INTERBEEF Working Group meeting

Wednesday 10th March 2016

Draft 9th March 2016 – Ross.

Draft 20th April – Andrew.

1. Opening.
2. Adoption of Agenda
3. Minutes of meeting 9th June 2015 held in Krackow
4. Interbeef routine genetic evaluations for weaning weight (direct and maternal) – Eva Hjerpe (ITB) and Eric Venot (FRA).
5. Update regarding relevant test runs/research for LM and CH breeds.
6. Simmental pilot run for weaning weight – Eva Hjerpe (ITB)
7. Interbull Centre Update – Eva Hjerpe and Toinne Roosen (ITB).
    - Interbeef service calendar.
    - Interbeef code of practice document.
    - Interbeef database and International ID's.
    - Data editing & checks and workflow/rules on Interbeef research projects.
    - Outcomes from 5-year planning meeting.
8. Genotype Exchange Proposal. Toine Roosen (ITB).
9. International collaboration.
    - Update re: future collaboration between Interbeef & ABRI/Breedplan – Andrew Cromie.
    - Opportunities for large scale beef genomics program within EU rural development program – Andrew Cromie.
    - Beef improvement programs in Slovenia – Klemen Potcnik.
10. Finances, including fees from 2016 & 2017 – Andrew Cromie.
11. Future meetings.
    - Puerto Varos, Chile 24th – 28th October 2016.
12. AOB.
13. Key actions from the meeting.
14. List attendees.

1. Welcome.

Andrew Cromie (AC), Chairman of the Interbeef working group welcomed everyone to the meeting.

2. Adoption of agenda.

AC proposed that given that items 4 and 5 had been dealt with in the context of the technical group meeting, that, after dealing with item 3, the meeting would start at item 6. This was agreed.

3. Minutes of working meeting on 8th June Krackow, Poland.

The minutes from the previous working group meeting were discussed and agreed.

6. Simmental (SI) pilot run for weaning weight – Eva Hjerpe (ITB).

Eva Hjerpe (EH) gave an update on the planned Simmental pilot run for weaning weight (please see attached presentations). She indicated that "expressions of interest" regarding potential participation were sent out 19th January and some 5 countries had expressed interest. EH then presented a proposed time-plan for the Simmental research project, with key dates of 27th April for uploading of performance data and 1st June for completion of parameter estimation. This would allow results to be distributed to participant's mid-June for discussion at our next meeting in Chile, October 2016. AC opened the discussion and asked people for their views. Eric (EV) suggested that, based on his experience from the CHA and LIM evaluations, the time-plan was very optimistic. Toine Roozen (TR) felt it was achievable and that setting targets was a good practice. Thomas Schmidt (TS) also indicated that he would like to keep the existing deadlines and strive to meet them. Thierry Pabiou (TP) felt that that the data would be more balanced per country for variance component estimation compared to the CHA and LIM data where France had the majority of the data and that this should speed up that aspect of the project. Kirsty Moore (KM) stated that the deadlines would be very tight for UK Simmental due to their data being in a different database (Breedplan) compared to the UK Limousin data (Basco). Hossein (HJ) asked Eva if it would be possible to run the test evaluation later than the current timeline but before September, so as to allow time for discussion on results in Chile. EH did not feel that this was possible, given other resource constraints at the ITBC during that period. Andrew (AC) acknowledged the concern regarding the timeline for pedigree validation expressed by EV. Thierry (TP) stated that Austria, UK and Denmark were the likely countries to have

sufficient genetic links with Ireland for genetic parameter estimation. Emma Carlén (EC) supported the existing timeframe. Laurent Griffon (LG) suggested that Austria were needed for the project to be successful. TS commented that the deadlines were too early for Austria to participate. He indicated that the relevant body responsible for genetic evaluations in Austria was currently undergoing a change of management and it was possible that in the future, they would look to do a joint evaluation with VIT in Germany. Friedrich Reinhardt (FR) also acknowledged this and indicated that Germany would potentially be in a position to submit the Austria data to Interbeef in the future. TP asked if Germany could validate the Austria animals in the IDEA database. FR stated that this would be possible. AC summarized the discussion by indicating that there was a strong preference to proceed with a Simmental test evaluation based on the proposed time-lines, although he acknowledged that this was an ambitious target. This approach was agreed by the group.

7. Interbull Centre Update – Eva Hjerpe and Toine Roosen.

i. Interbeef service calendar.

Eva Hjerpe (EH) presented the proposed service calendar (please see relevant material), with the suggestion of a test run at the end of March with release of results in June and official evaluations mid-March and early November. It was acknowledged that these dates would not suit all countries. For example, France in particular had Interbull dairy commitments around these times. AC felt it was important that Interbull offered 2 test runs per year. Using the example of a new country entering ICAR/Interbull for the first time in April 2016, it would be 18 months before they had official evaluations based on the proposed schedule. TR acknowledged that the 18 month time frame for a new country was simply too long. HJ felt that perhaps ITBC could facilitate one official test run per year but then pilot test runs on demand for new countries entering the service, using existing data (i.e., no new data requests for existing service users). He noted that adding countries to an existing routine evaluation, was much less onerous compared to a new breed/new evaluation. He added that data for the existing countries could be the same and that pedigree verification was not needed for the existing countries. EH agreed that unofficial test runs could be done if it helped pave the way for countries to make a decision and move onto the next routine run with the changes integrated. EV asked about the work pressure on dairy evaluations and its impact on the beef work. Haifa Benhajali (HB) stated that the bottleneck was the ITBC server for up-loading and analysing the data. EV acknowledged that France had the same problem around routine runs for dairy and beef for National evaluations and submission of data for Interbull routine

runs. EV asked if there was a need for a test run in next few months. TP indicated that there would be a test run for the inclusion of crossbred data into routine LIM and CHA evaluations. EH indicated that there would also be a requirement for a test evaluation for Simmental, assuming that the outcomes from the variance component piece of work was successful. It was anticipated that these initial results would be presented at the next meeting in Chile, with plans for a test evaluation in Spring 2017. On the issue of new countries entering routine LIM or CHA evaluations over the next number of months (e.g., Australia being one potential country), it was felt that a test run could be undertaken (using existing data from existing countries), with these results potentially being presented in Chile. However, it was acknowledged that for this to happen, much of the work would fall back on TP from Ireland and would require us to have receipt of data from these new countries by early mid-summer (at the latest). AC proposed the adoption of the proposed timelines for routine and test runs (based on two official runs and one test run per year) and asked ITBC to explore potential time-periods for pilot test runs (involving new countries) at various stages as required. The proposed service calendar was adopted.

ii. Interbeef code of practice document.

Eva Hjerpe (EH) presented the proposed Interbeef code of practice document (please see relevant presentation). She acknowledged that guidelines were needed for areas such as clarity regarding the differences between routine and test runs and pre-release periods, when it was critical to keep data confidential. FR suggested that some guidelines/parameters were needed to clarify the transition from research phase to test run phase. He also suggested that the document needed an annex on participants and fees, which could then be updated regularly (as required), without having to change the core document. EV raised the issue of Interbeef sharing genetic evaluations to countries/organisations not submitting data or in routine evaluations. He suggested that this didn't make sense, as it was easier for these countries to simply get access to the resultant EBV's from publication files on one of the Interbeef service partner websites. AC thanked people for their feedback and indicated that EH would update the code of practice document based on the feedback and that the updated document would then be circulated for further comments/feedback. It would also be included on the agenda for the meeting in Chile in October 2016.

iii. Interbeef database.

Eva Hjerpe (EH) presented some perspectives on new data to be potentially recorded in the Interbeef database (please see attached presentation). She indicated that a new information module was being discussed and that this would potentially carry additional data such as genetic defects and carrier status etc. The data would be provided from the OMIA database (Online Mendelian Inheritance in Animals), which was based in Sydney, Australia. The current custodian of the database was retiring and he was keen to ensure that other relevant database carried this data and provided this type of service in the future. Eva acknowledged that the ITBC had built a test environment to handle additional information such as coat color, % crossbreed and genetic defects etc. Example of additional information that will be reported in the Interbull database from the April routine run and in the future, is the % red Holstein genes in the Simmental dairy population. Feedback from the meeting was positive to this development. It was suggested that each country should come back with suggestions on what they would like to submit.

iv Data editing & checks re: routine & test evaluations, including workflow/rules on Interbeef research projects.

Eva Hjerpe (EH) presented some guidelines regarding data checks for routine evaluations and also workflow/rules for Interbeef research projects (see attached presentation). As part of this EH presented a project management tool called Redmine, which was currently being used by the ITBC. INRA and VIT also use the Redmine tool and it was agreed that as a means to test/validate the effectiveness of the software that ITB and VIT would use the software for the female fertility project. There was good agreement on all other aspects of the work presented by Eva, with acknowledgement that we should look to adhere to her recommendations.

v. Outcomes from Interbull strategic planning meeting.

Toine Roozen (TR) gave an update on outcomes from the recent Interbull strategic planning meeting, held in Verona, Italy (please see attached presentation). As part of his presentation he also gave an update on the status of the Interbull centre, including staff and range of services, including service users (numbers of countries and traits). In terms of key outcomes from the Interbull planning meeting, the group involved had identified five key targets. These were; (i) better governance structures, (ii) establishment of a data hub, (iii) more robust Mace, (iv) an R&D model that links better with resources in member organisations,

and (v) new traits. It was acknowledged that each of these, particularly the R&D model and new traits, were closely linked to Interbeef. In addition it was acknowledged from the workshop that there was need for greater alignment between ICAR and Interbull regarding their vision and mission statements. TR acknowledged that this was something that was currently being worked on by ICAR and Interbull and would be reported in due course.

8 Genotype Exchange (GenoEx) proposal.

Toine Roozen (TR) gave an update on GenoEx, a project to establish a new service from the Interbull centre around the storage and exchange of animal genotypes (please see attached presentation). The initial focus of the project was around Parentage SNP Exchange (PSE). TR acknowledged that the Implementation task force was currently working on the strategy for the rollout of the service. Expectation was that the service would be available by the end of 2016. There was strong support for the proposed new service, around SNP's for parentage verification. Laurent Griffon (LG) asked for a recommendation from the group on what categories of animals might go into the GenoEx database. AC felt that potentially all available genotypes would be shared by Interbeef members, with clear sharing rules then applied. Klemen Potocnik (KP) commented that as a relatively small country they would get more value out of having all genotypes in GenoEx. Martin Burke (MB) stated that service would start in its current form but evolve over time. He acknowledge that Interbeef were keen to see the service evolve to sharing genotypes, as this was something that Interbeef members had requested. AC enquired as to the current situation with the Intergenomics project; where they now using the GenoEx database. TR indicated that currently they were not, as GenoEx-PSE is for verification of parentage. But as soon as PSE became operational, and a module for genotypes for international genomic evaluation was developed, it was anticipated that Intergenomics would start using the GenoEx database for their requirements. Fritz Reinhardt (FR) enquired as to who could upload SNP data? Was it only certified genotyping laboratories or any organisation? MB responded that it was only accredited labs, nominated by individual countries that could upload such data. He indicated that a list of such organisations would be made available on the ICAR website, for organisations interested in availing of parentage services through GenoEx. AC finished the discussion by welcoming the development of GenoEx by ICAR and Interbull, and encouraged them to move quickly beyond PSE, into services such as parentage discovery and genotypes for international genomic evaluations, as this was where the real value of the database would lie

in the future. He agreed to forward the latest draft version of the GenoEx-PSE service document to Interbeef members as soon as it came available.

9. International collaboration.

i. Update re: future collaboration between Interbeef & ABRI/Breedplan.

Andrew Cromie (AC) gave an update on ongoing discussions between Interbeef and ABRI/Breedplan, regarding international collaboration. He indicated that ABRI/Breedplan had expressed a strong interest in becoming a member of ICAR/Interbull and discussions were underway within Australia to make this happen. He indicated that this would be based on Australia paying the full fees, in the same way as other member countries. He also indicated that Australia were particularly interested in becoming a research partner within Interbeef, with a particular interest in; (i) multi-country and multi-trait research questions, and (ii) the integration of international ebvs back into domestic evaluations. He also acknowledged that with potential involvement of ABRI/Breedplan within Interbeef, there was an opportunity to extend the ICAR/Interbeef service to other breeds in the future (e.g., Angus and Hereford were two potential breeds that have extensive evaluations currently being undertaken by ABRI/Breedplan). In terms of time-frames, he hoped that this could happen in summer 2016. In advance of the meeting in Chile. Eric Venot (EV) acknowledged that these were very positive developments and encouraged the chairman to continue the discussions with the ABRI/Breedplan group. This was supported by the meeting.

ii. Opportunities for "large-scale" beef genomic programs within the EU Rural Development Program.

Andrew Cromie (AC) gave an update on the Irish beef genomics project (please see attached presentations). He indicated that the scheme had a target to genotype over 2 million animals over the 6 year period of the scheme. He encouraged other EU member states to consult their governments regarding similar programs within their countries, citing Scotland as an example country which had recently got a very similar project to the Irish project funded by the EU. Emma (EC) outlined discussions within her country around a similar scheme in the Nordic countries. These were ongoing. However, she was not that confident regarding the outcomes. AC acknowledged that for the scheme to work it would need strong support and commitment from the relevant government within that member country.

iii. Beef genetic improvement in Slovenia.

Klemen Potocnik (KP) gave an overview of beef genetic improvement in Slovenia (please see attached slides). Andrew Cromie (AC) commented that the Slovenian situation was very similar to many other countries in Europe (and outside of Europe) where they have some phenotypic data but no routine genetic evaluations for beef cattle at present. He felt it important that ICAR/Interbeef responded to the needs of these countries.

10. Finances, including fees for 2016 & 2017.

Andrew Cromie (AC) gave an update on fees for 2016 & 2017. He indicated that fees were based on a base fee (€4k) and the number of pedigree breeding females within the relevant countries (across all breeds). In effect this meant that, based on the current number of traits evaluated, existing participating countries who would like new breeds evaluated would not incur any more cost for 2016 and 2017. He indicated that options for new countries were either to come in as a new country on their own and pay the full fees or align with existing partners. He also asked the group for feedback regarding options for those countries (such as Slovenia) that had no national genetic evaluation system. Martin Burke (MB) offered that the new ICAR/Interbeef Global reach project could provide a route for these countries to participate in international genetic evaluations. Within this project it was possible that ICAR could help to co-fund those countries interested in being involved in future ICAR/Interbeef services, but without the necessary resources (people and finances to make this happen). Thomas Schmidt (TS) felt that the best option for countries with limited resources would be to align with existing countries. However, that would take time and world rely on good relationships between these individual countries. Laurent Griffon (LG) agreed with this approach, citing the example of France, where Spain and Portugal already participate in the French evaluation for the LIM and CHA breeds. TS acknowledged that something similar could happen in the future in Germany, with the inclusion of data from Austria. In summarizing the discussion, AC felt that this was a very important topic as it would directly influence ICAR/Interbeef's potential to expand services in the future. Given its importance he suggested that a small group should be put together to discuss this and present their thoughts/findings at the meeting in Chile. The following people agreed to be involved in the group; Andrew Cromie, Lauren Griffon, Thomas Schmidt, Fritz Reinhardt & Klemen Potcnik.

11. Future meetings.

The next meeting would be Puerto Varos, Chile 24th – 28th October 2016. AC indicated that there would be a dedicated beef session within the Interbull program, so encouragement was given to people to submit a paper, to either this session of the beef session within the ICAR program.

12. AOB.

AC gave a very special thanks to Thomas Schmidt for organising such an excellent venue and program for the workshop. He also thanked Martin Burke for attending on behalf of ICAR (and helping to cover the cost of the event) and the ITBC for committing such a strong group to the meeting.

13. Key actions from the meeting were as follows:

1. **Proceed with a pilot project for Simmental, including data call (end April) and parameter estimation. First results to be presented in Chile (October 2016) with target of having a first official run in 2017.**
2. **Service calendar agreed based on two official runs (with publication dates of mid March and early November) and one test run (with a publication date of mid-June).**
3. **Proceed with a test run for CHA and LIM (for AWW), using cross-bred data.**
4. **Update "code of practice" document based on feedback and forward to Interbeef members for comments/feedback.**
5. **Forward latest draft GenoEx-PSE service document to Interbeef members for comment/feedback.**
6. **Continue discussions with potential new member countries.**
7. **Establish a small working group to identify ways of making the ICAR/Interbeef service available to more countries, especially those that do not have their own national genetic evaluations.**

14. List of attendees.

First Name	Surname	Country	Organisation
Andrew	Cromie	Ireland	ICBF
Ross	Evans	Ireland	ICBF
Thierry	Pabiou	Ireland	ICBF
Eva	Hjerpe	Sweden	Interbull Centre
Toine	Roozen	Sweden	Interbull Centre
Hossein	Jorjani	Sweden	Interbull Centre
Haifa	Benhajali	Sweden	Interbull Centre
Eric	Venot	France	INRA
Amandine	Launay	France	Institue d'elevage
Laurent	Griffon	France	Institue d'elevage
Emma	Carlen	Denmark, Finland & Sweden	Nordic Cattle Association
Thomas	Schmidt	Germany	German Beef Cattle Association
Friedrich	Reinhardt	Germany	VIT
Wolfgang	Ruten	Germany	VIT
Svenja	Strasser	Switzerland	Swiss Beef Cattle Association
Christian	Stricker	Switzerland	Swiss Beef Cattle Association
Klemen	Potocnik	Slovenia	University of Lubljana
Maria	Spehar	Croatia	
Pavel	Bucek	Czech Republic	Czech Moravian Breeders Association
Zdenka	Vesela	Czech Republic	Research Inst. Of Animal Production (VUZV)
Anne	Menrath	Germany	German Beef Cattle Association
Kirsty	Moore	Scotland	SRUC
Martin	Burke	Ireland	ICAR
Silvester	Zgur	Slovenia	University of Lubljana