

COMMISSION  
OF THE  
EUROPEAN COMMUNITIES

SANCO/2904/2001

---

Directorate General for  
Health and Consumer Protection

---

SANCO/E.2

REPORT ON THE

**TASK FORCE MEETING**  
**OF THE**  
**“BOVINE BRUCELLOSIS” AND “SHEEP & GOATS**  
**BRUCELLOSIS” SUBGROUPS**

**PALERMO, ITALY**  
**15-17 JANUARY 2001**

**REPORT OF THE**  
**“BOVINE BRUCELLOSIS” AND “SHEEP & GOATS BRUCELLOSIS” TASK FORCE**  
**SUBGROUPS**  
**4<sup>TH</sup> MEETING HELD IN PALERMO, ITALY, ON 15-17 JANUARY 2001**  
**3<sup>RD</sup> MEETING BEING HELD IN A MEMBER STATE WITH AN APPROVED PROGRAMME**

**Participants:** see Annex 1

**Agenda:** see Annex 2

The morning of the first day was devoted to discussion of the Italian and Sicilian Sheep and Goat Brucellosis situation and eradication programmes. In the afternoon points 6 [Situation of sheep and goat brucellosis in the Member States (MS)] and 7 (Standardization of epidemiological investigations) of the agenda were not discussed for lack of time. The second day included visits to herds in the morning followed by a general open discussion in the afternoon about the theme of "Brucellosis in Sicily", involving representatives of political, technical and professional agents. The morning of third day was dedicated to the Italian and Sicilian Bovine Brucellosis situation and eradication programmes. In the afternoon recommendations and conclusions of both brucellosis subgroups were presented and discussed. The latter replaced agenda items 15 (Situation of bovine brucellosis in the MS) and 16 (Experimental results of experimental infection with *B. melitensis* and the use of Rev 1 vaccine in cattle).

## **DAY 1**

### **Opening session**

The meeting took place in the Istituto Zooprofilattico Sperimentale (IZS) della Sicilia “A. Mirri”, in Palermo. Field visits were done to ruminant herds in the Province of Palermo.

Simultaneous translation English- Italian was provided by professional staff provided by the IZS

A member of the national parliament made general comments about the need for the control of animal diseases in Italy. He welcomed the members of the Sub-groups of the Task Force and endorsed their decision to have a Mission in Sicily, a region with a high

incidence of brucellosis. Such a visit would allow them to evaluate the local situation and should facilitate further steps in the eradication of brucellosis.

A member of the regional parliament of Sicily in his welcoming speech, noted that the opposition also considered the need for an improvement in the technical tools that can be used to achieve eradication of animal brucellosis in Sicily.

Dr Kirsten Sander, from the European Commission welcomed the political support for the control and eradication of brucellosis and presented the objectives of the Task Force and its sub-groups.

In general the objective to create a Task Force was to improve animal disease eradication. This should be achieved in particular by

- Laying down methods to monitor results of the programmes;
- Standardising programmes by standardising measures, monitoring results and standardising the starting situations of programmes;
- Evaluating the progress of the programmes;
- Providing scientific administrative knowledge;
- Increasing public awareness;

It was emphasised that meeting was not an inspection mission. Inspection missions are organised and carried out by the Food and Veterinary Office of Directorate F.

## **SHEEP AND GOAT BRUCELLOSIS SUBGROUP**

### **1. Introduction to the Italian Situation – updating of epidemiological data and differences between 2000 and 2001 programs followed by discussion. Dr Bruno Fioretti**

Since 1996/ 1997 the prevalence of sheep and goat brucellosis persists at a very low level in the Northern and Central regions of Italy but it remains a major problem in other areas, especially in the Southern regions of Sicilia, Calabria, Puglia and Campania (and to a lesser degree, Basilicata). The most problematic areas are in the South of the country where there are certain shortcomings with regard to implementation of control measures.

In 1999 the Italian Ministry of Health asked the local authorities in the 4 worst affected regions to improve the control of the disease. These plans were included in the programmes presented to the Commission in 2000. The plans focused on strengthening the application of the existing national legislation and other measures, such as the improvement of the registration system for all the ruminant species and the implementation of a better national data management system.

It is expected that the Northern and Central regions will achieve the status of Officially Free in 2002 and the National authorities will concentrate on reaching the targets proposed for the problem areas.

National data for the first three-quarters of 2000 were presented (Annex 3). Globally, the percentage of controlled flocks has increased in the most infected areas. However, there is still a low level of coverage in certain areas (*eg* Abruzzo). No data was available for the Region of Calabria as only part of the services supplied the data (only 7 out of 11 veterinarians replied to the Ministry queries) and a problem with the information system caused difficulties in compiling the data from the second and third quarters of 2000.

The presentation of the data in quarters only allowed the comparison of the data from the different years in April and not during the year and did not differentiate the herds and animals controlled as re-inspections or as first controls. To overcome these problems the information system is going to be modified.

## **2. Brucellosis in Sicily (Field data) followed by discussion – Dr Virga**

The present program for the control and eradication of sheep and goat Brucellosis in Sicily started in 1992 and has been implemented since 1993.

From 1982 to 1992 all the replacement stock, which includes about 20% of the animals, was vaccinated with Rev.1 vaccine. From that date, the country decided to stop vaccination and to start a test-and-slaughter policy. It was observed that, since 1992, no significant improvement was observed in the Sicilian situation regarding brucellosis of sheep and goats. It was considered that there was the need for control of at least 80% of the flocks to achieve eradication. Sardinia was presented as an example of this, where eradication of brucellosis was achieved in 4 years (from 1993 to 1997) after stopping vaccination. The level of testing of flocks was greater than 80% and, in this period, the level of positivity dropped from 30% (some of which could be due to vaccination) to 0%.

Up to 1999 only around 50% of the flocks were tested due to environmental (mountain areas), personnel and social difficulties. In 1999, 74% of flocks were tested, of which 30% were infected. In the period January to October 2000, 71% of flocks were tested and 33.4% of found to be infected.

These high rates of infection are probably inflated due to the incomplete surveillance in some of the 9 Sicilian provinces and the concentration of the veterinarians' activity on infected holdings. For example in the Province of Messina, only 43% of flocks were tested and 42% were infected.

From the second semester of 2000 there was an increase in the collaboration among all the veterinary services including the IZS staff and the administrative and field veterinarians.

There has been a drop in the number of human cases from 1997 to 1999, which were 7 and 2 per 100,000 inhabitants respectively.

In the last 2 years, missions of the Food and Veterinary Office have been evaluating the program's implementation.

The problems discussed were the administrative delays in herd certification and in compensation. Due to the high prevalence of infected holdings, it was recommended that vaccination in Sicily would be more cost-effective than the test-and-slaughter alone.

Up to the present, this policy has been postponed as it was not agreed by the Istituto Superiore di Sanità, which is the national reference centre for animal brucellosis of Italy. However the group was told that there were insufficient data supporting the vaccination strategy and that there was not enough personnel to implement an exhaustive vaccination scheme.

#### Classification of herds and sanitary decisions

- In the Officially Brucellosis Free flocks (OBF) 25% of the females and all the males are controlled. If there is a positive animal (RBT + and CFT +) it is slaughtered and the whole flock is controlled.
- In the Non-OBF all the adult animals in the flock are controlled and the positive animals are slaughtered (see the criteria for testing in 3.2).

Positive animals are punched with a "+" mark in the ear.

There is some difficulty in rapidly eliminating the positive animals and paying compensation. It was mentioned that most times, the farmer has to pay to slaughter the positive animals and there is a long delay in the payment of compensation, which the farmer does not consider to be adequate anyway. As a result co-operation from the farmer is poor.

Re-testing of positive flocks is done 42 days after the slaughter of the last positive animal. Nowadays it is difficult for the authorities to give the rate of flocks that are re-qualified free within a year period. Data is lacking on the rate at which infected flocks requalify for OBF status.

The stamping-out of the infected flock can be recommended by the regional veterinary service. If the producer agrees this is followed by disinfecting and re-stocking from OBF flocks; if the producer disagrees the follow-up takes place.

There are 20 mobile units for disinfecting in the island that can either be done by the official services or by the private veterinarians.

Identification of the sheep and goats is done by the breeder with ear-tags in the left ear and a tattoo with the individual code in the right ear of each animal. The producer registers, every 3 months, all small ruminants that are older than 6 months old.

Transhumance is authorized for OBF and controlled flocks and involves 2 veterinary services, one at the origin and one at the destination. However, in several provinces, control is lacking or is not effective.

According to the Italian law, from 1954 for grazing reasons transhumance can be authorized even if the flock is not free from brucellosis. The official services issues a certificate indicating that the animals have been tested.

A new Law Decree, approved in September 2000, established a maximum time limit of 5 days in which to inform the farmer of positive laboratory results. A veterinary certificate is issued for positive animals and these have to be slaughtered within 30 days, in a slaughterhouse in the same province. This policy of slaughter of positive animals has been complemented with the stamping-out of the herd when considered convenient. Another new measure is that animals should be controlled within the 12 previous months before being authorised to be sold to other holdings.

Some specific problems experienced in Sicily are social problems, relating to farmers not welcoming the veterinarians, being against the vaccination and refusing to co-operate in the sanitary slaughter of their animals.

In some provinces, like Messina and Palermo an additional problem in the control of flocks is the transhumance. This occurs in winter. The group felt that rules should be established, limiting movement to healthy flocks, with all the animals tested instead of the 25% that are presently controlled. It was claimed that the transhumance of infected flocks would be forbidden, but taking in account the rate of infected flocks and the economical need of transhumance, members of the group questioned the feasibility of this measure.

The system for collection of data in the Sicilian region was considered as unreliable, hindering sanitary decisions as well as the follow-up of positive flocks. Presently a new information system has been designed with the collaboration of the IZS of Teramo. All the local units have computer systems, which are being used for the national bovine database and will be adapted to operate on a regional basis. These will include data from the eradication programmes so as to improve monitoring.

The new program for the Sicilian Region includes a set of measures agreed by the official services, local veterinarians and breeder associations, which is then proposed to the Government and Assembly and finally to the Commission.

The Sicilian Authorities have already devised a plan of test-and-slaughter to achieve eradication of sheep and goat brucellosis within 3 years; this would include the slaughter of:

120,000 animals in the 1<sup>st</sup> year (10% of the population)

40-50,000 animals in the 2<sup>nd</sup> year (4-5% of the population)

15-20,000 animals in the third year (2% of the population)

Prof. Caporale advised that the present legislation was not adequate to obtain eradication as the high prevalence of disease required other supplementary measures, but other Italian technical staff felt the problem was with implementation of the measures.

### **3. Brucellosis in Sicily (Laboratory data) followed by discussion**

#### **3.1 The role of the IZS of Sicily –Dr. S. Caracappa (Annex 4)**

In Italy there are 10 Institutes (IZS) and 89 Provincial laboratories where the first instance diagnosis is performed. The IZS gives technical and scientific support to the veterinary services at regional and central level.

The Sicilian territory was characterized as the largest Region of Italy with 80% hills and mountains, and a population of 455.000 cattle and 1.365.000 sheep and goats. The IZS performed 1.830.000 analyses for Brucellosis within the eradication plans during the year 2000. Brucellosis represents 55.71% of the IZS activity. The staff consists of 250 people including 60 veterinarians.

It was also pointed that the main brucellosis problems are related to the transhumance, wild livestock and uncontrolled animals movement (import/ export).

Brucellosis precautionary measures include the isolation and slaughter of infected animals, prompt compensation, disinfection of premises, use of milk only with thermal treatment or after a cure of a minimum of 60 days, and no use of slurry for 30 days.

#### **Sanitary Organization in Sicily**

There are 9 Districts with local and central veterinary services, which are the local sanitary units. Each district includes from 2 to 15 villages or cities.

The veterinary health officers involved in the brucellosis eradication program are either public (400) or private (100 authorized for freelance work). 90% of public veterinarians are only doing a public work.

#### **3.2. Serology for sheep and goat brucellosis in the IZS - Dr Jusualdo Vasco**

In 1996, 700,000 samples were examined for serology of sheep and goat brucellosis, rising to 1.2 million samples in 1999 / 2000. This reflects an increase of 42% of the capacity of the field veterinarians and of the IZS laboratory in Palermo, as well as the provincial laboratories of Ragusa, Catania, Messina and Caltanissetta. While 1.2 million samples means only 70% flocks controlled, 4.0 million samples should be tested for a 100% control rate.

The protocol for serology of Brucellosis in sera from sheep and goat is:

- (a) Rose Bengal Test (RBT) is performed in all the sera
- (b) According to the prevalence of positives in a flock, the Complement Fixation Test (CFT) is done in:
  - only the RBT positive animals if there are less than 5% animals RB positive in a flock, and in
  - all the sera received if there are more than 5% infected animals in a flock.

The 5% rate was decided by the local authorities.

The animals are considered infected if the CFT is equal or higher than 20 IU/ml.

In the year 2000 the RBT detected 113.007 (9.7%) positives out of 1.167.669 sera analysed and the CFT detected 119.000 (9.8%).

The distribution of the intra-flock prevalence depends on the provinces; *eg.* Agrigento can have up to 50% and Palermo has a lower prevalence. No investigation is done on the dynamics of the transmission within the flock.

### **3.3. Laboratory data on Brucella bacteriology**

A research project was developed in the IZS of Palermo to type Brucellae strains isolated by the Provincial routine laboratories.. However it was not complementary to the official surveillance programme and field veterinarians did not co-operate in the follow-up of the isolation of *Brucella*.

The following biovars were isolated in

- Sheep and Goats
  - o *B. melitensis* biovar 3 – 227 cases ( dominating strain – 97,47%)
  - o *B. abortus* biovars 1 and 3 – 7 cases (2,53%)
- Cattle
  - o *B. abortus* biovar 3 – 39.76%
  - o *B. abortus* biovar 1 – 30.67%
  - o *B. melitensis* biovar 3 – 26.67% of the cases
  - o *B. abortus* biovar 4 – isolated in 2 cattle imported from France

About 60 strains are isolated per year in the slaughterhouses. There is an increase in the number of isolations in the wild animals and in swine.

The project expects to make risk evaluation for Brucellosis.

#### **4. Brucellosis in Sardinia (field data) followed by discussion. Dr Sulis**

The control of sheep and goats brucellosis involved the effort of the local health authorities and the Regional Government. It started in 1970.

Exhaustive vaccination of young females with Rev.1 was done up to 1994 (see also point 2). Stamping out of herds was implemented even if this was not foreseen by the legislation. 1997 was the turning year for brucellosis control as it was the first year without human cases and the number of positive flocks and animals was very low .

Nowadays, all flocks are controlled including 25% of females and all the males. The transhuming flocks are controlled by serology on all animals. In addition a serological monitoring is performed on all animals slaughtered in abattoirs. When a positive result is observed in the RBT, the CFT is performed on all animals. Re-inspection of positive flocks is done after 45 days, after having identified all animals individually. Epidemiological investigations are performed in all flocks with positive serological reactions. It is considered that, up to now, antibodies detected in some animals were linked to a previous vaccination.

In 2000 one case of a positive sheep imported from France was identified, as well as goats with seropositivity in a slaughterhouse control. The Sardinian representative estimated that the previous vaccination programme, applied exhaustively, has allowed the good results of the following test-and-slaughter program.

## **DAY 2**

### **SHEEP AND GOAT AND BOVINE BRUCELLOSIS SUBGROUPS**

#### **8. Visit to holdings**

The members visited 2 farms in the Province of Palermo. One of the farms had milk-producing sheep and the other farm had an extensive production of beef cattle.

They met the Mayors of the cities, the local veterinarians from the official services and several producers.

#### **9. Round Table with local authorities and Sicilian field veterinarians**

This involved high level representatives who made presentations and answered questions from the audience.

##### **9.1 President of the IZS Sicily – Dr L. Marano**

Welcomed the EU Mission of the experts on Brucellosis and described the efforts being made by the institute in the control of animal diseases like Brucellosis and BSE. Considered that a lot of has been already made in this regard but there is scope for improvement.

##### **9.2 Head of the veterinary services of Sicily - Dr A. Vario**

Since the last FVO mission in the year 2000, targets were set and although some were not completely reached, some improvements have been made.

For example, the farms registered rose from 65% to 80%. No further progress has been obtained because the veterinarians have been engaged in other disease emergencies like Bluetongue and BSE. It is expected that during 2001 the brucellosis program should control at least 90% of the farms and in 2002 all flocks will be covered. This will require the hiring of personal and the technical improvement of the veterinary services of Sicily.

##### **9.3. Professor of Zootechnial science – Prof. Luzeta**

Described the importance of health control in ruminant animal production for Sicily and Italy.

#### **9.4. Regional Secretary of the Trade Unions – Dr Entrevicha**

Since 1995 the trade unions have been fighting for better compensation of producers for loss of revenue.

This could explain the lack of collaboration of the producers with the veterinary services in Sicily. Cases were reported of the need for police forces to protect the field veterinarians in their field activity.

#### **9.5 Director of the IZS Sicily – Dr S. Caracappa**

Dr. S. Caracappa described the activities of the Institute namely in relation to the control of emergencies, GMO's, BSE , Bluetongue and Brucellosis.

Regarding Brucellosis it was said that major improvements in its control are expected in 2001. This would result from the collaboration with the field organizations, the improvement of the sanitary data management system and a consequent better planning and action of the veterinary services.

#### **9.6. Director of the Regional Breeders Association– Dr Cartorina**

Synergy is needed between the professional organizations of breeders, the veterinary services and the diagnostic institutes. The non-compliance of the breeder with veterinary requirements is due to lack of interest. The delays in payment of the EU compensation need to be solved.

#### **9.7. Director of a Field Organization (SIA) – Dr Podja**

A more active cooperation is needed among all the people involved in the animal production and health control so that a better quality food can be produced. It was mentioned that the Regional Minister for health has listened to the farmers' ideas in the control of diseases such as Brucellosis and BSE.

Dr. Podja suggested that for identification of bovines, state of the art technology such as microchips is required.

He described how producers have to slaughter their affected animals within 30 days but it sometimes takes years to receive the compensation.

Also mentioned was the need for double testing instead of single testing in Brucellosis.

### **9.8. Director of a Breeder Association – Mr Beticks**

The risk of the occurrence of BSE in Sicily was presented as most of the meat from bovine is imported.

Also stressed was the need for further collaboration between the health officers and the producers' organizations.

### **9.9. Representative of the European Commission – Dr Kirsten Sander**

Dr. Sander expressed appreciation for the good reception and interest demonstrated by the technical staff and the politicians. She then explained the purpose of the task force and its sub-groups in relation to the White Paper.

She described how the sub-group meetings were held in the problem areas to be more aware of the real problems and to make recommendations for the improvement of the eradication plans. She stressed that the present mission was not an inspection.

Also mentioned was the political will necessary to support the eradication plans with the necessary means, increasing the motivation of all the people involved and providing money and staff.

It was considered that it is impossible to carry-out a plan without the agreement of farmers and veterinarians and maybe this would be necessary to improve the success in some regions.

### **9.10 Director of IZS- Teramo : Prof. V. Carporale**

He proposed that the differentiation between real and false problems should be done regarding the eradication plans.

He appealed for the collaboration of the neighbouring regions and all the participants in the process to join efforts in combating brucellosis as an unified team.

He considered that the program for eradication was conditioned by the political power and could be improved to increase its efficacy.

He felt that there is no need for double-testing for Brucellosis.

### **9.11. Regional Minister of Health – Dr Provenzano**

Dr Provenzano assured that group that the political will was strong in eradicating brucellosis and that the recommendations of the sub-groups would be taken into account in the implementation of the eradication plans

The Minister has been personally engaged in meetings with the veterinarians and the producers' associations to achieve a consensus. He felt that if the producer wanted a double-checking of the testing, this should be discussed with the diagnostic laboratory.

### **9.12 Representatives of the Veterinary Faculty and of the Medical Faculty**

Described the risks to Human and to Animal Health.

## **DAY 3**

### **BOVINE BRUCELLOSIS SUBGROUP**

#### **10. Introduction on the Italian situation (updating of epidemiological data and differences between 2000 and 2001 programs) followed by discussion – Dr Bruno Fioretti**

As in 1999, following a trend already noticed in the data from 1997 and 1998 (Annex 5), all the regions of Northern and Central Italy, except Valle d' Aosta, showed an incidence of bovine brucellosis of less than 1%. The objective is to declare it as an Officially Free Territory.

The rate of controlled herds increased significantly from 1989 (60%) to 1999 (92.56%). However, the national herd prevalence rate of infection remained stable from 1998 (1.51%) to 1999 (1.55%).

The critical areas for brucellosis are in the Southern regions and, for each of the regions of Campania, Apulia, Basilicata, Calabria and Sicily, specific plans for the control and eradication of the disease are being made as a result of an epidemiological evaluation.

In Campania the problem posed by the buffalo stock was considered as insufficiently addressed. The number of controlled herds rose to 85% and the infection level fell below 2%. Special regional plans for buffalo stock are being done.

In Apulia, the infection is localized in clearly defined districts.

In Basilicata Region the incidence of disease has been dropping constantly from 1997 to 1999 and it is believed that in 2 to 3 years a free status can be achieved.

The Region of Calabria does not provide reliable data for epidemiological analysis. The values presented report a control activity not exceeding 50-60% of herds and an incidence of positive holdings of 6 to 7%. The Central Services have been supporting the improvement of this situation.

Sicily is the region with the highest incidence of positive herds (12.65% in 1999). This is due to inadequate control of animal movements related to transhumance as well as cross infection with sheep and goat flocks infected with *B. melitensis*.

Some of the data presented for the Sicilian Region were different from the data presented by Dr Virga (See point 11.2) as these were considered updated.

## **11. Brucellosis in Sicily (field data) followed by discussion.**

### **11.1 Presentation of data from the Province of Palermo, Sicily- Dr Gino Salvattore (Local Veterinarian)**

This field veterinarian was involved in the field visits to farms on Day 2 and was invited by the subgroup members to present their local experience regarding Brucellosis control. His activity is developed in 8 “Comune” in the region of Palermo (Annex 6).

He considers that the official field veterinarian action is important in the control of Brucellosis for the technical activity developed, including the advice given to the breeders, who had several bad experiences previously with measures implemented e.g. when vaccination was used.

Regarding the comparison of activity between 1998 and 1999 for Bovine Brucellosis, there was an increase of control of 75 farms (50%) and in sheep and goat farms the increase was 100% (87 farms).

In 1998 551 farms, involving 10.000 animals, were controlled of which 149 were OBF and 29 were outbreaks of brucellosis. In 1999 the number of controlled farms was

increased to 766, including 13.999 animals, of which 224 were OBF and 36 outbreaks were identified.

The difficult geography of the region, the presence of mixed flocks and infection of cattle with *B. melitensis*, and the lack of a good registration system, are considered the most important reasons for the low efficiency in implementing the eradication programmes.

The campaigns are supported by temporary staff employed by the Regional Government, as there is a lack of veterinary resources in the Districts.

The laboratory results are provided, on average, 8 days after the blood collection. The breeder is immediately notified about the positive animals, which should be separated from the rest of the herd and sent to slaughter within 30 days. Identification of positive animals with a cut in the ear should be avoided because it can further contaminate the premises of the herd.

The trader is paid by the producer to collect and slaughter the animals but Dr Salvattore advised that this should be done with the participation of the Mayor Office and that the period of 30 days for slaughter is not respected, sometimes exceeding 90 days. The period of time to pay compensation to the producer can be more than 1 year.

## **11.2. Presentation of data from the Region of Sicily- Dr Virga (Regional veterinary officer) (Annex 7)**

He considers that a lot of effort has been done in the last year in Italy to increase the number of herds controlled and to improve the registration system.

There is a downward trend in the number of human cases detected in Sicily.

Regarding the identification of animals in 1996, a national law devised a registry system and the data have been included in an informatics database coordinated centrally.

There has been an increase in the number of herds in the registry and some situations, including transhumant herds cases of double registration in different registries, were identified and sorted.

Regarding the compensation before 1997/98, this was managed by 2 different administrations and from that date this was done by a unique administration of the local health units.

In evaluating the evolution of the bovine brucellosis campaign in 1999 and 2000 (up to October) it was noted that the percentage of infected herds decreased from 13.6% to 10.2%. This decrease in incidence occurred even though the percentage of tested herds rose to 80% during the 10 months in 2000 (compared with 78% in 1999). This was due to an increase in the activity of the services combined with a better herd registration system which dropped 1000 in the total number of herds.

These values of 1999 for the percentage of tested herds of 48 and 49% in the Provinces of Messina and Caltanissetta were due respectively to the logistical difficulties of operating in a large mountainous area and, in Caltanissetta, to the lack of organization of the veterinary services. These values increased, in the first 3 quarters of 2000, respectively to 77% and 80%.

Delays are observed in the slaughter of positive animals in most of the Provinces. Part of this is explained by administrative errors in the data and also to the bureaucracy of the compensation system.

The compensation regime since 1998, in Sicily, consists of a double system that includes the compensation paid by the National Government (50% of which is subsidised by the EU) and the compensation of the Regional Government. The complaints of the producers refer to the regional part as the national compensation is paid within 90 days, otherwise the producer can even ask for interest. Some opinions were that this could be a system of overcompensation that could be negative for the disease eradication. It was considered that the veterinarians are against any reduction of the compensation, as the producers would refuse to collaborate. This leads to some cases where it was necessary for veterinary activity to be backed –up by the police forces.

The data presented suggests big delays in the slaughter of positive animals (e.g in 1999 in Trapani only 34% of the positive animals were slaughtered during the current year). This was considered wrong as the sanitary slaughter in most of the situations occurs within 30 days, as the regional compensation is not paid if this period of time is extended. The butchers that collect the animals usually have a large share of the profit as to fulfil this period the producer accepts a lower price. The local veterinary services

demanded a strategic involvement of the Ministry of Agriculture to overcome this problem.

During the period 1988 to 1997 the Sicilian Region paid more than 140 billion ITL in compensation for animal diseases.

The updated data is not promptly available in the end of each year as there is an overlapping of the data from the previous year. It was considered that it is necessary to urgently to make a critical evaluation of the information system and the epidemiological analysis of data.

### **12. Brucellosis in Sicily ( Laboratory data) followed by discussion**

The RBT is used for screening and confirmation of results is done by the CFT.

The regional laboratories send the sera that are positive to the IZS in Palermo for confirmation.

If there are RBT positive animals, CFT is done on all animals in the herd.

### **13. Brucellosis in Emilia-Romagna (Field data) followed by discussion (Annex 8) – Drs Ivano Massiro and Marco Tamba**

This region is going to apply for the OBF status as the annual incidence has been reduced to 0.02% in the last 2 years.

A very large percentage of bovine herds have been controlled every year since 1994. The confirmed positive cases in the last 2 years were only 5 herds out of 12.500 sampled and, of 46.200 bovines tested, only 1 was positive in each herd.

All bovines older than 12 months in the breeding herds are controlled by RBT .

If RBT and CFT are positive the animals cannot be moved and an epidemiological investigation is performed by the Local Health Units to evaluate the risk factors and to inform the sanitary actions.

The regional laboratory adopted this method 3 years ago because it was verified that the tests used were not sufficiently specific for the low level of disease and false positive cases were being systematically slaughtered.

The use of the testing RBT is useful for the screening of infected/ non-infected herds. The use of CFT for all the positive animals is considered to have insufficient specificity as false positive animals can be slaughtered.

A non-specific reaction to CFT was observed in 50% of the OBF herds. 16 –18% of the animals became negative in one month. Negative bacteriology confirmed the false positive result. This leads to mistrust by producers in the testing system.

The Brucellin skin test was considered very useful in those situations but Italian law does not allow slaughter of animals based on this test, although it is official in the EU.

From July 2000 an inter-laboratory test was carried out in Italy for the validation of the diagnostic tests used in the Brucellosis control Programme.

The Milk Ring Test and ELISA for milk are being considered in the plans of the institute for implementation.

Only new herds were positive in the last 2 years and *B. melitensis* was isolated from 2 bovine. Although around 100 abortions are reported to the Epidemiological Center every year, in only 1 case isolation was achieved. In any case where *Brucella* is isolated the whole herd is slaughtered.

This Region of Emiglia Romana has been a pilot for studies of the new strategies in the control of the disease.

## **RECOMMENDATIONS OF THE BRUCELLOSIS SUBGROUPS –**

### **With a special emphasis to Sicily as an example of a problem region.**

#### **GENERAL RECOMMENDATIONS**

1. A technically sound programme for eradication of Sheep and Goat and Bovine Brucellosis must be laid down and agreed by all the institutions and people involved. It should include specific information on overall objectives, targets, procedures, etc. All organizations and people involved in the eradication campaign (veterinarians, farmers, etc.) should formally agree the policy, be educated in implementation of the measures and should apply these with serious efficacy and efficiency.
2. A greater effort is needed for the collection, evaluation and presentation of epidemiological data and should include parameters for the control of the efficiency and efficacy of the eradication program.
3. Based on the data presented there is clearly an urgent need to control sheep and goat and bovine brucellosis in Sicily. A system should be established as rapidly as possible to ensure that all sheep and goat flocks, and all bovine animals, are officially registered and are under official veterinary control.
4. The implementation of a test and slaughter policy would include in particular:
  - 4.1 Consideration of each recommendation and conclusion made by the group in earlier meetings made by the Food and Veterinary Office in inspection missions to Italy.
  - 4.2 Test results should be rapidly communicated by the laboratory to the official veterinarians who should quickly notify the farmer.
  - 4.3 Infected animals should be removed from the holding within a maximum period of 30 days.
  - 4.4 Compensation should reflect the true market value of the animal, without over-compensation. It should be paid promptly.
  - 4.5 In an infected herd all animals positive to RBT or CFT tests should be slaughtered.
  - 4.6 Whole herd slaughter should be compulsory in herds with active infection.
5. Double checking of the positive serological results should not be done. The laboratory ring-trial already initiated should be pursued and re-enforced.

## **RECOMMENDATIONS FOR SHEEP AND GOAT**

6. The group recommended in previous meetings that vaccination should be used as a tool to control and eradicate the disease where the prevalence is high. Regarding the present situation reported in Sicily, the group recommends a combination of vaccination of young replacement animals and an intensive test-and-slaughter policy as the general eradication strategy. The group considers that it is not possible to control disease in Sicily at present, without the effective use of vaccination.
7. Vaccination should cover all flocks and all replacement animals. It should continue for at least twice the average lifetime of a breeding sheep. An exception can be made for flocks where a risk analysis has demonstrated negligible risk.
8. In Sicily it is necessary to support the vaccination with a good information campaign to the producers.
9. The test and slaughter policy, which is recommended in combination with the vaccination of young sheep and goats, must be effectively applied (See also point 4).
10. Officially brucellosis free herds in infected provinces (areas) should be controlled to 100%, instead of 25%.

## **RECOMMENDATIONS FOR BOVINE**

11. Milk testing, in combination with serological testing, could be used for the surveillance of dairy cattle.
12. In the regions reaching officially brucellosis free status, Brucellin testing should be envisaged to differentiate false positive serological reactions.