Comparing Apples with Apples – Best Practice for Presenting Genetic Evaluation Results

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This paper promotes a number of points for discussion among Interbull Members attending the October 2000 Verden Workshop on post-genetic evaluation processes associated with dissemination of results. Some of these proposals offer support to those described in the Preliminary Draft of Interbull Recommendations for National and International Genetic Evaluation Systems for Dairy Cattle.

Interbull is for farmers first

Farmers need to be given correct information to make decisions on superior genetics. Misleading presentations through unintentional, or worse, intentional practices need to be avoided.

Interbull results impact on all dairy farmers, not just those with a personal interest in bull proofs. Breeding specialists and general farm advisors need to be supported with extension/educational material to offer simple, practical solutions to breeding management.

Is there a role for Interbull to develop a package of material available on the Internet to support this function? Alternatively Interbull could co-ordinate the assembly of international material written specifically to assist with the adoption of breeding values. This could for example be a series of PDF files supplied by interested parties catalogued under different headings.

Proposal: Interbull could support an international library function for farmer educational material.

Interbull Co-operation

Interbull is successful because it has the support of not only national Genetic Evaluation Systems (GES), but more so because international semen marketers have supported the adoption of Interbull procedures. Breed societies have also become important supporters of the Interbull (and ICAR) systems.

Semen marketers are becoming more influential as global rationalisation of semen companies accelerate. For those large, multinational semen companies, Interbull will be an irritant, and possibly an irrelevance, if the publications from Interbull lack integrity. Simply, international semen companies will promote their own indexes for across country use.

It is therefore important that Interbull continues to monitor and develop systems which promote integrity in its evaluation results and that research efforts are related to market requirements.

Interbull must continually monitor its members needs as well as listening to semen marketers. A balance must be achieved between ideals and reality. Herd improvement organisations generally are under more economic pressure in recent times as government subsidies have been removed, some domestic dairy industries are shrinking, and more farmers are facing cost-price squeeze. Interbull cannot expect ideal solutions to address deficiencies in national GES. Guidelines however do have a role.

Interbull is now one of the most influential dairy cattle breeding organisations. Technical excellence will earn respect and promote
leadership. Representatives to the Interbull Forum share this obligation and should be encouraged to promote sensible guidelines for best practice.

**Presentation of Interbull results**

**Quality Assurance**

On receipt of Interbull results, national GES conduct a variety of procedures.

Some GES obtain the Interbull file and post the results immediately on their national internet site.

Other GES wait to incorporate the Interbull file into the next national evaluation. This is often only a matter of days.

In either case it would be interesting to understand what variety of quality assurance checks are conducted by national GES participants on the Interbull file prior to national dissemination.

Some national GES probably do little and distribute Interbull results considering that if there are problems, they belong to Interbull.

Other national GES may submit the file to a cursory check before distribution. Others a more substantial validation process.

It would be useful to pool the thoughts of participants to identify simple processes to screen the Interbull file prior to widespread national dissemination?

Surely if problems are identified with Interbull outputs, it would be preferred that widespread concern among end-users be avoided and that resolution be achieved “in-house”. No-one benefits from public finger-pointing.

**Interpretation of Interbull Results**

The material supplied by the Interbull Centre with each round of evaluations can be useful to explain modifications between runs. Routine explanations of results are given by national GES.

Semen marketers watch for changes to bull proofs after Interbull runs. Depending on the country some runs are conducted at more important times of the year than others – i.e. when new bulls are released, or second-crop daughters become available.

National GES are responsive to enquiries from semen marketers. Sometimes these enquiries demand considerable investigation.

Proposal: For each specific Interbull run, Interbull monitor a Q&A forum on the Interbull Website so that national GES can post results of enquiries on individual bulls.

This would promote education and transparency. National GES would be assisted by their sister organisations to explain bull movements. The public forum also holds national GES to account for the explanations offered. In turn, this may stimulate more attention to quality assurance throughout all processes.

**Presentation of Results**

“Guidelines for Minimum Requirements for Advertising Genetic Merit of Dairy Animals” is available from the Interbull Website.

Endorsed by the Interbull Steering Committee in August 1999, this document recognises the responsibilities of each national GES for publication standards, while offering minimum criteria for the presentation of results:

Source of evaluation and country of scale
Date of evaluation and base
Evaluation expression: EBV or PTA
Evaluation units: e.g. Kg or lbs
Reliability
These guidelines could be amended to include supplementary references to reliability such as Records in Progress, and Number of Herds and Daughters.

Some national GES have determined that it is important to distinguish between bull proofs based on the sampling process. Bulls submitted to an organised progeny-test program, versus bulls with daughters not achieved through a sampling program. In addition some bull rankings incorporate a reference to contribution from overseas data (i.e. through Interbull).

With the demand for more traits to be analysed through an international evaluation, there may be a need to specify presentation guidelines for traits where unlike production traits, functional and conformation traits have less harmonisation in data collection.

Animal identification criteria can be considered for inclusion in these guidelines. In many cases bulls less famous than their sires, or bulls with similar names to others within breed or in other breeds have promoted great confusion to farmers.

How many daughters have been attributed to the wrong sire due to a single ID being recorded?

Proposal: In semen advertisements, the Colloquial/Marketing Name for AI bulls always is accompanied by an official national GES identification code.

Semen marketers cannot be expected to promote the Interbull International ID in marketing material. Generally farmers do not need to be exposed to the International ID. It is sufficient for the national GES identification code to be cross-referenced to the International ID on computer systems.

Policing and Copyright

There are likely to be many examples in most countries over the last ten years where advertisements for dairy genetic material (semen, embryos and livestock) have encouraged farmers to misunderstand the genetic value.

In most cases semen marketers and animal breeders have simply become over-zealous with their marketing claims without understanding the confusion they may have promoted. Education from national GES and complementary organisations such as Departments of Agriculture, universities, herd improvement organisations, breed societies, and rural popular press will assist advertisers with presentation material in the future.

Interbull forums provide an opportunity for national GES participants to learn from their colleagues on how to promote best practice for advertising genetic evaluation results.

However, some individuals and unfortunately, organisations, still ignore recommended advertising guidelines or copyright provisions.

National GES are best placed to deal with such instances. Formal letters of complaint to the offender can be used to impress the degree of concern. Such letters in the name of legal advisors can lend weight to the concern. Where a local subsidiary is failing to adhere to desired practices then the parent company can be invited to comment and take action. Breed societies, farmer organisations, and the media themselves can assist this educational/censure process.

As with any product, “buyer beware” prevails.

Proposal: National GES be encouraged to share the definitions of their copyright provisions with their Interbull colleagues.

This action may assist those national GES that currently have such provisions to confirm their position, or for those interested to develop criteria.

Publication of Interbull Results

Since Interbull was conceived, and harmonisation of evaluations was promoted, information technology has developed rapidly.
The norm in the past has seen national GES publish evaluation results for many bulls in sire summaries listing all traits in a hard-copy publication. Semen marketers have then extracted manually the results for their own bulls, supplied copy to typesetters, for advertising purposes.

Many national GES now supply results directly from their latest evaluations over the Internet to semen marketers. This promotes speed of information flow, minimises mistakes from transcription errors, and reduces costs.

In the future, national GES can take advantage of cheaper desktop printing technology and Internet media to promote the results of the evaluations in presentation style adopted by semen marketers.

National GES should be encouraged to promote evaluation results in user-friendly style for available bulls from all semen marketers serving that market. This will promote education and diminish actions to mislead farmers.

Proposal: At a future Interbull meeting for all Members to contribute to a combined display of the variety of paper and electronic publications used to present evaluation results to farmers in their country.

This may stimulate ideas for Members to improve the presentation of results from their own organisations.

National Selection Objectives

Most national GES have adopted a national selection objective to promote genetic improvement for traits of economical importance to that country.

Semen marketers, breed societies, academics and of course farmers, need to be reassured that the traits and the economic values attributed to those traits can be verified.

The national selection objective needs to be developed with the support of across-industry representatives to ensure farmers believe their interests are being looked after. An important participant in the development of selection indices is the dairy product manufacturer/processor. Farmers need to know that their breeding decisions contribute to optimised profits.

Unfortunately in some countries, obtaining the interest of dairy product manufacturers/processors to cattle breeding issues is sometimes difficult to obtain.

Proposal: To encourage Interbull to promote the importance of Cattle breeding to International Dairy Federation and other dairy product forums.

The relativity between traits in different National Selection Objectives is of interest to Interbull participants.

Sharing the research which underpins these economic values may encourage the development of better selection indexes to realise the objectives of national GES.

Proposal: A session dedicated to National Selection Objectives be conducted at a future Interbull Meeting.

Interbull is there for its Members

The value of Interbull to its Members can be measured by the economic merit of the services it provides, the confidence engendered in the national GES for the services it is responsible for, and the learning it facilitates through forums and publications.

In the context of presenting genetic evaluation results to dairy industries, the profile of Interbull can be unimportant. While there are a number of positive attributes to the Interbull organisation, the national GES are responsible for the uptake of genetic evaluation results in their own countries.

Interbull can provide much support to member national GES, but it is important that responsibility for data integrity, education, and national genetic improvement lie with members.
Recommended Reading:
