GENERAL REPORT ON THE OUTCOME OF A SERIES
OF MISSIONS CARRIED OUT DURING 2001 TO
EVALUATE THE PROGRESS OF OVINE/CAPRINE
BRUCELLOSIS ERADICATION PROGRAMMES IN
CERTAIN MEMBER STATES
1. **EXECUTIVE SUMMARY**

During 2001, missions were undertaken to the five Member States for which EU approved and part-funded ovine/caprine brucellosis eradication programmes were in place.

The eradication programmes are well-established in the Member States concerned. However, compliance with the technical requirements of some of the programmes is disrupted by a lack of co-operation from the farming community, and a lack of resources within the official services. In addition, inconsistencies in the collection and submission of data make it difficult to monitor and compare the programmes.

The effectiveness of the programmes varies widely between the Member States. In France, northern and central Italy and parts of Portugal and Spain, a steady reduction in disease prevalence in the animal population has been achieved. However, in Greece, southern Italy and parts of Portugal and Spain, the disease situation is a cause for concern, with its incidence either static or increasing and, in all except for Italy, vaccination being required to control the disease, so that its eradication cannot be achieved. In these areas, there is a need for a significant strengthening of the eradication programme, with a targeting of resources and official controls, if any significant progress is to be made.

Risks to human health, either from contact with infected animals, or through consumption of contaminated foodstuffs, will continue to be present unless significant efforts are made to address the underlying causes.

The Commission has established Task Forces with the Member States which should allow the issues identified in this report to be addressed.

A number of recommendations are made to both the Member States and the Commission services as to further action required to address the problems identified during these missions.
2. INTRODUCTION

During 2001, the Food and Veterinary Office (FVO) of the Health and Consumer Protection Directorate General undertook a series of missions to the five Member States (Portugal, Spain, France, Italy and Greece) which have ovine/caprine brucellosis (Brucella melitensis) eradication programmes approved under EU legislation. Details of these missions are given in Annex I of this report.

Ovine/caprine brucellosis is a zoonosis (disease transmissible from animals to humans), which poses a significant consumer health risk in affected Member States. The main sources of infection for the human population are through direct contact with infected animals and the consumption of raw milk and milk products manufactured from raw milk coming from infected animals.

The completion of the series of missions was adversely affected by the need to respond to the series of foot and mouth disease outbreaks that occurred in four Member States during 2001, and which required a redirecting of available inspection resources.

Details of disease prevalence in the affected Member States during 1995 - 2000 are given in Annex II of this report.

Reports on the individual missions undertaken are available at the Directorate General's website:

http://europa.eu.int/comm/food/fs/inspections/index_en.html

3. OBJECTIVES OF THE SERIES OF MISSIONS

In light of the threat to consumer health posed by the disease, the Commission has provided part-funding for its eradication in the above countries for a number of years. Member States are required to submit annual eradication programmes, which are approved by the Commission after a favourable vote in the Standing Veterinary Committee.

The FVO missions evaluated compliance with the technical aspects of the approved eradication programmes for 2000 and the associated Community legislation, and provided an assessment of the progress being made with eradication in the countries concerned.


4. BACKGROUND

Eradication of the disease has generally been based upon an initial vaccination programme (where disease incidence was high) designed to bring down the level of active disease in a population to manageable levels. In parallel with this programme, and once the level of disease has been reduced, national or regional blood sampling programmes are established to identify infected animals, which are then slaughtered ("test and slaughter"). As holdings are declared free of the disease, they are given the status of "brucellosis free" or "officially brucellosis free", and constraints are applied to the movements of animals into and out of the holdings, to avoid a reintroduction of infection from holdings of lower health status. In support of these actions, controls over farm registration, animal identification and animal movements are applied.

Once disease has been completely eradicated, it is possible to declare all or part of a Member State as "Officially Brucellosis Free". This status is currently recognised for Austria, Belgium, Denmark, Finland, the Federal Republic of Germany, Ireland, Luxembourg, Netherlands, Sweden and the United Kingdom as well as 53 départements in France and two regions in Spain (Tenerife and Las Palmas2.

Test and slaughter programmes are used in all the affected Member States, supported by vaccination of young animals in Portugal and Spain. However, in Greece, test and slaughter is restricted to the islands, whilst vaccination of both young and adult animals is used on the mainland in view of the high incidence of the disease.

In the affected Member States, the number of small farms in certain regions, using shared grazing and with buildings that are not amenable to cleaning and disinfection can make the operation of the eradication programmes more demanding. The practice of transhumance3 is very widespread, leading to extensive inter-flock contacts. Where farms are milk producers, they are often involved in the production of cheeses (with or without pasteurisation and/or maturation) and other milk products, often for local sales.

5. MAIN FINDINGS

5.1. Competent authority structure and performance

5.1.1. Structure of the official services

The Member States visited all had official services with responsibility for the operation of the eradication programmes.

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2 Commission Decision 93/52/EEC of 21 December 1992 recording the compliance by certain Member States of regions with the requirements relating to brucellosis (B. melitensis) and according them the status of a Member State or region officially free of the disease

3 The practice of moving lowland animals to mountain pastures for summer grazing.
In Portugal, Spain and Italy, the regions had a large degree of autonomy in the implementation and enforcement of the eradication programmes. This was associated with a lack of uniformity in their operation, as central authorities had difficulty in instructing regional and local services as to the action to be taken. A number of strategies had been developed to overcome these difficulties with, for example, a National Co-ordinator for the eradication programme having been created in Portugal, and a National Co-operation and Monitoring Committee in Spain. In France, although there were direct management lines from the centre to the regions, a post of "animateur" had been created to co-ordinate the eradication programme.

5.1.2. Role of non-official bodies in the eradication programmes

In Portugal, Spain and France, farmer organisations were used to a greater or lesser extent in the practical operation of the programmes. No significant problems were reported with this practice, although the effectiveness of the organisations concerned was variable.

5.1.3. Independence of the official services

The independence of the staff involved in the eradication programmes was found to be adequately respected in all of the Member States visited. In some Member States, use was made of private veterinarians for certain practical tasks, eg. vaccination and blood sampling. However this was considered to be an acceptable practice in light of the controls in place.

5.1.4. Personnel resources

Some shortfalls in staff numbers, either at regional or local level, were noted in Portugal, France, Greece and Italy. In some instances, these were linked to shortfalls in the operation of certain aspects of the programmes, eg. a failure to meet sampling targets, to complete vaccination programmes and to follow up known infected holdings.

5.1.5. Recruitment and training

Greece indicated that it planned to start a significant recruitment programme to address staff shortages.

Training programmes were in place in all the Member States visited, although their extent and scope varied widely. It was evident that resources were limited, and that only a proportion of the staff involved would receive this training on a regular basis.

5.1.6. Legal and enforcement powers

All the Member States had sufficient powers to enforce compliance with the relevant legislation, and the provisions of the eradication programmes. However, it was noted that legal proceedings were generally expensive and time-consuming, and there was only limited evidence that these were pursued, other than in exceptional cases. Less formal sanctions were more
often used, including the withholding of compensation payments and administrative sanctions, to encourage co-operation.

5.1.7. Prioritisation of controls

In France, Portugal and Spain, the programme co-ordinating bodies (see para 4.1.1) have a major role in setting priorities at the national level. Decisions on priorities at field level were generally taken by local officials, taking account of resource availability, testing results, etc. There was, however, little evidence of any formal prioritisation systems in operation.

Particular attention was paid in France and Italy to the need to control transhumance movements.

5.1.8. Documentation of controls

Although all Member States had reporting systems (local→region→centre) in place, submission of the required information to the central authorities could be delayed or incomplete. Furthermore, delays in submission of this information to the Commission from these authorities were also noted. There was a lack of harmonisation in the nature and extent of the information provided to demonstrate progress with the eradication programmes.

Extensive documentation of farm checks, test results, animal slaughter movement controls etc was available, but there was little evidence of internal audit systems to ensure that these records were accurate and up-to-date.

5.1.9. Transposition of EC legislation

All Member States were found to have transposed the relevant EU legislation satisfactorily. In some Member States, eg. Spain and France, regional legislation could also be used to clarify or reinforce the provisions of national legislation.

5.1.10. Liaison with human health authorities

In all the Member States visited, informal links existed between the veterinary and human health services, which allowed some exchange of information. However, there was little evidence of formal co-operation procedures between the two services, although France was establishing départemenal liaison committees covering all zoonoses. It was also noted that an effective exchange of information occurred in one case investigated in depth in Spain (Catalonia).

In Greece, a joint Committee of the Ministries of Agriculture and Health had been created as an advisory body in 1996. However, its role in the operation of the eradication programme was unclear, and no documentation of its activities could be presented.

Cases of human brucellosis are notifiable in Spain and France. In general, even where information on such cases was supplied to the veterinary
services, no distinction was made between infections due to Br. melitensis and Br. abortus (bovine brucellosis).

5.2. **Farm registration**

5.2.1. **Farm registration procedures**

All the Member States had systems in place which required the registration of all sheep and goat holdings. The derogation available under Article 3, Council Directive 92/102/EEC, whereby holdings with less than four small ruminants do not have to be registered, was applied in **Italy** and **Greece** (which allowed up to five animals). Neither Member State had requested authorisation from the Commission to use the derogation. It was included in national legislation in **Spain**, but was not applied in practice.

These systems were managed at local level, and were based on the granting of a unique reference number to each holding. No significant deficiencies were noted, although the transient nature of some holdings meant that the systems could not be assumed to be fully up-to-date. In **Greece**, different systems were applied by the local official services.

Registers of the number and types of animals on the holdings were generally (but not universally) available at the farms visited. These varied in the extent and type of information recorded, and in the frequency of updating and of checks by the official services.

5.3. **Animal identification**

**France**, **Italy**, **Spain** and **Portugal** required sheep and goats to be individually identified, using an alpha-numeric code. Most used ear tags, but tattoos could also be applied. The maximum age before which identification must be applied varied, eg. Italy 60 days after birth; France 30 days; and Spain 12 months, although identification had to be applied before animals were moved off the holding of origin (in Spain unidentified animals could be moved to other holdings in the same ownership, subject to certain controls).

In **Spain** and **France**, the system appeared to be working properly when checked during farm visits. However, in both **Italy** and **Portugal**, some shortfalls were noted, both in relation to the information contained on ear tags and to the number of animals that were actually identifiable.

In **Greece**, the herd registration number was not recorded on ear tags and the identification numbers were neither unique nor harmonised at national level. Furthermore, only 40% of animals were said to be identified and controls at slaughter were considered inadequate.

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5.4. Movement controls

All movements (with the exception of those direct for slaughter in some Member States) had to be accompanied by some form of official licence, issued by the local veterinary services. This generally provided details of the destination, the status of the holding of origin, as well as the numbers, type and identification of the animals being moved. These rules were found to be generally respected, although individual failings were found in most of the Member States.

France and Italy restricted animal movements to and from transhumance to holdings having brucellosis free or officially brucellosis free status. These were supported by special rules which required additional checks by the local veterinary services. Furthermore, in Italy, a negative pre-movement blood test had to be obtained from the flock concerned. No special rules applied in Spain, although holdings either had to have a negative brucellosis status, or be recognised as brucellosis free or officially brucellosis free. Concerns were expressed in Greece that contact between part-vaccinated and unvaccinated flocks could take place.

In all the Member States, infected animals, and herds being slaughtered out, could only be moved to an abattoir, and required special authorisation.

5.5. Operation of eradication programme

5.5.1. Overall disease picture

It was evident that in France, Northern & Central Italy and parts of Spain, the eradication programme is proving effective, and the disease has either been completely eradicated or is of a low or very low prevalence.

However, in Southern Italy, large parts of Spain, Greece and Portugal, the disease remains a significant problem. This reflects, in part, the reluctance of some elements in the farming communities to participate in the programmes, as well as the fact that the resource demands placed on the official services by the programmes cannot be met.

A lack of harmonisation in the collection and processing of data regarding the performance of the programme in the Member States makes it impossible to compare progress between them or indeed on a yearly basis within a single Member State.

5.5.2. Classification of holdings

Each Member State operated a different classification system to define the disease status of individual holdings. Whilst all recognised brucellosis free or officially brucellosis free holdings (as defined in Article 2, Council Directive 91/68/EEC5), Portugal and France defined two additional levels,
whilst Greece had three, and Spain four, to cover holdings that were either in the process of qualifying for the first time, or seeking requalification.

Brucellosis free or officially brucellosis free holdings were generally tested in accordance with EU legislative requirements. Moreover, in France, where such holdings supplied raw milk or milk products, additional testing was undertaken. However, in Greece (islands), holdings which had gained officially free status were not subsequently tested as required in EU legislation, which meant that these holdings did not maintain their status.

Targeted testing programmes in specific areas, reflecting the level of infection identified, had been established as part of the approved eradication programmes in Spain and Portugal. In Greece (islands), it was noted that the targets set for the number of holdings to be tested in the approved eradication programme had not been met.

In Spain, priority was given to the annual testing of flocks, rather than the follow-up of holdings where infected animals had been found. This risked allowing the disease to spread within these infected holdings and to neighbouring holdings.

5.5.3. Vaccination policy

Vaccination was not permitted in Italy. In France, it would only have been used to control a major disease outbreak (subject to approval at départemental level).

In Portugal, vaccination had been extended to several regions, reflecting the spread of disease in recent times. All young animals were vaccinated in any region with more than 5% prevalence of disease.

In Spain, vaccination was routinely used on young animals in regions with a high disease prevalence. However, in regions where the level of infection was very high, where serious human health problems existed, or to control outbreaks, adult sheep and goats could also be vaccinated as an emergency measure.

In Greece, vaccination on the islands was not permitted. On the mainland, a mass vaccination programme (of adults, as well as young animals) was in place. The number of holdings vaccinated, as well as the proportion of animals in flocks, had fallen below the targets set in the eradication programme. Tests on non-vaccinated sentinel animals in mainland flocks were not undertaken.

5.5.4. Operation of laboratory services

All the Member States had appointed reference laboratories for ovine/caprine brucellosis. These laboratories carried out their co-ordination functions through the supply of reagents, standard tests samples etc, as well as organising blind ring tests and providing training for regional laboratory staff.
In all the Member States, blood testing and bacteriological isolations under the eradication programmes were performed in authorised regional laboratories (in Italy and Spain, only official laboratories could be used for these activities).

The rose bengal and complement fixation tests were used for routine blood testing in all Member States, as foreseen in EU legislation. Reservations were expressed about controls over the identification of samples within laboratories in France, Portugal and Spain.

In Portugal, it was noted that not all the laboratories used in the eradication programme had been licensed by the National Reference Laboratory.

5.5.5. Action on infected farms

Following confirmation of infection, all Member States had set maximum deadlines for the removal of positive animals (France, 15 days; Greece (islands), Italy & Spain, 30 days; Portugal, 45 days). Some additional delays were noted in a few cases in Portugal.

Effective procedures were considered to be in place to control the removal and slaughter of positive animals, although it was noted that, in Portugal, animals that gave positive results to blood tests could not always subsequently be identified for slaughter.

The slaughter of entire flocks was rarely undertaken in the Member States, and required formal authorisation from the regional official services (sometimes with the agreement of the central authorities). In Portugal and France, criteria had been established for flocks needing to be slaughtered, although it was noted that chronically infected flocks had not always been removed. In Greece (islands), flock slaughter was only undertaken if >50% of the animals were serologically positive.

Standard procedures were generally applied to the epidemiological investigation of infected holdings.

5.6. Food safety controls

5.6.1. Milk and milk products

In France, Portugal, Spain and Italy, only brucellosis free or officially brucellosis free holdings could supply milk for use in production of raw milk products, eg. cheeses. However, it was noted that, in Portugal, milk processing establishments were not routinely provided with details of holdings meeting the required health standards (the Portuguese authorities have since indicated that this problem has been addressed).

In Greece, the sale of milk and milk products from farms direct to consumers was illegal, and the authorities emphasised that such sales did not take place. On the mainland of Greece, it was clear that milk and milk products (including those made from raw milk) from potentially infected holdings could enter the human food chain. No additional controls were
identified in respect of dairy holdings where infection had been confirmed. On the islands of **Greece**, milk from holdings of unknown disease status could enter the human food chain.

5.6.2. **Abattoirs**

Positive animals were sent to nominated abattoirs under cover of official licences, and were clearly identified on arrival. In **Portugal**, the whole carcase and offals are condemned, and treated as "high risk" waste\(^6\), whereas in **France** the carcase could be passed as fit for human consumption, whilst the blood, mammary glands and viscera were condemned and rendered. No extra controls were in place over the disposal of potentially contaminated organs/glands in **Greece**.

In **France**, **Portugal**, **Spain** and **Italy**, information to abattoir workers, and protective clothing, was generally made available at the establishments visited by the inspection teams, although workers were not always adequately protected from risk of infection. In **Greece (mainland)**, no additional efforts were made to protect workers, whilst controls over the reception and processing of potentially infected animals were considered inadequate.

6. **CONCLUSIONS**

6.1. **Competent authority structure and performance**

Some degree of training for the staff involved in the programmes was provided in all Member States visited. The official services had transposed EU legislation properly, and had adequate enforcement powers, although the extent to which they were used varied widely.

In certain Member States, the strongly regionalised nature of the official services meant that difficulties in the co-ordination and monitoring of the eradication programme had been experienced by the central competent authorities.

Where shortfalls in the number of staff available for the operation and control of the programmes existed, these had an adverse effect on their operation.

There was a need for greater prioritisation of control activities and of improved documentation of their performance and outcome.

Improvements were needed in the co-operation between the veterinary and human health services in most Member States.

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6.2. Farm registration, animal identification and movement controls

The registration of farms was generally properly performed, although attention was needed to ensure that all of the smallest premises were recorded (subject to the derogation established in Council Directive 92/102/EEC).

The animal identification procedures required further improvements in some Member States, particularly as to the age at which identification was applied, and to ensure that all animals were covered. Considerable variation existed between the effectiveness of the methods used.

Movements of animals were generally subject to effective official controls, although some concerns were expressed over risks posed by transhumance in a few Member States, and over failures to separate vaccinated and non-vaccinated animals.

6.3. Operation of eradication programmes

The lack of harmonisation in the requirements for the collection and submission of data to monitor progress with the programmes in the different Member States made it difficult to obtain a clear picture of the health situation.

Shortfalls in controls over holdings classed as disease-free, and those where infection had previously been detected, risked undermining the effectiveness of the programmes. There were also significant differences in the criteria applied for the slaughter of whole, infected, flocks.

Vaccination was limited to certain areas where the disease incidence was regarded as posing a significant health risk to humans or animals. Shortfalls in the vaccination programme in mainland Greece raised questions as to its effectiveness.

6.4. Food safety controls

In some Member States, shortfalls in the controls over milk coming from potentially infected flocks raised the possibility that consumers could be exposed to infection.

7. RECOMMENDATIONS

7.1. To Member State authorities

(1) To ensure that sufficient management structures, resources and expertise are available for the successful operation of the eradication programmes.

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Lays down standard requirements for reports submitted for programmes for the eradication and monitoring of animal disease approved by the Community.
(2) To concentrate control efforts onto identified key operational areas, and to ensure that their results are fully documented.

(3) To promote co-operation between animal and public health authorities, so that a co-ordinated approach to disease eradication is developed.

(4) To ensure that controls over suspect infected holdings are fully effective, and that testing programmes take full account of the disease status of holdings.

(5) To strengthen controls over milk and milk products coming from infected holdings, and from those with an uncertain disease status, such that consumer health is fully protected.

7.2. To the Commission Services

(1) To continue to develop recent initiatives in working with Member States to improve the operation and monitoring of eradication programmes.

(2) To require Member States to propose key control measures, specific performance goals and objectives, with a calendar for their achievement, to the Commission, before approval of a programme will be considered.

(3) To approve programmes which run for a period of longer than one year, with agreed intermediate performance goals. The requirement for Member States to submit standardised progress reports which clearly indicate the extent to which the objectives and associated calendar have been satisfied, should be rigorously enforced.

(4) To link continued Community support for eradication programme to the extent to which agreed objectives and deadlines have been met.

(5) To co-ordinate Community-level veterinary and financial control checks on the operation of eradication programmes.

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9 The Task Force established by the Commission with the Member States is preparing parameters to evaluate progress in the disease eradication programmes. Methods to improve data submission by the Member States are currently being examined.

10 Under current EU legislation, programmes must be approved on an annual basis, although they generally extend over several years.
### 8. ANNEX I DETAILS OF MISSIONS UNDERTAKEN

<table>
<thead>
<tr>
<th>Mission reference number</th>
<th>Commission Decisions approving programmes</th>
<th>Member State</th>
<th>Dates of mission</th>
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<tr>
<td>3199/2001</td>
<td>OJ. L 308, 8/12/2000, p.39</td>
<td>Italy</td>
<td>28 May - 1 June 2001</td>
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<td>3352/2001</td>
<td></td>
<td>Greece</td>
<td>1 - 5 October 2001</td>
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2000/5/EC OJ. L3, 6/1/2000, p.23
2000/774/EC OJ. L 308, 8/12/2000, p.39
9. **ANNEX II. DISEASE SITUATION IN MEMBER STATES**


<table>
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<tr>
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<th>% of holdings with reactors identified</th>
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<td></td>
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<td>Greece</td>
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<td>(non-vaccination area)</td>
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