



**WORKSHOP ON BSE STATUS AND IMPACT ON TRADE IN THE MIDDLE EAST  
03-04 SEPTEMBER 2007**

**with the support of the French Ministry of Agriculture**

**AMMAN, JORDAN**

**Report**

**Participating countries:**

Bahrain, Cyprus, Egypt, Jordan, KSA, Kuwait, Lebanon, Iran, Palestinian Authorities, Qatar, Sudan, Syria, and Yemen.

**1. Opening ceremony (for BSE – GF-TADs – FMD meetings)**



Dr Fares el Bakhit, CVO of the Hashemite Kingdom of Jordan, opened the ceremony and welcomed all the participants in Jordan to participate to those important meetings. He expressed the honour of Jordan to hosting such meetings, which would help the entire region in the appreciation of BSE risk and in the analyse of updated information on FMD, for a better control and surveillance of this disease in the region. He wished to all participants a very good stay in Jordan.

On behalf FAO, M. Ahmad Al Miniawi, the Jordan FAO representative, wished a very interesting and profitable workshop to all participants. He explained that the improvement of animal production and animal health is a priority of FAO.

Dr Ghazi Yehia, the OIE regional representative, underlined the importance of those meetings for the region. The first one, on BSE status and impact on trade for the Middle East, has the objective to present the last scientific information on this particular disease to be able to take the adapted decision in the trade of cattle and cattle products, in the respect of international standards and without any risk for animal and human health.

He explained that regional Round Tables on FMD are now organized annually, to follow as precisely as possible the situation of this disease in the region and to be able to implement the adapted strategy for the control and surveillance of this disease.

Between those two meetings, the Steering Committee of the GF-TADs would have to validate the work realised this year and to pronounce itself on future strategies.

On behalf France, M. Frédéric Bontemps, chargé d'affaires from the French Embassy in Jordan, expressed the honour of the France to collaborate to this workshop and to present its own experience. All have been done in France to take the adapted measures to protect human and animal health.

He wished to all participants success in their works during their stay in Jordan.

Then, His Excellency Mostafa Koroufola, Minister of Agriculture of the Hashemite Kingdom of Jordan, welcomed all participants from regional countries and from international organisations. He wished very instructive and profitable work during the all week and a very good stay in Jordan, the new "second house" of all participants.

## **2. General Presentation of the disease**

Two presentations have been realised on the global status of the disease worldwide and on the particularities of BSE.

### **2.1. BSE Global Status (Dr Ishibashi-OIE)**

After a general overview of the OIE, its roles and objectives, Dr Tomoko Ishibashi summarized the particularities of such disease and presented its geographical expansion since 1986, date of its first recognition in UK. She described the countries where BSE has been observed. Before 2001, the disease was limited to Europeans countries: UK, Ireland (1989), Portugal, Switzerland (1990), France (1991), Netherlands, Belgium, Luxemburg (1997), Denmark, Spain, Germany (2000), Italy, Czech Republic, Greece, Slovak Republic, Slovenia, Austria and Finland (2001). Then BSE was described worldwide in Japan (2001), Israel (2002), Canada (2003), USA (2005) and Sweden (2006).

From 1987 to 2007, the UK has reported more than 180 000 cases of BSE accounting for 97 % of all cases reported worldwide.

## **2.2. BSE – Key features (Dr Calavas-AFSSA/France)**

After a presentation of the French Agency for Food Safety (AFSSA) and the TSE National Reference Laboratory, Dr Didier Calavas explained the main particularities of the BSE disease, reminding the infectious agent (prion/PrPd), extremely resistant, and its pathogeny (vacuolisation of central nervous system).

He underlined that this disease is a food-borne disease due to the changes in fat extraction and sterilisation process of Meat and Bone Meal.

There are not any immunological tests and the diagnostic rested on histology techniques and identification of PrPd by rapid test or reference test as Western Blot or immunohistochemistry.

He highlighted that this disease has a long period of incubation (5 years in mean) and that 85 % of the infection occur in the 1 year of life.

To end his lecture, he took up the conclusion of a recent scientific study concluding that the imports of live cattle and cattle products from UK is the most likely source of vCJD outside the UK.

He procured also to all participants a CD produced by AFSSA with the main scientific French papers on BSE.

Answering some questions, from the representative of Palestinian Authority, Bahrain, Lebanon, he specified, that:

- actually there is no proof of a possible evolution of the scrapie in BSE;
- in the case of the BSE, the serum is not infectious contrary to scrapie;
- that experimentally only 1 mg of brain can infect a cattle, but naturally is completely different due to the transmission mode of the disease;
- because of the high development of the intestinal lymphoid system, young animals are better receptive to the disease and that contamination occur generally after 6 months of age, confirming the nutrition way of infection;
- vertical transmission is not described.

## **3. Protective measures against BSE**

Dr Koen Van Dyck, European Commission, made two presentations on the protective measures adopted in Europe against BSE (double barrier): the first one concerning the feed ban, to avoid animal contamination, and the second one on the removal of the specified risk materials (SRM), to avoid the human contamination.

These 2 barriers are indispensable for the eradication of the disease.

### **3.1. Feed Ban (Dr Van Dyck)**

Dr Van Dyck described the history of the feed ban implementation in Europe started in 1994 by the ban of use of proteins derived from mammals from feeding ruminants, then in 1997 by the obligation of pressure cooking system for processing mammalian waste and lastly at the end of 2000 by the prohibition of the use of SRM in the whole European Union, to avoid cross contamination.

He underlined that after 2001 and the extended BSE feed ban, the quasi totality of the case observed concerned animals born before this date, confirming the efficiency of such measures on animal contamination.

The age of infected animal is very important to appreciate correctly country's situation regarding BSE due to the long incubation period of the disease (mean 5 years)

To control the respect of those statutory obligations, control measures are implemented with the use of feed microscopy tests to detect bone in meal samples. These tests are realised in reference laboratory with a standardised methods, including a strict protocol and trained agent.

Last year European Union performed 50 000 such tests in feed and zero tolerance is the rule. Only 9 tests were positives in 2006 due to cross contamination with fish meal.

### **3.2. SRM removal (Dr Van Dyck)**

Dr Van Dyck described the nature of SRM, defined as the animal tissues being most at risk of harbouring the TSE agent.

The identification of the SRM is base on scientific advises notably on pathogenicity and transmissibility studies.

He highlighted that SRM must be removed from the food and feed chains to avoid the risk of transmission and recycling of the TSE agent, and it is the most important measure to protect public health from the risk posed by BSE.

The removal of the SRM is realised in slaughter houses and authorized cutting plants or butcher's shops, only for the vertebral column.

### **3.3. Application of the protective measures in the European Countries**

Then Dr Ton Ackerman, Dutch Ministry of Agriculture, and Drs Jocelyn Mérot and Charles Martins-Ferreira, French Ministry of Agriculture, presented the implementation of such regulation in their respective country.

#### **3.3.1. The Dutch experience (Dr Ton Akkerman)**

Dr Ton Akkerman explained that in Netherlands the Ministry of Public Health and the Ministry of Agriculture are working together on this subject.

Feed ban and SRM removal are applied in Netherlands in accordance with the European Union regulation.

In 2006, 2210 samples have been tested to control the conformity of Meals and none infringement have been detected since 2005.

Criminal investigation should be implemented in case of infringement.

Concerning SRM removal, he explained that a strict control occurs with notably the collect in specific container, the control of weigh at places of origin and destination, and the use of specific transport documents.

### **3.3.2. The French Experience (Dr Mérot and Martins-Ferreira)**

Dr Jocelyn Mérot summarized the measures adopted in France during the "Mad Cow crisis" (1989 – 1998) then he explained the implementation of European regulation concerning SRM removal.

He insisted also on the specific circuit applied to SRM in slaughter houses and presented the spinal cord removal process which is used in French slaughter houses to avoid potential contamination of carcasses during the split.

Dr Martins-Ferreira insisted that feed ban aims at avoiding cross contaminations of feeding stuff by infected materials.

He explained also the "public rendering service" implemented in France to collect, render and disposal of SRM and dead animals.

Concerning meal control, 2710 samples have been realised in 2005 and only 1 infringement has been detected. The last case of fraud was in 2001.

He concluded that in 2002, the French Food Safety Agency estimated that since January 1<sup>st</sup> 2002, farm animal feed could be considering as safe, regarding BSE contamination.

### **3.4. Discussion on protective measures**

Dr Fares Bakhit Naser (Jordan) and Dr Salman Abdelnabi (Bahrain) clarified that the disposition taken in Middle Eastern countries regarding the trade of animal and animal products from countries, where BSE has already been detected, are under revision in some countries, in collaboration with each national Health Authorities. They insisted also on the need of technical assistance from countries where BSE, notably on risk analyses and diagnostic.

Dr Yehia underlined that the aim of this technical workshop is to provide to Middle Eastern countries scientific information on this particular disease to be able to implement a coherent risk assessment and the adapted measures for trade.

A dialogue between trade partners should be established.

Dr Van Dyck and Dr Martins-Ferreira highlighted that protective measure are well implemented and controlled in European Union for all products concerned by BSE risk transmission. Exported products are treated in the same way.

## **4. Surveillance and Eradication**

### **4.1. The European regulation (Dr Van Dyck)**

Dr Van Dyck presented the regulation adopted in Europe for the surveillance and the control of BSE.

BSE is compulsory notified since 1990 in Europe.

The apparition of rapid test, in 2000, has allowed increasing the detection of infected animals in slaughter houses.

The main objectives of such surveillance are notably the collection of epidemiological information and the protection of public health by implementing additional measures.

Since 2001, the surveillance concern:

- all bovine animals over 30 months of age subject to normal slaughter for human consumption or slaughtered in the context of a disease eradication campaign;
- all bovine over 24 months of age subject to special emergency slaughtering, showing symptoms of disease or of disorder of their general condition, fallen or dead on farm.

In case of clinical suspicion, animal and holding are restricted during BSE investigation.

In case of confirmation, eradication measures are applied including the cohort / full herd cull, with possible extension to related holdings and testing of all animals culled.

At the slaughterhouse, in case of BSE diagnostic, the whole carcass is destroyed; the cohort /herd culled and at the slaughterhouse, 1 carcass before and 2 carcasses after are condemned, in case of cross contamination.

### **4.2. Surveillance and eradication in the European Countries**

#### **4.3. The Dutch experience (Dr Akkerman)**

Dr Akkerman presented what is done in Netherlands concerning surveillance and eradication of BSE according on EU regulations.

He underlined the absolute necessity to dispose of an efficient identification and registration system and explained the Netherlands' one.

Netherlands has adopted the Prionics Rapid Test, which is performed in private labs, except for samples from rendering plant, and has to be confirmed by the National Reference.

He explained the procedures implemented in case of confirmation and notably the tracing of cohorts animals (birth-cohort, feeding cohort, offspring).

The infected cow and all of still alive animals, resulting from the tracing, are taken over by the government and rendered and incinerated as SRM.

For animal which have been exported, The Dutch CVO informed CVOs of countries where the animals have been exported.

#### **4.4. The French experience (Dr Mérot)**

Dr Mérot insisted also on the importance of the identification system to assure an efficient traceability of animals, indispensable to implement the surveillance and eradication of BSE, and explained the French system of bovine identification.

The surveillance program involved also passive and active surveillance as defined in the European regulation.

More than 2 500 000 tests are performed annually.

Eradication measures also apply to the animals cohorts of positive cases.

A specific veterinary investigation brigade has in charge the following of BSE confirmed cases.

#### **4.5. Discussion on surveillance and eradication**

Questioned on random sampling, Dr Van Dyck clarified that in Europe the sampling of animals is a measure to protect human health, and so all animals are tested.

For the implementation of surveillance programs, countries should taken into account their own risk factors, the available budget...

For the starting of such program, risk animals should be identified considering each specific situation and be the principal target of this program.

On the cost of the surveillance in Europe, Dr Van Dyck mentioned that the global cost of each test is 40 to 60 euros.

### **5. Analytic epidemiology**

#### **5.1. Situation in France (Dr Calavas)**

Dr Calavas mentioned that in France 20 millions of bovines are reared and that only 995 ESB cases have been detected, most of them were born before 1996 (889)

After the implementation of the total feed ban in 2001, only 1 BSE case has been observed on a cattle born the 01 January 2001.

He presented the evolution of the prevalence in France, insisted on the decreasing of cases. He mentioned that considering difficulties due to disease features (post mortem diagnosis, long incubation period) a direct interpretation of prevalence to estimate the trend of BSE in time is impossible. The use of a model (Age-Cohort-Period Model) is then necessary.

After presenting results of the use of such model, he concluded that the BSE risk in France is near zero for cattle born in 2000 and after and mentioned AFSSA opinions based on such results concerning notably the proposal to fit partially the control measures and to reduce the surveillance program.

## **5.2. Surveillance results in Europe (Dr Van Dyck)**

Dr Van Dyck presented the results of the last 6 years BSE surveillance, insisting of the decrease of cases with none animal born after 2002.

These results are very favourable and the BSE is on the way of eradication in Europe.

## **6. International standards**

### **6.1. The OIE standards and country status evaluation (Dr Ishibashi)**

Dr Ishibashi reminded briefly the history of OIE works towards developing BSE standards since its first report in UK in 1986.

She precised that OIE standards are scientific based and adopted by all Member Countries during the Annual General Session.

She explained that the OIE Animal Terrestrial Health Code recognise a list of safe commodities (describe in article 1 of chapter 2.3.13) that should not require any BSE related conditions, regardless of the BSE status of the exporting country.

She also explained the recommendation concerning MBM and SRM, article 13 and 14 of the chapter 2.3.13.

She mentioned that in 2005 the appendix on BSE surveillance has been fully revised based on accumulated EU experience and statistical studies.

Then she explained the recognition procedure for the OIE official disease status.

She exposed the practical step of such evaluation:

- Application by the member country by the use of a specific questionnaire;
- Examination by the OIE Scientific Commission;
- Informing all members countries;
- Adoption by the International Committee during the General Session.

Since 2005, the approach concerning BSE official status has changed, risk based instead of prevalence based. 3 BSE official country status are recognised by OIE:

- Negligible BSE risk (cat. 1);
- Controlled BSE risk (cat. 2);
- Undetermined BSE risk (cat. 3).



Recognized status has to be reconfirmed annually and country should provide report on their situation and continue to comply with OIE reporting obligations.

Since May 2007 5 Members are listed as negligible risk (Australia, Argentina, New Zealand, Singapore and Uruguay) and 6 Members as controlled risk (Brazil, Canada, Chile, Switzerland, Taipei China and USA).

Specific pages on BSE are now available on the OIE website ([www.oie.int](http://www.oie.int)).

## **6.2. Discussion on OIE standards and country status evaluation**

Dr Ishibashi clarified that, due to the particularities of the BSE transmission, the recognition of status is not based on the number of BSE cases in the country but based on the risk, taking into account release and exposure assessment as well as implementation of various measures to control BSE. Then some countries, like Brazil (specific question on that country) are in category 2 even if they have not detected any case because they are not complying with all the necessary condition of "negligible risk".

Responding to a question about the possible change of the status after detecting a case, she stated that the age of the cattle is one factor: if the cattle was born more than 11 years ago, the detection of a case does not necessarily affect the status of negligible BSE risk.

Dr Van Dyck underlined that European Union support the new concept of OIE classification based on risk and surveillance assessment.

And so the European Union has given up its own risk assessment (GBR).

The European Union has now integrated this categorisation in its regulation, since the 01 July 2007.

He informed also the audience that the 27 European Union countries have submitted each a specific dossier for country status evaluation in accordance with the OIE procedure.

Prof. Aidaros (OIE/FAO RAHC) explained that the expert committee analysed in details each dossier submitted by countries. For a better analyse, a responsible of the Veterinary Authority is often invited to participate to the discussion.

The analyse is based on risk analyses and there are no country freedom recognition.

Dr Ishibashi stated that normally the OIE do not send a mission to the applicant country to investigate / confirm the implementation of the control measures.

Dr Yehia insisted on the fact that the disease is now well controlled in Europe, they have implemented adapted measures in compliance with the OIE standards and now the disease occurrence is very negligible.

On the specific case of gelatine, Dr Ishibashi clarified that this issue is still on study.

### **6.3. Model of sanitary certificate (Dr Primot-OIEME)**

Dr Primot mentioned that the Regional Representation will provide as soon as possible model of sanitary certification in English/Arabic adapted to the region on specific disease situation.

He explained that those two models (for live cattle and meat and meat products) take into consideration the management of BSE risk in compliance with the chapter 2.13.3 of the OIE Terrestrial Animal Health Code concerning ESB.

Then he detailed each certificate underlining the specific points concerning ESB requirements.

He highlighted that those certificates are models, to be discussed by both importing and exporting countries.

## **7. Conclusions**

- This workshop was very instructive for all Middle Eastern countries representatives, which have had updated information provided by OIE and European Union experts on BSE prevention and control strategies;
- Large discussions have concluded each lecture or each specific point, attesting on the important interest of regional representatives on this specific issue. This report relate the general summary of those exchanges;
- The notion of risk assessment on BSE was largely explained by experts, as a specific and adapted approach for this disease;
- The OIE country list concerning BSE status, based on risk assessment, has been better understood by Regional Representatives;
- National representatives underlined the need of technical assistance to proceed such analyses;
- National representatives will take into consideration all the information provided during this workshop to envisage modification of their imports requirements.

## **8. Recommendations**

Cf. annex 1.

## **9. Agenda**

Cf. annex 2.

## **10. List of participants**

Cf. annex 3.

***Annex 1: Recommendations***

**Joint OIE/France workshop on Bovine Spongiform Encephalopathy (BSE)  
*status and impact on trade in the Middle East***

**Amman, Jordan, 03-04 September 2007**

*Original: English*

**Recommendation**

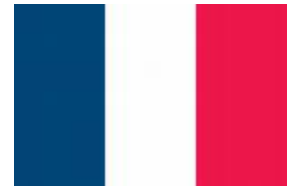
**CONSIDERING that**

1. BSE has a unique mode of transmission implicating prions as the causative pathogenic agent;
2. BSE in bovine animals occurs primarily as a result of the intake of ruminant feedstuffs containing infectious prions present in high risk ruminant material such as meat and bone meal (MBM) derived from SRM and fallen stock;
3. Diagnostic tests are available for the BSE surveillance programme in the bovine population;
4. Indigenous BSE cases have never been reported from the OIE Middle Eastern countries;
5. Most BSE affected countries, notably from Western Europe and non-affected countries aiming to seek official recognition from the OIE for disease status, have put in place exhaustive surveillance systems in accordance with the requirements of the OIE Terrestrial Animal Health Code;
6. The OIE Terrestrial Animal Health Code, chapter 2.3.13, article 1, provide a list of commodities and related products can be safely trade, irrespective of the BSE risk status of the exporting country, zone or compartment.
7. That OIE has a specific procedure for the recognition of country BSE status, described in the OIE Terrestrial Animal Health Code.

**THE WORKSHOP ON BSE STATUS AND IMPACT ON TRADE IN THE MIDDLE EAST RECOMMENDS THAT:**

1. The Middle Eastern countries consider the opportunity to obtain an official BSE risk status classification by the OIE in accordance with the requirements prescribed in the OIE Terrestrial Animal Health Code;
2. For BSE risk analysis related to trade, exporting and importing countries follow the standards, guidelines and recommendations of the OIE regarding international trade in live bovine and derived products and not institute unjustified (non science based) restrictions regarding BSE risk which would be in contradiction with the OIE Terrestrial Animal Health Code;
3. Middle Eastern countries review and reconsider their existing requirements for the import of live cattle and derived products as defined in the OIE Terrestrial Animal Health Code;
4. Based on their experience in their control programme, Member states of the European Union and other countries be requested to technically assist Middle Eastern countries in their preventive and control strategy against BSE.
5. Countries of the region take into consideration the model of sanitary certification on BSE risk management presented during this workshop.

***Annexe 2: Agenda***



**JOINT OIE/FRANCE WORKSHOP ON BSE STATUS AND IMPACT ON TRADE  
IN THE MIDDLE EAST  
AMMAN - JORDAN  
3 - 4 September 2007**

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**MONDAY 3<sup>RD</sup> OF SEPTEMBER**

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|----------------------|--|
| <b>9.00 – 9.30</b>   | Opening ceremony (OIE – FAO – France - Jordan)   |
| <b>9.30 – 10.00</b>  | <i>Coffee break</i>  |
| <b>10.00 – 10.30</b> | Registration   |
| <b>10.30 – 10.50</b> | BSE global status (Dr T. Ishibashi - OIECB)  |
| <b>10.50 – 11.20</b> | Descriptive epidemiology (Dr D. Calavas - AFSSA) <ul style="list-style-type: none"><li>• <i>This section will provide an update on the available scientific knowledge on BSE</i></li><li>• <i>Discussion</i></li></ul>   |
| <b>11.20 – 12.00</b> | Protective measures regarding animal nutrition (Dr K. Van Dyck - EC) <ul style="list-style-type: none"><li>• <i>This section will provide legal provisions in place regarding the feed ban (historical background and current measures)</i></li><li>• <i>Discussion</i></li></ul>          |
| <b>12.00 – 12.40</b> | Measures to protect human and animal health implemented in abattoir (Dr K. Van Dyck - EC) <ul style="list-style-type: none"><li>• <i>This section will provide legal provisions in place regarding the removal of Specified Risk Materials (SRM)</i></li><li>• <i>Discussion</i></li></ul> |
| <b>12.40 – 13.30</b> | Working session on the implementation and control on feed ban and SRM removal (Dr J. Merot, Dr C. Martins-Ferreira and Dr A. Akkerman) <ul style="list-style-type: none"><li>• <i>Discussion</i></li></ul>   |

- 13.30 – 14.30**      *Lunch break*
- 14.30 – 15.30**      Surveillance of BSE (Dr K. Van Dyck - EC)
- *This section will cover the surveillance strategy in EU since the introduction of the active surveillance program including diagnosis and testing*
  - *Discussion*
- 15.30 – 16.15**      Surveillance and practical aspects in EU Member States (Dr J. Merot and Dr A. Akkerman)
- *This section will cover:*
    - *the implementation of the surveillance program and eradication program in two Member States ( France and the Netherlands)*
    - *the animal identification and traceability*
  - *Discussion*
- 16.15 – 16.30**      *Coffee break*
- 16.30 – 17.00**      Analytic epidemiology (Dr K. Van Dyck and Dr D. Calavas)
- *This section will provide an insight in the surveillance results on BSE in EU and give an interpretation of these results*
  - *Discussion*

**TUESDAY 4<sup>TH</sup> OF SEPTEMBER**

- 9.00 – 9.30**      OIE guidelines regarding BSE risks and Countries classification (Dr T. Ishibashi - OIECB)
- 9.30 – 10.00**      Model of sanitary certification for trade into the Middle East (Dr Primot - OIEME)
- 10.00 – 10.30**      Discussion
- 10.30 – 11.00**      *Coffee break*
- 11.00 – 12.00**      Conclusions and Recommendations
- 12.00 – 14.00**      *Lunch break*



***Annexe 3: List of participants***



**OIE/FRANCE WORKSHOP ON BSE STATUS AND IMPACT  
ON TRADE IN THE MIDDLE EAST**

**Amman - Jordan**  
3-4 SEPTEMBER 2007

**List of Participants**

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