

**FINAL REPORT**

**ON THE ASSESSMENT**

**OF THE**

**GEOGRAPHICAL BSE RISK OF**

**PANAMA**

**JUNE 2001**

**NOTE TO THE READER**

Independent experts have produced this report, applying an innovative methodology by a complex process to data that were voluntarily supplied by the responsible country authorities. Both, the methodology and the process are described in detail in the final opinion of the SSC on "the Geographical Risk of Bovine Spongiform Encephalopathy (GBR)", 6 July 2000. This opinion is available at the following Internet address:

**<[http://europa.eu.int/comm/food/fs/sc/ssc/outcome\\_en.html](http://europa.eu.int/comm/food/fs/sc/ssc/outcome_en.html)>**

In order to understand the rationale of the report leading to its conclusions and the terminology used in the report, it is highly advisable to have read the opinion before reading the report. The opinion also provides an overview of the assessments for other countries.

## 1. Data

- The available information was suitable to finalise the GBR risk assessment. However, this report still depends to a certain extent on reasonable assumptions.

### Sources of data

Country Dossier (CD) consisting of:

- Basic questionnaire for the assessment of the geographical BSE-risk of Panama, received on 17 April 2001, one annex.

Other sources:

- EUROSTAT data on exports of "live bovine animals" and of "flour, meal and pellets of meat or offal, unfit for human consumption; greaves", from EU Member States covering the period 1980 to 2000.
- UK-export data on "live bovine animals" (1980-1996) and on "Mammalian Flours, Meals and Pellets", 1980-2000. As it was illegal to export mammalian meat meal, bone meal and MBM from UK since 27/03/1996, exports indicated after that date may have included non-mammalian MBM.

## 2. EXTERNAL CHALLENGES

### 2.1 **Import of cattle from BSE affected countries**

No imports of live cattle from UK have taken place according to the Country Dossier (CD). This is confirmed by UK and Eurostat export data.

Live cattle from other BSE-affected non-UK countries have also not been imported into Panama according to the CD. Also EUROSTAT only shows an export from France to Panama in 1996 of 4 "pure-bred breeding bovines".

Since 2<sup>nd</sup> May 1996 a regulation of the Ministry of Agriculture prohibits imports of bovine animals from all BSE-affected countries.

### 2.2 **Import of MBM or MBM-containing feedstuffs from BSE affected countries**

According to the CD, no imports of MBM have taken place from UK or any other non-UK BSE-affected Member States. This is confirmed by UK and Eurostat export data.

Panama indicated that the lack of MBM importation is due to economical reasons and the fact that since 2<sup>nd</sup> May 1996 a regulation of the Ministry of Agriculture prohibits imports of ruminant products from all BSE affected countries.

### 2.3 Overall assessment of the external challenge

The level of the external challenge that has to be met by the BSE/cattle system is estimated according to the guidance given by the SSC in its final opinion on the GBR of July 2000.

It appears that the external challenges resulting both from live cattle and MBM imports have been negligible throughout the period under consideration. Even if the live cattle import from France took place, this import would be assessed as negligible.

In conclusion, it has to be assumed that no external challenge occurred.

<b>External Challenge experienced by Panama</b>				
<i>External challenge</i>		<i>Reason for this external challenge</i>		
<b>Period</b>	<b>Level</b>	<b>Cattle imports</b>	<b>MBM imports</b>	<b>Comment</b>
<b>1980 - At current</b>	<b>Negligible</b>	<b>Negligible</b>	<b>Negligible</b>	

**Table 1:** External Challenge resulting from live cattle and/or MBM imports from the UK and other BSE-affected countries. The Challenge level is determined according to the SSC-opinion on the GBR of July 2000.

On the basis of the available information the overall assessment of the external challenge is as given in the table above. Panama was exposed to a negligible external challenge over the period 1980-2000.

## 3. STABILITY

### 3.1 Overall appreciation of the ability to avoid recycling of BSE infectivity, should it enter processing

#### Feeding:

According to the CD, MBM has always been included in domestically produced cattle feed.

#### Rendering:

Bovine material is rendered. No information, however, was provided on the number of rendering plants or on their output.

According to the CD, all rendering plants have been using a batch process at 133°C, 20 min, 3 bar throughout the period 1980-2000. A certificate from one of the rendering plants was provided to support this requirement. It indicates that this specific rendering plant is using an equipment working at 133°C, 20 min, 3 bar.

It is not clear if these heat treatment conditions are followed by all rendering plants in Panama and if there is a legal basis requiring these conditions to be followed. There is also no information as how the application of these conditions is controlled. As a reasonable worst case assumption it is therefore assumed that rendering is not always appropriate.

### **SRM and fallen stock:**

There is no SRM ban.

Cattle brain and spinal cord are rendered. Fallen stock is rendered.

### **Cross-contamination:**

As there is no feed ban and MBM is voluntarily and regularly included into cattle feed, cross-contamination is not an issue.

### **Conclusion on the ability to avoid recycling**

In light of the above-discussed information, it has to be assumed that the BSE agent, should it have entered the territory of Panama, would have been recycled and amplified.

## **3.2 Overall appreciation of the ability to identify BSE-cases and to eliminate animals at risk of being infected before they are processed**

### **Cattle population structure**

At present the cattle population is approximately 1,360,000 animals, of which 234,000 are dairy cattle of more than 24 months old.

It is noted that the dairy cattle population increased by 16% during 1980-1984 while the total cattle population decreased by 6% during the same period.

Period		Total (all ages)	Over 24 months old					
			male			Female		
			Meat	breeding	work	meat	Dairy	Breeding
1980-1984	N°	1,452,000	163,608	19,600	3,000	121,450	201,600	411,150
	Age		4	8	10	8	8	8
1955-1999	N°	1,359,800	181,788	20,240	2,900	139,307	234,000	369,593
	Age		3	8	10	8	8	8

**Table 2: Key data on the cattle population (average age at slaughter in years)**

No data were provided on average milk yield or on co-farming.

### **Surveillance and culling**

BSE has been considered as a notifiable disease since 2<sup>nd</sup> May 1996. No compensation scheme is available if BSE is suspected or confirmed.

According to the CD, awareness training as well as laboratory personnel training are in place. However, no details were provided and it was not indicated since when this has been the case.

Any BSE suspect (mainly based on change of behaviour) would be notified to an official veterinarian. Samples would be referred to the Central diagnostic laboratory of the Ministry of agriculture.

On the basis of the available information it is concluded that no formal specific BSE-surveillance exists in Panama and that it is highly unlikely that single BSE-cases would be discovered.

### 3.3 Overall assessment of the stability

For the overall assessment of the stability the impact of the three main stability factors (i.e. feeding, rendering and SRM) and of the additional stability factors, mainly cross-contamination and surveillance plus culling, has to be estimated. Again the guidance provided by the SSC in its opinion on the GBR of July 2000 is applied.

**Feeding:** There is no feed ban. Feeding is "not OK" throughout the reference period.

**Rendering:** Rendering has been common practice in Panama. It also applies to ruminant material, including SRM and fallen stock. The available information does not allow assuming that all rendering plants correctly apply the required standard conditions (133/20/3). Therefore rendering is "not OK" throughout the reference period.

**SRM-removal:** There is no SRM ban and SRM are normally rendered. Therefore SRM removal is "not OK" throughout the reference period.

**Other stability factors:** Cross contamination is not an issue as MBM may still be legally fed to cattle; and BSE surveillance is found to be inefficient. The "other factors" therefore have always reduced the stability.

Stability of the BSE/cattle system in Panama over time					
Stability		Reasons			
Period	Level	Feeding	Rendering	SRM	Other*
1980-2000	Extremely Unstable	Not OK	Not OK	Not OK	

**Table 3 Stability resulting from the interaction of the three main stability factors and the other stability factors. The Stability level is determined according to the SSC-opinion on the GBR of July 2000.**

On the basis of the available information it has to be concluded that the country's BSE/cattle system was and is extremely unstable.

#### **4. Conclusion on the resulting risks**

##### **4.1 Interaction of stability and challenges**

The conclusion on the stability of the Panamanian BSE/cattle system over time and on the external challenges the system had to cope with are summarised in the table below. From the interaction of the two parameters "stability" and "external challenge" a conclusion is drawn on the level of "internal challenge" that emerged and that had to be met by the system, in addition to external challenges that occurred.

<b>INTERACTION OF STABILITY AND EXTERNAL CHALLENGE IN PANAMA</b>			
<b>Period</b>	<b>Stability Level</b>	<b>External Challenge Level</b>	<b>Internal challenge</b>
<b>1980 - at current</b>	<b>Extremely Unstable</b>	<b>Negligible</b>	<b>Highly unlikely</b>

**Table 4: Internal challenge resulting from the interaction of the external challenge and stability. The internal challenge level is determined according to guidance given in the SSC-opinion on the GBR of July 2000.**

The extremely unstable BSE/cattle system of Panama was exposed to a negligible external challenge, and it is therefore highly unlikely that an internal challenge ever emerged or is currently present.

The fact that the external challenges were negligible implies that the risk that the BSE-agent was imported into the country can be neglected. However, in view of the extremely unstable system any BSE-infectivity that would have entered cattle feed in Panama would have lead to recycling and fast amplification of the agent.

##### **4.2 Risk that BSE infectivity entered processing**

Given the fact that the BSE-agent was most likely not imported into the country, a risk that BSE infectivity entered processing never arose.

##### **4.3 Risk that BSE infectivity was recycled and propagated**

As BSE-infectivity never entered processing, the risk that it was recycled and amplified is negligible.

However, given the fact that the system was and is extremely unstable, any BSE infectivity that enters processing would most probably be recycled via cattle feed and quickly amplified.

## **5. CONCLUSION ON THE GEOGRAPHICAL BSE-RISK**

### **5.1 The current GBR as function of the past stability and challenge**

The current geographical BSE-risk (GBR) level is *I*, *i.e. it is highly unlikely* that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent.

*In view of the extremely unstable system, this assessment is fully depending on the negligible external challenge.*

### **5.2 The expected development of the GBR as a function of the past and present stability and challenge**

- As long as no external challenge occurs in the future, the GBR remains unchanged.
- In view of the extremely unstable system, however, any non-negligible external challenge would lead to an increase of the GBR.

### **5.3 Recommendations for influencing the future GBR**

In order to ensure that the GBR would not increase, it is recommended to take measures to increase the stability of the system. By avoiding MBM being fed to cattle but also by as far as feasible excluding SRM from entering the feed cycle, the stability of the system would improve. A verification of the rendering processes in order to make sure that they effectively would reduce BSE-infectivity would also be required.

Improving the surveillance, e.g. by additional training and awareness raising measures and by introducing active surveillance measures would enhance the certainty that BSE is absent from the territory of Panama.