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FINAL REPORT OF A MISSION
CARRIED OUT IN THE UNITED KINGDOM
FROM 17 TO 26 NOVEMBER 2004
IN ORDER TO EVALUATE THE BOVINE
TUBERCULOSIS ERADICATION PROGRAMME

“Clarifications and additional information provided by the UK Authorities are given as footnotes, in bold, italic, type, to the relevant part of the report”



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ABBREVIATIONS & SPECIAL TERMS USED IN THE REPORT

AHDOs	Animal Health Divisional Offices
APHIS	The Animal and Public Health Information System
BCMS	British Cattle Movement System
CA	Competent Authority/ies
CCA	Central Competent Authority/ies
CD	Council Directive
DARD	Department of Agriculture and Rural Development (NI)
DEFRA	Department of Environment, Food and Rural Affairs (UK)
DVOs	Divisional Veterinary Offices
EU	European Union
FSA	Food Standard Agency
FVO	Food and Veterinary Office
GB	Great Britain
LVI	Local Veterinary Inspectors
NI	Northern Ireland
NOTFH	Non-officially free tuberculosis herd/s
OTFH	Officially free tuberculosis herd/s
OTM	Over thirty months of age
PM	Post mortem examination
PVPs	Private Veterinary Practitioners
SVS	State Veterinary Service
TB	Tuberculosis
UTM	Under thirty months of age
VETNET	Animal Health Database (GB)
VLA	Veterinary Laboratories Agency
VO	Veterinary Officer/s

1. EXECUTIVE SUMMARY

The mission was undertaken as part of the FVO mission programme in order to assess the situation of the bovine tuberculosis eradication programme in the United Kingdom (UK).

During this mission four Animal Health Divisional Offices (AHDOS) were visited by the inspections team: Two in Great Britain (GB) and two in Northern Ireland (NI).

The main conclusions of the mission were:

- The measures contained in the bovine tuberculosis eradication programme are implemented under provisions laid down in National legislation, which takes into account the relevant European Union (EU) requirements concerning the subject.*
- There are management structures and control systems in place concerning the implementation of the eradication programme and detailed instructions were issued by the Central Competent Authorities (CCA) on this topic. Databases were established to record information on the measures implemented and results obtained. However, some shortcomings were noted concerning the approval and supervision of the work performed by private veterinarians and concerning audits on the work performed by AHDOS and DVOs.*
- Systems for holding registration, animal identification and movement control are implemented, including databases. However, some non-conformity was noted on the systems and movement restrictions in restricted farms.*
- Epidemiological data provided indicate that in GB, a significant number of new infected herds are diagnosed yearly and the disease is spreading within affected parts of the country, despite the fact that incidence is decreasing. In NI the herd incidence and prevalence decreased over the last three years.*
- The comparative tuberculin skin test is performed as prescribed in Council Directive 64/432. However, some shortcomings were noted on the interpretation of the follow-up tests for inconclusive animals, accuracy of skin fold measurements and withdrawal of health status.*
- Additional movement controls (pre and/or post-movement tests) are carried out in OTFH when animals are moving in both ways between GB and NI. However, no additional movement controls are carried out in OTFH when animals are moving within GB or NI. Moreover, on-the-spot inspections are not performed in NOTFH to ensure restrictions compliance.*
- Systems are in place for the removal of reactor animals but some irregularities were noted on the marking of reactor animals (NI), supervision of removal by AHDOS and DVOs staff and isolation of inconclusive/reactor animals.*
- Procedures are in place for cleaning and disinfection at farms, markets, slaughterhouses and transport vehicles for animals. However, some shortcomings were noted in the above topics.*

- *A network of official veterinary laboratories is available to perform examinations for bovine tuberculosis diagnosis.*
- *Epidemiological investigations are routinely carried out by a veterinary officer (VO) after each confirmed bovine tuberculosis breakdown in OTFH. However, those investigations are not evaluated at local or central level. Moreover, some shortcomings were noted in GB concerning the procedure followed on the different parcels of the holding. Several sources of infection are considered in the report use, including movement of animals, contiguous spreading and wildlife (mainly badgers).*
- *Systems are implemented to compensate farmers on animals slaughtered under the eradication programme with the market value of the animals. According to the CCA the system currently applied in GB is under revision.*
- *Systems for supervision and control on dairy farms and milk establishments are implemented. However, some shortcomings were noted concerning the delivery of milk from inconclusive and reactor animals to milk establishments and in GB this milk is also fed to calves without a prior heat treatment. Moreover, milk from inconclusive and reactor animals can end up in a milk establishment of another Member State.*
- *Manuals of operations concerning the procedures to be followed on bovine tuberculosis examinations at slaughterhouses are available and implemented in accordance with Council Directive 64/433/EEC.*
- *Systems of sanctions consisting in movement restrictions are in place. Moreover, in NI compensation is not paid if disease spread is proved.*

The measures contained in the eradication programmes have been in general terms properly implemented. However in GB some relevant shortcomings were noted. Moreover in NI a major effort has been made since the previous FVO mission in 2003 and all recommendations made were addressed with the exception of milk from reactor animals, which is still allowed to be delivered to milk establishments. Despite the decrease in herd prevalence and incidence in 2003 and 2004, the numbers are still high and measures should be reinforced.

2. INTRODUCTION

The mission took place in the United Kingdom (Northern Ireland and Great Britain) from 17 to 26 November 2004. The mission team comprised 2 inspectors from the Food and Veterinary Office (FVO).

The mission was undertaken as part of the FVO planned mission programme.

The inspection team was accompanied in Northern Ireland by a representative from the Competent Authorities (CA) Department of Agriculture and Rural Development in Northern Ireland (DARD) and by a representative from the CA the Department of Environment, Food and Rural Affairs (DEFRA) in Great Britain and representatives from the various CA at regional and local level.

Opening meetings were held on 17 November 2004 with the CA of Northern Ireland and on 22 November 2004 with the CA of Great Britain. At those meetings the objectives of the mission and the itinerary were confirmed by the inspection team, and additional information required for the satisfactory completion of the mission was requested.

3. OBJECTIVES OF THE MISSION

The mission was undertaken in order to evaluate the progress of the bovine tuberculosis eradication programme in GB and NI. Particular attention was paid to the following areas:

1. Competent Authorities.
2. Farm registration, animal identification and movement controls.
3. The bovine tuberculosis eradication programme.

In pursuit of this objective, the following sites were visited:

VISITS			Comments
Competent authority	Central	1	DEFRA
	Regional	1	DARD
	Local	4	Divisional Veterinary Office (AHDO)
Slaughterhouses		2	One designated for slaughter of reactor and inconclusive animals under 30 months of age and other over 30 months of age
Holdings		5	Selected on-the-spot
Cattle market		2	
Milk processing establishments		3	2 Selected on-the-spot

4. LEGAL BASIS FOR THE MISSION

The mission was carried out under the general provisions of Community legislation and, in particular, Commission Decision 98/139/EC and the relevant provisions of the legislation given in the Annex of this report.

5. BACKGROUND

Summary of previous mission results

A previous FVO mission (DG(SANCO)/9194/2003) was carried out in 2003 in NI to evaluate the approved bovine tuberculosis eradication programme co-financed by the EU. All the recommendations contained in the final report were addressed with the exception of that related to milk from reactor animals which is still allowed to be delivered to milk establishments for processing.

6. OUTCOME

6.1. Legislation

Conclusion

The measures contained in the bovine tuberculosis eradication programme are implemented under the provisions laid down in national legislation, which include the relevant EU requirements concerning bovine tuberculosis.

Findings

Great Britain: The main legislation regulating the bovine tuberculosis eradication programme comprises “The Animal Health Act 1981 (Sections 32 and 34), as amended, “The tuberculosis (England and Wales) Order 1984”, as amended, The tuberculosis (Scotland) Order 1984”, as amended, “The Animals and Animal Product Regulations 2000”, the “Brucellosis and Tuberculosis (England and Wales) Compensation Order 1978”, as amended and the Brucellosis and Tuberculosis (Scotland) Compensation Order 1978, as amended.

Northern Ireland: The main legislation regulating the bovine tuberculosis eradication programme is “The Tuberculosis Control Order (Northern Ireland) 1999” as amended, “The Tuberculosis (Examination and Testing) Scheme Order (Northern Ireland) 1999” and “The Diseases of Animals (Northern Ireland) Order 1981”, as amended.

The above legislation contains the relevant requirements contained in Council Directive 64/432/EEC and 78/52/EEC, as amended, concerning measures to be implemented for the eradication of bovine tuberculosis.

6.2. Competent authority performance: General aspects of the eradication programme management structure and control system

Conclusion

There are management structures and control systems in place concerning the implementation of the eradication programme.

Detailed instructions and manuals were issued by the CA concerning the rules and measures to be followed in the eradication programme. However, some shortcomings were noted in GB on the system in place for approval and supervision of LVIs and the work performed by AHDOs and DVOs is not audited in GB.

Databases are established to record the information concerning the implementation of measures contained in the eradication programmes.

Findings

Great Britain: All aspects related to the bovine tuberculosis eradication programme are dealt with by different official services, namely: Animal Health and Welfare Directorate of DEFRA, establishing the policy for animal health; State Veterinary Service (SVS), implementing the policy for

animal health, with Animal Health Divisional Offices (AHDOs) at local level; Food Standards Agency (FSA), with the Meat Hygiene Services (MHS) on the bovine slaughterhouses for controls on meat and the Dairy Hygiene Inspectorate of DEFRA (on their behalf) for controls on milk; Environmental Health Departments of Local Authorities at county level, concerning the enforcement of legislation in terms of prosecution procedures, as well as controls on markets, slaughtering/collection centres for UTM/OTM and vehicles to transport animals.

Detailed staff instructions and manuals were issued by the different official services at central level concerning the procedures to be followed at local level by the implementing and supervising services.

The great majority of TB skin testing in officially tuberculosis free herds is performed by LVIs, working in private veterinary practice (PVP). Prior to approval, as responsible for the skin testing, private veterinarians should undergo a 6 months training period with an LVI, followed by a practical certification given by the LVIs and a theoretical examination by a Veterinary Officer (VO). However, it was noted that inspections on-the-spot to supervise the work performed by LVIs are not carried out¹.

The testing in non-officially free herds is performed by a VO. However, in the 2 AHDOs visited those tests are mainly done by LVIs, due to the vast number of herds involved and shortage of official staff.

Part of the relevant information related to the implementation is registered in a national database Vet-Net, accessible from all AHDOs, whilst the remaining information remains only registered on paper. Moreover, there is no link between this system and British Cattle Movement System (BCMS), concerning cattle identification, holding registration and animal movement.

A system is not in place to monitor the work performed by AHDOs staff concerning the eradication programme.

Northern Ireland: All aspects related to the bovine tuberculosis eradication programme are dealt with by different Divisions of the Department of Agriculture and Rural Development (DARD), namely: the Tuberculosis Branch of the Veterinary Services (VS), Quality Assurance Branch (QAB) acting on behalf of the Food Standard Agency (FSA), and Animal Disease Control Branch (ADCB). These branches are based in Headquarter and there are 10 Divisional Veterinary Offices (DVOs) acting at local level.

A “Tuberculosis staff instructions-version 11” was issued last year after the previous FVO mission, amending the previous guidelines. It is a comprehensive manual containing the relevant information on the measures and procedures to be implemented under the eradication programme. This new version takes into account the recommendations of the last FVO mission. Detailed instructions concerning various topics of the eradication programme are also issued by the CCA to farmers and DVOs.

¹ *In their response to the draft report, the CA pointed out that whilst it is true that TB tests are not regularly supervised, if/when problems are encountered ad-hoc supervisory visits are made*

At the end of 2003, Chapter 6 of the “Meat Hygiene Operations Manual” was amended concerning tuberculosis, to take into account the recommendations of the last FVO mission on post-mortem examination to be carried out and judging criteria.

Testing in NOTFH is performed by VO. However, in the two DVOs visited tests are sometime done by PVPs due to the number of herds to be tested and shortage of VO.

The different aspects of the work performed in the eradication programme by PVPs are routinely controlled by 5 inspection teams of the CCA performing on-the-spot inspections and by staff of the 10 DVO through pre-programmed evaluations and queries in the APHIS system. As a result of those inspections approval was withdrawn for 2 PVPs and sanctions consisting of decreasing the number of testing in non-officially free herds were applied in other cases. However, no instructions were issued by the CCA to CAs with guidelines on the sanctions to be applied.

The work performed by DVO staff on the different aspects concerning their role on the implementation of the eradication is not subject to regular evaluations by CCA.

The “Animal and Public Health Information System – APHIS” is the database for cattle identification, holding registration and animal movement. The system also records a vast range of technical and epidemiological data concerning animal and public health, including the eradication programmes and allows the printing of several documents and notices used. The system is accessible at central and local levels for informative and recording purposes. DVO staff and the majority of PVPs have direct access to APHIS for registering the relevant information.

6.3. Holding registration, animal identification and movement controls

Conclusion

Systems for holding registration, animal identification and movement controls are in place. Databases are available to record information on the above topics. However, some shortcomings were noted on holding registration, bovine identification and animal health controls at markets, farm registers (NI), movement restrictions in farms with Tuberculosis (TB) breakdowns and movement documents controls at slaughterhouses (NI).

Findings

Great Britain: The Cattle Tracing System (CTS), which is administered by BCMS is the central database for cattle holding registration, bovine identification and movement of animals. The database is accessible to the different official services dealing with the eradication programme at central and local levels for information purposes. However, it was noted that no link exists between BCMS and Vet-Net. Moreover, restriction on movements in non-officially tuberculosis free farms are not recorded in BCMS and as a result animals moving while in restriction are not flagged by the system.

Different parcels of land located a few miles apart can be considered as one holding, registered with the same official number, and movement of animals between those parcels are not notified to the database or recorded in the farm register. When reactors are found, restrictions are initially placed on the whole holding, and changes made only following progress with testing and/or veterinary risk assessment. Where there is evidence of shared management practices, all potentially affected animals are subject to restriction².

In overdue tests a tolerance system of 3 months is applied before restrictions concerning animal movement are imposed. The CCA stated that these tolerances will no longer be applicable from February 2005³.

At the market visited the bovine identification control was carried out at the lairage after the unloading of the animals. The Local County officer verified the health and restriction status of the herd on the following day. Moreover, no direct access to BCMS and VETNET was available⁴.

When farms have a tuberculosis breakdown movements off are restricted, except for slaughter under official supervision, whilst movements in are allowed. It was also noted that non-reactor animals from restricted holdings are allowed to go through a “slaughtering market” (if UTM) or through a “collection centre” (if OTM) to the slaughterhouse. Moreover, a group of animals from a farm under restriction visited by the inspection team was allowed to move to a rented and isolated premises tested twice negatively and then released for free movement to another farm.

Northern Ireland: APHIS is the central database for holding registration, bovine identification and animal movement. The system is accessible to the Veterinary Services at central and local levels. APHIS is fully operational and was approved by a Commission Decision 1999/969/EC. Between April 2003 and March 2004 a total of 8.95% of the registered holdings were inspected for animal identification.

The contract housing farms (holdings which rent cattle accommodation to different farmers), known as bed and breakfast farms, are at the present time in the process of being registered in APHIS with a new holding number and movements in/off will soon be notified by the person in charge of this holding. In the same way owners of holdings sending animals to those farms will notify the database in relation to the movements in/off.

As in GB, different parcels of land located a few miles apart can be considered as one holding, registered with the same official number, and

² *In their response to the draft report, the CA stated that the GB policies in relation to the recording of livestock movements on linked holdings is currently under review.*

³ *In their response to the draft report, the CA stated that herd movement restrictions are now applied (with effect from 16 February 2005) immediately routine TB tests become overdue.*

⁴ *In their response to the draft report the CA stated that cattle must be accompanied by a cattle passport during all movements, and passports give full identification data, including movement history. Markets can contact BCMS by phone if they have any specific concerns.*

movement of animals between those parcels are not notified to the database or recorded in the farm register. However, legislation in force allows restriction on the movement of animals between those parcels as all parcels are under restriction after a breakdown.

The notice concerning restriction of movement in holdings are registered in APHIS and DVOs staff monitors compliance by farmers.

Bovines from restricted farms, including animals with negative testing results, are restricted from moving out of holdings, unless they are being sent directly to slaughter.

Movement restrictions are imposed in officially tuberculosis free herds that did not undergo the obligatory annual test at the fixed date and no tolerance period is allowed.

At the market visited the controls on bovine identification and health status of the farms of origin were carried out at the lairage after the unloading of the animals, making contact between restricted and non-restricted bovines possible.

In some of the movement documents concerning reactor animals checked at the slaughterhouse, shortcomings were noted concerning the absence of the farmer's signature and date of collection at the farm of origin.

Some irregularities were noted in the information registered by the farmer in the holding register book in one farm visited.

6.4. Eradication programme

6.4.1. Epidemiological data

Conclusion

In GB the epidemiological data provided indicate a decrease on the number of new infected herds during the last three years. However, a significant number of new infected herds are diagnosed yearly and the disease is spreading slowly within TB affected areas and in some cases to areas with no previous outbreaks.

In NI the epidemiological data provided indicate that herd prevalence and incidence decrease over the last three years after an increase between 1999 and 1999 and 2001. Animal prevalence decreased this year after an increase between 1999 and 2003.

Findings

Great Britain:

The epidemiological data provided in the table below indicate that a significant number of new infected herds are diagnosed annually in the West region.

Regions	TB breakdowns			TB confirmed			TB not confirmed		
	2002	2003	2004	2002	2003	2004	2002	2003	2004
Scotland	93	82	80	27	19	18	65	63	55
Wales	617	623	640	350	327	301	266	288	286
North (England)	358	344	348	201	160	157	157	183	176
East (England)	72	92	93	22	27	28	48	65	56
West (England)	2183	2079	2152	1312	1126	1159	867	937	871

Other information presented to the mission team by the CA indicate that over the last 10 years tuberculosis has been spreading from infected to officially free holdings, either contiguous or in the surrounding areas. In addition a certain number of cases the new infected holdings are located far apart in areas (parish) considered as officially free for several years and where testing is not performed yearly in officially free herds.

Northern Ireland:

The epidemiological data provided indicate that after an increase in herd incidence and prevalence, between 1999- 2002, those indicators decreased over the last 2 years.

Year	Herd prevalence	Herd incidence	Animal prevalence
1999	7.6	6.4	0.51
2000	8.1	6.8	0.57
2001	8.6	6.8	0.62
2002	13.2	10.6	0.89
2003	12.4	9.6	0.94
2004	11.27	7.82	0.74

Information on the tuberculosis eradication programme is available for the public on the DEFRA web-site: <http://www.defra.gov.uk> for Great Britain and on the DARD web-site: <http://www.dardni.gov.uk> for Northern Ireland.

6.4.2. Testing regime and follow-up

Conclusion

The comparative tuberculin skin test is performed as described in Council Directive 64/432/EEC. However, some shortcomings were noted in the interpretation of the follow-up test results in inconclusive animals, accuracy of skin fold measurements and withdrawal of health status (GB). The comparative tuberculin skin test on OTFH is applied on a yearly basis, but in some areas (parishes) of GB only every two, three or four years in accordance with the above Directive.

In NOTFH a more severe regime is applied in some cases for the interpretation of the comparative tuberculin skin test as foreseen in the same Directive.

Findings

Great Britain: The comparative tuberculin skin test is performed as described in Council Directive 64/432/EEC, as amended. However, some shortcomings were noted in the interpretation of test results as it is only after 3 inconclusive reactions to the tuberculin skin test is the animal considered as a reactor. In officially tuberculosis free herds the health status is withdrawn when the annual test is 3 months overdue. However, the CCA informed the mission team that from February 2005 a regime of zero tolerance would be applied.

Interpretation of the tuberculin skin test is done by the veterinarian performing it but evaluation and final decision is taken at AHDOs level to ensure compliance with procedures in force. In non-officially tuberculosis free herds a more severe regime for the interpretation of results, as described in Council Directive 64/432/EEC, can be applied and a decision is taken at AHDOs level.

The callipers used in the skin test have an accuracy of 1mm. With this type of callipers a certain number of inconclusive and reactor animals will be missed. Moreover, in one AHDO the type of calliper used can deregulate easily.

The comparative skin test is performed in officially tuberculosis free herds located in the different areas (parish) of each County every one, two, three or four years in compliance with the conditions laid down in Council Directive 64/432/EEC. In accordance with the above Directive the State Veterinary Service at Divisional level receives annually from the CCA a map with all parishes and testing regimes. However, it was noted that AHDOs can increase the test frequency for epidemiological reasons.

Northern Ireland: The comparative tuberculin skin test is performed as prescribed in Council Directive 64/432/EEC. However, some shortcomings were noted in the interpretation of test results as only after 3 inconclusive reactions to the tuberculin skin test an animal is considered a reactor. From 1 November 2004, the herd health status is suspended when the annual test is not completed on the date due. When the annual test becomes 3 months overdue the herd status is withdrawn".

As in GB, the callipers used in the tuberculin skin test have an accuracy of 1mm. With this type of callipers a certain number of inconclusive and reactor animals will be missed⁵.

The veterinarian performing the test interprets the results but evaluation and final decision is taken at DVOs level to ensure compliance with procedures in force. In non-officially tuberculosis free herds a more severe regime for the interpretation of results, as described in Council Directive 64/432/EEC, can be applied and a decision is taken at DVOs level.

6.4.3. Additional movement controls

Conclusion

In OTFH a procedure of additional movement control consisting in tuberculin testing is applied when bovine animals are moving in both ways between GB and NI. However, no pre and/or post movement tests are performed for internal movement either in GB or NI.

In NOTFH on-the-spot inspections are not applied as an additional control to ensure compliance with movement restrictions. However, in NI additional movement control is performed through APHIS.

Findings

Great Britain: No additional movement controls are required for bovine animals from OTFH free herds as pre and/or post-movement tests are not applied, even if animals are moving to or from holdings located in areas with testing regimes from one up to four years intervals. However, in animals moving to NI a pre-movement test is applied.

On-the-spot inspections are not carried out by AHDOs staff in NOTFH to ensure compliance by farmers concerning the restrictions imposed on the movement of animals. Moreover, LVIs do not control restriction of movements compliance while performing skin tuberculin tests in restricted herds and only in the case of major discrepancies in the number of animals is the AHDOs informed.

Northern Ireland: As in GB, no additional movement controls are required for bovine animals from OTFH as pre and/or post-movement tests are not applied. However, in movement to GB those tests are applied.

DVO staff control restriction of movement compliance through APHIS as the system flags notification of movement of animals while in restriction. However, it was noted that on-the-spot inspections were not carried out for the purpose of movement restriction control compliance.

⁵ *In their response to the draft report, the CA stated that, as in GB, in NI they are aware that there are other types of skin callipers in the market that allow more precise measurements of skin thickness, they believe it is impractical and unreliable to require skin measurements to be made to a precision of greater than 1mm.*

6.4.4. Removal of reactor animals/herds

Conclusion

Systems are in place for the removal of reactor animals and instructions are available concerning isolation of inconclusive or reactor animals. However, some shortcomings were noted on marking of animals (NI), supervision on the isolation and removal to the slaughterhouse of reactor animals.

Findings

Great Britain: Reactor animals are individually marked with a metallic ear tag by AHDO staff. Reactors/direct contacts are transported under a movement licence issued by the SVS. Their arrival in the designated slaughterhouse on the agreed day is audited by the Meat Hygiene Service (MHS). If reactors are not presented for slaughter on the expected day, or if identity checks show any discrepancies with the information on the licences, the MHS will immediately notify the SVS. All reactors and direct contacts must undergo PM and thus all animals are accounted for. Contracted hauliers do the removal and transport of reactor animals to approved slaughterhouses, but AHDO staff does not supervise on-the-spot.

Clear instructions are given in writing to farmers in order to keep the reactor and inconclusive animals isolated from the remaining herd. However, in the farms visited isolation of animals under restriction was not properly implemented. Moreover, it was stated that no official supervision of isolation is performed whilst animals are waiting to be removed to the slaughterhouse.

Northern Ireland: Reactor animals are not individually marked⁶. Contracted hauliers do the removal of reactor animals to approved slaughterhouses but DVOs staff does not supervise on-the-spot.

Clear instructions are given in writing to farmers in order to keep the reactor and inconclusive animals isolated from the remaining herd. However, in the farms visited isolation of animals under restriction was not properly implemented. Moreover, it was stated that no official supervision of isolation is performed while animals are waiting to be removed to the slaughterhouse.

6.4.5. Cleaning and disinfecting procedures

Conclusion

Procedures for cleaning and disinfection at farms, markets, slaughterhouses and transport vehicles for animals are established and implemented. A list of officially approved disinfectants is available. However, some irregularities were noted on the cleaning and disinfection on places with reactor animals, markets and transport vehicles for animals.

⁶ *In their response to the draft report the CA stated that in NI reactor animals are not individually marked due to welfare and health and safety considerations. A solution based on a biopsy from TB reactors for DNA analysis, to ensure that reactors can be definitely identified is under evaluation but legislation will be needed to implement such a policy.*

Findings

Great Britain: A list of officially approved disinfectants to be used on farms, at markets, in slaughterhouses and transport vehicles is available and instructions were issued on the subject.

At the farms visited disinfecting facilities were available. On the farm with TB breakdown lactating reactor cows were milked after non-reactor animals and cleaning and disinfection was applied in the milking premises. However, no cleaning and disinfection was applied on the way between the isolation and the milking parlour. Moreover, the AHDOs staff does not supervise on-the-spot the procedure concerning general principles applied in restricted farms.

At the market and in the slaughterhouse the same entrance was used for visitors and for vehicles transporting animals or visitors⁷. The vehicles were neither controlled nor registered. Cleaning and disinfection of transport vehicles for animals are done by the driver and the market staff does the cleaning and disinfection of premises, under the supervision of the Local authority officer. However, no registers were available concerning cleaning and disinfection being carried out⁸.

Northern Ireland: A list of officially approved disinfectants to be used in farms, markets, slaughterhouses and transport vehicles is available and instructions were issued on the subject.

On the farms visited disinfecting facilities were available. A proper cleaning and disinfecting of the way between the isolation and milking premises is difficult to ensure. However, it was noted that on-the-spot inspections are routinely carried out by DVOs staff. A book called Bio-security code for NI farms was sent to all farms recently. This document contains important and relevant information on bio-security.

At the market visited, the same entrance was used by visitors and vehicles transporting animals or visitors. Vehicles were neither registered nor controlled. The driver was responsible for cleaning the vehicle and no disinfectant was available. The market staff, under the supervision of the DVOs staff do the cleaning and disinfection of the premises. However, the cleansing and disinfection is not registered. Moreover, no information was available for farmer and visitors on bio-security measures.

In the slaughterhouse visited for reactor animals visited the drivers of transport vehicles are responsible for the cleaning of transport vehicles with cold water and disinfectant is not used. Transport vehicles are not registered and controlled at the entrance gate.

⁷ *In their response to the draft report the CA stated that for England and Wales the legislation does not require separate entrances. However markets must meet certain other conditions designed to prevent the spread of disease into and off premises, such as records and separated areas to load and unload animals.*

⁸ *In their response to the draft report the CA stated that records concerning cleaning and disinfection of premises are not required.*

6.4.6. Laboratory services

Conclusion

A network of official veterinary laboratories is established for the examination of samples collected at the slaughterhouse from reactor animals or during the routine slaughter of bovines.

The gamma interferon test is used as a supplementary test in accordance with the guidelines issued by the CCA in GB and on trials in NI. However, in one farm visited in GB with a persistent infection the test was not used.

Findings

Great Britain: Samples for histo-pathology, microbiology culture and typing of isolates are collected at slaughterhouses from reactor animals or during routine slaughter if lesions of tuberculosis are detected. The samples are sent to VLA in Weybridge and then distributed to a network of 5 veterinary laboratories.

Detailed instructions were issued concerning the collection and transport of samples from reactor animals and during routine slaughter, for the purpose of bovine tuberculosis diagnosis. The gamma interferon test is used as a supplementary test in some situations considered epidemiological difficult by the AHDOs and instructions on this topic were issued by the CCA. However, in one infected farm visited no gamma interferon test is used despite the fact that the breakdown was detected 3 year ago⁹.

Some research projects on bovine tuberculosis are currently under development to help and support future animal health policy decision: Randomised badger culling trial; vaccines and diagnostics; Epidemiology; cattle pathogenesis; badger ecology.

Northern Ireland:

Official laboratories located in Belfast and Omagh are currently performing laboratory tests on samples taken under the eradication programme from reactor animals or during routine slaughter of bovine animals when suspected lesions of tuberculosis are detected during the post-mortem examinations.

The gamma interferon test is currently used in a trial but not routinely as a supplementary test to enable the detection of the maximum number of infected and diseased animals in a herd or in a region.

⁹ *In their response to the draft report the CA stated that maybe this herd did not meet the stringent criteria in force required for the use of the test.*

Research projects related to epidemiology, vaccines and diagnostic tests are currently under development in the framework of the eradication programme as a tool to help future actions against bovine tuberculosis.

6.4.7. Epidemiological investigations in infected herds

Conclusion

Epidemiological investigations are routinely carried out by AHDOs staff but not evaluated at local or central level to ensure compliance with procedures in place. In GB those investigations are not performed in all parcels of the infected holding if located in different places and as a result there is a possibility of disease spreading.

Findings

Great Britain: AHDOs staff using a standard report is responsible for the epidemiological investigations in infected herds. The epidemiological studies are not evaluated at local or central level in order to ensure that the decision concerning source of infection/disease spread was correctly done and consequently appropriate measures would be taken¹⁰.

In holdings with grazing parcels located a few miles away, the epidemiological investigation is carried out only in the parcels where according to information provided by the owner, reactor cattle have been during the risk period. Subsequently measures are also implemented in herds contiguous to those parcels.

In the epidemiological report used in the eradication programme it was noted that the wildlife reservoirs (mainly badgers) are considered as one of the possible sources of breakdowns in herds. Other sources considered are purchased animal, contiguous herds, mechanical means, personnel, shared premises/transport vehicles and carryover from previous infection. During the mission the inspection team was informed by farmers and veterinary officers that badgers are a relevant source of infection.

Northern Ireland: A standard report from APHIS is used for epidemiological investigations in infected herds. DVOs staff carries out on-the-spot visits for this purpose and the information collected is registered in the database. As a target the investigation must be finished within 4 months at the latest. The epidemiological investigations are not evaluated at local or central level to ensure that the decision concerning the source of infection was correctly done and consequently appropriate measures would be taken.

In holdings with grazing parcels not contiguous, all parcels are considered the same epidemiological unit for the purpose of epidemiological investigation and implementation of measures.

In the epidemiological report several sources of infection are considered: Wildlife reservoirs (mainly badgers), purchased animals, contiguous herds, mechanical means, personnel, shared premises/transport vehicles and

¹⁰ *In their response to the draft report the CA stated that although no formal instruction is in place the disease reports are checked at local level, before they are finalised and decisions are queried if not clearly justified.*

carryover from previous infection. During the mission the inspection team was informed by farmers and officers that badgers should be considered as a relevant source of infection.

6.4.8. Compensation system

Conclusions

Systems are implemented to compensate farmers for the slaughter of animals under the eradication programme with payments corresponding to the market value of the animals. In GB the CCA stated that there is a compensation overpayment with the current procedure and a new system is in preparation.

Findings

Great Britain: A system is in place to pay compensation concerning animals slaughtered under the eradication programme. The farmer is initially offered two options:

- to agree the market value with an officer of the CA, either a VO or an Animal Health Officer
- a professional valuer, whose fees are paid by the CA, to value the animals intended for slaughter

If the farmer does not agree to the appointment of this valuer then the Royal Institute of Chartered Surveyors appoints a valuer, and the CA again pays the valuer's fee. A broadly similar compensation system operates in Scotland.

It was stated by staff from official services that a new system of compensation is in the final stage of preparation. The new system will provide a monthly list of values to be paid for each category of bovine animals with the purpose of avoiding overpayment that occurs in the current procedure¹¹.

Northern Ireland: A system is in place concerning the compensation to be paid by animals slaughtered under the eradication programme. An official valuator values reactor animals taking into account the current value of the animal. If the farmer does not agree with the compensation to be paid he/she can appoint an independent valuator from an approved list established by the official services in order to obtain a better valuation. DARD has recently introduced an appeal process whereby either the herd keeper or DARD can appeal to a tribunal if they are dissatisfied with the determination of the market value.

¹¹ *In their response to the draft report the CA stated that the new system will ensure effective control of public money, introduce full rationalisation of compensation for all notifiable diseases and will remove the need to arrange on farm valuations, speeding-up removal reactor times.*

A review of the existing compensation arrangements is also being carried out in NI.

In one of the farms visited valuation was performed more than 30 days after the owner was notified of the detection of reactor animals.

The CCA stated that values obtained with the sale of the salvage of animal carcasses slaughtered under the eradication programme are currently deducted from the request for reimbursement presented to the Commission services.

6.4.9. Controls on milk

Conclusion

Systems are in place for the official controls on dairy farms and milk establishments.

Some irregularities were found in the delivery of milk from restricted farms to milk establishments as milk from inconclusive and reactor animals are delivered to those establishments. Moreover, it is possible that milk from inconclusive and reactor animals end up in a milk establishment of another Member State.

Findings

Great Britain: Colostrum and milk from inconclusive or reactor animals is given to calves without heat treatment. Milk from inconclusive and reactors animals are delivered to milk establishments for further processing.

Inspections on dairy farms are regularly carried out by officers of the Dairy Hygiene Inspectorate of DEFRA, on behalf of the Food and Safety Agency as required by Council Directive 92/46/EEC and a standard report is produced. Inspections in milk establishments are carried out by officers of the local County authority.

In one of the Counties visited the local County authority is informed by the AHDO concerning tuberculosis restricted and derestricted herds. The local County authority contacts the owners of the restricted farms and requests information on the milk establishments receiving their milk. The milk establishment is then informed by the Local County authority. The list of restricted and derestricted herds is not sent to all purchasers of raw milk, including milk establishments¹².

There are some approved establishments selling raw bottled milk directly to the public and others producing matured cheese from raw milk in England and Wales, while in Scotland the sale of raw milk was banned in 1983.

¹² *In their response to the draft report the CA stated that this process will become fully automated in the near future. It is the responsibility of the Local Authority to inform milk purchasers of the disease risks and statutory requirements.*

Those establishments receive raw milk from officially tuberculosis free herds. In one milk establishment visited, producing matured cheese from raw milk, the milk tanker vehicle transporting raw milk was also used on different occasions to transport raw milk to other milk establishments, despite the fact that in the last situation referred to above some of the milk could be coming from restricted farms and even from reactor animals. The CA stated that milk tankers are cleaned and disinfected after each transport. However, no certificate is issued to confirm that cleaning and disinfection has been carried out. Moreover, on one occasion milk from a restricted farm was used in the production of cheese and a decision was taken to allow the cheese to be sold¹³.

Northern Ireland: The CCA stated that milk from inconclusive and reactor animals can be delivered to milk establishments. Milk from inconclusive or reactor animals are no longer used for calves, unless heat treated.

Milk purchasers are informed by the CCA twice a month on tuberculosis restricted and derestricted herds. This information also mentions that milk from restricted herds must be heat treated prior to sale for human consumption.

Inspections are regularly carried out by officers of Quality Assurance Branch (QAB) of DARD on behalf of FSA on the different aspects of Council Directive 92/46/EEC, including the pasteurization procedure in place.

In the milk establishment visited the inspection team was informed by the management that the list received from the veterinary services via QAB containing restricted herds is not used because all milk undergoes heat treatment. Moreover, it was stated that raw milk rejected after unsatisfactory quality controls was sent to GB. This milk is accompanied by commercial documents not reflecting the health status of bovine herds. The pasteurisation system is properly controlled in the HACCP system and inspections by official services were regularly performed.

During the final meeting the inspection team requested that the CCA provide information on raw milk transported to other Member States. The CCA stated that due to the fact that EU legislation does not require official health certification, no information was available. The fact that no official health certificate is necessary for trade according to Council Directive 92/46/EEC increases the possibility that raw milk from reactor animals end up in a milk establishment of another Member State.

6.4.10. Controls at slaughterhouses

Conclusion

Operation manuals containing the procedures to be followed on bovine tuberculosis examinations at slaughterhouses are available and

¹³ *In their response to the draft report the CA stated that the decision is taken by the Local Authority following a qualitative risk assessment and cheese manufactured after the loss of OTF status must be made with pasteurised milk.*

implemented in the abattoirs visited. The procedures described are in compliance with Council Directive 64/433/EEC.

Findings

Great Britain: A Meat Hygiene Manual, issued by the Meat Hygiene Services of the Food Safety Agency is available. This operations manual contains a specific chapter on bovine tuberculosis showing the procedures to be followed by the official staff at slaughterhouses.

The requirements described in the manual are in accordance with Council Directive 64/433/EEC and proper implementation was seen at the slaughterhouse visited.

Northern Ireland: The Meat Operations Manual was amended at the end of 2003 to reflect the requirements of Council Directive 64/433/EEC concerning the ante-mortem and post-mortem examinations in cattle slaughtered under the eradication programme or during routine slaughter, as well as judging criteria on meat fit or unfit for human consumption. The amendments introduced have been introduced at the 3 approved slaughterhouses for reactor animals. However, due to the lack of official staff some of the remaining bovine slaughterhouses are not yet implementing the new provisions.

At the OTM slaughterhouse visited for reactor animals the procedures in place were in accordance with the amended operations manual.

6.4.11. Sanctions

Conclusion

Systems of sanctions, consisting of movement restrictions described in parts 6.3 and 6.4.3 of this report is in place. Moreover, in NI compensation is sometimes withdrawn when there is prove of disease spread. However, no other sanction is applied to farmers in case of non-compliance with measures imposed under the eradication programme.

Findings

Great Britain: When the testing frequency is not respected in officially tuberculosis free herds the AHDOs imposes a restriction on the movement of animals, as described in part 6.3 of this report.

Enforcement of law is under the responsibility of the local County authority following information provided by AHDOs. However, it was noted that other type of sanctions or deductions on the compensation payment are not applied to farmers not complying with the rules and measures imposed under the eradication programme implementation¹⁴.

¹⁴ *In their response to the draft report the CA stated that Local Authorities have prosecuted farmers who have move cattle contrary to a movement restriction.*

Northern Ireland: As in GB, when the testing frequency is not respected in OTFH the DVOs imposes a restriction on the movement of animals, as described in part 6.3 of this report.

For the purpose of prosecution the DVOs must inform the Director of Public Prosecutions about farmers not complying with measures contained in the eradication programme. However, no other sanctions or deduction on the compensation payment are applied. In the case of disease spreading compensation can be withdrawn.

6.5. Tuberculosis (M.bovis) in humans

Conclusion

Health authorities are informed about cases of tuberculosis diagnosed in cattle herds. Six cases of tuberculosis in humans due to M.bovis were notified between 1998-2002 in NI and 157 in GB.

Findings

Human health authorities are regularly informed about cases of bovine tuberculosis diagnosed in cattle herds.

According to information provided to the inspection team between 20-50 people are diagnosed with M.bovis yearly since 1990 in UK.

The official statistics of human tuberculosis (caused by M. bovis) in the United Kingdom the period 1998-2002 are summarized in the table bellow.

Year	Great Britain	Northern Ireland
1998	40	0
1999	37	4
2000	29	Not available
2001	29	2
2001	20	0

7. FINAL MEETING

A closing meeting was held on 26 November 2004 in London with representatives of the CCA and the regional competent authority of NI. At this meeting, the main findings and conclusions of the mission were presented by the inspection team.

After some clarifications concerning minor misunderstandings over the main findings and preliminary conclusions presented, the competent authorities did not comment on the presentation made.

8. RECOMMENDATIONS

To the competent authorities of United Kingdom

Concerning Great Britain

- 8.1. To ensure that the specific requirements of Community legislation on holding registration, controls on animal identification, notification of movements to the database and on farm registers are respected and takes into account the existence of holdings with parcels located a few miles away in a way that avoids spread of Tuberculosis.
- 8.2. To establish a control system ensuring that measures concerning all aspects of the eradication programme are correctly applied as laid down in EU legislation, in particular with regard to:
 - accuracy of the skin fold measurements,
 - interpretation of follow-up tuberculin tests inconclusive reactors,
 - restriction of movement of animals from restricted herds other than directly to slaughter,
 - isolation of inconclusive and reactor animals,
 - cleaning and disinfection procedures at farms, markets and slaughterhouses,
 - removal of reactor animals,
 - epidemiological investigations in restricted herds, with the inclusion of all parcels.
- 8.3. To ensure that the use of gamma interferon testing is consistently applied as described in the eradication programme.
- 8.4. To ensure that farmers are adequately compensated for the slaughter of animals under the eradication programme.
- 8.5. To review the milk policy, in particular, with regard to:
 - ensuring that milk from inconclusive and reactor animals is not delivered to milk establishments in UK or other Member State.
 - ensuring that milk from inconclusive or reactor animals are not fed to calves, unless it is heat treated,
- 8.6. To review the current system of sanctions order to ensure compliance by farmers concerning measures to be implemented.
- 8.7. To consider:
 - the introduction of a compulsory pre/post movement test to authorise farm to farm movements.
 - the presentation to the Commission Services of an eradication programme for approval.

Concerning Northern Ireland

- 8.8. To ensure that the specific requirements of Community legislation on holding registration, controls on animal identification, notification of movements to the database and on farm registers are respected and takes into account the existence of holdings with parcels located a few miles away.
- 8.9. To establish a control system ensuring that measures concerning all aspects of the eradication programme are correctly applied as lay down in EU legislation, in particular with regard to:
- accuracy of skin fold measurements,
 - interpretation of follow-up tuberculin tests in inconclusive reactors,
 - isolation of inconclusive and reactor animals,
 - cleaning and disinfection procedures at farms, markets and slaughterhouses,
 - marking and removal of reactor animals,
 - epidemiological investigations in restricted herds.
- 8.10. To ensure that the use of gamma interferon testing is consistently applied as a supplementary test in the eradication programme
- 8.11. To ensure that milk from inconclusive and reactor animals is not delivered to milk establishments in UK or other Member State.
- 8.12. To review the current system of sanctions in place in order to ensure compliance by farmers concerning measures to be implemented.
- 8.13. To consider the introduction of a compulsory pre/post movement test to authorise farm to farm movements.

An action plan, indicating the actions taken or planned to address the conclusions and recommendations (8.1. to 8.13.) of this report, and including a timetable for completion, should be submitted to the Commission services within one month of receiving the final report.

9. ADDENDUM

In their letter of 7 March 2005 the UK Competent Authority responded to the draft report. Where appropriate, their comments have been introduced in the final report, either in the text if related to factual errors or as footnotes.

Their reply also indicates certain preliminary actions to the mission and recommendations of the mission report.

In addition the CA provided some clarifications on the TB eradication in GB; updated epidemiological data on GB for bovine tuberculosis; provided further information concerning TB testing regime; stated that a pilot exercise started to return information from TB tests to BMCS before a permanent link is established; and that later in 2005 the VET-Net will be recording technical data on TB management and provided further information concerning testing regime and follow-up.

10. ANNEX

LEGAL BASIS FOR MISSION - GENERAL PROVISIONS	
Council Directive 64/432/EEC of 26 June 1964 on animal health problems affecting intra-Community trade in bovine animals and swine (as amended)	OJ L 121, 29/07/1964, p. 1977-2012
Council Directive 89/662/EEC of 11 December 1989 concerning veterinary checks in intra-Community trade with a view to the completion of the internal market (as amended)	OJ L 395, 30/12/89, p. 13-22
Council Decision 90/424/EEC of 26 June 1990 on expenditure in the veterinary field (as amended)	OJ L 224, 18/08/1990, p. 19-28
Council Directive 90/425/EEC of 26 June 1990 concerning veterinary and zootechnical checks applicable in intra-Community trade in certain live animals and products with a view to the completion of the internal market (as amended)	OJ L 224, 18/08/1990, p. 29-41
Council Decision 90/638/EEC of 27 November 1990 laying down Community criteria for the eradication and monitoring of certain animal diseases (as amended)	OJ L 347, 12/12/1990, p. 27-29
Council Directive 77/391/EEC of 17 May 1977 introducing community measures for the eradication of brucellosis, tuberculosis and leucosis in cattle (as amended)	OJ L 145, 13/06/1977, p. 44-47
Council Directive 78/52/EEC of 13 December 1977 establishing the Community criteria for national plans for the accelerated eradication of brucellosis, tuberculosis and enzootic leucosis in cattle (as amended)	OJ 015, 19/01/1978, p. 34-41
Commission Decision 98/139/EC of 4 February 1998 laying down certain detailed rules concerning on-the-spot checks carried out in the veterinary field by Commission experts in the Member States.	OJ L 038, 12/02/1998 p. 10-13
LEGISLATION RELATING TO ANIMAL HEALTH	
Council Directive 97/12/EC of 17 March 1997 amending and updating Directive 64/432/EEC on health problems affecting intra-Community trade in bovine animals and swine (as amended)	OJ L 109, 25/04/1997, p. 1-37
Commission Decision 2002/943/EC of 28 November 2002 approving programmes for the eradication and monitoring of certain animal diseases and for the prevention of zoonoses presented by the Member States for the year 2003	OJ L 326, 03/12/2002, p. 12-19
Commission Decision 2003/849/EC of 28 November 2003 approving programmes for the eradication and monitoring of certain animal diseases and for the prevention of zoonoses presented by the Member States for the year 2004 and fixing the level of the Community's financial contribution	OJ L 322, 09/12/2003, p. 16-27
Commission Decision 2002/677/EC of 22 August 2002 laying down standard reporting requirements for programmes of eradication and control of animal diseases co-financed by the Community and repealing Decision 2000/322/EC (as amended)	OJ L 229, 27/08/2002, p. 24-32
Commission Decision 2002/944/EC of 28 November 2002 amending Decision 2001/729/EC on the list of programmes for the eradication and monitoring of animal diseases and on the list of programmes of checks aimed at the prevention of zoonoses qualifying for a financial contribution from the Community in 2002 and Decision 2001/853/EC approving the programmes for the eradication and monitoring of animal diseases and for the prevention of zoonoses presented by the Member States for the year 2002	OJ L 326, 03/12/2002, p. 20-23
Commission Decision 2003/467/EC of 23 June 2003 establishing the officially tuberculosis, brucellosis and leukosis-free status of certain Member States or regions of Member States as regards bovine herds (as amended)	O.J. L 156, 25/06/2003, p. 74-78

GUIDELINES ISSUED BY THE EUROPEAN COMMISSION	
SANCO/1775/2001 Guide for the achievement of production and control programmes in the veterinary field.	
LEGISLATION ON THE IDENTIFICATION OF ANIMALS AND THE CONTROL OF ANIMAL MOVEMENTS	
Council Directive 92/102/EEC of 27 November 1992 on the identification and registration of animals (as amended)	OJ L 355, 05/12/1992, p. 32-36
Commission Regulation (EC) No 2628/97 of 29 December 1997 laying down detailed rules for the implementation of Council Regulation (EC) No 820/97 as regards transitional provisions for the start-up period of the system for the identification and registration of bovine animals (as amended)	OJ L 354, 30/12/1997, p. 17-18
Commission Regulation (EC) No 911/2004 of 29 April 2004 implementing Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards eartags, passports and holding registers	OJ L163, 30/04/2004, p. 65-70
Commission Regulation (EC) No 494/98 of 27 February 1998 laying down detailed rules for the implementation of Council Regulation (EC) No 820/97 as regards the application of minimum administrative sanctions in the framework of the system for the identification and registration of bovine animals	OJ L 060, 28/02/1998, p. 78-79
Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97	OJ L 204, 11/08/2000, p. 01-10
Commission Regulation (EC) No 1082/2003 of 23 June 2000 laying down detailed rules for the implementation of Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards the minimum level of controls to be carried out in the framework of the system for the identification and registration of bovine animals (as amended)	OJ L 156, 25/06/2003, p. 09-12
LEGISLATION RELATING TO THE PRODUCTION OF FRESH MEAT	
Council Directive 64/433/EEC of 26 June 1964 on health conditions for the production and marketing of fresh meat (as amended)	OJ L 121, 29/07/1964, p. 2012-2032
LEGISLATION RELATING TO THE PRODUCTION OF MILK AND MILK-BASED PRODUCTS	
Council Directive 92/46/EEC of 16 June 1992 laying down the health rules for the production and placing on the market of raw milk, heat-treated milk and milk-based products (as amended)	OJ L 268, 14/09/1992, p. 01-32