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## OPINION

### of the French Food Safety Agency (Afssa) on a request for an additional opinion on changes in the animal health measures applied in sheep and goat populations where a case of classical scrapie has been detected

LA DIRECTRICE GÉNÉRALE

In a letter dated 9 March 2007, Afssa requested its TSE Scientific Panel to issue an opinion in addition to the one issued in January 2007<sup>1</sup> on changes in the animal health measures applied in sheep and goat populations where a case of classical scrapie has been detected.

#### **Context:**

For information, the new animal health measures concerning classical scrapie particularly allowed Member States to re-authorise sheep of sensitive genotypes and goats, which are slaughtered to decontaminate the herd, for human consumption, when subject to a negative screening test. At present, they must be destroyed.

Afssa indicated in its opinion of 15 January 2007<sup>1</sup> that the TSE Scientific Panel clearly considered that the new strategies proposed on classical scrapie posed too high a risk, both in public health and animal health terms, compared with current animal health measures. Given the deadlines and available data, the Panel could not conduct a quantitative assessment.

As far as possible, Afssa nevertheless wanted the Panel to conduct this analysis, or failing this, to gather the information it would need to conduct it.

#### **Scientific analysis**

The TSE Scientific Panel issued its opinion on 08/06/2007:

"Regarding the extra public health risks posed by products from sheep of sensitive genotypes slaughtered under the conditions defined by the European draft text, the TSE Scientific Panel stated in its opinion of 11 January 2007<sup>1</sup> :

- *"An appropriate quantitative assessment of these risks is currently impossible due to a lack of data on:*
  - (i) *the actual prevalence of scrapie in all the affected herds;*
  - (ii) *the actual genetic structure of the general sheep population (beyond this distribution in breeding populations)."*

The Committee considered that the reservations expressed in this opinion are still valid and that the data enabling an accurate quantitative assessment are still unavailable. Moreover, the analysis that the Panel is currently conducting for the 2007-SA-0052 request<sup>2</sup> clearly

<sup>1</sup> Afssa opinion of 15 January 2007 on changes in animal health measures applied in sheep and goat populations where a case of classical or atypical scrapie has been detected

<sup>2</sup> Request for an additional opinion on changes to the TSE monitoring programme in small ruminant animals regarding the BSE risk for consumers.

shows that the quality of the data obtained from active TSE monitoring in small ruminant animals, gathered since 2002, is insufficient to consider successfully conducting this quantitative assessment any time soon.

As a result, the Panel can only make the type of estimations it made in the same opinion<sup>1</sup>.

- *“However, the data mentioned in this opinion on the prevalences observed in some herds affected by classical scrapie are sufficient for a rough assessment of this excess risk, if the following is considered:*
- *the prevalence of classical scrapie in the general population of slaughtered animals aged over 18 months is around 0.05%;*
  - *the prevalence in herds affected by classical scrapie can vary by around 1 to 30% (without taking the genotype of individual animals into account). Accordingly, the relative risk represented by an animal from an affected herd compared with an animal from the general population would be from 20 to 600. This excess risk would be even higher if we considered solely animals of sensitive genotype from affected herds.”*

To complete its analysis, the Panel tried to assess the excess risk introduced by the new animal health recommendations by trying to determine the number of carrier animals (excluding index cases) of a sensitive genotype, infected by classical scrapie, that would not be detected by rapid tests conducted on animals over 18 months of age and carriers of significant quantities of infectious matter in their peripheral lymphoid tissues, but could be consumed if these new recommendations were adopted. For this, it used data from the active monitoring carried out in 2006. For this estimation, only cases of classical scrapie were considered, insofar as there are generally no secondary cases detected in herds affected with atypical scrapie.

#### **a) Estimation for sheep:**

The sheep active monitoring data for 2006<sup>3</sup> pointed to 182 index cases of classical scrapie. With the average number of secondary cases per index case detected by rapid tests estimated to be 5.34 (average estimated over the 2002-2006 period<sup>4</sup>), 972 secondary cases ( $182 \times 5.34 = 971.88$ ) would be detectable in affected herds. Moreover, on the basis of data gathered in France, it is currently held that with obex tests only detecting around 50% of infected animals in affected herds, the other 50% corresponding to animals at the contagious stage that are carrying infectivity in their lymphoid tissues (amygdalae, ileum-Peyer's patches, mesenteric ganglions), just as many animals would have been consumed.

#### **b) Estimation for goats:**

For goats, the same type of calculation produces a figure of 20 (8 outbreaks  $\times$  2.58 secondary cases per index case = 20.64) carrier animals of infected matter by prions authorised for human consumption for 2006.

Moreover, it should be remembered that the active monitoring programmes are not able to detect all herds affected by TSE. Some undetected animals in these infected herds are therefore authorised for human consumption. As things stand, it is impossible, both for sheep and goats, to accurately estimate the annual number of infected animals from the herds that are wrongly considered to be healthy and therefore authorised for human consumption.

The Panel would like to stress that the estimation made only enables orders of magnitude to be determined. It also points out the fact that this estimation depends on the intensity of the active monitoring programme. Accordingly, in 2004 (year in which the least number of tests were carried out on sheep), the same type of calculation led to a figure of around 130 for sheep ( $25 \times 5.34 = 133.5$ ).

<sup>3</sup> Statistical analysis of TSE active monitoring data in small ruminant animals in mainland France  
Supplement to annual analysis reports for the period 2002-2006, AFSSA, Lyon, 16/05/2007

<sup>4</sup> Lyon Afssa data

**Conclusions:**

In 2006, the new animal health recommendations released at least 1000 sheep and goat carcasses for human consumption that were carrying significant amounts of infectivity in their lymphoid tissues.

In any case, the Panel believes that the introduction of these carcasses into the human food chain is likely to pose too high a risk of consumer exposure. It also reiterates the fact that the elimination of these animals of sensitive genotypes in infected troops helps to clear the herd of this disease."

These are the additional scientific facts that Afssa is able to provide at present.

**Key words**

TSE, animal health, small ruminant animals, classical scrapie, TSE road map

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Safety Agency

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