INTERBEEF Working Group meeting
20th May 2014

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1. Welcome

Brian thanked everybody for coming and asked for a round of introductions. João Dûrr advised that he had to leave at 16:00 due to other commitments. Kirsty Moore is connecting via webcom. Participants and apologies: Attached as appendix 1.

2. Agreement of Agenda

The agenda which had been distributed by email prior to the meeting was agreed.

3. Minutes of Meeting 21st November 2014 held in Prague and matters arising

Brian Wickham asked if there was any corrections needed to the minutes. The minutes were adopted with the two clarifications below.
   a) Logo protection: This is now in place since the last meeting
   b) Nordic countries decision to work as one population: Nordic country participation (DNK, SWE, FIN) will in time be evaluated as one trait in INTERBEEF once the research is done. Thomas Schmidt suggested rename the 3 countries collaboration to Scandinavia or something similar to avoid future confusion.
   c) Papers for WCGALP: Eric Venot will give an oral talk at WCGALP on the benefits of INTERBEEF as a means of promotion of the service. There will also be a poster on genetic parameter estimation to be presented by Thierry Pabiou. Brian Wickham commented that it was great to have the 2 papers accepted for WCGALP. Eric and Thierry’s papers are available now but care needs to be taken with the citing of these publications ahead of the WCGALP talk.
   d) Thomas Schmidt asked if Spain had paid the INTERBEEF fees yet. Brian Wickham confirmed that Spain have not paid the fees for 2013.

4. Technical Committee

   a) Report – João Dûrr
   b) Approval of the Interbeef Technical Committee Terms of Reference. João commented that these Terms were proposed at the beginning of the INTERBEEF technical committee but people have not really discussed them yet. The Technical committee does not make decisions, only recommendations for the working group. There was a suggestion from the group whereby one official member per Service User organisation will have a right to vote if a vote is needed. Also the Scientific Advisory Committee is available when needed. Brian Wickham asked if there was agreement to adopt the Terms of Reference. The terms of reference for the Technical Committee were accepted and adopted by the Working Group subject to a change to include one vote per Service User in the event of a vote being required.
   c) Election of Chairperson. João Dûrr commented that he accepted the role of chairman of the Technical Committee initially to get the process moving but that there was a need for a new chairman at this stage. Thomas Schmidt put forward a proposal recommending France put forward a nominee and for Laurent Griffon to become chairman. It was agreed that discussions would be undertaken outside of the room and to report back in due course.

5. Workplan

2) Publication rules
3) Making AWW evaluations official

Brian Wickham stated the need for a plan for official publication of the weaning weight proofs. Eric Venot responded that it would be nice to have official/final proofs for the WCGALP paper but he would need to get them in the next month. Andrew Cromie supported the proposition by Eric and suggested an implementation run similar to GMACE and let countries decide on whether to publish or not. Eric stressed that the reliability issue needs to be sorted ahead of publication given its importance in the publication rules. João Dürr acknowledged the situation and the need to have it sorted. He also referred to the issue of cows with large progeny numbers but that this was not as large an issue. Regarding the implementation run the current parameter estimates could be used pending the new work by ICBF. **João will send a calendar for an implementation run early next week.** Kirsty Moore stressed that publication of proofs was needed to justify payment of INTERBEEF fees by the SRUC. Brian Wickham asked if it would be called an implementation run or an official run? João responded by saying that an implementation run provides the possibility of sharing the results with the industry ahead of a fully publishable run. Brian said this would then give countries one more chance to update invalid IDs. If they are not validated by the time of the new run then they will be discarded from the analysis. The status of the animal could always be changed after the run.

b) Research report covering variance component estimation and use of cross bred data in weaning weight evaluations – *Thierry Pabiou.* (refer to slides) Maternal effects will be fixed to sensible values in next iteration of parameter estimation to allow the analysis to concentrate on the direct effects. Default genetic correlation of 0.9 will be reduced to be more in line with the average of the converged estimates. Bending process is done based on the number of common bulls in each country pair. Direct-Maternal genetic correlations and variances used are the within country estimates. Thomas Schmidt asked if the genetic-maternal correlation for Switzerland was really positive or maybe a mistake? Thierry confirmed that he used the estimates provided from Switzerland. Christian Strickler confirmed they were what he submitted. Brian Wickham stated that the INTERBEEF meetings were a good forum to discuss these issues. Emma Carlen asked if the correlation of 0.2 associated with Sweden was used in the analysis? Thierry confirmed that this value was defaulted to 0.7.

At this stage of the meeting João Dürr and Andrew Cromie had to leave due to other commitments. Brian gave Andrew the floor to discuss a potential genomics meeting in Ireland later in the year related to beef breeding. Andrew outlined Ireland’s genomics research program which included a scientific research group meeting planned to discuss the Irish program in October/November 2014. Andrew offered an invitation to the INTERBEEF group to have a broader genomics meeting at the same time. Thomas Schmidt asked what types/breeds of animals will be genotyped in Ireland and Andrew replied that all beef breeds and crosses are being considered. João Dürr stated that beef breeding needed to take advantage of the dairy progress. Laurent Journaux said it was an interesting proposition and the size of the Irish population being genotyped (150,000 animals) was necessary for success. Eric Venot commented that INRA were also attempting to put multi-breed evaluation in place in France and they were looking at the end of 2014 for implementation for larger breeds Charolais, Limousine and Blonde d’Aquitaine. **There was broad agreement for an**
Interbeef Beef Genomics Workshop at this time. Details to be provided as soon as a date is established. Andrew confirmed that the invitation was also open to organisations currently not involved in the INTERBEEF project.

João Dürr also outlined that INTERBULL are developing a Genotype repository proposition for the purposes of allowing exchange of data for participating organisations for the purposes of initially exchanging parentage SNPs.

At this stage Brian Wickham proposed that the group strive to finish the meeting for 4:30 pm to allow the attendees go to the open joint INTERBULL session with the Parentage WG.

The next phase of the ICBF work on AWW will involve incorporating crossbred data from Ireland (see slides). Thierry outlined his work on deriving breed composition and heterosis and recombination from the pedigree stored in the IDEA database. New pedigree for crossbred animals has been uploaded by IRL to the IDEA test database. Conclusions: FAKE ancestry method seems to work well and should be available for all countries with crossbred records available. However, it will require extra steps at INTERBULL to derive heterosis and recombination. Mohammed Nilforooshan asked if Ireland stores all breeds on the animal. Ross Evans confirmed that yes they do. Laurent Journaux asked if Thierry deleted the dairy ancestry from the files he sends to Interbull. Thierry confirmed that no he doesn’t but if the dairy sire was already in the IDEA database then the ID would not be uploaded again. Valentina Paluccci confirmed that the IDEA database has all breeds in the one database.

c) Research on development of international beef genetic evaluations for Calving traits – Pavel Bucek. (refer to slides) Genetic parameters version 1 have been implemented. Now the focus will turn to EBVs in MIX99. To facilitate this it was agreed that the Interbull Centre would establish a facility for the Czech research team to use for accessing MIX99. In addition the Czech team will learn how to use MIX99 to conduct an EBV research run. Brian Wickham congratulated Pavel and his team for the speed of delivery of this work.

Laurent Journaux highlighted the large problem of under-recording of calving difficulty everywhere. Chest girth is now a trait being recorded in France as a predictor of calving difficulty.

d) Research on international beef genetic evaluations for carcass traits – Kirsty Moore. (refer to slides) Survey results (same as presented in Uppsala with some updates). Live weight as a proxy for carcass is recorded in most countries. Carcass weight and EUROP grade are the most commonly recorded carcass traits. Crossbred and beef from the dairy are all important. Dependent on crossbred work by ICBF, then decision on data to be submitted and then organise a data call. Thomas Schmidt: amendment needed to Slide 4 on traits: Germany have some live-weight at one year and muscling data which can be used as carcass proxy traits. Emma Carlen confirmed that Denmark and Sweden also have live weight data. Ross Evans committed to passing on genetic correlations between live weight and carcass in Ireland to Kirsty to aid in decision of trait selection. Eric Venot stated that France has carcass data including age at slaughter, carcass weight, weaning weight, and muscle score.

e) Development of international beef genetic evaluations for female fertility traits - Friedrich Reinhardt. (refer to slides) same presentation as was given in Uppsala. Female fertility to take priority over male fertility. Calving interval was identified as the priority trait, then age at first
calving and number of calves. Charolais and Limousine were the priority breeds. Simple robust models within breed, multi-trait repeatability animal models were proposed. Next steps: agreement on traits, definition of contents and formats of INTERBEEF reproduction file, and data call by INTERBEEF. Then development of evaluation by VIT and provide test proofs. Eric Venot asked if calving difficulty would be taken into account as a fixed effect in the number of calves trait. Thomas Schmidt wondered why Angus were not included in the German survey? Friedrich confirmed they would focus on the breeds that were indicated as the most popular from the surveys.

6. Finances

Brain Wickham outlined a proposal for countries/organisations who wished to have their data submitted along with another Service User. For example some Limousine herds in Spain send data to France for evaluation. The Interbeef Service User fee for an extra population (genetic correlation of less than 1) will be the fixed service fee of €4,000 plus the extra number of animals in the variable fee. Where a genetic correlation of 1 is used just the variable fee will apply. (Refer to Appendix 2 for a description of this amendment and an illustration of how this fee would work).

The alternative of considering the extra population as part of the same population is already envisaged by the current fee structure. This is the situation that applied to Denmark, Finland and Sweden becoming a single service user (one base fee) with the combined population used to compute the strata fee.

7. Interbeef Priorities

a). New breeds – Simmental. Brian Wickham confirmed that Simmental were the next breed for development of genetic evaluations and he was in negotiations with the European Simmental Federation regarding INTEBEF participation by its members.

b) New Trait sets: calving, carcass, female fertility

c) New service – pedigree exchange: proposal from Denmark around identification of imported animals by using the internationally accepted ids. If exporting then provides an electronic proof of export so that the importing countries can retrieve all the ancestry easier. It was agreed that Brian would circulate the precise proposal by email with a deadline for feedback and support in principle.

8. Future Meetings

a). Genomics Workshop Proposal (already discussed because Andrew Cromie was leaving the meeting early) combined with a WG meeting in October/November 2014, in Ireland.

9. Guidelines

There was a question from the floor if there was any change to the ICAR guidelines? Brian Wickham confirmed there was no change other than the Denmark proposal (item 7 c).
10. AOB
Defer Karl Wassemans slides on xml formats to next meeting.

11. Appendix 1 – List of Meeting Participants
<table>
<thead>
<tr>
<th>Name, First</th>
<th>Email</th>
<th>Berlin</th>
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<tbody>
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Key:
Apology = did not participate in meeting.
Yes = was present in Aarhus for part or all of the meeting.
Remote = participated via Webex (for video) and Powownow (for sound) for part or all of the meeting.

12. Amendment to Interbeef Service Fees – Appendix 2.

The purpose of this appendix is to outline the agreed amendment to Interbeef Service Fees.

The current funding model has the following elements:

Base fee (pedigree & weight evaluations) € 4,000

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<tr>
<td>0</td>
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</tr>
<tr>
<td>10</td>
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<tr>
<td>200</td>
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Additional trait groups:
- Calving: 0.00%
- Carcass: 0.00%
- Female fertility: 0.00%

Funding Amendment:

Under the current model the purpose of the base fees is to cover those costs that are largely fixed while the strata fees are designed to cover costs which are somewhat population size dependent.

The concept supported by the amendment is that where a current Service User is to take responsibility for providing data (pedigree, performance, genetic evaluation models) and for distributing and supporting genetic evaluations for another country, there will be some extra work required to ensure identification and pedigree files related to the second country are handled appropriately. This work is primarily carried out by the Service User and is mainly covered by the Strata Fees. However, if Interbeef service is to consider the animals from the other country as belonging to a separate population with associated genetic parameters and genetic evaluation fixed effect models, there will significant extra fixed costs associated with this work.

On this basis the amendment is that the base fee will apply to the second population and the total size of the population for the Service User would increase by the number of breeding females in the other country being supported.

Example 1:
- a. Service User with 20,000 breeding females (in 2011) – current fee is €9,000.
- b. This Service User now supports a second population of 10,000 breeding females. The Fee would be €14,500 (2 base fees - €8,000 plus strata fee for 30,000 (20,000 + 10,000) breeding population - €6,500).
c. If the second country joins as a Service User their fee would be €7,500.

Example 2:

a. Service User with 324,000 breeding cows. Fee is currently €28,120.
b. This Service User now supports a second population of 10,000 breeding females. The Fee would be €32,170 (2 bases fees plus strata fee for 334,000 breeding cows).
c. If the second country joins as a Service User their fee would be €7,500.

Draft 27th May 2014