



COW'S GENETIC PREDISPOSITION AFFECTS MILK COMPOSITION

Pioneering research results unveiled at IDF World Dairy Summit

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Brussels, 29 September 2009 – Experts in Animal breeding gathered at the IDF World Dairy Summit this week to discuss how the genetic predisposition of cows has an effect on the composition of fat and protein of their milk.

The Dutch Milk Genomics Initiative, a project lead by Professor Johan Van Arendonk, Researcher at Wageningen University, has examined the opportunities and significance of exploiting genetic variation between cows for improving the quality characteristics of milk. The research team discovered a number of genes that contribute to this genetic variation, which opens unique opportunities for genetic improvement.

Researchers found enormous variation in the composition of the milk fat in cows' milk, with a significant proportion of these differences being put down to genetic predisposition. Furthermore, the Wageningen researchers made use of the recently available information on the cattle genome to identify six areas of the genome where genes contributing to the genetic variation in milk fat composition are found.

"On the basis of this knowledge, it is possible to devise an innovative breeding programme for cows and bulls to increase the proportion of unsaturated fatty acids in the milk and to improve cheese production. The implementation of such a programme is expected to award vast benefits to the dairy industry both practically and economically," commented Professor Johan Van Arendonk.

The research also discovered substantial variation in the composition of milk proteins as a result of genetic variation, which is likely to result in a higher yield in cheese production. This estimates to save 25 million Euros for the Dutch dairy sector alone. It is envisaged that these results can provide a much higher quality of milk and thus transform milk production in the long-term.

IDF believes such findings will ensure the dairy industry remains at the forefront in quality and innovation. "Supporting dairy science and innovation is a key part of the IDF's work portfolio. We hope that the information we obtain from scientific research will allow us to take advantage of new markets and respond to increasing demands from customers for diverse product lines. I am certain that advances in scientific research will play a crucial role in shaping the future composition and production of dairy products," concluded Christian Robert, IDF Director General.

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Note to editors:

- The International Dairy Federation is the pre-eminent source of scientific and technical expertise for all stakeholders in the dairy chain.
- Growing IDF membership accounts for about **86%** of the world's total milk production.
- The IDF World Dairy Summit 2009 under the theme "United Dairy World 2009" takes place in Berlin, Germany, 20-24 September 2009. Environment, energy sources and technological innovation with regard to milk supply and dairy processing will be key elements addressed at the IDF World Dairy Summit 2009. More information can be found at www.wds2009.com