A significant enhancement was made to the Brahman GROUP BREEDPLAN analysis in November with the incorporation of Direct Genomic Values in the 200 Day Weight and Days to Calving EBVs.

A major focus within the Cooperative Research Centre for Beef Genetic Technologies (Beef CRC) was to use phenotypic records and SNP genotypes to develop prediction equations for a range of economically important traits. These equations have subsequently been validated by the Animal Genetics Breeding Unit (AGBU) to generate Direct Genomic Values (DGVs) on both the CRC animals and animals within the Brahman population. For Brahman, a DGV for post-weaning weight (PWT) with an accuracy of 0.27 to predict 200 day weight and a Days to Calving DGV with an accuracy of 0.35, has been developed using phenotypes and genotypes from the Beef CRC northern reproduction project.

The Project

The AGBU analysis used 2068 Brahman with imputed 770K SNP genotypes to estimate the genomic accuracies of the resulting DGVs. In the analyses the DGVs were coincided as a trait along with the target BREEDPLAN trait. For the PWT DGV this was analysed with the BREEDPLAN 200 Day Weight as the second trait. The reproductive DGVs for early female reproduction (age at puberty and post-partum anoestrus interval) were shown to not be independent and consequently combined into a single DGV for DTC using an estimate of the genetic correlation between the two DGVs and the correlation with the Days to Calving EBV.

The estimated genomic accuracies obtained were used to blend the DGV into the EBVs generated from a full Brahman BREEDPLAN evaluation. The EBVs and accuracies on the 2068 genotyped industry animals for 200 Day Weight and Days to Calving were compared with and without the blended DGVs.

DGVs Blended into the Brahman BREEDPLAN Analysis

Days to Calving

The DGVs on each individual were blended into the existing Days to Calving EBV using the 0.35 genomic accuracy. The mean of the Days to Calving EBV pre and post blending on the 2068 animals was the same, however the change in EBV were dependent on the existing DTC accuracy. For example animals with high accuracy EBV changed little post blending, whereas animals with low accuracy EBVs changed considerably (change in EBV ranged from -14.9 days to +11.6 days) with the inclusion of the DGV information.

The blending of the DGVs increased the accuracy of the Days to Calving EBV on average by 10%. Figure 1 plots the existing DTC accuracy against the new DTC EBV accuracy after blending of the DGV for the 2068 animals. The effect is not the same for all animals and depends on the level of the existing accuracy. (Change in EBV accuracy ranged from 0 to 33%). For animals with low DTC EBV...
200 Day Weight DGV

The PWT DGV was blended into the 200 Day Weight EBV of the 2068 animals. Due to the low genomic accuracy of 0.26 the change to the EBV and accuracy was very small. While there was no change in the average EBV, actual change in 200 Day Weight EBV ranged from -9.1 to +5.8. Accuracy overall only increased by 1% but ranged from 1 to 24%. The largest changes was associated with the lowest pre blending accuracy.

The Value of DGV Blending

Though the genomic accuracies of both the PWT and DTC DGVs are low, the blending of the DTC DGV into the BREEDPLAN analysis has yielded significant improvement in the genetic evaluation of days to calving. While the accuracy increases for DTC are only modest, it would take several years to generate enough daughters to achieve a similar accuracy through performance recording. For example a young bull with low DTC accuracy could achieve a DTC EBV with blended DGVs information equivalent to having 8-9 daughters with a days to calving performance record. This presents the opportunity for a more rapid rate of genetic gain for days to calving through earlier and higher accuracy genetic selection based on DGV blended EBVs. The improvements in 200 day weight EBV are very small but will still enhance those animals with very low accuracy.

The DGVs of the 2068 animals used to calculate the DGV genomic accuracies were included in the November Brahman GROUP BREEDPLAN analysis and these animals now have DGV blended EBVs for DTC and 200 Day Weight. These animals are identified on Internet Solutions by having Genomics recorded in the traits observed area as shown in Figure 2.

It is important to note that only the 2068 Brahman animals mentioned currently have DGVs calculated and there is no flow-on effect of these DGVs to other correlated traits or to close relatives.

Further information is available from Paul Williams at TBTS in Rockhampton on Ph: (07) 4927 6066 or Email: paul@tbts.une.edu.au.
Important Considerations for Beef Producers When Using Selection Indexes

Selection indexes are utilised by livestock breeders of many species around the world and are considered an essential part of any modern livestock breeding program. Within the beef industry, selection indexes are calculated by BREEDPLAN for animals within all the major breeds in Australia and cater for the commercial market production systems of general relevance in each respective breed.

Selection indexes aid in the selection of animals for use within a breeding program where there are several traits of economic or functional importance. Selection indexes provide an overall “score” of an animal’s genetic value for a specific purpose and are calculated based on weightings placed on individual traits that are deemed to be important for that purpose.

Selection indexes assist beef producers in making “balanced” selection decisions, taking into account the relevant growth, carcase & fertility attributes of each bull to identify the animal that is most profitable for their particular commercial enterprise. Selection indexes reflect both the short term profit generated by a bull through the sale of his progeny, and the longer term profit generated by his daughters in a self replacing cow herd.

The following article outlines a number of important considerations that beef producers should take into account when using selection indexes.

1. Evaluate Relevance of Selection Index

The first and most important step when using selection indexes is to identify the selection index that is of most relevance to the particular production system in which the animal is going to be used. For seedstock producers, this may be the production system of their bull buying clients.

In order to identify the most relevant selection index, it is recommended that producers:

- consider the description of the selection index
- take into account the main profit drivers within the production system that the selection index is describing
- evaluate the weightings that are being put on each EBV within the selection index
- consider the predicted response to selection in each individual trait if animals are selected based on the selection index

Information regarding each of the indexes calculated by BREEDPLAN is available from the Tip Sheets page in the Technical area of the BREEDPLAN website (http://breedplan.une.edu.au).

If the standard selection indexes are not relevant to their operation, beef producers also have the ability to develop a customised index using herd-specific production information and marketing goals. Further information regarding the development of customised indexes can be found on the BreedObject website (www.breedobject.com).

Identifying the selection index of most relevance to the production system that the animals will be used in is of utmost importance. Using the wrong selection index will potentially compromise any subsequent selection decisions that are made.

2. Consider Individual EBVs of Importance

While selection indexes combine all the available EBV information to provide an indication of an animal’s overall genetic merit, it is still very important to pay attention to the animal’s individual EBVs for traits of particular importance.

For example, producers may pay attention to:

- Calving Ease EBVs if they are planning to use the bull over heifers
- Mature Cow Weight EBVs if monitoring the weight of mature cows is of particular importance
- Fat EBVs if they require more or less fat on their steers at slaughter
- EMA EBVs if they want to specifically improve the muscling in their herd
One simple way of considering an animal’s individual EBVs, is to set acceptable ranges for the individual EBVs of particular importance. In this scenario, animals would firstly be ranked on the selection index of relevance but then any animal whose individual EBVs fall outside of the acceptable range be excluded from selection.

It is also important to note that not all EBVs are currently included in the calculation of the selection index values. For example, Docility, Structural Soundness, Flight Time and Shear Force EBVs are currently excluded. In a similar vein to that outlined above, if these EBVs are of importance then animals should firstly be ranked on the selection index of relevance but then any animal whose EBV falls outside of an acceptable range for these traits be excluded from selection.

3. Consider Other Traits of Importance

While selection indexes take into account all the available performance information on an animal, it is also important to recognise that they do not consider all the traits of functional and economic importance.

Consequently, when using selection indexes to assist with animal selection, it is important to also consider other information that may not be accounted for in the index. For example, this may include such things as assessment of an animal’s temperament, structural soundness, phenotype, fertility status, carrier status for any relevant genetic disorders, and DNA results for qualitative traits like coat colour and polledness.

One strategy that can be used to incorporate selection for these other traits of economic and functional importance with the animal’s EBV and selection index information is to firstly rank animals on the selection index of relevance, exclude any animals whose individual EBVs fall outside of an acceptable range and then assess the animals for these other traits of importance, excluding any animals from selection who are not acceptable in each area.

Using selection indexes in this manner will enable beef producers to make the most informed animal selection decisions and provides the best possibility of maximising the value of the genetics that are introduced into the beef operation.

4. Quantify the Value of Superior Genetics

The selection indexes that are calculated by BREEDPLAN are generated using a software package called BreedObject which has been developed at the Animal Genetics and Breeding Unit (AGBU) in Armidale.

BreedObject combines the BREEDPLAN EBVs for an animal with an economic weighting (based on costs of production and returns on outputs), to produce a single value of an animal’s overall genetic value. Selection indexes are expressed in units of net profit per cow joined ($) for this defined production system and market scenario and consequently enable an assessment to be made of the value of superior genetics.

For example, if a bull with a selection index value of +$100 is compared with a bull that has a selection index value +$70, the difference in net profit from the two bulls can be estimated as follows:

\[ \frac{1}{2} \times \text{difference in Index} \]

\[ = \frac{1}{2} \times (100 - 70) \]

\[ = $15 \text{ per cow joined} \]

If the two bulls were joined to 200 cows during their breeding life, this would equate to a difference of (200 x $15) = $3000.

It is important to note that this difference should be considered as a broad guide only. The difference includes profit across all sectors of the production chain from joining to slaughter and also considers the long term profit generated by a sire’s daughters.

Whether the value is obtained will also be dependent upon whether the economic parameters that have been built into the calculation of the selection index apply to the individual production system in which the bulls are being joined.

5. Track Genetic Progress in Breeding Program

As selection indexes provide an overall “score” of animals’ genetic value, selection indexes can be used to track the overall genetic progress that is being achieved within a breeding program.

Seedstock producers can analyse the change in the average selection index value for their animals over time by reviewing the selection index trend graphs provided in the BREEDPLAN report for their herd.

Similarly, commercial producers can review the selection index values of the bulls that they have purchased over time by reviewing sale catalogues or the online animal and EBV enquiry database provided by all Breed Societies.

Achieving genetic improvement within their beef enterprise should be an important consideration for all seedstock and commercial producers.

If you wish to discuss the use and understanding of selection indexes in more detail, please contact staff at SBTS or TBTS.
New Carcase EBVs for Wagyu

A list of research carcase EBVs for Australian Wagyu animals, calculated from a combination of standard AUSMEAT carcase and camera image measurements, was launched at the Australian Wagyu Association Conference on the Gold Coast in early November.

The new carcase EBVs are the product of the Wagyu Collaborative Genetics Research Project, which has taken a new approach to obtaining measurements for the calculation of Estimated Breeding Values (EBVs) for carcase traits. A collaborative project co-funded by the Australian Wagyu Association and Meat and Livestock Australia the project is exploring the possibility of calculating EBVs from data collected from the carcases of commercial Fullblood Wagyu cattle.

Current Australian Wagyu situation

Originating in Japan, the Wagyu breed (meaning "Japanese cattle") was introduced to Australia in 1980. The breed has a very limited gene pool derived from the original Wagyu genetics exported from Japan through the USA, with no prospect of further exports due to the Japanese Government declaring the breed a "national treasure" and forbidding further genetic exports. The continuous genetic improvement of the limited Australian Wagyu gene pool is therefore vital.

Australian Wagyu Association (AWA) members have been utilising BREEDPLAN for the past 10 years but have only succeeded in attracting 32 members to join BREEDPLAN out of some 350 members. Scepticism of BREEDPLAN is strong amongst the members as their key focus has been on end-point marbling following long grain feeding.

Relatively little production data has been contributed, with virtually all carcase data coming from ultrasound scanning at 12 months of age. Given the steers are fed for 350 - 650 days to express the extremely high marbling levels, the scanning results at twelve months are perceived to be of little relevance by the slaughter point.

In addition, due to the very high carcase value when high marbling is achieved, and relatively low numbers processed in the past, “harvesting” of animals considered ready has been the norm, breaking contemporary groups. Furthermore, large amounts of semen have been available from the bulls originating from Japan and very high levels of artificial insemination from these “tried and trusted” sires has meant that almost no young sires have emerged as future leaders.

The Wagyu Collaborative Genetics Research Project

The Wagyu Collaborative Genetic Research project has involved the collection of performance, pedigree and genotype data on 2215 Wagyu animals, including data collected using the Japanese Digital Camera Image Analysis methodoloogy. This specialised camera provides measurements of 11 different traits mostly related to measures of marbling such as carcase marbling percentage, marbling fineness, marbling coarseness and number of marbling particles. Meat colour and carcase rib eye area are also calculated from the camera images (see photo left).

Standard Ausmeat measures such as hot standard carcase weight and marble score were also collected for the carcases.

Heritabilities and Genetic Correlations

The heritability estimates calculated for some of the carcase traits measured by the Japanese Digital Camera were surprisingly high. The calculated heritability of carcase marbling percentage, carcase marbling fineness index and carcase rib
eye area were 0.35, 0.50 and 0.62 respectively. Interestingly the genetic correlation between Ausmeat Marbling Score and Camera Marbling Percentage was very close to one, meaning that they are the same trait.

In the same analysis the heritability of carcase weight was calculated to be 0.47 based on 5269 records.

Research EBVs

A listing of research EBVs for sires and dams calculated from a combination of standard carcase measures such as carcase weight and camera image measurements was released at the Australian Wagyu Association Conference on the Gold Coast in early November (See Figure 1 below).

The sire and dam summary included 119 sires including the original Japanese sires imported via the USA and Australian bred sires along with 54 influential dams.

EBVs were published for carcase weight, camera marbling percentage, camera marbling fineness index, camera eye muscle area and Ausmeat Marbling score with sires ranked for each trait.

Some important results to note are:

- Carcase marbling, whether measured using the camera (CCMP) or via Ausmeat score (CMAU), is moderately to highly heritable (current estimate for heritability is 0.52 for CMAU and 0.35 for CCMP)
- Carcase Marbling Fineness Index is moderately-highly heritable (0.50)
- The two measures of carcase marbling (CCMP and CMAU) are genetically essentially the same trait (genetic correlation = 1.00).
- Carcase Eye Muscle Area and Camera Rib Eye Area are both moderately-highly heritable (heritability of 0.56 and 0.62 respectively), and strongly correlated genetically (correlation = 0.83)
- The distribution of Carcase Ausmeat Marble Scores (Fig. 3) suggests that actual marbling extends well past Ausmeat Score 9 – the overall mean is 7.4, and if the trait is normally distributed, there would be approximately 17% of the total sample > score 9, 6% >10, 2% >11 and 1% >12.
- There is considerable variation in estimated marbling % within a Carcase Ausmeat Marble Score, and the variation appears to increase as marble score increases.
- There is still some suggestion of data harvesting impacting the results. For example, a subset of animals had both low Carcase Weight and Camera EMA, suggesting these animals may have been killed much lighter - either as an identified separate cohort, or possibly simply lighter weight and possibly "condition" animals culled out from cohorts earlier.

BREEDPLAN Carcase EBVs

Data from the Japanese camera images will be incorporated in the monthly Wagyu BREEDPLAN analysis in the first quarter of 2015. The camera measurements will be used to produce two new EBVs for Camera Marbling Percentage (CCMP) and Camera Marbling Fineness Index CCFI.

For a copy of the sire and dam research carcase EBVs please visit the AWA website news archive (http://wagyu.org.au).

For more information about the Wagyu Collaborative Genetics Research Project and new carcase EBVs please contact the Australian Wagyu Association Executive Officer Graham Truscott (P: 02 6773 3355 or E: graham.truscott@abri.une.edu.au) or Wagyu Technical Officer Alex McDonald (P: 02 67732443 or E: alex@sbts.une.edu.au).

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**Figure 1** - Wagyu Research EBV Sire List
Twenty three scanners gathered in Armidale in the third week of November for ultrasound accreditation. The accreditation drew both experienced and first time scanners from across Australia, the United Kingdom, South Africa and the United States of America.

Because of the large number of scanners participating in the accreditation, the course was held over four days at the Armidale Exhibition Centre. To complete the accreditation each scanner had to ultrasound scan thirty pure and crossbred British and European cross cattle for Eye Muscle Area, Rib and Rump Fat, and Intramuscular Fat. The same cattle had to then be ultrasound scanned again and the scanners had to demonstrate a strong correlation between their first and second scanning of the same cattle. Sixty cattle in total were used for the accreditation, ranging in condition from lean to over fat. Following the accreditation all cattle were slaughtered at Warwick and the same measurements taken in the chillers for comparison with the ultrasound scanning results.

All EMA, Fat and IMF ultrasound scans taken during the accreditation were captured using Centralised Ultrasound Processing (CUP) software and images sent to the USA for analysis. This will enable the benchmarking of the CUP software as a potential alternative to current PIE ultrasound scanning technology.

The scanners were also given an update by David Johnston (AGBU) on the latest developments on the analysis of lean ultrasound scans and participated in a discussion on how this data might be handled by the BREEDPLAN analysis into the future.

Breeders can access a list of accredited ultrasound scanning technicians and their contact details from the Technical section of the BREEDPLAN website. The results from the accreditation will be released in early 2015. For more information about ultrasound carcase scanning, the ‘Recording Scanning Information’ tipsheet is available in the Tipsheets section of the BREEDPLAN website (http://breedplan.une.edu.au).
New Selection Indexes Calculated Within Angus BREEDPLAN

The selection indexes that are calculated for animals within the Angus BREEDPLAN analysis were comprehensively revised during the December 2014 Angus BREEDPLAN analysis, with four new selection indexes now being calculated for Angus animals.

The selection indexes that are now calculated include:

Angus Breeding Index - estimates the genetic differences between animals in net profitability per cow joined in a typical commercial self replacing herd using Angus bulls. This selection index is not specific to a particular production system or market end-point, but identifies animals that will improve overall profitability in the majority of commercial grass and grain finishing beef production systems. The index is particularly suited to commercial producers who sell progeny into different markets, or to seedstock producers supplying bulls to commercial clients who produce for a range of different production systems and market end points.

Domestic Index - estimates the genetic differences between animals in net profitability per cow joined in a commercial self replacing herd targeting the domestic supermarket trade, with progeny finished using either grass, grass supplemented by grain or grain finishing systems.

Heavy Grain Index - estimates the genetic differences between animals in net profitability per cow joined in a commercial self replacing herd targeting pasture grown steers with a 200 day feedlot finishing period for the grain fed high quality, highly marbled markets.

Heavy Grass Index - estimates the genetic differences between animals in net profitability per cow joined in a commercial self replacing herd targeting pasture finished heavy steers.

The implementation of new selection indexes results from a comprehensive industry consultation process that was facilitated by Angus Australia and titled “Setting the Breeding Direction of the Angus Breed”. Consultation included liaison with producers running Angus seedstock and commercial enterprises, feedlots, processors, semen companies, researchers and private consultants.

If you have any questions regarding the new selection indexes, please contact Andrew Byrne at Angus Australia on (02) 6773 4618 or via email andrew@angusaustralia.com.au. Further information is also available from www.angusaustralia.com.au.

Staff Appointments

BTS will be welcoming a new team member in 2015, with Catriona Millen taking up the position of SBTS Technical Officer in January 2015. Catriona will be based in Armidale.

Catriona has recently completed her PhD in dairy cattle genomics at the University of Melbourne and the Victorian Department of Environment and Primary Industries. Her PhD project involved searching for causal mutations underlying milk production traits and feed conversion efficiency in Australian Holstein and Jersey cattle. Prior to embarking on her PhD project Catriona completed a Bachelor of Science at Monash University in 2008 and a Bachelor of Agricultural Science (Honours) at the University of Melbourne in 2009.

She has also worked as a genetics demonstrator at La Trobe University and was recently awarded the Best Overall Student Presentation Award at the 2014 Dairy Futures Cooperative Research Centre Forum.
Enhancements to Australian Composite GROUP BREEDPLAN

A number of significant enhancements were applied in July this year to the BREEDPLAN software that is used to calculate EBVs within the Australian Composite GROUP BREEDPLAN analysis. These enhancements have resulted in the calculation of improved BREEDPLAN EBVs for Australian Composite animals and are part of the normal evolution of the BREEDPLAN software.

The enhancements include:

**Upgrade to BREEDPLAN Version 6.2** - This latest version of BREEDPLAN software has several enhancements over the software previously used within the Australian Composite BREEDPLAN analysis including a revised method for handling different groups of “base” animals, and the ability to “blend” genomic prediction information (i.e., DNA information) into the analysis when genomic predictions relevant to Australian Composite animals become available.

**Introduction of a Days to Calving (DTC) EBV** - Following the addition of the Tropical Composite data from the Beef CRC to the analysis and collection of joining records a DTC EBV has been published for animals within the Australian Composite BREEDPLAN evaluation.

**Introduction of a Mature Cow Weight (MCW) EBV** - Following the collection of cow weights and the addition of the Tropical Composite data from the Beef CRC to the analysis, a MCW EBV has been published for animals within the Australian Composite BREEDPLAN evaluation.

Please Note: The above enhancements will result in EBVs and Selection Indexes changing significantly for most animals. In some cases, the rankings of animals may also change.

If you have any questions regarding the enhancements to Australian Composite GROUP BREEDPLAN or changes in EBVs resulting from the enhancements please contact Paul Williams Australian Composite TBTS Technical Officer (P - 07 4927 6066, E - paul@tbts.une.edu.au).

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**Angus Australia Recommits to the SBTS Project**

The SBTS team is pleased to announce that former SBTS Technical Officer Andrew Byrne will continue his involvement as part of the SBTS Team through his role as Education, Extension and Youth Manager for Angus Australia. Andrew Byrne and Carel Teseling will be contributing their skills to the SBTS project as SBTS Technical Consultants to Angus Australia members as part of Angus Australia’s continuing commitment to the SBTS project.

Both Andrew and Carel bring a wealth of knowledge and experience in beef genetics extension to the SBTS project.

Andrew Byrne was a Technical Officer with SBTS from 2005 until July 2014, prior to which he was part of the BREEDPLAN team at ABRI.

As the Angus Australia Breed Development and Innovation Manager for the past 13 years, Carel Teseling has worked closely with the SBTS team in the past and has a strong understanding of both performance recording and the latest beef genetic technical innovations. SBTS welcomes both Andrew and Carel to the SBTS project and we look forward to working with them in the future.
Christian Duff Wins 2014 Merial Howard Yelland Beef Industry Award

Former SBTS Technical Officer, Christian Duff, was presented with the 2014 Merial Howard Yelland Beef Industry Award for outstanding contributions to the Australian beef industry on July 1st at the Marcus Oldham Rural Leadership Program dinner.

Awarded by the Australian Beef Industry Foundation (ABIF) and Marcus Oldham College, the Merial Howard Yelland Beef Industry Award seeks to recognise individuals who have given service to the beef industry “above and beyond” their normal role.

Christian Duff was jointly presented the award with Dr Hans Graser, in recognition of his outstanding contribution to the Australian beef industry through the introduction of new genetic technologies and his contribution to the continuing development and understanding of BREEDPLAN.

Christian has also been responsible for implementing a quality assurance and certification program for live cattle exported for breeding, thus enhancing Australia’s reputation as an exporter of quality breeding cattle.

SBTS and TBTS congratulate both Christian and Hans on their achievements. For more information about the Howard Yelland Beef Industry Award, please visit the ABIF website (http://www.abif.com.au).

Calving Ease EBVs Now Available for Red Angus Animals

The Red Angus Society of Australia recently became the latest breed to publish EBVs for Calving Ease with the release of Calving Ease Direct and Calving Ease Daughters EBVs for Red Angus animals in December 2014.

Calving Ease Direct and Daughters EBVs are now calculated as part of the routine monthly Red Angus BREEDPLAN analysis for animals that have either been scored for calving ease, or have progeny scored for calving ease, and are being made available in a similar fashion to other EBVs.

Calving Ease EBVs can be viewed in BREEDPLAN herd reports, on the Red Angus online animal search facility (i.e. Internet Solutions) or through herd recording programs (e.g. HerdMaster) by importing the latest GROUPEBV file.
**Optimise Joining Using MateSel**

Seedstock members in Australia are encouraged to consider using the MateSel mating optimisation tool when planning their upcoming joinings.

MateSel creates additional genetic progress within a breeding program by generating a suggested mating list from a list of sires and dams that a seedstock producer nominates as being available for use within their upcoming joining program. MateSel not only allows seedstock members to maximise genetic progress whilst managing inbreeding, but will also save significant time previously spent compiling mating lists.

MateSel is fully customised to the breeding program of each individual seedstock operation with the seedstock producer choosing acceptable inbreeding limits by selecting one of three breeding strategies, “Genetic Diversity”, “Balanced” or “High Genetic Gain” and providing details of their desired breeding objective. A flat fee of $165 (inc GST) applies to access a MateSel analysis, and results are returned promptly, usually within one working day.

MateSel is a valuable addition to the BREEDPLAN suite of tools that are offered by the Agricultural Business Research Institute (ABRI) in Armidale, NSW.

Seedstock members interested in learning more about MateSel should visit the BREEDPLAN website (http://breedplan.une.edu.au) and click on the MateSel icon on the right hand side, or contact staff at SBTS or TBTS.

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**Get Social with SBTS & TBTS**

Beef producers can keep up to date with the latest developments in genetic technologies and the activities of SBTS and TBTS by following SBTS and TBTS on Facebook, Twitter and YouTube. Information is routinely posted on Twitter and Facebook such as articles, webinars and event details, while the YouTube channel contains video presentations such as webinars from past webinar series and short “Understanding BREEDPLAN EBVs” video clips.

To follow SBTS and TBTS on Twitter, Facebook or YouTube simply go to the SBTS or TBTS website and click on the relevant icon, or go directly to the SBTS & TBTS Facebook account at http://facebook.com/SBTSTBTS, Twitter account at http://twitter.com/SBTSTBTS or YouTube Channel at http://youtube.com/user/sbtstbts.

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**Upgrades to Gelbvieh & Blonde d’Aquitaine BREEDPLAN**

The Australian Gelbvieh Association and Blonde d’Aquitaine Society of Australia and New Zealand have upgraded the software used to manage their pedigree and performance database to ABRI’s new generation of breed registry software known as ILR2. The new software includes several new features such as running of the monthly GROUP BREEDPLAN analyses and production of enhanced BREEDPLAN reports. This will significantly enhance the BREEDPLAN service that is provided to members of Gelbvieh and Blonde d'Aquitaine BREEDPLAN.
## Accessing Support in Application of Genetic Technologies

For support and assistance in the use and understanding of the different genetic technologies that are available, such as BREEDPLAN, BreedObject Selection Indexes, Internet Solutions, TakeStock, GeneProb, Mate Selection Software & DNA based tools or to discuss any of the information included in this edition of the SBTS & TBTS Update, please contact:

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