

Report on the 40th Research Swine Days
(Journées de la Recherche Porcine - JRP)
Paris, France, February 5th - 6th, 2008
<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 (IFIP)**, formerly known as ITP) organize jointly "The Research Swine Days" in Paris. The aim of these "Swine Days" is to inform the swine industry about the most recent results in swine research. 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.

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 and computer services.

Sixty-four communications were presented at the conference, including 27 theatre presentations and 37 posters, in five different sessions (the number of presentations in each session is provided within brackets):

- **Animal Health (11)**
- **Quality of Products (10)**
- **Genetics (13)**
- **Animal Nutrition (16)**
- **Farming Techniques (14)**

Highlights

Papers of special interest in the genetics area:

The session on Genetics was very popular this year, with a large audience attending 6 theatre presentations and 7 poster presentations. Several papers were presented by INRA (French National Institute on Agricultural Research) in the area of molecular genetics and functional genomics, more specifically in the area of meat quality, feed intake, intramuscular fat and stress sensitivity. Papers on quantitative genetics were presented about genetic parameters for congenital disorders and litter size and weights and correlations between reproduction and production traits. Below is provided the complete list of papers (7) and posters (6) presented during the genetics session.

1. **First experience of use of semen from the national cryobank as a management tool of genetic diversity in local pig breeds**, Marie-José Mercat, Herveline Lenoir, Stéphane Ferchaud and Philippe Guillouet.

2. **The boar epididymal transcriptome : clustering of intraregional segments**, Benoît Guyonnet, Jean-Louis Dacheux, Florence Jaffrézic, Anne Lacoste, Guillemette Marot, Marie-José Mercat, Sandrine Schwob and Jean-Luc Gatti.
3. **Functional genomics of the adrenal sensitivity to ACTH in the pig**, Dominique Hazard, Laurence Liaubet, Magali SanCristobal and Pierre Mormède.
4. **Genetic parameters of number of piglets born alive per litter and relationships with production traits measured on-farm in the French Landrace and Large White maternal pig populations**, Thierry Tribout and Jean-Pierre Bidanel.
5. **QTL for meat quality and production traits in an F2 Duroc x Large White population**, Marie-Pierre Sanchez, Nathalie Iannuccelli, Marie-Pierre Sanchez, Nathalie Iannuccelli, Benjamin Basso, Jean-Pierre Bidanel, Yvon Billon, Gilles Gandemer, Hélène Gilbert, Catherine Larzul, Christian Legault, Juliette Riquet, Denis Milan and Pascale Le Roy.
6. **Detection of quantitative trait loci for intramuscular fat content and lipogenic enzyme activities in Meishan x Large White F2 pigs**, Catherine Larzul, Jean-Pierre Bidanel, Nathalie Iannuccelli, Joseph Gruand, Jacques Mourot and Denis Milan.
7. **Comparison of the zona pellucida (ZP) of equine and porcine oocytes by transmission electron microscopy (TEM)**, Sylvie Mugnier, Bernadette Delaleu, Patricia Solnay, Cécile Lahuec, Michèle Magistrini and Ghylène Goudet.
8. **Genetic analysis of litter size and weights, and of farrowing duration in Large White and French Landrace sows**, Isabelle Mérour, Emilie Bernard, Laurianne Canario and Jean-Pierre Bidanel.
9. **Comparison of reproductive performance and maternal abilities of Meishan and Large White sows kept in a loosehousing system from farrowing to weaning**, Laurianne Canario, Coralie Moigneau, Hervé Lagant, Yvon Billon and Jean-Pierre Bidanel.
10. **Genetic parameters for the main congenital disorders in pigs**, Catherine Larzul, Isabelle Delaunay, Sandrine Schwob and Marie-José Mercat.
11. **Validation of a panel of DNA microsatellite markers for parentage control in the Tai Zumu Chinese-European line and in the DRB Duroc line**, Michel Sourdioux, Arnaud Lamamy, Damien Bahon and Thais Pantano.
12. **Estimation of the effects of six QTL on production traits in French commercial pig populations: first results of the BIOMARK project**, Denis Milan, Marie-José Mercat, Nicolas Dechamp, Nathalie Iannuccelli, Hélène Gilbert, Yvon Billon, Marcel Bouffaud, Sandrine Schwob, Marie-Pierre Sanchez, Juliette Riquet and Jean-Pierre Bidanel.
13. **QTL detection of feed intake in pigs, in a back-cross between Large White and Piétrain breeds**, Hélène Gilbert, Juliette Riquet, Joseph Gruand, Yvon Billon, Nathalie Iannuccelli, Pierre Sellier, Jean Noblet and Jean-Pierre Bidanel

Other sessions:

Animal Health (11 papers)

During this session most of the papers presented dealt with recent research work on pathogens from the digestive track (Salmonella, Campylobacter, Hepatitis E virus, etc). A general review about the Porcine Intestinal Distension Syndrome was presented. A team from the Centre de Développement du Porc du Québec (CDPQ) presented a poster about the validation of antimicrobial air filters to reduce the transmission of PRRS virus in hog farms.

Quality of products (10 papers)

Various topics were covered during this session, including several papers and posters dealing with the new European lean meat content as an indicator of carcass composition. Other papers of interest were about the effect of divergent selection on residual feed intake on various performances such as growth, muscle composition and meat quality. A Swiss research team presented a comparison of performances of intact males and castrates, with avenues to reduce skatole levels using raw potato starch in the feed (in 2009, castration will be forbidden in Norway, and allowed under anesthesia in Switzerland).

Animal Nutrition (16 papers)

In the context of an increasing production of bio-fuels, some of their by-products are looked at as potential new and cheap feed ingredients of interest for the industry. Several papers were about the use of (low glucosinate) rapeseed meal during gestation, lactation, post-weaning phases and its long-term effects on herd productivity. Also several new feed additives (yeasts, probiotics, phytase, etc) were presented in details.

Farming Techniques (14 papers)

Most papers in this session were dealing with sow management, with the impact of feeding strategy, type of floor, surface available, etc on their productivity and welfare. Also the effects of feeding strategy and air cleaning on gas emissions were discussed. In addition, survey results were presented by IFIP as posters regarding the trends in insemination practices in French farms from 2001 to 2006, and a typology according to weaning to first service interval in sow herds.

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.