiry for the Hereford genetics is now predominantly based on the $Index”.

To view various beef cattle breed Associations in Australia providing ABRI Internet Solutions via their respective WEB sites, please search under:


Or from the Association home pages, just follow the links to Database Search Facilities or Online Sale Catalogues.

Arthur Rickards
The North American blockbuster

Following almost two years of feasibility work and genetic research, the ABRI/AGBU team has won the contract to run the North American Cattle Evaluation (NACE) for the Hereford breed. (In 1999 we installed the breed registration software). December 2001 saw the first production run on GROUP BREEDPLAN completed. The American and Canadian Hereford Associations are both delighted with the results.

The size of the joint database was enormous. We started with a file of over 6.8M recorded animals and around 10M performance observations. This was subject to some editing before initiating the run. Even so, the data file was several times larger than that included in any previous analysis – including the Trans-Tasman GROUP BREEDPLAN for Hereford or Angus. AGBU’s Bruce Tier was the genius behind the block busting software. Now we can handle any foreseeable growth in demands from our domestic customers and we thank our North American colleagues for this.

The bi-annual NACE run had previously been done by the University of Georgia. However, the BREEDPLAN facilities for data editing, multi-trait evaluation, revised genetic parameters, the BREEDPLAN carcase model, post-run diagnostics and better integration with the breed register software were all factors that influenced the change of service provider.

The December EPDs were loaded promptly onto ABRI’s Internet search system at the American Hereford Association and almost 100,000 enquiries were received in the first month! They are also enthusiastically using the new Saltbush Hereford HerdMASTER Software. (See page 20)

ABRI and AHA have just completed the second anniversary of the AHA using ABRI’s breed registry software. AHA’s Executive Vice-President, Craig Huffhines, said “The Hereford breed in the USA has probably the largest beef cattle herdbook in the world containing over 21M cattle. The BREEDPLAN technology has enabled us to make much better use of this huge resource by providing a dynamic business intelligence service to the American cattle industry.”

Craig and the Canadian Hereford Association’s CEO, Duncan Porteous (who is also President of the World Hereford Congress) will both be visiting Australia for three weeks in March, 2002 as part of the planning for the World Hereford Congress to be held in Australia in 2004. Under the guidance of Armidale’s Bill Dangar, this next World Congress also promises to be a blockbuster event.

Arthur Rickards
Overseas developments

**South African breeds join BREEDPLAN**

Exciting news from Southern Africa is that three of the largest beef cattle breed societies have decided to join BREEDPLAN - Brahman, Simmental and Simbra. Peter Massmann, CEO of the Simmental and Simbra Society of Southern Africa, explains that it has not been easy. “We decided to join BREEDPLAN in 1994 but spurious claims by our local authorities about data ownership of our members thwarted our original attempts to join. However, we can now firmly put the past behind us and consider the future knowing that we have joined one of the best performance and registration systems in the world.” Peter says that this, together with their well known visual evaluation system will improve their service to stud and commercial producers in the five countries they serve. The system is also approved by the 29 country strong World Federation.

In terms of membership, the Brahman breed society is the largest beef breed society in South Africa with 560 members. The Simmental society is third with 370, and Simbra is the fastest growing society, 110 members. The South African breed societies also work closely with their Namibian, Zimbabwean and Botswana counterparts. The Simmentaler and Simbra societies in these countries have all their registrations and performance data recorded in South Africa. The Brahman societies from these countries have their data analysed in the South African Brahman office.

An integrated registration and performance system has recently been installed in the Brahman office and by the time this newsletter appears a similar system should be installed in the Simmental and Simbra office. Although breed societies in South Africa have measured and received EBVs for growth traits, no EBVs have been calculated for reproductive traits such as Days to Calving or any of the carcass traits.

The Brahman Society is just as excited. New CEO of the society is Dr Paul Lubout. “The decision of the Brahman in South Africa to appoint a geneticist as CEO indicates how serious they are about performance testing. Joining a world class system will help us achieve our goal to become even more performance orientated”, says Paul. Over 60% of commercial cattle in South Africa have Brahman in them.

The South African beef industry is small in comparison to Australia, with 8.5 million head (compared to 26 million). However, we believe we have opportunities that can be put to good use. Most producers have a relatively large labor force, allowing us to frequently weigh and measure animals. Producers are generally well educated and easily adopt new scientific techniques if proven to be useful.

South African breed societies are also interested in exchanging semen and embryos with their Australian counterparts so that across-country evaluations can be conducted in the future.

The first BREEDPLAN course in collaboration with the Brahman and Simmental association was very well attended. We plan to hold 15 such courses throughout South Africa in the next few months. Producers are shown how BREEDPLAN reports are interpreted, management groups are formed and some theory is also explained.

As with the cricket and rugby, we would like to compete on equal terms with our Australian counterparts. Being part of the BREEDPLAN system will allow us to achieve this goal.

Michael Bradfield

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One BREEDPLAN course venue was a boat built by one of the producers. Spioen Kop game reserve is one of the premier reserves in South Africa.

President of the Simmental and Simbra association, Mr Lewellyn Angus (right) signs the contract with Dr Michael Bradfield, BREEDPLAN agent for Southern Africa.

Bill van Lelyveld, Chairman of the Brahman Association in Natal, welcomes 27 Simmental and Brahman producers to the first ever South African BREEDPLAN course.
BREEDPLAN in Argentina had its early beginnings with the Bustingorri brothers and NBRS. By 1993 three herds were receiving BREEDPLAN results, interest continued and slowly, more Argentine breeders who supported the breeding philosophies of Beno and his family joined up.

In the late 90’s, ABRI made an offer (which was unreservedly accepted) to the Bustingorri Group to have their own fully integrated society system which enabled them to access the latest V4 GROUP BREEDPLAN software.

June 2000 saw the first ever V4 GROUP results released for ANGUS ARGENTINO. We were soon informed that the ‘new’ EBVs were being well received. I immediately knew that we had reached an important milestone with BREEDPLAN in Argentina which had previously been dominated by US genetic evaluations systems.

The following twelve months saw an exponential growth in BREEDPLAN enrolments and calves processed, up an impressive 100%. Everyone who was directly or indirectly associated with ANGUS ARGENTINO were, to say the least, ecstatic with its progress.

By now, the Group was beginning to establish itself, members were seeing for the first time the real strengths of this technology and were focusing more and more on spreading the BREEDPLAN ‘word’.

In late June 2001, ABRI had just concluded ANGUS ARGENTINO’s second Group Analysis. With more and more publicity being given to BREEDPLAN, it was decided that a visit was well and truly overdue.

Even though ABRI’s first taste of Argentina began a decade ago, the last six years of hard work paid off in October 2001, when I had the opportunity to visit this great country and meet BREEDPLAN clientele for the first time.

My schedule for the two-week visit was completely full. I was fortunate to team up with Don Nicol, an ex-BREEDPLAN field co-ordinator to assist with the Spanish translations and introduce me to many of his contacts that reside in this part of the world. Don’s South American experience, influence and contacts proved invaluable.

The first week of the fortnight visit took us to the Pampas region of Argentina where over 80% of the Argentine 75,000,000 beef herd is located.

We covered over 1200 km, conducting several BREEDPLAN field days, which were divided into two sessions. Theory using a ‘Spanish’ powerpoint presentation and Practical sessions assessing yarded bulls and their figures. Seminars were also conducted at La Plata University and at the headquarters of AACREA (Argentine Association of Regional Consortiums for Agricultural Experimentation). Breeder presence to these seminars was overwhelming, Dignitaries such as our own Ambassador - Ms. Sharyn Minahan, Regional Government Representatives and many of the beef industry’s ‘power brokers’ were also present.

The final week of my visit took me to the Capital Federal – Buenos Aires. Here I met up with several breeders who were interested in using BREEDPLAN technology. I also had the opportunity to hold informal discussions with a Breed Association.

In the fortnight period quite a few on-farm visits were on the agenda. However we soon discovered that several of the farms were difficult to access because of recent flooding (over 8,000,000 Hectares) that had consumed vast areas of the Pampas Plain. I did manage to see a number of farms, even though it meant that I had to wade through 1.5m of water on horseback!

Since my return in November 2001, the political and economic plight of Argentina has been a concern to many.

Despite Argentina’s internal problems, interest in BREEDPLAN technology is still very strong.

Michael Beattie
Whananaki Coastal Charolais

In an idyllic eastern coastal setting in Northland, more appropriate for a holiday than a farming venture, is the very successful Whananaki Coastal Charolais stud belonging to Greta and Craig Harman, in partnership with Greta’s parents Jeff and Betty Carson. Successful, because not only is this young couple doing what they are intensely passionate about, but also because in 2001, they won the prestigious Northland Seedstock Producer of the Year award.

The main family property has 270 hectares of effective grazing. The area is prone to dry summers, however their 50 flat hectares of reclaimed marine swamp, provide some insurance against these events. The remaining grazable land is medium/steep hill country. In addition, they lease an unfertilized 40 hectare runoff and last year on the home farm, an area of 60 hectares was intensified, using semi permanent electric fencing, for a bull finishing unit.

The predominant pasture species are kikuyu and paspalum with some ryegrass and clover. Mulching is used to control the kikuyu and undersowing with winter-active species is practised, to increase winter pasture production. Soil phosphate levels are above average, however selenium and copper are deficient and are delivered via the fertilizer and orally by capsule.

Stock wintered at Whananaki include 187 stud Charolais cows, 30 commercial crossbred cows, 67 rising two year old Charolais stud heifers, giving a stocking rate of 9.7 stock units per hectare and net production of 223kg of beef per hectare (up from 146kg three years ago). Bulls are sold at an annual sale in June and privately, with some being leased. Of the 50 bulls sold annually for breeding, 80% go to commercial beef producers, 15% to dairy farmers and 5% to stud breeders. Remaining bulls are finished, along with 136 crossbred bulls, on the recently established bull finishing unit.

The Harmans have a very defined but simple breeding objective, based upon their goal “to breed terminal sires to improve the long-term profitability of their clients”. Their focus is firstly to get a live calf on the ground, then to get it to grow as quickly as possible to 400 days and “finished” for processing at around 600 days, at a carcass weight in excess of 300kg. To achieve this the EBV’s they target are Calving Ease, 400-Day Growth and Retail Beef Yield%, with breeding soundness and temperament being their highest priority selection criteria. Extreme EBVs are avoided in their quest to operate a balanced breeding programme, thereby allowing enough flexibility to cater for all production systems. Over the last 6 years average Birthweight EBVs in the herd have remained the same, while the average EBV for 400 Day Weight has increased by 12kg. A small embryo transplant programme is undertaken, to make greater use of the genetics of their ‘top’ cows and some AI is practised, to introduce new bloodlines and to target the polled gene and specific EBVs.

Northland springs are notoriously variable compared with autumn, which is one of the reasons heifers are mated at 18 months of age, for 6 weeks. This practice has improved the in-calf rate, spread the spring workload and means heifers’ calves can be weaned onto spring pasture flush. Also, in choosing bulls to mate to heifers, growth rate does not have to be compromised to the same extent to ensure ease of calving.

As the Harmans point out, improving female fertility within their herd is a low-priority because, with Charolais being primarily a terminal sire breed, it has little impact on their clients’ profitability. It is also of very low heritability, which means the rate of genetic progress within their herd would be painfully slow, if they chose to pursue it. This is just one of the many innovative practices they have adopted to improve their profitability.

The Harmans also run a commercial enterprise, with cows mated to Whananaki sires and the progeny carried through to slaughter, providing useful feedback. Other commercial finishing stock are purchased as four-day-old calves from dairy clients, who use their bulls. As a service, the Harmans arrange outlets for their dairy x Charolais calves. Success of their commercial enterprise is benchmarked for production, expenses and income against members of a monitor farm group are in. This shows a production increase of 75% in the last five years.

The Harmans have aggressively sought information to assist them in their business. Australia has played host to them on two occasions recently. The Charolais Society Stud Skills Course and The Armidale Feeder Steer School.

Being frustrated by the absence of a national Charolais performance recording system catering for all their needs, they contracted ABRI, through the Charolais Trans-Tasman Group BREEDPLAN, to analyse their desired range of traits. They were the first seedstock producers in N.Z. to list their bulls, via the internet, on the
NZ backs BREEDPLAN

Arthur Rickards and Murray Scholz of ABRI spent a week in New Zealand recently to demonstrate the latest BREEDPLAN technology and outline the opportunities with ABRI’s Internet Solutions, BreedObject and the TGRM technology. Directors from eleven breeds representing over 90% of the seedstock industry attended and all breeds have renewed their commitment to BREEDPLAN with most contracts being rolled over for five years.

NZ Performance Beef Breeders at Feilding hosted the meetings. NZPBB does a great job in providing a multi-breed secretariat which achieves considerable economies of scale in servicing individual breeds.

Russell Priest visited ABRI and AGBU in February, 2002 and is well advanced in setting up the weightings for BreedObject indices that address the profit signals of the New Zealand beef industry (including dairy cross systems). The roll-out of Internet Solutions to New Zealand breeds is occuring throughout 2002.

Sam McIvor of Meat New Zealand is visiting Armidale in March, 2002 to discuss collaboration on research issues. It is to be hoped that Meat New Zealand will take the lead from MLA and channel resources into the development of a strategic plan for maximising the use of superior BREEDPLAN genetics in the commercial industry.

Cloning - ready for the beef industry?

Last year, the research team at Monash University and Genetics Australia took a small skin sample from the ear of a bull called Rameses. These skin cells were stimulated to multiply in the laboratory and one of these cells was used to generate a calf called Rameses II, which is a genetic copy of Rameses himself. Of course, the laboratory grown skin cells can be frozen and theoretically could be used to make millions of additional genetically identical calves. Many groups around the world have been working on cloning using a variety of techniques but none can claim to have all the answers yet.

The ability to make cloned copies of adult animals was demonstrated half a century ago using frogs but until the birth of Dolly the sheep, it had not been possible with domestic animals.

Commercial beef producers are well aware of the benefits to be gained if it was possible to make many copies of the top AI beef bulls in the world. Beef breeders who used BREEDPLAN will appreciate the need to link together herds through the use of common AI sires. The availability of cloned bulls would help improve linkages between herds, but without the need to use artificial insemination.

Despite the birth of over 200 cloned animals world-wide over the last few years (including a number of transgenic cloned animals), there remain many hurdles to overcome before the technology becomes widely used in agriculture. The technology is still expensive, inefficient, with low pregnancy rates, high losses during pregnancy (especially in the first 3 months of pregnancy) and after the calf is born.

In addition to these practical problems, there are a number of real and imagined problems that need to be sorted out prior to the acceptance of cloning. These include human heath and safety, animal welfare and other ethical and PR issues. While cloning differs from genetic modification in that no genetic manipulation is involved, in recent times it has become clear that public perception, and more particularly market concerns about the use of cloning, may limit commercial application unless these public concerns are addressed and satisfied.
BREEDPLAN produces genetic trend reports for individual herds and for Breeds. These give snapshots of genetic progress, with environmental effects taken out.

I thought it may be of interest to have a look at the trend (A) for a few key traits for one Breed as an example. I have then related the trend to what we see in a sample of bulls (B) and steers (C).

Hereford has been selected, because we have steer data from the CRC (thanks Wayne Upton) and bull information from Glen Innes bull sale (thanks Bob Freer).

### Changes in sale bulls

At Glen Innes Hereford bull sale in Northern NSW, the bulls have been weighed and scanned for many years. Table B shows the changes from 1994 to 2001 in weight, fat depth and eye muscle area, age is constant. This clearly demonstrates the trends as shown by BREEDPLAN in graph A.

### CRC Steer results - Benchmarking

From 1994 to 2001 some Hereford BREEDPLAN studs, with cooperating commercial herds, bred steers for use in the CRC research program.

They were finished for the Local, Korean and Japanese markets. Table C (right) shows the average turnoff carcase specs for the steers, and the average EBVs of their Sires.

This provides some benchmarking of the outcome commercial breeders can expect from using bulls with such EBVs. It also gives some indication of the commercial effect of the genetic trends described above. Note that the Sires were ’92 to ’95 drop and are still a little heavier and more muscular than the current average of the ’00 drop.

Continued page 9
Getting serious about docility

Most would agree on the importance of having quiet cattle – for safety and for the associated meat quality benefits (see page 14). While culling the odd wild one helps to some extent, it is not nearly as effective as actively selecting for docility using BREEDPLAN EBVs. The Withers family are using this selection technique very effectively with their “Donna Valley” Limousin stud. I recently judged some of their excellent cattle in a Performance class, and afterwards discussed this with them.

Based near Holbrook in southern NSW, Greg and Mary, with Stud Manager Karen Hedger have 150 stud cows on BREEDPLAN. They also lease 50 cows, and with some ET, calve down 240 recorded cows and sell 60 or so bulls a year.

“We have been scoring all our calves for docility and sending the data to BREEDPLAN for 5 years”, Greg told me. “We are very pleased with progress, as seen in our 2002 sale bulls with av. Docility EBVs of +6.5 compared to Breed Av of +3. We expect to make even faster progress with the new version of BREEDPLAN which gives us EBVs on cows and young cattle (previously only Sires).”

Mary told me how important it is to do the scoring on untrained weaners. “If you wait until cattle have been weaned and handled, you’re just fooling yourself. The temperament differences will be reduced, and come out in later generations. We bring one calf in at a time into a yard to score, and fine tune our scores with crush observations. It does not matter if different breeders score a little higher or lower – as long as they are consistent and do a whole mob. Like all things in BREEDPLAN, it is how individual animals compare to the average of a like treated group of cattle, which is important.”

The following five standard Limousin scores are used:

1. Docile
2. Restless
3. Nervous
4. Flighty
5. Aggressive

These scores each have detailed descriptions (eg: 1. Docile - “Mild disposition, gentle and easily handled, stands and moves slowly during handling, undisturbed, settled, somewhat dull, does not pull on headgate when in crush, exits crush calmly”).

“We find them very easy to apply repeatably, and would actually prefer them to be subdivided into part scores”, concluded Mary.

Recently “Donna Valley” leased a group of 50 Limousin stud cows. “Some of their calves were a little too alert. These turned out to be all by one sire. On looking up his EBV, we found it was very negative, further proof to us, of how well this works” added Karen.

Greg is currently President of the Limousin Society and is pleased to see many other members now docility scoring their calves. “As a breed, we have addressed a problem identified by commercial breeders, and have made genetic progress These EBVs are something tangible to work with. Most members are very supportive. Some start out collecting scores to disprove the system, and they generally quickly see that it works. Much better than some of our old ‘fables’ that high milk or scrotal size will be correlated with quietness. I know some other breeds are closely watching what we have done.”

### World Whiteface linkage project

A project has recently commenced to allow better comparison of North American EPDs (Estimated Progeny Differences) with Australasian EBVs. for Hereford /Poll Hereford.

To generate the required data, link progeny are being bred in Australia, Canada and the US, with Sires nominated by each country. Four Aust Sires (2 horned, 2 polled) are being used, along with four North American Sires.

In Australia, the first round of inseminations was done late in 2001. The aim is to have steers and data ready for the 2004 World Hereford Conference here, and to facilitate discussion on a possible World Hereford evaluation.

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An Australian Sire in this project is Mt Difficult Unsworth. By coincidence, this bull is known to me, as he was in the winning pen of Poll Herefords in the performance class I judged at Hamilton Beef Expo in 2001. This year I again judged this competition, and another pen from Mt Difficult won their class and overall British breed pen. The class was for bulls to breed supermarket steers in a self replacing Hereford/Poll Hereford herd with grass finishing and calving ease nominated as very important. For interest, I have listed in Table D, the EBVs of Unsworth and this year’s winning pen, and compared them with the average EBVs of Sydney Show Poll Hereford champions from 1990 to 2000. (The Sydney figures were passed on by Kay Payne, the performance enthusiast who runs “Eulalia” Poll Hereford stud near Scone).
Elrose commits to BREEDPLAN

Rodger and Lorena Jefferis, with their children Grant and Brooke, run “Elrose” Brahman Stud under extensive commercial management in north west Queensland. The Jefferis’s have a long association with the breed being among the first to introduce Brahman genetics to the region in the late 1950’s.

Located 70km south of Cloncurry “Elrose” covers some 32,000 ha. Soil types vary noticeably, ranging from red hilly country growing buffel and spinifex to heavier pebbly black soil and Gidyeya. The north west of Queensland is noted for its extremes in temperature and rainfall. Summer is punctuated by periods of high temperatures and monsoonal storms. The majority of the 400 mm rainfall occurs between December and April.

While structural soundness is important to all breeders, it is vital in north Australia’s extensive beef country with its big paddocks and infrequent water points. “It is not uncommon for cattle in this region to walk up to 8km from water” illustrates Rodger.

The nature of the country necessitates well adapted females. “From time to time we have introduced females to “Elrose” stated Rodger “but we have had more success with home bred females with proven fertility in our environment”.

The Jefferis’s have been active in the bull market in recent years setting a new record for an Australian bred Brahman bull when they paid $60,000 for Lancefield Ambition in 1998. Ambition is rated in the top 5% of Brahman BREEDPLAN for growth, carcase weight, RBY% and EMA, and his dam line has exhibited high fertility under the extremely dry conditions central Queensland suffered in the 1990’s. The Jefferis’s have a simple philosophy when buying bulls. “A good bull is a sound investment, not an expense”. This has certainly proven to be true for Ambition when the first five sons offered at auction more than recouped his purchase price.

The Elrose sire battery was further enhanced at the 2001 Tartrus-Lancefield sale where Rodger and Lorena outlaid $87,500 for Lancefield Signature to complement Ambition daughters.

Balanced selection is the goal at Elrose. “Fertility of the dam line is a key priority” explains Rodger. “This is used in conjunction with EBVs, carcase data and assessment, structural soundness and temperament. We are looking forward to further development of Days to Calving EBVs in Brahman to aid us with fertility”.

The Jefferis’s commitment to their seedstock enterprise is substantial. This year fourteen single sire herds will be joined for 120 days, a short joining period by local standards. In an area where bulls are commonly run at 4-5%, Elrose sires are worked much harder. Two year old bulls are generally mated with 30 to 40 females for their first season, with older bulls given larger mobs, at times up to 70 females.

“It is interesting that sires often show similar calving spreads year after year”, notes Rodger. “Bulls that can deliver more calves earlier are clearly more desirable to our industry”.

In addition to paddock sales, Elrose bulls are marketed at the Cattle Country bull sale, Cloncurry. The Jefferis’s in

Obituary
The Australian beef industry lost one of its most respected members with the passing of Jeff McCamley, Lancefield Brahman Stud, on 5 January 2002.

Jeff and his wife Ann moved to ‘Lancefield’ and introduced Brahman cattle in 1958, seeking better adaptation to heat, parasite and nutritional stresses imposed by the sub-tropical central Queensland environment. In 1964 they registered Lancefield Brahman Stud. From this beginning the Lancefield operation has grown to some 2,500 registered and 3,500 commercial Brahman breeders.

This herd is testimony to Jeff’s ability to successfully blend science with intuition and eye to breed outstanding livestock.

In conjunction with brother Graham, Tartrus Brahman Stud, the Annual Tartrus – Lancefield sale has been conducted for 28 years. The 2001 sale included 190 lots. The 112 bulls set a new Australian Brahman record selling to $87,500 with an average of $11,821, and 16 heifers averaging $14,875.

Jeff is survived by his wife Ann, four sons and their wives, Andrew & Anna, Scott & Lizette, David & Julie and Mathew & Janelle, and nine grandchildren.

Richard Apps
07 4927 6066
Tropical Cattle Technology Services.
A joint initiative between eight tropical beef cattle societies, Meat and Livestock Australia’s North Australia Program and ABRI.

association with Noel and Dallas Daly’s Caiwarra Stud, Julia Creek, and invited vendor, the McCamley family’s Tartrus Stud, offer some 200 bulls annually. All Elrose bulls sold by auction are committed to the Cattle Country sale.

“We would expect a few of the top bulls to sell to higher prices if presented at the coastal sales where more seedstock breeders create competition” stated Rodger, “but we are happy for these bulls to end up in commercial herds”. While every bull breeder is thrilled to sell a top priced stud sire the focus for Elrose is on producing large lines of commercial bulls. “Calves in the paddock and kilos on the bullocks of our clients is our aim. Achieving that will help put dollars in the bank for more producers than a couple of high price stud bulls. BREEDPLAN helps deliver predictable genetics needed to achieve this”. Rodger notes varying levels of utilisation of EBVs among their clients. “While we

Continued page 11
Continued from page 10

support our clients who insist on EBVs to aid selection decisions, we are also keen to help them understand balanced selection and not become overly focused on 600 day EBVs”, explains Rodger. “We have a another group of buyers who may not request our EBVs initially, but when offered will certainly make use of the information. Our most advanced buyers are doing plenty of home-work before inspecting our bulls. They are screening available bulls on their EBV profiles and then coming back to us with a short-list of bulls upon which they want details of dam reproductive performance.”

Belmont/Bonsmara linkage develops

Previous issues of BREEDPLAN News have reported that the Belmont Red Society of Australia and the South African Bonsmara Society have been active in generating genetic linkage between their databases.

Due to respective quarantine restrictions, South African Bonsmara breeders have been sampling Belmont genetics for a longer period than Australian Belmont breeders have been able to utilise Bonsmara genetics.

Currently over 1000 Belmont sired calves are recorded in the Bonsmara herd book. Correspondingly, Australian breeders have recorded about 70 pure Bonsmara and 140 F1 Bonsmara/Belmont calves, with the current calf drop still to come.

Dr Heather Burrow, CSIRO Livestock Industries, advises that she will be attending a meeting in South Africa in April this year at which Australian and South African collaborators on this project will discuss options for undertaking a combined analysis of the two data sets.

Welcome Andrew Byrne

Andrew Byrne has recently joined BREEDPLAN. He comes from the Albury district in Southern NSW, where he has had experience with the family Merino stud and commercial Hereford herd.

Andrew graduated from Uni of Sydney, with a Bachelor of Science in Agriculture majoring in animal production, with particular interest in controlled breeding and genetics. His BREEDPLAN responsibilities include Murray Grey, South Devon, Devon and Red Poll.

The BREEDPLAN impact on major breeds

Following up a suggestion by MLA’s Rob Banks, Murray Scholz has compiled an analysis of the databases of the largest breed associations to come up with the percentage of calves born in year 2000 for which the sire or the maternal grand sire had BREEDPLAN EBVs.

The results show that Murray Grey scored a perfect score, 100% and many other breeds were above 99%. This highlights the profound impact of BREEDPLAN in the registered herds. Our market research tells us that around 80% of the bulls used in the commercial industry come from registered herds. Thus the impact of BREEDPLAN on the genetics of the commercial industry is also very high.

% Calves with BREEDPLAN Genetics

<table>
<thead>
<tr>
<th>British Breeds</th>
<th>% Calves</th>
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<tbody>
<tr>
<td>Murray Grey</td>
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</tr>
<tr>
<td>Angus</td>
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<tr>
<td>Shorthorn</td>
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<td>Poll Hereford</td>
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<th>European Breeds</th>
<th>% Calves</th>
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<tr>
<td>Limousin</td>
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<tr>
<td>Charolais</td>
<td>97.8</td>
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</table>

<table>
<thead>
<tr>
<th>Tropical Breeds</th>
<th>% Calves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brahman</td>
<td>88.0</td>
</tr>
<tr>
<td>Santa Gertrudis</td>
<td>82.7</td>
</tr>
<tr>
<td>Droughtmaster</td>
<td>75.3</td>
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</tbody>
</table>

Arthur Rickards
The northern breeding program

The Beef Quality CRC is conducting a project studying links between the genetics of beef quality and components of herd profitability in northern Australia. The key issue being addressed is whether it is possible to change carcase and beef quality attributes without compromising key fitness and reproductive performance.

For instance, does selection for meat quality and carcase yield have any effect on fertility and adaptation to harsh environments? Results from this trial should provide many answers, and further strengthen BREEDPLAN for Tropical breeds. Key indicators will be feed efficiency, female fertility, beef quality, carcase yield and adaptation to tropical environments. EBVs will be a crucial tool in the evaluation process.

The project is jointly funded by CRC, MLA and the Australian Centre for International Agricultural Research (ACIAR) with an important South African linkage. Key sponsors of the project are the Northern Pastoral Group (NPG) of Companies; Stanbroke, NAPCO, Consolidated Pastoral Co, AA Co, E & G Maynard, J McCamley, C. Briggs, Kidman Holdings and QDPI. These organisations have or will participate in the AI & breeding programs to produce calves for evaluation.

The breeding program commenced in 2000. In January 2002, 800 heifers and Brahman Composite cows were AI’d at QDPI Belmont Research Station. In total, 4,800 calves will be generated for the project over three years. There will be equal numbers of Brahmans and Red Composites, with 50-60 calves per sire. (See diagram below)

Steers will be grown out at either Tullimba (Armidale), Kiargathur Stn (Condobolin), Brigalow Research Stn (Theodore) or Crescendo (Capella QLD). At around 420 kg they will be put on feed for 110 days at Tullimba until they reach 320-340 kg carcase weight, then processed at Grantham abattoir. All steers will be implanted with Elanco HGP’s to reflect typical industry practice.

The first group to be processed, some 2000 drop Brahman (Weetalaba) steers, were finished at Tullimba and slaughtered this March. 2001 drop steers are currently on growout properties and late last year weighed between 180 to 238kg.

The heifer portion have been distributed between the QDPI properties of Belmont, Toorak (Julia Ck), Swans Lagoon (Ayr) and Brian Pastures (Gayndah). They will join the breeding herds at these properties at 2yo and raise 2 calves to weaning before being returned to their owners at the end of the trial. The calves will also be returned to their owners after weaning each year.

The 2000 drop heifer calves had a variety of measurements taken, including growth, scanned meat quality traits, structural soundness, condition score, coat score, colour, rectal temps, tick & worm counts, temperament, genotype and scanned ovarian activity to estimate age & weight at puberty. The 2000 drop heifers have recently been joined to Tartrus bulls at Belmont Stn.

In summary, this major project is progressing well and should generate some valuable information for the northern beef industry in particular, and BREEDPLAN users in general. It will assist the development of breeding programs that balance the pursuit of meat quality traits with the mandatory economic requirement for fertility and ability to survive and thrive in harsh environments in northern Australia.

Peter Dundon
0267733981
Regional combinations study

Another major project for CRC II, is a study of 'best bet' Regional combinations of genotype and nutrition. There are five sites across Australia, two in Queensland (Charters Towers and Rockhampton), Wagenup in WA, Hamilton Victoria and Griffith, NSW. They are each testing nutritional options relevant to their region, allowing lines of steers of different genetic potential (for carcass type) to be grown at different rates, and finished for various markets.

The NSW site is on "Bringagee" station (AgReserves Aust), near Griffith. It is supervised by NSW Agriculture researchers John Wilkins, John Irwin and Bill McKiernan (pictured at a recent field day at Bringagee).

Groups of 500-700 Hereford cows are involved at each of 5 matings for Spring and Autumn calving groups. These are being joined by AI to five carcass types in the sires, each represented by eight sires (40 total):

1. Angus High Yield % EBVs
2. Angus High IMF % EBVs
3. Angus High Yield % and IMF % EBVs
4. Wagyu (Black and Red)
5. Charolais and Limousin

After weaning, the steer progeny follow either High or Low growth paths, to reach (average) 400 kg feedlot entry weight at either 13 or 19 months of age. The split calving design allows the Low growth group from one calving to join the High growth group from the following calving to come together for finishing and slaughter at the same time. This is essential for valid comparison of performance and carcass quality between groups.

The first two calvings have been completed in May and October 2001. Subsequently, the first group have been weaned (in January 2002) and started on their post weaning growth treatments. The most important data from this project will not emerge until the first groups have been right through the process to produce carcasses. However some interesting trends have been found at weaning. The potential for different carcass composition, as expected by the sire types, is already suggested by fat depth, eye muscle areas and subjective muscularity scores at weaning. Progeny with higher marbling potential had higher fat depth measurements, while higher yield potential was reflected in higher eye muscle area and muscularity.

This project has a spinoff, as well as collecting the core results for the main project, in generating useful experience in managing AI programs in large commercial herds.

Bill McKiernan, John Irwin and John Wilkins, NSW Agriculture.

Quick, accurate and safer calf weighing

In some breeds and regions, calf weighing is an important part of stud recording. Several types of equipment have been designed to increase safety and speed up this difficult job. Some I have featured in this newsletter, and more ideas are welcome.

I have heard several good reports on the Ruddweigh loadcell bucket (marketed by ABRI), pictured right. This is particularly good for large herds. Slings offer a cheaper and at times more flexible alternative. The one on left is designed and sold by Andy Withers “Belmore” Shorthorn stud in South Aust. (08 87653218). It is easy to clean and very secure (angled across the shoulder and hips, with one fore and an opposite hind leg out).
November, 2001 saw the implementation of BREEDPLAN Version 4.2. EBVs from Version 4.2 analyses will be a more accurate prediction of the animal’s genetic merit for carcase traits. The primary reason for the upgrade was to permit incorporation of new genetic parameters for abattoir carcase traits based on the final estimates from the Beef CRC1 straightbreeding project. The main changes were increases in the heritabilities for intramuscular fat % (IMF) and retail beef yield % (RBY). These increases resulted in changes to both EBVs, with the main effect being a spreading of the EBVs and the re-ranking of some animals. Alterations to the genetic correlations among the abattoir carcase traits and between these traits and scanning traits also resulted in changes to the EBVs of some animals. Also included in the new V4.2 analysis was a negative genetic correlation (-0.20) between the fatness traits and the female fertility trait of days to calving. That is, genetically leaner females tend to have higher (ie. longer) days to calving. Another feature included in Version 4.2 is its ability to use MSA marble score records from designed progeny tests as an important source of data for computing the IMF EBV.

Additional analyses of the Beef CRC data were used to establish the magnitude of the genetic relationship between each of the abattoir carcase traits (rib and P8 fat, IMF, RBY%) when cattle were finished on either grass or grain or to domestic versus export market weights. Estimates of the genetic correlations were very high (close to one) between grass versus grain and between domestic market weight compared to export market weights. The genetic expression of these traits (ie. the magnitude of the additive genetic variances) increased for grain feeding and at heavier weight. These were extremely important results for BREEDPLAN. The near unity correlations across finishing regimes and across market weights suggests little or no re-ranking of sires for their progeny’s performance for each of the carcase traits. These results justify the earlier decision to publish only a single set of carcase trait EBVs in BREEDPLAN and help ensure simplified breeding programs (ie. only need one EBV for each trait). The increased genetic variation resulting from different production and market weights regimes can be considered when deriving breeding objectives in BreedObject.

Research and development at AGBU*

As part of AGBU’s cooperation in the Beef CRC, researchers have estimated a significant genetic relationship between temperament and meat quality in tropically adapted breeds of cattle using Beef CRC data. The research used records of flight time, a temperament measure based on the time an animal takes to move a specified distance after exit from a crush, and shear force of a sample of the striploin taken on Brahman, Belmont Red and Santa Gertrudis cattle. Flight time is heritable (h² = 29%) but more importantly the results of this research indicate that flight time can be used to select cattle with more tender beef. Animals with higher flight times (ie. slower exit, and thus quieter temperament) have a genetic tendency towards more tender meat (rg = -0.53). These results have inspired further research within the new Beef CRC project. Industry trials are also underway assessing the use of flight time as an objective measure of temperament in temperate breeds. Flight time is simple to record, requiring little additional equipment that can be quickly added to most existing yard setups. The equipment includes two light beams 1.7m apart with results fed to a display monitor or directly into a computer. This equipment is now commercially available through Ruddweigh International Scale Company, Guyra, NSW.

Flight time should be measured at weaning and again at yearling on all calves and the records submitted to BREEDPLAN. This information will be used for future development of a flight time EBV. A new flight time EBV could be used by breeders of tropically adapted cattle to select for improved meat tenderness, in addition to improving flight time itself. For further information regarding flight time and its measurement, contact AGBU or the Beef CRC.

* AGBU is a joint institute of NSW Agriculture and the University of New England. AGBU is responsible for developing and maintaining BREEDPLAN software.
New trial net feed intake EBVs (NFI)

Collaboration between NSW Agriculture’s Trangie Research Station, the Beef CRC and AGBU over the last year has culminated in the publication of new trial BREEDPLAN EBVs for the economically important trait Net Feed Intake (NFI). The research used data from Trangie, Beef CRC and industry based accredited testing facilities. NFI EBVs now give producers the ability to select for improved feed efficiency without compromising weight and growth performance. The information available has already revealed quite large differences between some widely used industry sires. The trial NFI EBVs and further information can be viewed on the Angus and Hereford Society web sites. Although still in a trial phase, the trait is targeted for inclusion in GROUP BREEDPLAN analyses with the acquisition of more data. People interested in testing their cattle should contact their relevant breed society.

Revised methodology for mature cow weights

In 2001, revision of the method for calculating mature cow weight EBVs was prompted by increased numbers of cow weight records on the NBRS database and industry feedback that mature cow EBVs of some sires did not seem to reflect the mature weight differences observed in their daughters. The extra information allowed a more intense scrutiny of factors affecting mature size, which in turn led to changes to the analysis yielding more precise EBV calculation. The new method was derived using Angus and Hereford data and primarily redefines the way cow weight records are grouped for analysis. Calf weaning weight information is now utilised making it crucial that breeders weigh their cows at the same time as their calves are weaned and weighed. The new method was implemented in the December GROUP BREEDPLAN analysis for all temperate breeds. Some changes in EBVs have been observed as a result of the revision, however the new EBVs should reflect more accurately the true genetic differences between sires for the mature weight of their daughters. A review of the method of analysis for tropical breeds is planned for early 2002.

IGF blood test

As the cost of feed intake measuring for NFI EBVs is quite high, the CRC and AGBU research teams are seeking methods to simplify and/or add accuracy to the testing. The most promising lead at present is the blood hormone IGF-1 (Insulin like Growth Factor). IGF-1 is correlated to feed efficiency in pigs, and has been used for several years in our PIGBLUP genetic evaluation program. The blood test is conducted by Primegrow Pty Ltd, which has the exclusive right to commercialise this Australian owned IP.

AGBU scientists have recently analysed Feed Efficiency data from NSW Agricultural Research Station Trangie and the Beef CRC Tullimba feedlot. We have been very encouraged to find a favourable correlation between IGF-1 and Net Feed Intake. There are also genetic correlations with the fatness measures of around 0.5, genetically fatter animals have higher IGF-1 concentrations. We are therefore starting a major trial to hopefully confirm this, and fine tune methods for recording IGF-1 in seedstock herds.

With funding support from MLA, AGBU will lead a project this year to collect blood samples (on simple paper cards) from 8,000 weaner bulls and heifers in BREEDPLAN herds. To minimise costs, this work will be concentrated on the East Coast and to herds that scan. We will conduct more detailed tests on some research herds such as “Trangie” and the Durham Shorthorn research herd at Orange, which has just sent its first weaners to “Tullimba”. All animals in the CRC-2 Northern breeding project will also be recorded repeatedly for IGF-1. This will provide answers such as best age to measure.

Our current feeling is this IGF-1 test will not totally replace actual feed intake measurements. It has the potential to allow a better selection of the bulls to enter the feed intake test and to significantly add accuracy to EBVs at a young age.
The livestock revolution - ILRIC

A group of nine organisations in Armidale has received the green light to establish the world’s foremost livestock information centre following a $4.5M injection of funds from the Commonwealth Government. This will be matched $ for $ by the participants to make $9M which will then be multiplied up through an expected series of third-party corporate contracts to perhaps $80M over the next few years. The aim is to position Australia’s livestock producers to reap maximum benefit from the Livestock Revolution that is predicted to see demand for livestock food products double by 2020.

The new organisation will be called the International Livestock Resources and Information Centre (ILRIC). It is a virtual research facility whose role is to coordinate the rapid provision of knowledge emanating from the research of participating organisations. The start-up funds came from the Government’s Major National Research Facilities program as part of the Coalition’s program for “Backing Australia’s Ability”.

The participating organisations are the University of New England, Agricultural Business Research Institute, Beef CRC, Sheep CRC, Animal Genetics and Breeding Unit, Veterinary Health Research, Institute for Rural Futures, Australian New Frontiers and breed societies. They will pool resources to establish a world class knowledge base for the livestock industries with particular emphasis on livestock genetics and animal health.

The knowledgebase will be indexed and held on fast computers from which it will be accessible worldwide, 24 hours a day, 365 days a year. To cope with the high enquiry level expected and other aspects of the project, UNE plans to increase tenfold the speed of its access to the Internet.

The project addresses the greatest deficiency in livestock research, namely, the significant lag in time of getting research outcomes out to livestock producers in the form of decision making tools that increase productivity and profitability. Under ILRIC, the huge databases of ABRI and the CRCs’ will be available on the Internet and producers will be able to access this data using a business intelligence system to assist their decision making.

In January, I was elected as Chairman of the ILRIC Steering Committee which is getting all the agreements with the Commonwealth in place. The software task to create knowledgebases, the access and security procedures and the business intelligence applications will be enormous. A team of around 20 software developers will be assigned in part of in full to the project.

And the project won’t stop with Australia’s livestock industries but extend worldwide – particularly to developing countries that are in desperate need of higher livestock productivity to service the nutritional needs of a burgeoning human population. Welfare aspects of the project rank highly in the priorities.

The timing of the project is ideal. It means that ILRIC will be providing comprehensive information systems at the very time when Telstra is rolling out many enhancements to its Internet services to rural Australia – particularly by satellite communications to producers in remote areas.

By May, 2002 it is anticipated that ILRIC will have a Board of Management operating under the Chairmanship of Dr. Bruce Standen, a UNE graduate who was until recently Managing Director of the Australian Meat & Livestock Corporation.

It is a great boost to the prestige of Australia’s livestock research community to win a MNRF. The ILRIC proposal is the only successful MNRF that will be driven entirely from a regional base – so a lot of eyes will be watching our progress. Over time the ILRIC proposal is expected to contribute over $1 billion to the Australian economy through increasing the productivity of our livestock.

Arthur Rickards
ABRI, AGBU and a number of breed societies have formed a syndicate to undertake commercial trialling of the Total Genetic Resource Management (TGRM) software during 2002. TGRM allows breeders to build on their pedigree, EBV and BreedObject information (left hand side of the diagram) to “design” a mating program that maximises genetic gain while controlling inbreeding and managing various constraints (right hand side).

The TGRM mating list shows which of the candidate bulls and cows should be used, how the cows are to be allocated to the bulls, and the predicted performance of the progeny in terms of trait EBVs, $ index value and inbreeding level. The strength of TGRM is the varying levels of complexity at which it can operate, providing the breeder with a wide range of alternative scenarios to consider, depending on their specific requirements. TGRM can also be used to benchmark the likely outcome of a pre-planned mating program, to evaluate the benefits/costs of the decisions made and options for improvement.

The Syndicate invites breeders to register their interest for use of TGRM. We have two Armidale-based TGRM-accredited consultants in Wayne Upton, myself and Richard Apps. is being accredited to service herds in Northern Australia. (See contact details below).

Initial discussions with the TGRM consultant will help you decide if a TGRM run is feasible, based on available data and your expectations. The scope of the initial TGRM run can then be defined. Further refining of the TGRM run arises from on-going interaction between you and the consultant, to give a final mating list that best caters for your needs.

The standard fee for TGRM services through the Syndicate include a $100 setup fee, $3.00 per cow in the final mating list and a TGRM consultancy fee. In 2002, this consultancy fee will be offered at a discounted rate of $450 per day. Most TGRM runs will require ¼ to 1¼ days to complete (spread over a period of up to 1 month), depending on the level of complexity at which the breeder wishes to operate. You need to have Email access to receive the various reports. Indicative fees per cow for a range of example TGRM scenarios are given above (actual fee per cow will depend on the scope of the TGRM run and the amount of consulting time you use): See diagram below.

For more information on TGRM, please contact me:

Brad Crook
(02) 6773 5263
brad.crook@abri.une.edu.au

(or one of the following consultants:)

Wayne Upton
(02) 6773 3141
wupton@metz.une.edu.au

Richard Apps:
(07) 4927 6066
tcts@bigpond.com

Example TGRM scenario $ per cow
100 cow herd, all cows mated, ~¼ day for completion 6.25
200 cow herd, all cows mated but with constraints on trait EBVs for heifer joinings, ~1 day for completion 5.75
300 candidate cows, 200 to be mated (i.e. selection+mating run), ~1½ day for completion 5.75
500 cow herd run across two properties, all cows mated, use of natural service and AI sires with constraints on mating costs, ~1½ days for completion 4.55

Benchmarking your mating list (~¼ day for completion):
500 cows 3.40
100 cows 5.00
New progeny test at “Trangie” NSW

The Angus Society of Australia has established a progeny testing program in cooperation with NSW Agriculture at Trangie Research Station. Trangie has a special resource of 400 Angus cows, BREEDPLAN recorded with the Angus Society and all with feed efficiency records.

From 1974 to 1992 the herd was closed and used for a research project to evaluate the consequences of selection for growth. This contributed extremely valuable results for the development of BREEDPLAN. Since then a project on genetic variation in feed efficiency has been conducted. This had strong links with the Beef CRC and allowed the first trial BREEDPLAN EBVs for feed efficiency to be published early in 2002 (pages 13 and 15).

Following the completion of the feed efficiency project, Trangie sought other ways to fund and use their cattle resource to generate further research information. Costs of running the new program are generated from bull nomination fees, matched by the MLA Donor Company program. Aims include further enhancements to BREEDPLAN, particularly for feed efficiency and to I/D young Aust sires which can contribute to the industry and replace some US imports.

In 2001, Angus breeders were invited to nominate bulls for progeny testing. 34 were nominated, and 13 were selected, ten for AI and three for natural service. Selection criteria ensured a range of blood lines and breeders, and good performance figures as assessed by the BreedObject $ Indexes. This process will be repeated in 2002, 2003.

400 females were inseminated in spring last year. A recent ultrasound pregnancy test by John Wilkins showed a pleasing 92% from the two rounds of AI and one cycle of natural service. John also provided foetal ageing results which indicate there will be the right number of progeny by each sire, though DNA testing will finally confirm this. Male calves will be steered and grown out from weaning to feedlot entry at Glen Innes Research Station, then finished and feed efficiency tested at the CRC research Feedlot, Tullimba. IGF-1 blood tests will be recorded during growth (see P15) and compared to the feed intake and carcase results.

Heifers will be retained at Trangie and sufficient of each bull’s daughters joined to give reproductive and maternal information. The project is managed by a committee from the MLA, NSW Agriculture and the Angus Society. (Contact Angus Society: 02 6772 3011)

Angus Alliance progeny test, Victoria

The AAA (Australian Angus Alliance) Progeny Test program has been successfully running for 7 years, coordinated by Harry Lawson and Carolyn Ebeling, with support from the MLA R&D Partnership program, Elders, Rutherglen Research Institute and also involvement from the Beef CRC. Werribee Agriculture’s commercial Angus herd is the basic breeding unit, with 1,200 heifers inseminated in spring last year.

Nominated bulls are benchmarked against proven, high accuracy reference sires. Test sires are randomly AI’d to 100 females each, ensuring large contemporary groups which are maintained from birth to slaughter.

Calves are identified and weighed at birth, the males steered and weighed regularly from weaning to feedlot entry. Feedlot performance is monitored and carcase data collected and compared with ultrasound scanning prior. Net Feed Intake data will be collected this year (also IGF blood tests, P15), with 120 steers currently under tests at Rutherglen to provide NFI information on their sires.

Over 300 Lawsons Angus bulls have been NFI tested at Rutherglen making this program the largest single contributor to the recent publication of BREEDPLAN NFI EBVs for Angus, outside Trangie Research Station (see P15).

This NFI testing has already found a sire, GAR Precision 1680, with one of the best NFI EBVs so far found in Australia (-0.83, negative being less feed consumed. There are also some Australian bulls with NFI EBVs around this level). GAR Precision 1680 has been widely used at Lawsons, through importing embryos and has a strong EBV profile and high $Index for the Japanese market. Lawsons have a partnership with Gardiners Angus Ranch, breeders of GAR Precision.

Lawsons Angus also have an interesting bull growing out unit taking weaner bulls from the 1200 cow herd and 800 recipient cows in their ET program. 400 ha of pasture and crop is managed under intensive cell grazing. Harry Lawson tells me bulls average 1.2kg/hd/day, with the unit turning off of 760kg/ha/year (target is 1000 head on the 400ha, equivalent to 30 DSE/ha). Weaners enter in May at 250kg and leave as 450kg yearlings in Sept or 650kg at 18 months, in April.
In the ever-changing livestock industry, it is comforting to know that there is one agricultural software company that is committed to taking you into the future. With over 20 years experience in the development and marketing of PC software, Saltbush Agricultural Software is the leading producer of PC software for livestock production.

Saltbush’s Herd Recording packages are at the forefront of industry developments and have been designed to save you time and money. The entry and retrieval of information is easy and logical, enabling you to streamline your management procedures. Information on your herd is in an easily accessible format, for all stages of herd production, management and performance.

Jo Quigley

Training and field days

Saltbush conducted 33 FarmBiS accredited group training sessions across Australia in 2001, training in excess of 270 clients. There were also eight sessions in New Zealand, with 70 clients.

If you haven’t been to one of our highly regarded training schools – make sure you do in 2002 as we continue to run an extensive training campaign. Wherever possible, this will be in conjunction with major field days. One of the features of the training program will be the new Herd Magic (HM) Advanced Training School. This focuses on how to get the most out of Herd Magic by using the program as a Management and Marketing Tool.

Our schedule for April is

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<tr>
<th>location</th>
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<tr>
<td>Rockhampton, QLD</td>
<td>HM Training, 11th World Brahman Congress</td>
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<tr>
<td>Charters Towers, QLD</td>
<td>HM Training</td>
</tr>
<tr>
<td>Bairnsdale, VIC</td>
<td>HM Training, East Gippsland field day</td>
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With FarmBiS funding still available nation-wide, Saltbush will continue to apply for FarmBiS funding on your behalf at all of our training sessions. This means that you can attend a training course for approximately 25% of the cost!

Contact Saltbush today!

So whether you are interested in learning more about Saltbush’s Herd Recording packages, the “Saltbush EID System” or Saltbush’s 2002 training program, please contact the Saltbush office, where a friendly Consultant will assist you with all of your needs!

Ph: (02) 6773 3310
Fax: (02) 6773 3950
Email: support@saltbush.une.edu.au
Web: http://saltbush.une.edu.au

Electronic identification and the NLIS

There is a hot topic on every beef producer’s lips at the moment, Electronic Identification and the National Livestock Identification Scheme (NLIS). With the introduction of compulsory identification of cattle in Victoria announced late last year, and with a sheep NLIS scheduled to commence in February, it seems inevitable that this is the path to the future for livestock recording in Australia.

No one can argue against the benefits that individual electronic identification and the NLIS promote: that is, improved data integrity, product traceability, and carcase feedback linkages to on-farm performance of individual animals.

The announcement of an industry standard Carcase Feedback File in early December, 2001, means that you can now download a Carcase Feedback File from the NLIS database, which can be easily imported into your Herd Magic or Stock Recorder databases.

Access to individual animal feedback is surely going to give beef producers increased power in making more informed decisions and genetic improvements within herd. Utilised in conjunction with Saltbush’s Herd Magic and Stock Recorder software (as displayed on page 20), Electronic Identification and the NLIS will enable beef producers to improve data collection efficiencies, manage Quality Assurance records, and analyse carcase feedback based on genetic lines and management.

Saltbush has been working hard on making the “Saltbush EID System” as user-friendly as possible. With Herd Magic and Stock Recorder’s new EID Interactive Data Entry screens, you are now able to take your program to the yards and record weights, traits, health treatments, pregnancy tests, matings, sales and purchases, all by scanning the Electronic Identification as the animal comes up the race.

Alternatively, if you prefer to use a data collector at the yards, in conjunction with a reader, to record animal
Saltbush is rolling out the release of HerdMASTER, an exciting new PC-based herd management package developed using the latest Microsoft® technologies. We are confident that it will leapfrog all current herd management products in terms of functionality, internet capability and ease of use.

HerdMASTER will continue to attend MLA’s NLIS Field Days that are being held throughout Australia during 2002. Saltbush will continue to attend MLA’s NLIS Field Days that are being held throughout Australia during 2002.

Jo Quigley

E Tags in action
Western Victorian breeder Mark Gubbins, "Coolana" Angus stud, extols the virtues of his integrated electronic ear tag recording system. This utilises Allflex tags, a stick reader, and interfaces with his Ruddweigh Scales and HerdMagic record keeping program. Some of his comments included:

- 'They' said it was all possible, when I first put in the tags 2 years ago. In hindsight all the interfacing was not ready. It has needed development and 'debugging', but now works very well.

- We recently weighed 74 head, and had the data captured in HerdMagic on our yard notebook computer in 45 minutes,

- We have now put in 1200 tags, at calf marking, with only one tag lost and one not reading,

- As well as the benefits of quick and accurate performance recording, our Cattle Care and EU accreditation initiatives also become much easier when managing different mobs re withholding periods etc etc.

- I'm now confident enough in the system to leave new staff in charge of recording procedures - previously there would often be the risk of misread tags and wrongly recorded data.

Jo Quigley

HerdMASTER release
Saltbush is rolling out the release of HerdMASTER, an exciting new PC-based herd management package developed using the latest Microsoft® technologies. We are confident that it will leapfrog all current herd management products in terms of functionality, internet capability and ease of use.

The new product was launched in Kansas City in October, 2001 at the AGM of the American Hereford Association (AHA), and sales have been overwhelming. Hereford HerdMASTER will revolutionise the way American Hereford breeders manage their on-farm cattle records. Breeders can now submit registrations, performance data and inventory updates electronically, direct from the Hereford HerdMASTER program. There is no need to create files which are sent by email outside the program. On top of the standard animal details, weights, traits, health and performance treatments, movements, sales and purchases, pedigree, EPDs and weight ratios, Hereford HerdMASTER boasts powerful filtering and worksheet capabilities, and a client database with direct email and web interfaces.

With 21 million animals on its database the AHA has put electronic control of its records as its highest priority. Hereford HerdMASTER has contributed significantly to that goal. HerdMASTER will be rolled out to Australian breeders during 2002 including a transition option to existing Herd Magic users. Extensions into the various other countries in which ABRI operates will follow. HerdMASTER can be single or multi-user and handles very large databases with exceptional speed. It’s the most significant product release of Saltbush in a decade.

Jo Quigley

Built on the latest components
- Development tool: Microsoft Visual Basic
- Database: Microsoft Access/SQL
- Reporting: Crystal reports
- Web: Microsoft Internet Explorer

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