



Working group on AI and other relevant
technologies

**Minutes of the meeting of the ICAR Working group on AI and other relevant
technologies
UCD DUBLIN , 22 August 2007**

Presents

J.A. ERIKSON - S.V.A.
A. MALAFOSSE UNCEIA Chairman
G. DE JONG - CR Delta

Observer

L. JOURNAUX - UNCEIA

Apologies

C.S. SCHAEFER - ADR
D. NAAB
U. WITSCHI - Swissgenetics
F. PIZZI - University of Milan

As many persons sent apologies and were not able to find substitutes, written answers to some questions were requested from all members. Thus the group was in a correct position to make right decisions on two important topics of major importance for its future and for the coming activities(Annex 1,attached summary).

A meeting between U. WITCHI, A. MALAFOSSE and L. JOURNAUX took place the previous day to prepare the Bar-Code issue.

1. Approval of the agenda

The agenda was approved

2. Approval of the minutes of the meeting in Kuopio

The minutes (not sent before the meeting) were read by the attendees and approved without any modification. See ANNEX 2



3. Last developments on semen and AI issues

3.1 Semen traceability developments in bar-code: proposal of the AI vets group

Straw identification ID (ICAR recommendation)- (currently readable by eye) is different from Bar code ID. Thus a special system thus should be designed to code relevant ID items into bars.

QualiVet¹ group proposes (attached paper along with the invitation):

- 1) To use a Barcode with the system “128”C, to use a code with a maximum length of 13 digits
- 2) To have an unique ID for each semen batch collected or for a sub sample of this batch with a specific treatment
- 3) To code information in bars with the following system:
 - The first 3 positions of the Barcode will be a Semen Collection Centre (SCC) identification
 - The id of batch semen will have a structure designed by the SCC (free)
 - A reference data base will present the description of the other positions for each SCC (max 10 digits).
- 4) An international body should maintain the list of ID of SCC willing to develop the Bar code system **to print straws for clients** (including them selves) **and to use it to read straws.**

The attendees considered that the QUALIVET proposal was a good start to develop a standard on international coding for Bar Code. The principles were accepted

In order to help further discussion, A.MALAFOSSE and L.JOURNAUX prepared a paper after discussion with U.Witchi. The attached paper is a draft for an addition to the recommendation on semen straw identification (Guide lines of ICAR section 8),issued from the paper and the discussion to implement bar-coding (Annex 3). Three main points were discussed:

Assigning SCC ID: this has to be issued before implementing the coding for international structure. The group considered that

- ☞ ICAR should allocate ID to any SCC willing to implement Bar-Code printing. Then computing resources of ICAR should be used for this. (*The ICAR secretariat confirmed after the meeting that it is possible*).
- ☞ Any SCC willing an ID should request this from ICAR. It will have to provide ICAR web site with the description of the format of the signification of the batch semen. Details of management are presented in Annex 3.
- ☞ It was not relevant to create a new ID SCC for this purpose.
- ☞ ICAR should use NAAB stud (or marketing) code at first for this identification. A discussion with NAAB should fix this question and avoid misunderstanding.

NB: the NAAB attributes a code to any company having access to the US semen market. Fees have to be paid (\$ 500 for 1st registration of a company + \$ 100 annual fee).The code is NAAB property. Some codes are no more active when AI companies give up the NAAB programme.

¹ QualiVet is an European group of Vets meeting once a year to discuss scientific and technical matters related to AI Centres, semen production, AI, advanced reproduction technologies ,technical process and veterinarian issues.



If ICAR attributes code to new SCC (without any request to US semen market), NAAB will register this ID in its data base and will use it if the SCC needs an access to the US market.

1) Structure of the free part of 10 digits (3.c).

The group considered that it should be too difficult and too long to achieve an agreement on the structure of coded batch semen number. From the discussion it was concluded that there are various purposes for bar coding all of them aiming to improve accuracy and safety in bulls and semen identification either for AI companies or for farmers and recording systems.:

- ☞ - semen traceability
- ☞ - AI recording
- ☞ - possibility to look at bull fertility variations per ejaculate or special treatment.

In **ICAR perspective, the most important point is to improve accuracy of AI records** – terms of reference of the AI WG of ICAR on AI&ORT- because there are direct consequences in the breeding recording system (parentage assessment). Then, to avoid usage of many cross-reference files and difficulties to link easily semen batch number and bull identification, specially when doses are distributed among many AI companies, the group strongly recommends that **the structure of coding of batch semen should be significant and take into account :**

- ☞ **an ID AI number of bulls;**
- ☞ **other numbers to identify :**
 - **day of collection ;**
 - **semen processing systems.**

Format of the 3 numbers are free.

Non-significant bar codes may perfectly work within an AI company that print semen straws when recording AI data. But it looks complex to manage files for AI centres that purchased semen from SCC using non-significant coding systems.

2) Management of data files to cross bar codes numbers and semen identification

If ICAR & NAAB come to an agreement then they will use the NAAB list to register new semen collection centres who want to print barcodes on straws.

If this SCC is already known in the NAAB data base, then ICAR will only acknowledge that this code is used to print bar-codes.

In other situations ICAR will create the new SCC id within the NAAB database.

In its data system, ICAR manages the table containing with the signification of each barcoded batch specific of the SCC.

Annex 3 presents recommendations for the management of whole system.

It was discussed that a reasonable fee should be paid to ICAR for the allocation of an SCC ID if a code number was not already allocated by the NAAB (50€?).



3.2 Other development in straw labelling and / or automatic reading systems (chips..)

A.MALAFOSSE reported on the discussion he had with IMV technologies staff. They are investigating alternative systems to read automatically semen straws (chips, RFID) but tell very little about it to protect their ideas.

From the discussion it was concluded:

- ☞ That this topic should be carefully looked at by ICAR and that keeping watch on technology should be organised in this respect.
- ☞ To try to know more about the up-raising technologies using the ICAR network as some members have relationships with nano-technology companies or universities working on this topic.

4. Opportunity to organise a technical session on AI matters during the ICAR congress in Niagara Falls (June 2008)

As the answer has to be given to the organisers on December 1st, it was asked to the all members to react (annex 1). As everybody considered that it was a good idea, the group decided to launch the organisation of a special session during the ICAR congress in Niagara falls (USA).

We have to ensure a good participation by :

- ☞ Setting up an attractive programme so that people from the industry may find and discuss new ideas ;
- ☞ Inviting the right speakers to do this
- ☞ Inviting the right people of the AI companies

The programme should be set up before the end of the year in order to find speakers and tell them what it's expected.

For a 3 – 3.30 hours session, three parts could be identify :

- 1 Presentation of the general situation, of AI and recording systems with integration within the breeding data processing systems.
- 2 Specific part of AI management , various systems of recording and usage of recorded data
- 3 New technologies
 - Bar code systems
 - Chips
 - Technology companies and people having expertise in this field have to be approached.

Members of the group should send suggestions to the chairman before November 1st.



Gordon DOAK should have announced this during the last NAAB general assembly and should make suggestion.

Invitations to AI companies should be done by through various lists:

Approved AI centres by the EU and world wide

NAAB lists

Participants of AI Vet group

Etc

U. Witchi mentioned that the *Reproduction ICAR congress* will take place in Budapest in July 2008. A connection between the 2 meetings should be established through people attending both (presentation of a summary of outcomes in Budapest ..)

5. Future of the group

5.1 Reactions of the ICAR board (meeting in Verona)

The chairman has attended the meeting of the ICAR board with chair persons in Verona, has presented the work done and the current ideas of the group. ICAR is willing to have AI & ORT in it's portfolio and is happy with the AI group. Questions about future chairmanship and future terms of reference have been raised but not answered before having the opinion of group's members. It was said that decision will be made after the Dublin's meeting and announced to ICAR board.

5.2 Connections with other ICAR groups (parentage recording, data, ...)

During the meeting in Verona , A.MALAFOSSE met with D KOORN, current parentage group chairman, to make some suggestions on matters that should be worked out (Natural service, beef breeds etc). So far this new group has not met yet.

5.3 Opportunity to maintain the group, matters to tackle

From the answers to the questionnaire and from the point of view of participants the ICAR group on IA & ORT should still carry on existing.

The renewal of members should be organised because some persons will leave for various reasons within the next months / years. Members should be persons having a good knowledge of AI & ORT from technical points of view and from functional points of view. They should also have a good knowledge of data processing systems for genetic evaluation purposes. It was also mentioned that there were nobody from dairy developed countries of Oceania (Japan, Korea, New Zealand, Australia). Possible members from South America should also be welcomed but it's difficult to identify the right persons in this respect. Groups members should belong to ICAR countries, which is not the case for Brazil.

As the current chairman will stop his professional activities in April 2008 it should be wise to make a proposal to the ICAR board for a successor. This person should have expertise of the AI industry and data management systems. Quality management knowledge is also



requested. In addition this person should be able to dedicate time from his professional activities to do the job. Nobody from the group seems to be volunteer to take the chairmanships according to the requested provisions (AI, data quality management, time).

A.MALAFOSSE indicated that L.JOURNAUX has the requested job description and is volunteer to take it over. Present persons have no objections and to agree propose it to ICAR board that will take the decision. This proposal has to be checked with the other groups members.

It was suggested to organise a specific meeting to fix the ICAR session in Niagara falls. (call conference or meeting). It would be good to organise this meeting in connection with a meeting to set up the new group with new chairman and possibly new members. So it was proposed to look for a date in December 2007.

As there is an important renewal, meeting should be organised with relative short frequency at least in 2008&2009, to recreate a group. The conjunction with Interbull meetings is thus of interest.

6. Other businesses

None

Alain MALAFOSSE
Chairman of the ICAR working group
On AI & Other Relevant Technologies