

Eurofins Scientific Nantes laboratory gains approval for the investigation of the genetic susceptibility of sheep to Scrapie

Within the framework of its prevention policy on Transmissible Spongiform Encephalopathies (TSE) and in the light of recent risk evaluation made by "l'Agence Française de Sécurité Sanitaire des Aliments" (AFSSA) on sheep and goats, the French government launched an eradication program for scrapie in April. At the current state of scientific knowledge, the risk of contamination of sheep by the BSE agent is still hypothetical. However, certain measures have been adopted as a precaution: firstly, the implementation of an active monitoring system in slaughter houses and squaring, using fast tests for tracking some 100 000 animals. The aims of these measures are to reinforce health measures in flocks affected by the disease and also to implement a national plan for the genetic improvement of sheep. It is hoped that in the long term these measures will aid the eradication of scrapie in France.

This program relies essentially on the genetic selection of resistant animals. Indeed, genetic control of the susceptibility of sheep to scrapie is possible. In sheep polymorphism, the gene PrnP coding for

the protein "prion", confers varying degrees of susceptibility or resistance to scrapie. These variations relate to the codons at positions 136, 154 and 171.

The Ministry for Agriculture and Fisheries has now initiated the approval of certain laboratories to investigate the genetic predisposition of sheep to scrapie. The Eurofins Scientific laboratory in Nantes obtained approval on May 13th, from the "Direction Générale de l'Alimentation", to conduct these analyses within the framework of health measures (involving the tracking of infected herds) and the national program for the genetic fight against scrapie.



This endorsement increases the portfolio of the Eurofins Scientific group, which specialises in a broad range of analytical services including specific tools for cattle meat traceability, fast detection tests for BSE and bovine genotyping using the Eurofins-TAG™ system.

According to figures published by the ministry for Agriculture (May, 2002), 18 cases of scrapie have been diagnosed in France since the beginning of April, with 28 cases in 23 new centres since the beginning of the year. In France, scrapie is present throughout the country but is especially prevalent in the south, where the highest density of ovine breeding takes place.

In accordance with European regulations, an active monitoring campaign has been implemented this year in all member states. The aim of this program is to estimate accurately the prevalence of scrapie in Europe ●

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Eurofins Tests for Nitrofen

At the end of May, the German authorities reported that traces of nitrofen, a herbicide banned in the EU since 1980, had been found in poultry products from Lower Saxony in Germany. Nitrofen, which is strongly suspected of causing cancer, was found in animal feed produced by a mill in Lower Saxony. When looking for the sources of the contamination, nitrofen was traced back to a warehouse in Malchin in Mecklenburg-Western Pomerania, where wheat used for feed production was stored. A possible reason for the contamination appears to stem back to the days of the German Democratic Republic, when the warehouse had been used to hold pesticides and weed killers, residues of which had probably tainted wheat stored there. Although samples taken from dust on the floor of the warehouse clearly confirm the presence of nitrofen, further sources have not been completely ruled out.



So far, nitrofen has been found in some 550 metric tons of grain, including 300 tons of organically-grown wheat delivered to the mill in Lower Saxony since September 2001. Although there is no evidence yet, some of the wheat or derived products may have been exported to other countries. Besides poultry, nitrofen has also been found in eggs. According to the "Bundesanstalt für Milchforschung" in Kiel (Germany) nitrofen should not be expected in milk or milk products. However, tens of thousands of chickens have been slaughtered, as the contaminated feed was supplied to about 120 organic poultry farms.

Meanwhile, the case has been raised to the level of the European Commission in Brussels. Some countries such as Belgium, particularly sensitive to food scares following the dioxin crisis in 1999, are being cautious concerning German exports affected by the nitrofen scandal. Nonetheless, there has so far not been any ban on German organically-grown products.

Together with its clients, Eurofins Laboratory Dr. Specht & Partner in Hamburg had already found traces of nitrofen in poultry in January. The detection was possible because the laboratory uses a multi residue method including up to 300 substances in one test, nitrofen amongst them, instead of just analysing for single compounds. Today, Eurofins Scientific offers the analysis of nitrofen in two different sites in Germany, Hamburg and Augsburg, using the official enforcement method DFG S19 based on gas chromatographic identification ●

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