

Report on the 39th Research Swine Days
(Journées de la Recherche Porcine - JRP)
Paris, France, February 6th - 8th, 2007
<http://www.journees-recherche-porcine.com/>

Each year, since 1969, the **National Institute for Agricultural Research (INRA)** and the **French Institute for Pig and Pork Industry** (formerly known as ITP) organize jointly "The Research Swine Days" in Paris. The aim of these "Swine Days" is mainly to ensure a rapid transfer of the research results to practice. The number of participants is about 700 on average, with an increasing number of speakers and delegates from other countries: Canada, Belgium, Spain, Italy, etc. For the second time in 2007, an English translation was provided during one of the sessions (animal nutrition), which attracted many more delegates from UK, Germany and The Netherlands.

The Research Swine Days are an excellent place to hear about very recent research results and transfer of these results to practical use. It is also an important opportunity for networking with geneticists from other countries, but also with researchers working in other areas, and with experts from different sectors of pig industry. It is also a good opportunity for CCSI to strengthen its collaboration with IFIP on several projects of common interest such as disease resistance, molecular genetics, computer services and meat quality.

Eighty-one communications were presented at the conference, including 52 theatre presentations and 29 posters, in eight different sessions (the number of presentations in each session is given within brackets):

- **Environment (9)**
- **Animal welfare and Management (6)**
- **Feeding (15)**
- **Economy - Sociology (9)**
- **Meat Quality (6)**
- **Genetics and Reproduction (12)**
- **Swine Research in Spain (5)**
- **Health (19)**

This year, a special session was dedicated to swine research in Spain, with five invited speakers from universities and IRTA (Research Institute on Food Research and Technology). CCSI already has connections with IRTA, through IFIFP but also through collaborations with CDPQ and Quebec and Lennoxville Research Centre, in the areas of meat and carcass quality evaluation.

Highlights

Papers of special interest in the genetics area:

The session on Genetics and Reproduction was very popular this year, with a large audience attending 6 theatre presentations and 6 poster presentations. Several papers were presented by INRA (French National Institute on Agricultural Research) in the area of molecular genetics and functional genomics. Most papers were dealing genetic aspects of male or female reproduction, using molecular or quantitative approaches. An excellent review on chromosomal abnormalities in swine was presented by Dr Alain Ducos. A project in this area is underway in collaboration with his team in Canadian populations.

- ***Detection of quantitative trait loci for sow reproductive traits using multivariate methods***, by Adalberto Rosendo-Ponce, Jean-Pierre Bidanel, Denis Milan, Yvon Billon, Armelle Prunier and H el ene Gilbert.
- ***Detection of quantitative trait loci for reproduction and production traits in Large White and French Landrace pig populations using a granddaughter design***, by Thierry Tribout, Nathalie Iannuccelli, Tom Druet, H el ene Gilbert, Juliette Riquet, Ronan Gu eblez, Marie-Jos e Mercat, Jean-Pierre Bidanel, Denis Milan and Pascale Le Roy.
- ***Genetic trends between 1977 and 1998 for piglet characteristics at birth and sow behaviour at farrowing in the Large White breed***, by Laurianne Canario, Lotta Rydhmer, Jean Gogu e and Jean-Pierre Bidanel.
- ***Effect of boar's breed on piglets' vitality and growth performance from birth to weaning***, by Nathalie Quiniou, Cl ement Allain, Sylviane Boulot, Sylvie Dubroca and Isabelle Delaunay.
- ***Analysis of factors of variation of piglet stillbirth***, by Laurianne Canario, Jean-Louis Foulley, Eva Cantoni, Etienne Le Bihan, Jean-Claude Caritez, Yvon Billon and Jean-Pierre Bidanel.
- ***Chromosomal control of pig populations in France : 2002-2006 survey***, by Alain Ducos, H el ene-Marie Berland, Nathalie Bonnet, Anne S egu ela, Myriam Benneji, S ebastien Billoux, Am elie Garnier-Bonnet, Roland Darr e and Alain Pinton
- ***Analysis of the evolution of inverted teats at 100kg***, by Marie-Laurence Grannec and Jean-Christophe Cloarec.
- ***Analysis of gestation length and litter size recorded between 1999 and 2003 for highly prolific Large White sows***, by Eric Venturi, Jean Luc Touz e, Romuald Breton, Eric Royer, Fr ed eric Elleboudt, Fran oise Martinat-Bott e and Michel J. Bosc.
- ***Estimation of genetic parameters for rectal temperature in lactating sows and analysis of its relationships with performances***, by Jean-Luc Gourdine, Jean-Pierre Bidanel, Alberto Menendez-Buxadera, Nathalie Mandonnet, Michel Naves and David Renaudeau.
- ***Cryopreservation of boar semen : field studies***, by Pierre Thilmant.
- ***Detection and identification of genes differentially expressed in boar epididyme using a transcriptomic approach***, by Beno t Guyonnet, Jean-Louis Dacheux, Florence Jaffr ezic, Anne Lacoste, Guillemette Marot, Marie-Jos e Mercat and Jean-Luc Gatti.
- ***Analysis of ovarian transcriptome identification of genes involved in folliculogenesis***, by Agn es Bonnet, Kim-Ahn L e Cao, Magali SanCristobal, Gwenola Tosser-Klopp et Fran ois Hatey.

Swine Research in Spain (special session)

IFIP has initiated strong collaborations with several of its European counterparts. IRTA (Research Institute on Food Research and Technology) in Spain is one of these. Five presentations dealing with swine production and research were given by Spanish researchers.

- ***The Spanish pig production, between growth and consolidation, by Daniel Daridan*** (IFIP - Institut du Porc) and José Maria Gil (Research Centre on Economics and Agricultural Development – Polytechnical University of Catalonia - IRTA).
- ***Swine Research in Spain to serve the pig industry***, by Josep Tarragó and Joan Tibau (IRTA).
- ***e-BDporc® : Spanish electronic system for management decisions***, by Jesus Pomar and Jose-Luis Noguera (University of Lérida - IRTA).
- ***Production models for high quality dried-cured products in Spain***, by Argimiro Daza (Polytechnical University of Madrid) and Clemente López-Bote (University Complutense of Madrid).
- ***Production technology for dried-cured ham in Spain***, by Jacint Arnau and Pierre Picouet (IRTA).

CCSI was a co-author of a paper presented in the session on Meat Quality, entitled ‘***Comparison of different methods of drip loss measurement in pork fresh meat from French and Canadian populations***’, by Isabelle Mérour, Louise Riendeau, Laurence Maignel, Joël Rivest and Antoine Vautier. This paper was actually the result of one of the collaborations between CCSI, CDPQ and IFIP in the area of genetics and meat quality. Researchers in France and in Canada investigated several methods for measuring drip loss in fresh meat, in order to compare them in terms of accuracy and usefulness for selection on meat quality attributes. Several methods are actually currently used in France and in Canada, and there was a need for documentation and standardization. The different methods compared were based on the use of commercial trays, plastic bags, customized tubes or filter paper to estimate drip loss from 24 to 72h post mortem. The measures were carried out separately, on French purebred pigs (Large White, French Landrace, and Piétrain) and Canadian purebred pigs (Yorkshire, Landrace and Duroc) tested in stations. Statistical analyses were also carried out separately, but the results were gathered in a single report for the JRP Conference. They were very consistent and showed a good accuracy of the tray and the tube methods to predict drip loss and rank animals on this meat quality characteristic.

More information is available at the following URL :

<http://www.journees-recherche-porcine.com/>

Abstracts are available in French and English at

<http://www.journees-recherche-porcine.com/gb/index.htm>

Full papers are available on request at CCSI