

**FINAL REPORT ON**

**THE ASSESSMENT OF**

**THE GEOGRAPHICAL BSE-RISK**

**(GBR) OF**

**MALTA**

13 September 2002

**NOTE TO THE READER**

Independent experts have produced this report, applying an innovative methodology by a complex process to data that were 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 and its update of 11 January 2002. These opinions are 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)>**

This report, and the opinion of the SSC based on it, are now serving as the risk assessment required by the TSE-Regulation EU/999/2001 for the categorisation of countries with regard to their BSE-status. The final BSE-status categorisation depends also on other conditions as stipulated in annex II to that TSE-Regulation.

## 1. DATA

- The available information was sufficient to carry out the qualitative assessment of the GBR. Reasonable worst case assumptions have been used whenever necessary.

### Sources of data

- Country dossier (CD) consisting of information provided from the country's authorities in 2002.

Other sources:

- EUROSTAT data on export of "live bovine animals" and on "flour, meal and pellets of meat or offal, unfit for human consumption; greaves" (customs code 230110), covering the period 1980-2001.
- UK-export data (UK) on "live bovine animals" (1980-1996) and on "Mammalian Flours, Meals and Pellets", 1988-1996. As it was illegal to export mammalian meat meal, bone meal and MBM from UK since 27/03/1996, exports indicated after that date under customs code 230110 should only have included non-mammalian MBM.
- Export data from Cyprus, the Czech Republic, Estonia, Hungary, Lithuania, Romania, Slovenia and Switzerland.

## 2. EXTERNAL CHALLENGES

### 2.1 Import of cattle from BSE-Risk<sup>1</sup> countries

According to the CD, no live cattle were imported from the UK between 1980 and 2000 while according to Eurostat and UK export data, 220 live cattle were exported from the UK to Malta in 1981. In their comments on the final draft report the authorities of Malta stated that their Food and Veterinary Division has carried out an extensive inquiry on the possible import of 220 cattle from the UK. The result of this inquiry is that the authorities confirm that no cattle were imported into Malta in 1981. These animals were not taken into account for the calculation of the external challenge.

The CD indicates that Malta imported 14,415 live cattle from France, Hungary, Ireland, the Netherlands and Poland between 1980 and 2000 in periods when these imports already posed a risk<sup>2</sup>. According to Eurostat and other data, 6,130 cattle were exported to Malta from the Czech Republic, France, Ireland and the Netherlands. The data given by the CD for imports since 1987 largely correspond to export data from other sources. The main difference comes from the period before 1987 when CD figures were much higher than available export data.

According to the CD, animals were imported for fattening purposes. They were fattened and slaughtered. Heifers were used for milking purposes and were slaughtered at the end of their cycle. Since there was no differentiation between these two imported groups, a reasonable worst case scenario was considered and all these cattle were assumed as potentially representing an external challenge.

Given the fact that Malta has confirmed not to have any rendering system, it is assumed that non of these imported cattle was rendered.

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<sup>1</sup> BSE-Risk countries are all countries already assessed as GBR III or IV or with at least one confirmed domestic BSE case.

<sup>2</sup> See SSC opinion, January 2002.

Malta	Data	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1	Total
Czech Rep.	CD																							0
	other																83							83
France	CD			283	1231	1682																		3196
	other			285	1238	1647									60									3230
Hungary	CD		1188	1781	281	348	1198																	4796
	other																							0
Ireland	CD								390															390
	other								390															390
Netherlands	CD									480		402		264	80	292	592	39	144	39	74			2406
	other									480		483		260	77	244	587	41	147	39	69			2427
Poland	CD	3067	560																					3627
	other																							0
UK	CD																							0
	other		220																					220
ALL TOTALS																								
non UK	CD	3067	1748	2064	1512	2030	1198	0	390	480	0	402	0	264	80	292	592	39	144	39	74	0	0	14415
	other	0	0	285	1238	1647	0	0	390	480	0	483	0	260	77	304	670	41	147	39	69	0	0	6130
UK	CD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	other	0	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220

**Table 1: Live cattle imports into Malta (CD) and corresponding exports from BSE-Risk countries. Source for export data: Eurostat and UK export statistics and, where available, export statistics from other BSE-Risk countries. Note: Only imports in Risk periods (grey shaded) are taken into account for assessing the external challenge. Risk periods are defined according to the SSC opinion of January 2002.**

## **2.2 Import of MBM<sup>3</sup> or MBM-containing feedstuffs from BSE-Risk countries**

An overview of the imports of MBM into Malta is provided in table 2. The table provides import data as derived from the country dossier and Eurostat and other export data.

According to the CD, since 1986 Malta imported about 1,000 tons of MBM from the UK and 2,800 tons of MBM from Belgium, Denmark, France, Germany, Ireland and Italy.

The total volume of exports from other BSE risk countries than the UK to Malta, as provided by Eurostat and other exporting country's export statistics (2,639 tons), is comparable to the import data of Malta. However, the distribution over time and by countries of origin is different.

In addition, the UK export data (which are the source for the Eurostat data) differ from the corresponding Maltese import figures. Eurostat data show a total MBM export from the UK of 2,986 tons.

The country states that there is an official ban on importation of MBM but it is not explained when this ban was introduced and how it is controlled.

According to the CD, the composition of the imports was controlled at import stage through import licences and the list of ingredients.

According to the CD, the use of imported MBM was controlled at import points through the list of ingredients. No transit was recorded.

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<sup>3</sup> For the purpose of the GBR assessment the abbreviation "MBM" refers to rendering products, in particular the commodities Meat and Bone Meal as such; Meat Meal; Bone Meal; and Greaves. With regard to imports it refers to the customs code 230110 "flours, meals and pellets, made from meat or offal, not fit for human consumption; greaves".

Malta	Data	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1	Total	
Belgium	CD				32		80	20							14							4		150	
	other				32		80	20							14							4		150	
Cyprus	CD																							0	
	other													60										60	
Denmark	CD						1950																	1950	
	other																			20				20	
France	CD				40	20																		60	
	other				40	20																		60	
Germany	CD		102	138		206	113																	559	
	other																							0	
Ireland	CD		68	50																				118	
	other		73	22	113																			208	
Italy	CD					20																		20	
	other				60	62	142			40	85	22	1				1527	21	21					1981	
Netherlands	CD																							0	
	other														40									40	
Spain	CD																							0	
	other																			60	60			120	
UK	CD	47	355	80	188	192	185			666*				304*								40*		1047	
	other	37	534	80	80	158	218	359	260	299	220	267	182	119	58	40	43	23					9	2986	
TOTALS																									
non UK	CD	0	170	188	72	246	2143	20	0	0	0	0	0	0	14	0	0	0	0	0	0	0	4	0	2857
	other	0	73	22	245	82	222	20	0	40	85	22	1	60	54	0	1527	21	101	60	0	4	0	2639	
UK	CD	47	355	80	188	192	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1047
	other	37	534	80	80	158	218	359	260	299	220	267	182	119	58	40	43	23	0	0	0	0	9	0	2986

**Table 2: MBM imports into Malta (CD) and corresponding exports from BSE risk countries. Source for export data: Eurostat and UK export statistics and, where available, export statistics from other BSE risk countries.** Note: Only imports in Risk periods are taken into account. Risk periods are defined according to the SSC opinion of January 2002. \*These values are taken from the original questionnaire provided by the country and refer to the periods 1986-1990, 1991-1993, and 1994-2000. No annual breakdown was provided.

### 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 (as updated in January 2002).

▪ Live cattle imports:

Between 1980 and 2000 the country imported 14,415 (CD) live cattle from BSE risk countries other than the UK, and also 220 cattle (Eurostat and other data) from the UK in 1981. Together these imports represent a moderate external challenge. Broken down to 5-years periods the resulting external challenge is as given in table 3. This assessment takes into account that no cattle could have been rendered. This implies that the BSE-agent, should it have been present in any of the imported cattle, could not have reached domestic cattle.

▪ MBM imports:

Between 1980 and 2000 the country imported 2,857 tons of MBM from BSE-risk countries other than the UK (CD) and 2,986 tons from the UK (Eurostat and other data). Together these imports represent a very high challenge. Broken down to 5-years periods the resulting external challenge is as given in table 3.

<b>External Challenge experienced by MALTA</b>				
<i>External challenge</i>		<i>Reason for this external challenge</i>		
<b>Period</b>	<b>Overall Level</b>	<b>Cattle imports</b>	<b>MBM imports</b>	<b>Comment</b>
<b>1980 to 1985</b>	<b>High</b>	Negligible	High	
<b>1986 to 1990</b>	<b>Very High</b>		Very high	
<b>1991 to 1995</b>	<b>High</b>		High	
<b>1996 to 2000</b>	<b>Low</b>		Low	

**Table 3:** External Challenge resulting from live cattle and/or MBM imports from the UK and other BSE risk countries. The Challenge level is determined according to the SSC-opinion on the GBR of July 2000 (as updated in January 2002).

On the basis of the available information, the overall assessment of the external challenge is as given in the table above. It is concluded that Malta was exposed to a very high external challenge.

### 3. STABILITY

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

##### Feeding

- Since 1990, there is a ban on feeding MBM to ruminants.
- Since 2000, there is a ban on feeding MBM to any farmed animal.
- No details on the exact content of the bans or their control are provided other than a statement that, as no domestic MBM production exists, the control is ensured by the import licensing system. However, no information is made available concerning the control of the appropriate use of the imported MBM that apparently is only destined for pig feeding.
- Bovines are said not to be fed with MBM in Malta, because under local conditions it is not attractive to feed MBM to cattle. Even if the price of soybeans is higher than that of MBM, the productivity is claimed to be better when soybeans are fed.

##### Cross-contamination

There is no information provided that would allow assessing the risk of cross-contamination of cattle feed with (imported) MBM.

It is explained that “all feed in Malta is produced by a co-operative owned by milk/beef producers. In line with a special arrangement, all dairy producers have to take feed from the co-operative mill through a form of compensation worked out against the sale of milk to dairy which is also carried out by the same co-operative.

The same co-operative produces feeds for ruminants and monogastric animals but uses only fishmeal, originating from Denmark, as protein source for monogastric animals. The system is thoroughly flushed several times to avoid spillage.”

It remains unclear, since when the system is operating in this way and how the imported MBM is and was used.

##### Rendering

Malta confirms that no form of rendering exists and did not exist in the past, which includes small-scale rendering and fat melting. All material that normally could be rendered is, according to the CD, incinerated and/or dumped in controlled landfill.

##### SRM and fallen stock

- SRM and fallen stock is disposed of by controlled dumping in an approved landfill.

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

It is not excluded that the BSE-agent, if imported via MBM, could have reached domestic cattle, e.g. through cross-contamination in feed mills, during transport or via cross feeding on farms also raising pigs or poultry.

However, due to the absence of a rendering system in the country, recycling can be excluded because there is no activity existing in Malta transforming cattle into materials that could be consumed by cattle.

### **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**

The total cattle population of Malta is currently 13,000 heads (10,386 female and 2,614 male). It grew from 12,000 in 1980 to 22,000 in 1992 and 1997 and decreased by more than 8,000 heads from 1997 to 1998.

The average age at slaughter for breeding cattle is given as 50 months and for beef cattle as 17 months. Milking animals are slaughtered at the average age of six years. Intensive husbandry is used for milk production. Beef represents a "by-product" of the milk production. The feed for the different types of cattle is sourced from the dairy co-operative. The average daily milk yield is approximately 14 litres to a maximum of 20 litres.

#### **BSE surveillance**

- According to the CD, the existing surveillance programme is designed in accordance with the EU legislation.
- BSE is notifiable in Malta, and compensation would be paid for cases, suspects and culled "at-risk animals" since 1990.
- The CD states that there is awareness training for farmers, traders, veterinarians, transporters, veterinary support officers and abattoir staff through training sessions, leaflets, CD-ROMs, videos, television and radio. The education programmes were launched in 1990 and intensified in 2001.
- Since 2000, trained lab-personal is available in Malta.
- An agreement with CVL in Weybridge has been reached to provide the necessary testing facilities when confirmatory tests cannot be carried out in Malta.
- There were no BSE suspects so far in Malta.
- According to the CD, an action plan in Malta for Transmissible Spongiform Encephalopathies (TSE) was prepared in March 2002 by the Department of Veterinary Services, now renamed the Food and Veterinary Regulation Division within the Ministry for Agriculture and Fisheries.
- The compensation is two-thirds of the normal market price.
- According to the CD, all cattle slaughtered over the age of 30 months are tested for BSE with a recommended EU approved Rapid test. All emergency slaughtered cattle and fallen stock over 24 months are tested in the same manner.
- In 2000, 1,848 non-suspect, domestic cattle over 2 years of age were tested by means of rapid tests for BSE. None was found positive.
- In 2001, 1,705 regular slaughter healthy animals, 99 emergency slaughter and sick slaughter animals, and 44 fallen stock have been tested. None was found positive.

### **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 removal) and of the additional stability factor, surveillance has to be estimated. Again, the guidance provided by the SSC in its opinion on the GBR of July 2000 is applied.



**Feeding**

Until 1990 it was legally possible to feed MBM to cattle. Feeding is therefore assumed to be “**not OK**” until then. As no information on control of the 1990 MBM ban was provided, feeding remains “**not OK**” after 1990. Since January 2001, a total ban of animal protein (other than fishmeal) for farmed animal feed exists. Again no information on controls was provided, therefore, feeding remains for the time being “**reasonably OK**”.

**Rendering**

According to the country dossier, rendering is, and was never, practised in Malta. Rendering therefore is considered “**OK**” since 1980.

**SRM-removal**

SRM and fallen stock are buried. SRM removal is considered “**OK**” since 1980.

**BSE surveillance**

Before 1990, the ability to detect BSE-cases was very low in Malta. Since 1990, BSE is compulsory notifiable but no suspects were ever notified. Since 2000, an “active” surveillance of asymptomatic cattle improved the ability to identify clinical BSE-cases.

Stability of the BSE/cattle system in <u>MALTA</u> over time					
Stability		Reasons			
Period	Level	Feeding	Rendering	SRM removal	BSE surveillance
1980 to 2000	Stable	Not OK	OK	OK	↓
2001	Very stable	Reasonably OK			↑

**Table 4:** Stability resulting from the interaction of the three main stability factors and the other stability factor BSE-surveillance. The Stability level is determined according to the SSC-opinion on the GBR of July 2000.

On the basis of the available information it is concluded that the country's BSE/cattle system was stable from 1980 to 2000 and is very stable since the beginning of 2001.

## 4. CONCLUSION ON THE RESULTING RISKS

### 4.1 Interaction of stability and challenges

The stability of the Maltese BSE/cattle system in the past and the external challenges the system has coped 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 had to be met by the system, in addition to further external challenges that occurred.

INTERACTION OF STABILITY AND EXTERNAL CHALLENGE IN MALTA			
Period	Stability	External Challenge	Internal challenge
1980 to 1985	Stable	High	Likely and growing
1986 to 1990		Very high	
1991 to 1995		High	Likely
1996 to 2000		Low	Likely and decreasing
2001-	Very stable		

**Table 5:** 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.

An external challenge resulting from cattle imports could only lead to an internal challenge once imported infected cattle were rendered for feed and this contaminated feed reached domestic cattle. This could only happen about 3 years after potentially infected live cattle. In the case of Malta this was never possible.

On the other hand imports of contaminated MBM would lead to an internal challenge in the year of import, if fed to cattle. The feeding system is of utmost importance in this context. If it could be excluded that imported, potentially contaminated feed stuffs reached cattle, such imports might not lead to an internal challenge at all.

In the case of Malta it was likely that imported MBM reached cattle in the early 80s and probably less likely after 1990. It is therefore possible that domestic cattle were exposed to the BSE-agent in the early 80s and thereafter, as long as MBM was imported. Since 1990, the use of MBM imports was controlled on the basis of import licenses. Since 1996, the external challenge resulting from MBM imports was low. In view of the above-described reflection the registered external challenges is likely to have led to an internal challenge in Malta from 1980 onwards.

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

A certain risk that BSE-infected cattle entered slaughter in Malta occurred around 1985 when domestic cattle, infected by potentially contaminated MBM that was imported in the early 80s, were slaughtered. In addition, live cattle imported from BSE risk countries in the early 80s could have entered slaughter in Malta at the same period. Since then this risk continued to exist.

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

Given that no rendering of cattle existed in Malta, a risk that BSE-infectivity was recycled and amplified did not exist since 1980.

## **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 *III*, *i.e. it is likely but not confirmed* that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent.

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

- Given the fact that the external challenge resulting from MBM imports decreased significantly since 1996, and apparently terminated in 2001, the GBR should decrease rapidly.

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

- The country should continue to ensure that no MBM reaches domestic cattle.