

Report of the meeting with the Slovak Republic stakeholders for the Farm Animal Breeding and Reproduction Technology Platform

Report by Chris Warkup and David Telford, Genesis Faraday

The meeting with the Slovak Republic stakeholders of the Farm Animal Breeding and Reproduction Technology Platform was held in the Agroinstitut, Nitra on September 18th 2007.

Jan Huba from the Slovak Agricultural Research Centre Nitra acted as the local contact to organise the meeting. Representatives of the major Slovak animal production industries and breeders organisations, and from the Universities and Research Institutions involved in animal breeding and reproduction, and other relevant organisations like the Ministry of Agriculture, were invited to attend the meeting. A total of 33 people participated in the meeting.

Chris Warkup expressed his thanks to Jan Huba, Stefan Mihina and Jan Tomka (all of the Slovak Agricultural Research Centre Nitra) for their help in organising the meeting and their excellent hospitality. He then gave a presentation introducing FABRE-TP. This outlined what Technology Platforms are, and why they are important. The presentation was then used to describe why and how FABRE-TP has been established and its activities so far. Following this, the Strategic Research Agenda (SRA) was explained, with particular focus on the Technology Research Priorities. The participants were also informed of the opportunity to set up a National Mirror Group for the Slovak Republic, and for Slovak organisations to sign up to show support for FABRE-TP.

The attendants were then provided with an opportunity to express their views on FABRE-TP in general, and in particular, the Strategic Research Agenda. These comments were recorded, and then circulated to those who attended the meeting for possible corrections and additions. The final list of significant comments is as follows, shown in the order in which they were stated, and with each numbered point representing the views of a different individual:

1. Jan Huba stated that he broadly agrees with the SRA's Priorities, but would like to recommend more stress is placed on improving reproductive technologies in all species of animals, for example semen sexing, as well as other more traditional reproductive techniques. In cattle breeding, he thought emphasis should be placed on improving fertility, and also longevity.
2. A dairy cattle breeder stated that they would like stronger support for Embryo Transfer (ET), as at the moment, the cost is very high, with little support to allow uptake by farmers, and this is the area in which much progress can be made in assisting with dissemination of high merit animals. The same person also stated that due to the dense concentration of animals within Slovakia relative to the EU, addressing animal health issues is also an important issue. Production of robust animals is important, particularly longevity. In response to these comments, Chris Warkup replied that reproductive technologies, fertility and longevity are all important, and addressed within the SRA. He then went onto explain that identifying Knowledge Transfer (KT) needs are important, as well as the research needs, for example the KT needed to help breeders utilise ET. In some countries, structural funds can be used to facilitate Knowledge and Technology Transfer.

3. It was stated that the Dutch were interested in robust dairy cattle, but that their definition of robust is different to that in Slovakia. It was also stated reproduction is a long-term problem in dairy cattle.

4. With regard to pig production, it was stated that research into the use of genetics to combat boar taint, and to improve disease resistance, would both be beneficial. Also, research to support the development of semen sexing for use in pig production would be useful.

5. It was stated that the Slovakian livestock industry is currently facing difficulties, with around one third of farmers considering leaving the industry. Thus, there is a need for EU support to assist farmers to survive, and to help them prepare for the future, to enable future sustainability and profitability. With regard to cattle breeding, there is a need for research to address the reasons for excessive culling, and the ability of cattle to adapt to varied conditions and be successful (robustness again). With regard to sheep milk production, it was stated that the established production systems and current genotypes are struggling to compete (with efficiency of production lagging a long way behind some other countries such as the Netherlands), so there is need for breed improvement of the native breeds. A further problem facing the sheep industry is that despite a large acreage of grass suitable for sheep milk production, there are problems sourcing labour willing to shepherd sheep in mountains.

6. It was explained that breed improvement programmes in the Slovakian population of milk sheep are currently underway, to create sheep adaptable to Slovak conditions. It was stated that only a very low percentage of the national flock are currently artificially inseminated, there is no national AI centre, and the optimal technology and facilities needed in Slovakia are lacking. It was also stated that due to the problems in utilising AI in sheep production (which are common globally); research in this area would be beneficial.

7. It was stated that the planned SRA looks acceptable, and it is compatible with Slovakian priorities. In reference to breeding goals, it was stated that although it would be very simple to discuss global breeding goals for breeds in the EU, this is not the proper way, as there are different breeding circumstances and conditions throughout the EU which need to be discussed and considered. Slovakian agriculture is going through challenging changes, and Slovakia representatives at the meeting were concerned that native pure breeds may become endangered in future, and that international co-operation is needed to address this.

8. A representative of an Artificial Insemination company explained that because the Slovakian cattle population has declined, the national industry is less able to compete in making genetic progress compared with larger populations in other countries. The person then stated that they thought the priority for research should be reproduction in cattle, in terms of improving more calves/cow/lifetime, and in males, technical methods to increase insemination doses per sire, and improve fertility parameters. He stated that these are questions that research should tackle, and that selection for reproduction must also occur in tandem with selection for disease resistance and longevity.

9. Chris Warkup then responded to several of the earlier points shown above. With regard to "Robustness", there are two different definitions in relation to cattle production; 1) a definition relating to fitness, disease resistance, survival, and

structural soundness and 2) Reducing interaction between genes and environment (GxE), to ensure minimal gene by environment interactions. There are research projects going on in both areas. Clearly, opportunities to select for reduced GxE is most easy where animals/progeny are widely distributed following AI, but this remains a challenging area.

In relation to the issue of boar taint in pigs, skatole and andosterone both have a genetic component, and the current EU project “SABRE” is conducting research to help address these issues (See the following for details; <http://www.sabre-eu.eu/>).

Regarding sheep production, the problems described (particularly in relation to the difficulty in using AI in sheep) mirror the concerns expressed by other EU countries. Thus, it seems likely that there are opportunities for collaboration at the EU level within this area.

With regard to the point made that Slovakia is at a disadvantage as it has some smaller breeding populations, there is no doubt that it is easier for large populations to make progress. Therefore, easier to use tools are needed to benefit small populations, and this is possibly where national governments have a role.

The final point made by Chris was that in facing challenges, does the Slovak industry work together as well as they should? In all EU states, there is scope for more co-operation, and the development of a national platform for Slovakia is could be a very good way to achieve this.

10. Stefan Mihina concluded the meeting by thanking Chris for his presentation and all the delegates for attending, and for illustrating Slovakia’s commitment to the Technology Platform. He also expressed the enthusiasm of the Slovakian animal breeding community to co-operate in future EU projects. The FABRE representatives thanked all attendees for their enthusiastic participation.

Participants

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