

Opinion of the
Scientific Steering Committee
on the
GEOGRAPHICAL RISK OF
BOVINE SPONGIFORM
ENCEPHALOPATHY (GBR) in
Singapore
Adopted by the SSC on
6 March 2003

**Opinion of the Scientific Steering Committee on the
GEOGRAPHICAL RISK OF BOVINE SPONGIFORM ENCEPHALOPATHY
(GBR)
in Singapore 2003**

THE QUESTION

The Scientific Steering Committee (SSC) was asked by the Commission to provide an up-to-date scientific opinion on the Geographical BSE risk (GBR), i.e. the likelihood of the presence of one or more cattle being infected with BSE, pre-clinically as well as clinically, in countries that have formally requested the determination of their BSE status in accordance with Article 5 of the Regulation (EC) No 999/2001 of the European Parliament and of the Council.

This opinion addresses the GBR of Singapore as assessed in 2003.

THE ANSWER

Due to the fact that a moderate external challenge entered the country in the middle of the eighties, there was a certain risk that BSE infectivity has reached domestic cattle. However, in 1989-1990 the whole domestic cattle herd was slaughtered and a new cattle herd was built up after 1990, which was only exposed to a negligible external challenge. It is therefore concluded that it is highly unlikely that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent (**GBR-I**).

The SSC is concerned that the available information was not confirmed by inspection missions as they are performed by the FVO in the Member States. It recommends that BSE-related aspects are included in the program of future inspection missions, as far as feasible.

THE BACKGROUND

In July 2000 the SSC adopted its final opinion on "the Geographical Risk of Bovine Spongiform Encephalopathy (GBR)". It described a method and a process for the assessment of the GBR and summarised the outcome of its application to 23 countries. Detailed reports on the GBR-assessments were published on the Internet for each of these countries.

On 1 July 2001 Regulation (EC) No 999/2001 of the European Parliament and of the Council entered into force. This regulation lays down rules for the prevention, control and eradication of transmissible spongiform encephalopathies in animals (TSE Regulation). Appropriate risk management measures are defined in relation to the BSE Status category. In Annex II of this Regulation the method for the determination of the BSE status is described. It requires two steps, namely a risk assessment and the evaluation of specific criteria listed in annex II, chapter A, point (b) to (e). The Commission regards the GBR as provided by the SSC as an adequate Risk Assessment as required by the regulation. However, countries may also provide their own risk assessment in which case the SSC will be requested to provide a scientific opinion on the validity of that risk assessment as well as of its result.

In January 2002 the SSC updated its opinion on the GBR and determined that exports from all countries classified as GBR III or IV pose a certain risk of carrying the BSE-agent, independent if they have or have not confirmed at least one domestic BSE case. The SSC also provided an estimate of the level of risk emitted from these "BSE risk countries" in relation to the time of export.

Singapore has formally requested the determination of its BSE status in accordance with Article 5 of the TSE Regulation and subsequently the Commission asked the Scientific Steering Committee (SSC) to provide a scientific opinion on the Geographical BSE risk of Singapore.

THE RISK ASSESSMENT

The SSC concluded that it was “highly unlikely” (**GBR I**) that domestic cattle in Singapore are (clinically or pre-clinically) infected with the BSE-agent.

THE ANALYSIS

EXTERNAL CHALLENGE

Singapore was exposed to a **moderate external challenge** from 1980 – 1985 (import of 3,773 tons of MBM from the Netherlands) and to a **negligible external challenge** from 1986 - 2000.

STABILITY

On the basis of the available information it was concluded that the country’s BSE/cattle system was **very stable** between 1980-2001. This indicates that BSE infectivity, if imported, could have reached domestic cattle but most probably would not have been recycled and amplified.

Feeding

Feeding MBM to cattle was legally possible until 1997 but the information provided indicates that it was uncommon practice for dairy cattle to be fed with MBM, based on a de facto (non-official) feedban.

The available information on the control of the 1997 feed-ban does not allow judging the efficiency of the feed-ban. However, cattle feed is mixed on-farm and the farms are regularly controlled. No animal protein is contained in cattle feed rations. Due to the very specific circumstances of cattle husbandry and feeding in Singapore it can be assumed that also cross-contamination is practically excluded. Therefore it is assumed that feeding was “**reasonably OK**” throughout the reference period.

Rendering:

There is no rendering industry or sub-industrial rendering in Singapore. Therefore, rendering is assessed as being “**OK**”.

SRM-removal:

There is no SRM ban but all SRM of animals fit for human consumption is destined for human consumption. If condemned, it would be incinerated. Therefore SRM-removal is assessed as being “**OK**”.

BSE surveillance:

BSE surveillance was insufficient, even if the very small herd size makes the detection of clinical cases highly likely. Since February 2001 active surveillance measures are taken. Therefore surveillance did not influence the stability before 2001, but improves it since then.

CONCLUSION ON THE CURRENT GBR

The BSE agent was probably imported into the country and could have reached domestic cattle in the middle of the eighties. However, all domestic cattle have been slaughtered in 1989-1990, when the cattle farms were relocated and completely restocked.

Since 1986, the risk that BSE-infectivity entered the country was negligible.

Due to the absence of rendering or sub-industrial rendering, there was no risk that BSE-infectivity was recycled or propagated.

It is therefore concluded that it is highly unlikely that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent (**GBR-I**).

EXPECTED DEVELOPMENT OF THE GBR

Due to the import controls in combination with the feeding practices and the non-existence of rendering the probability of cattle to be infected with the BSE-agent will remain very low.

A table summarising the reasons for the current assessment is given in annex 1 to this opinion. A detailed report on the assessment of the GBR of Singapore as produced by the GBR-Peer Group is published separately on the Internet. The country had opportunities to comment on different drafts of the report before the SSC took both, the report and the comments, into account for producing this opinion. The SSC appreciates the good co-operation of the country's authorities.

Singapore – Summary of the GBR-Assessment, December 2002							
	EXTERNAL CHALLENGE		STABILITY				INTERACTION of EXTERNAL CHALLENGE and STABILITY
	1980-1985: Moderate 1986-2000: Negligible		1980-2001: Very stable				Any internal challenge which could have developed would have met the very stable system and infectivity would have not been recycled. As almost no imports from BSE risk countries could be identified since 1986, it is highly unlikely that an internal challenge ever occurred in Singapore since then.
GBR-Level	Live Cattle imports	MBM imports	Feeding	Rendering	SRM-removal	BSE surveillance	
	<p><u>UK</u>: No cattle were imported from UK</p> <p><u>Other BSE risk countries</u>: no imports</p>	<p><u>UK</u>: No mammalian MBM imports</p> <p><u>Other BSE risk countries</u>: According to country import data: 80-85: 3,773 t 86-90: 0 t 91-95: 0 t 96-2000: 0 t Total: 3,773 t</p> <p>Another about 3,000 t reached Singapore port (free zone) and were shipped to other countries.</p>	<p>1980-2001: reasonably OK.</p> <p>Feeding of MBM to cattle legally possible until 1997</p> <p>For religious reasons feeding of MBM to cattle is practically excluded</p> <p>Cross-contamination in feed mills is excluded</p>	<p>1980-2001: OK</p> <p>no rendering industry exists</p> <p>Also sub-industrial scale rendering does not exist.</p>	<p>1980-2001: OK</p> <p>No SRM ban</p> <p>SRM of cattle fit for human consumption is consumed</p> <p>condemned SRM is incinerated</p>	<p>1980-2000: insufficient</p> <p>Since 2001: all risk populations tested</p>	<p>INTERNAL CHALLENGE</p> <p>An internal challenge could have emerged in 1985. If any cattle would have been infected they have been eliminated in 1989-1990 when the whole cattle herd was slaughtered.</p> <p>Since 1990, the occurrence of an internal challenge is regarded as highly unlikely.</p>
GBR-trend							