

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(81) 611 final

Brussels, 22 October 1981

Proposal for a

COUNCIL DIRECTIVE

amending Directive 77/391/EEC and introducing a supplementary
Community measure for the eradication of brucellosis, tuberculosis
and leukosis in cattle

Commission report to the Council on the application of plans to
accelerate and intensify the eradication of brucellosis and
tuberculosis and the eradication of leukosis in cattle

COM(81) 611 final.

EXPLANATORY MEMORANDUM

Council Directive 77/391/EEC introduced a Community scheme for the eradication of bovine brucellosis and leukosis, the cost of which to the Community was put at 130 million ECU for a three-year period ending in 1981⁽¹⁾.

The results achieved by the Member States and control visits carried out by Commission staff in the field show that the operations planned have in general been carried out satisfactorily and have sharply reduced the incidence of the disease, which is a very important matter for health levels of livestock and for trade, but is even more important as regards human health.

However, the deadline set in the Directive is too short, in technical terms, because the rate at which tests for detection of infected animals can be carried out cannot be speeded up. A two-year extension for completion of eradication work is all the more necessary since an interruption, however short, could well jeopardize the results already achieved.

The two-year extension will involve no change in the original overall cost estimate, since expenditure chargeable to the Community was estimated at 95 million ECU for the first three years and a contribution of about 35 million ECU for the two additional years can be expected.

The present three-year scheme is financed from EAGGF guidance funds. Taking account of the exhaustion of the five-year allocation (1980 - 1984), it is proposed :

⁽¹⁾ In 1982 for Italy and Greece.

- (a) that the present scheme be extended until 31 December 1981; for Member States whose three-year plans will be completed in 1981 -
The additional expenditure, estimated at 4 million ECU, will be financed by the EAGGF Guidance Section in 1982 by drawing on savings accruing from the delay in the implementation of certain measures planned for the eradication of swine fever;
- (b) that a new scheme should be established, to be financed differently, namely from "expenditure in the agricultural sector" for an amount of 34.6 million ECU, the first tranche of which would be proposed in the 1983 Budget; the duration of this scheme has been calculated so that each Member State will have executed an overall scheme of five years⁽²⁾.

(2) In view of the effects of the Act of Accession, the total period will be four years for Greece.

Proposal
for a
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amending Directive 77/391/EEC and introducing a supplementary Community measure for the eradication of brucellosis, tuberculosis and leukosis in cattle.

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 43,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas Council Directive 77/391/EEC of 17 May 1977 introducing Community measures for the eradication of brucellosis, tuberculosis and leukosis in cattle,⁽¹⁾ as last amended by Directive 81/476/EEC⁽²⁾, restricted the duration of the measures to three years;

Whereas in view of the results obtained and of the satisfactory progress of the programmes presented by the Member States, a supplementary two-year measure should be arranged and its financing provided for, in order to achieve the objectives set;

Whereas Article 29(3) of 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 leukosis in cattle⁽³⁾ provided that the three-year period originally agreed should begin on the dates fixed by the Commission in its decisions approving the national eradication plans, and whereas, accordingly, the original plans of the Member States except those for Italy and Greece, expire, for each Member State, on differing dates in 1981; whereas, in order to leave time for technical and financial adaptation in connexion with the new measure, the duration of the original plans coming to completion in 1981 should be extended until 31 December 1981 inclusive;

(1) O.J. No L 145, 13.6.1977, p. 44

(2) O.J. No L 186, 8.7.1981, p. 20

(3) O.J. No L 15, 19.1.1978, p. 34.

Whereas, in order to enable any alterations to the original plans necessitated by the epizootiological development of the diseases concerned to be made with a view to successful completion of the measures undertaken, the Member States must prepare new plans; whereas the duration of execution of the new plans must be calculated so that in each case the entire scheme, that is the original plan and the new plan, covers a total period of five years, except for Greece, where the total period will be four years under the Act of Accession;

HAS ADOPTED THIS DIRECTIVE :

Article 1

The following paragraph 3 is hereby added to Article 6 of Directive 77/391/EEC :

"3. However, for the Member States whose three-year plans expire in the course of 1981, the three-year period shall be extended until 31 December 1981."

Article 2

1. A Community measure is hereby established with a view to completing the eradication of brucellosis, tuberculosis and leukosis in cattle.
2. The duration of the supplementary measure shall be fixed so that the total duration of the measure introduced by Directive 77/391/EEC together with the supplementary measure shall be five years, except in respect of Greece, for which the total duration shall be four years.
3. The Community shall make a financial contribution to the implementation of the supplementary measure.

Article 3

1. The Member States shall prepare new accelerated eradication plans in accordance with the provisions of Articles 2, 3 and 4 of Directive 77/391/EEC and with the criteria established by Directive 78/52/EEC, ensuring continuity with the measures put in hand under their original plans but at the same time taking account of results achieved and making any necessary adjustments.

2. The new plans shall be communicated to the Commission before 1 January 1981 in the case of Belgium, Denmark, Germany, France, Ireland and the United Kingdom, and before 1 January 1983 in the case of Italy and Greece.

Article 4

1. The Commission shall examine the new plans communicated to it in accordance with Article 3(2) for the purpose of determining whether, on the basis of the conformity of those plans with Directive 77/391/EEC, Directive 78/52/EEC and this Directive, and having due regard to the objectives of those Directives, the conditions for financial participation by the Community are met.
2. Within two months of receipt of the plans, the Commission shall submit draft decisions to the standing Veterinary Committee. The Committee shall deliver its opinions in accordance with the procedure set out in Article 8.
3. On the dates fixed by the Commission in its decisions of approval, the Member States shall bring into force the laws, regulations or administrative provisions required to implement the new accelerated eradication plans referred to in Article 3 and approved in accordance with paragraph 2.

Article 5

1. Expenditure incurred by the Member States in connexion with measures adopted pursuant to the plans referred to in Article 3 shall qualify for Community aid within the limits indicated in paragraph 3 and in Article 2.
2. The Community shall pay the Member States 72.5 ECU for each cow slaughtered and 36.25 ECU for each other bovine animal slaughtered pursuant to the measures referred to in Chapter I of Directive 77/391/EEC.
3. The aid chargeable to the Community budget under the Chapter on expenditure in the agricultural sector is estimated at 35 million ECU for the duration of the measures referred to in paragraph 1.
4. The measures adopted by the Member States shall qualify for financial assistance from the Community only if the provisions concerning them have been approved as provided in Article 4.

Article 6

1. The provisions of Article 7(1) of Regulation (EEC) 729/70⁽¹⁾ relating to the financing of the common agricultural policy shall apply to Commission decisions concerning the Community financing of the present measure.
2. Applications for payment shall relate to slaughterings carried out by Member States in the course of the year and shall be submitted before 1 July of the following year.
3. Detailed rules for the implementation of this Article shall be adopted in accordance with the procedure set out in Article 13 of Regulation (EEC) No 729/70.

Article 7

1. Veterinary control of the application of the plans shall be carried out in accordance with Article 10 of Directive 77/391/EEC.
2. When all the eradication plans have been executed, the Commission shall submit a general report to the Council on the results obtained, with a proposal for further harmonization of national prophylactic measures, should this be necessary.

Article 8

1. Where reference is made to the procedure defined in this Article, the Standing Veterinary Committee, hereinafter called the "Committee", shall be consulted without delay by its chairman, either on his own initiative or at the request of a Member State.
2. Within the Committee, the votes of the Member States shall be weighted as provided for in Article 148(2) of the Treaty. The chairman shall not vote.
3. The Commission representative shall submit a draft of the measures to be adopted. The Committee shall deliver its opinion on such measures within a time-limit which the Chairman may set, having regard to the urgency of the questions under examination. An opinion shall not be delivered unless it receives a minimum of 45 votes in its favour.

(1) OJ No L 94, 28.4.1970, p. 13

4. The Commission shall adopt the measures and shall apply them immediately, where they are in accordance with the opinion of the Committee. Where they are not in accordance with the opinion of the Committee, or if no opinion is delivered, the Commission shall without delay submit a proposal to the Council on the measures to be adopted. The Council shall adopt the measures by a qualified majority.

If the Council has not adopted any measures within three months of the date on which the proposal was referred to it, the Commission shall adopt the proposed measures and apply them immediately, save where the Council has decided against these measures by a simple majority.

Article 9

This Directive is addressed to the Member States.

Done at Brussels,

For the Council

FINANCIAL STATEMENT

Date : 15.7.1981

1. BUDGET HEADING : 8313 (1981 nomenclature)

APPROPRIATIONS :

2. TITLE : Draft Council Directive amending Directive 77/391/EEC, and introducing a supplementary Community measure for the eradication of brucellosis, tuberculosis and leucosis in cattle.

3. LEGAL BASIS : Article 43 of the Treaty.

4. AIMS OF PROJECT :
To achieve a satisfactory conclusion of the accelerated programmes, with the financial assistance of the Community, for the eradication of brucellosis, tuberculosis and leucosis in cattle.

5. FINANCIAL IMPLICATIONS	PERIOD OF 12 MONTHS	CURRENT FINANCIAL YEAR (81)	FOLLOWING FINANCIAL YEAR (82)
5.0 EXPENDITURE			
- CHARGED TO THE EC BUDGET XX		-	4 million ECU
XXXXXXXXXX XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
XXXXXXXXXX			
5.0.1 ESTIMATED EXPENDITURE	1983	1984	
5.0.1 ESTIMATED RECEIPTS			
	-	-	

5.2 METHOD OF CALCULATION : For the period until 31.12.1981

Cows : 61 500 x 80% x 72.5 = 3.6 million ECU

Others : 61 500 x 20% x 36.25 = 0.4 million ECU

TOTAL 4.0 million ECU

XXXXXXXXXX NUMBER FROM APPROPRIATIONS ENTERED IN THE RELEVANT CHAPTER OF THE CURRENT BUDGET ? XXXXX

XXXXXXXXXX NUMBER FROM APPROPRIATIONS ENTERED IN THE RELEVANT CHAPTER OF THE CURRENT BUDGET ? XXXXX

XX XXXXX

6.3 WILL FUTURE BUDGET APPROPRIATIONS BE NECESSARY ? YES/NO

OBSERVATIONS :
The slaughter premiums for 1981 will be paid by the EAGGF during 1982.
The additional expenditure can be financed from savings resulting from the delay in certain measures for the eradication of swine fever (Item 4315 in the 1982 budget).

COMMISSION
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EUROPEAN COMMUNITIES

Commission report to the Council on the application of plans
to accelerate and intensify the eradication of brucellosis and tuberculosis
and the eradication of leukosis in cattle

CONTENTS

		Page
Introduction		2
Chapter 1	Historical	3
Chapter 2	Financial	4
Chapter 3	General disease situation in EEC	6
Chapter 4	Veterinary on-the-spot inspections	10
Chapter 5	Brucellosis	13
	United Kingdom	13
	France	15
	Ireland	18
	Belgium	22
	Italy	25
Chapter 6	Tuberculosis	28
	France	28
	Ireland	32
	Italy	36
Chapter 7	Enzootic bovine leukosis	39
	Denmark	39
	Federal Republic of Germany	47
Chapter 8	Conclusions	49
Chapter 9	Recommendations	50

17

Introduction

By 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 leukosis in cattle (1), and in particular Article 29 thereof Member States were required to submit to the Commission plans for approval not later than 31 December 1978. Plans would run for a three year consecutive period and Community financial aid would cease on 1 January 1982. The Republic of Italy by subsequent Council Directive of 24 January 1979 (79/110/EEC (2) was allowed to postpone for 1 year the submission of its plans and was also allowed to benefit from Community financial aid for these plans up to 1 January 1983. The Republic of Greece by Council Directive of 1 January 1981 (81/6/EEC) (3) was also allowed to submit its plans before 31 March 1981 and was allowed to benefit from Community financial aid for these plans up to 1 January 1983.

Article 28 of Council Directive 78/52/EEC further requires that a report be made to the Council before the expiry of the three year period on the application of the plans in the various Member States. The information in this report has been gathered from a combination of statistical returns that have been sent to the Commission and resulting from veterinary on-the-spot inspections which have been made by Commission personnel to all Member States receiving Community financial aid for the implementation of their plans. The veterinary on-the-spot inspections have not been made to Greece at the time of drafting this report because Greece did not commence their plans until 1 April 1981.

(1) OJ No L 15, 19.1.1978, p. 41
(2) OJ No L 29, 3.2.1979, p. 24
(3) OJ No L 14, 16.1.1981, p. 22

CHAPTER 1

Historical

The introduction of the Community financed schemes for the accelerated eradication of brucellosis and tuberculosis and for the eradication of enzootic bovine leukosis had three purposes:

1. The reduction in the number of cows in the Community thereby helping to reduce the amount of milk.
2. Reduction in the amount of disease in the Community thus reducing non tariff trade barriers and allowing trade to flow more easily.
3. An accelerated brucellosis programme would have considerable advantages in cost effectiveness. The study carried out by Ellis and his associates (an economic appraisal of a Community policy for the eradication of brucellosis in the EEC; with notes on Tuberculosis and Leukosis. Document No 2772/VI/76 rev 2) demonstrated that under an accelerated regime the economic costs to the Member States could be reduced from UA 445 million (present policy) to UA 372 million (accelerated policy). It was further demonstrated that under an accelerated regime 1 1/2 million cows would be slaughtered in a 3 to 4 year period.

CHAPTER 2

Financial

The total contribution by the European Agricultural Guidance and Guarantee Fund to the cost of the common measures was estimated at 130 million units of account. It was agreed that the Guidance Section of the fund would pay to Member States 60 units of account per cow and 30 units of account per bovine animal other than cows that were slaughtered under the schemes.

Table 1 shows the amount of money both in National currency and ECU's (rate of exchange on 28.12.1979) that has been paid out to the Member States or are in the pipeline as of May 1981.

Brussels 30.4.1981

Expenses concerning Directive 77/391/EEC

TABLE I

M/S	Reimbursements 1978	Reimbursements 1979	Requests for Reim- bursements 1980	Total	ECU's	pct. of total (130 million EUA's)
DANMARK	145.460,19 DKR	330.497,88 DKR	716.248,00 DKR	1.192.206,07 DKR	154.402	0,1 pct.
FRANCE	20.552.487,69 FF	106.225.975,71 FF	91.391.561,10 FF	218.170.024,50 FF	37.585.582	28,9 pct.
GERMANY	2.906.392,00 DM	11.348.706,53 DM	(1) -	14.255.098,53 DM	5.732.375	4,4 pct.
ITALY	-	-	(1) -	-	-	-
BELGIUM	1.314.647,00 BFR	143.625.152,00 BFR	(1) -	144.939.799,00 BFR	3.591.459	2,8 pct.
IRELAND	1.012.508,76 IR£	2.613.250,24 IR£	(1) -	3.625.759,00 IR£	5.397.707	4,2 pct.
U.K.	529.857,00 UK£	943.010,00 UK£	(1) -	1.472.867,00 UK£	2.278.928	1,8 pct.

(1) Request for payment not yet received.

CHAPTER 3

General

The broad position vis a vis the three diseases within the Community is given in table 2.

TABLE 2

TUBERCULOSIS, BRUCELLOSIS AND ENZOOTIC BOVINE LEUKOSIS (POSITION IN THE EEC)

Member State	Tuberculosis	Brucellosis	E.B.L.
DENMARK	Eradicated	Eradicated	38 infected herds (31.7.80)
HOLLAND	Eradicated (30 cases a year)	Eradicated (a low number of cases a year)	About 30 known infected herds
LUXEMBOURG	Eradicated	Eradicated	No recorded cases
GERMANY	Eradicated (about 20 cases a year)	Eradicated (about 30 cases a year)	45,3 pct. of herds are EBL free
FRANCE	Very little 99 pct. of herds are free	90 pct. of herds are free	Rising incidence
BELGIUM	Practically eradicated	98 pct. of herds are free	About 20 known infected herds (1.1.80)
U.K.	Practically eradicated	95 pct. of herds free (1.1.80)	About 250 infected herds (1.7.80)
ITALY	96 pct. of herds are free	About 50 pct. of herds are free	Rising incidence
IRELAND	90 pct. of herds are free	About 80 pct. of herds are free	13 infected herds (31.7.80)
GREECE	66 pct. of herds are free	60 pct. of herds are free	No information

Table 3 gives the position prior to the commencement of the Community programme and the position now vis a vis the percentage of the herds under control then and now and likewise for the percentage of the infected herds.

TABLE 3

BRUCELLOSIS

M/S	pct. of herds under control		pct. infected herds	
	Before	Now	Before	Now
U.K.	88 pct.	100 pct.	14 pct.	1.5 pct.
IRELAND	44 pct.	100 pct.	35 pct.	5 pct.
FRANCE	100 pct.	100 pct.	20 pct.	4 pct.
BELGIUM	97 pct.	100 pct.	2.4 pct.	0.6 pct.
ITALY	46 pct.	55 pct.	6 pct.	5 pct.
GREECE	60.5 pct.	60.5 pct.	2 pct. in controlled herds	2 pct. in controlled herds

TUBERCULOSIS

M/S	pct. of herds under control		pct. infected herds	
	Before	Now	Before	Now
IRELAND	100 pct.	100 pct.	9 pct.	9 pct.
FRANCE	99 pct.	99 pct.	less than 1 pct.	less than 1 pct.
ITALY	91.6 pct.	98 pct.	1.6 pct. in controlled herds	1.34 pct. in controlled herds
GREECE	66.2 pct.	66.2 pct.	2.4 pct. in controlled herds	2.4 pct. in controlled herds

E.B.L.

M/S	pct. of herds under control		pct. infected herds	
	Before	Now	Before	Now
DENMARK	100 pct.	100 pct.	0.062 pct.	0.022 pct.
GERMANY	40 pct. ⁺	55 pct.	6 pct.	1.4 pct.

+ Note - this percentage refers to total herds in Germany; fattening herds are not subject to control.

The following table (Table 4) gives the total number of animals, which is also broken down into cows and others which were slaughtered in the Member States during 1980, 1979 and that portion of 1978 in which the schemes applied; the particular disease for which they were slaughtered is also indicated.

TABLE 4

M/S	Period	Disease	Cows	Others	Total
BELGIUM	12/12/78-31/12/78	Brucellosis	166	16	182
	1/1/79-31/12/79	"	19,540	9,427	28,967
	1/1/80-31/12/80	"	17,211	9,609	26,820
DENMARK	15/6/78-31/12/78	Leucosis	141	284	425
	1/1/79-31/12/79	"	349	588	937
	1/1/80-31/12/80	"	751	1,055	1,806
FRANCE	7/7/78-31/12/78	Brucellosis	45,245	5,010	50,255
	1/1/79-31/12/79	"	239,907	19,466	259,373
	1/1/80-31/12/80	"	190,766	17,673	208,439
	1/7/78-31/12/78	Tuberculosis	10,499	2,018	12,517
	1/1/79-31/12/79	"	31,107	7,307	38,414
	1/1/80-31/12/80	"	23,976	5,464	29,440
GERMANY	1/6/78-31/12/78	Leucosis	12,638	3,113	15,751
	1/1/79-31/12/79	"	50,822	9,540	60,362
IRELAND	18/9/78-31/12/78	Brucellosis	12,198	3,351	15,549
	1/1/79-31/12/79	"	32,633	7,000	39,633
	1/1/80-31/12/80	"	41,015	14,430	55,445
	18/9/78-31/12/78	Tuberculosis	6,628	4,650	11,278
	1/1/79-31/12/79	"	12,987	12,395	25,382
	1/1/80-31/12/80	"	14,996	11,585	26,581
U.K.	15/5/78-31/12/78	Brucellosis	10,448	3,106	13,554
	1/1/79-31/12/79	"	7,932	2,246	10,178
	1/1/80-31/12/80	"	14,271	4,531	18,802
ITALY	1/1/80-31/12/80	Brucellosis	4,504	645	5,148
	1/1/80-31/12/80	Tuberculosis	26,871	9,210	36,081

Table 5, 6 and 7 gives the total number of animals slaughtered for each of the diseases during 1978, 1979 and 1980 and this is further broken down into cows and others; a sub-total is given for each disease.

TABLE 5 (Brucellosis)

Year	Cows	Others	Total
1978	68,057	11,483	79,540
1979	300,012	38,139	338,151
1980	267,766	46,888	314,654
Sub-total	635,835	96,510	732,345

TABLE 6 (Tuberculosis)

Year	Cows	Others	Total
1978	17,127	6,668	23,795
1979	44,094	19,702	63,796
1980	65,843	26,259	92,102
Sub-total	127,064	52,629	179,693

TABLE 7 (Enzootic bovine leukosis)

Year	Cows	Others	Total
1978	12,779	3,397	16,176
1979	51,171	10,128	61,299
1980 ⁺	751	1,055	1,806
Sub-total	64,701	14,580	79,281

Table 8 gives the grand total of animals slaughtered for the three diseases during 1978, 1979, and 1980.

TABLE 8

	Cows	Others	Total
1978, '79 + '80	827,600	163,719	991,319

+ Figures for Federal Republic of Germany not included for 1980.

CHAPTER 4

Veterinary on-the-spot inspections

Commission personnel visited all Member States where Community aided schemes were functioning with the exception of Greece. Greece was not visited because their programmes only commenced on 1 April 1981; it is intended to visit Greece before the end of 1981.

During the course of these inspections discussions were held in all cases with central and local veterinary authorities; further visits were arranged to laboratories, abattoirs, markets and infected herds. Veterinarians were visited whilst carrying out tuberculin tests and taking blood, and infected premises were visited during the course of disinfection or shortly thereafter. The Member States' laws and regulations governing control of the diseases were of course examined as were the organisation and implementation of the eradication measures as to their conformity with the technical requirements of the Directives. Enquiries were made into the detailed administrative procedures in force for carrying out the technical requirements. Copies of all forms, notifications and certificates were requested and obtained from all Member States. In the case of brucellosis and tuberculosis an analysis was made as to whether acceleration had really taken place and in the case of leukosis enquiries were made as to the progress of eradication.

It is truly remarkable to state that in all the Member States visited the legal, administrative and veterinary approach to the control and eradication of brucellosis, tuberculosis and enzootic bovine leukosis in the case of Denmark and the Federal Republic of Germany were practically similar and any differences that exist are only of emphasis and not of principle. It was found that concerning:

- (a) Notification all diseases were legally compulsorily notifiable.
- (b) Identification - all animals were capable of being individually identified; however, the methods for achieving this varied somewhat, for instance, plastic tags with individual and herd number (France) - steel tags (Ireland), tags and silhouettes (Belgium), ear notching and tags (Denmark).

- (c) Registration - in all cases the local or central authority had a register whereby each farmer was registered separately along with the individually identified animals that he owned - this system for instance is computerised in France whilst in Italy each farmer's dossier is manually filed in the local or regional veterinary headquarters. This official record will give the disease status of the herd at any particular time.

- (d) Testing - all herds within the Member State (UK and Ireland for instance) or within certain regions of the Member State (Italy for instance) are listed out to be tested at certain intervals; France for instance tuberculin tests about 60% of its bovine population every year whereas Ireland tests 100 %. If reactor animals are discovered then after removal of the reactors within 30 days after disinfection that herd undergoes retesting at regular intervals until such time as all the reactors have been removed. Reactor animals are individually marked in all cases.

- (e) Movement control - all movement of bovine animals is controlled. No movement may occur out of reactor herds except of course for immediate slaughter under veterinary control. All other movement is carried out according to the technical specifications of the relevant Directives. However Italy, for instance, forbids movement of bovine animals except between herds of the same status and these animals are also subject to test within 30 days of movement. Also, for instance, all eligible animals in France and Ireland are tested for tuberculosis and brucellosis within 30 days of movement and France additionally requires that the same animals pass a test when they have arrived on the farm of destination.

- (f) Disinfection of sheds and equipment is carried out under official supervision and following veterinary advice after removal of the reactors and prior to restocking. Furthermore facilities are provided for the cleaning and disinfection of means of transportation and equipment used in the transport of animals from infected herds. The disinfectant and its concentration are officially authorized by the competent authority of the Member State. Milk coming from infected cows can only be fed to other animals provided that it is heat treated and milk coming from infected herds must also undergo heat treatment.

- 27
- (g) Slaughter within 30 days except for certain regions in Italy where the 30 day slaughter period for tuberculin reactors is extended up to 3 months under certain conditions and in EBL infected herds where it is intended to slaughter the whole herd, slaughter of reactor animals occurs in all cases within the 30 day period. The system for ensuring the application of this requirement is the same in all Member States: the local veterinary authorities formally notify the herd owner that (a) he has a reactor and (b) he must have it slaughtered within 30 days. The herd owner proceeds to have the animal slaughtered and the veterinarian in charge of the abattoir formally notifies the relevant local veterinary officer that the animal has been slaughtered and the date on which slaughter took place. This is then correlated and crosschecked at the local veterinary office.
- (h) Compensation - the herd owner receives compensation in all cases. However, there is a wide variation in the level. The herd owner will receive in Ireland for instance £130 for a non-pedigree cow or in calf heifer whereas in the UK he will receive full market value - the animal being valued on the basis that it is not suffering from the disease. In Italy there is also the additional problem of delay ie the herd owner must wait in many instances for a very long period of time before he receives the actual compensation.

CHAPTER 5

Brucellosis

United Kingdom

Date of commencement of Community financially aided accelerated scheme - 15.5.1978.

The basis of the United Kingdom's plan for the accelerated eradication of brucellosis was the institution of compulsory measures for eradication (test, slaughter and compensation) on the remaining herds at an earlier date than was envisaged. This has occurred, as from November 1979 all herds in the United Kingdom are under compulsory measures (see table 9).

Table 9

: Year :	Herds under official control :	% :
: 1980 :	201 869 :	100% :
: 1979 :	191 213 :	100% :
: 1978 :	167 197 :	89% :
: 1977 :	170 705 :	88% :
: 1976 :	158 640 :	80% :
: 1975 :	145 614 :	72% :
: 1974 :	136 074 :	67% :

There has been a dramatic drop in the level of infection as can be seen from the following three parameters:

- (a) Reactors slaughtered (table 10)
- (b) Number of brucella abortions (table 11)
- (c) Number of reported human cases (table 12)

Table 10

: Year :	Reactors Slaughtered :	: Reactors Slaughtered :
: '78 (7 1/2 months) :	13,554 :	: 77 : 34,570 :
: '79 :	27,693 :	: as compared to : 75 : 54,576 :
: '80 :	18,802 :	: 74 : 58,831 :

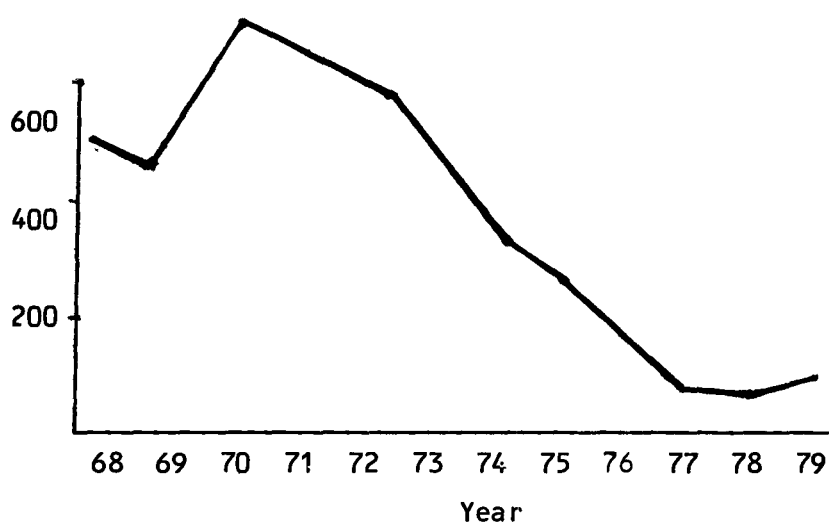
24

Table 11

Year	Number of animals positive for B. abortus
1978 (7 1/2 months)	471
1979	592
1980	343

Table 12

Human cases of brucellosis in England, Wales and Scotland 1968-1979



Further indication of the degree of progress may be had from an analysis of the number of herds that have achieved an increasingly higher status as the programme progressed (see Table 13).

Table 13

Type B1	Type B2	Type B3	Type B4	Year
None	1 709	200,038	113	1980
None	8 017	183,137	59	1979
6595	12,218	170,290	47	1978

Testing procedures

Vaccination has been banned since 1979. Before a herd is declared "free" all female animals over 12 months of age and bulls over 6 months must

have passed three consecutive blood tests at 4 month intervals - the test is the Buffered brucella antigen test - samples which fail this test are subjected to a serum agglutination test and complement fixation test. If an animal reacts in a free herd the herd is blood tested at intervals of 2 months until a clear test is obtained: if the herd passes another blood test after a further period of 4 months then it regains its status. The free herds maintain their status by annual blood tests, however, in dairy herds, cows and heifers in milk are exempted from the annual blood test provided the monthly ring tests on bulk milk samples remain negative. In Northern Ireland the system is somewhat different, vaccination for instance has been forbidden since 1972 and brucella free herds were established and maintained by use of SAT's plus MRT's (milk ring tests).

Conclusion

The eradication of brucellosis in the United Kingdom is proceeding with success. It should be noted that the preceding analysis applies to the whole territory; however, certain regions within the UK such as Scotland and Northern Ireland have already achieved a very low level of infection.

The low number of officially brucellosis free herds as defined by 64/432/EEC can be explained due to the fact that for the majority of herds to achieve this status would require a serum agglutination test to be carried out on all the eligible animals within these herds. However, due to a relative lack of laboratory capacity to carry out these tests in a short time, certain internal trading difficulties would ensue in the interim period within the UK.

France

Date of commencement of Community financially aided accelerated scheme - 1.7.1978

The basis of the French plan for the accelerated eradication of brucellosis is:

- (a) maximum time allowed to remove reactor or infected animals was reduced to 30 days

- (b) raising of compensation level to 1100 FF (may go higher for heifer replacements)
- (c) restriction of vaccination.

Prior to the implementation of the accelerated plan the French approach to eradication was based on compulsory notification of all abortions followed by a veterinary investigation and slaughter of the clinically positive animals within 30 days plus obligatory serology on the remaining eligible animals in the herd. However, reactors could remain in the herd for a variable period - during this period raw milk could not be sold and movement in and out was restricted except for immediate slaughter under license; vaccination was also compulsory within the herd. At the same time the rest of the herds were subjected to testing (mostly ring testing with a limited amount of serology); in the event of reactors being found compulsory vaccination was required plus isolation of the reactor animals on the farm until such time as they were disposed of; movement restrictions were applied to the farm.

The imposition of the accelerated scheme had the net effect of dramatically reducing the weight of infection because all existing and future reactors had to be slaughtered within 30 days. This was aided by a decrease in the resistance on the part of the herd owner to the imposition of such a regime by the increased level of compensation. The use of vaccine diminished and the frequency of testing increased thus allowing an ever increasing number of status herds to be established as is demonstrated in Table 14:

Table 14

: Year :	Type B2 :	Type B3 :	Type B4 :
: 1980 :	249 875 :	374 652 :	119 695 :
: 1979 :	308 156 :	346 015 :	117 781 :
: 1976 :	457 944 :	274 524 :	115 526 :
: 1974 :	507 114 :	162 703 :	96 280 :

As would be expected the advent of the accelerated scheme had the effect of increasing the number of animals that were slaughtered (see table 15).

Table 15

: Year :	Number of animals slaughtered :
: 1980 :	208 439 :
: 1979 :	259 373* :
: 1975 :	173 395 :
: 1974 :	123 683 :

*It is interesting to note that in fact in 1979, 282 699 animals were actually slaughtered for brucellosis but on investigation by the French authorities it was found that in some cases all the requirements of the Council Directives on acceleration had not been adhered to by the herd owner and this accounts for the reduced number of animals claimed for.

Further evidence demonstrating a dramatic drop in the rate of infection can be adduced from a perusal of Table 16 which shows the drop in the number of brucella induced abortions during the accelerated programme as compared to the old scheme.

Table 16

: Year :	Number of abortions due to B. abortus :
: 1980 :	8 825 :
: 1979 :	13 046 :
: 1976 :	39 634 :
: 1974 :	49 188 :

The use of vaccine is decreasing, in 1978 the uptake was 72,827 doses and in 1979, 67,090 doses were used throughout France. However, the strategy

of vaccine use varies from Department to Department, for instance in Manche vaccination of all calves is compulsory whilst in neighbouring Brittany use of vaccine is forbidden.

Testing procedures

The status of dairy herds is maintained by milk ring tests, the frequency of tests varies from a minimum of two per year up to a maximum of one per month. Beef herds are subjected to serology for maintenance, serology is also used in herds where there has been a positive ring test, and in herds with clinical abortion due to B. abortus and in adjoining herds. All eligible animals are subjected to a blood test prior to movement and in many cases they are also retested on the farm of destination. All blood samples are subjected to a manual buffered brucella antigen test and positive samples are further subjected to a serum agglutination test and a complement fixation test.

Conclusion

The eradication of brucellosis in France is proceeding with success. In the future certain administrative difficulties could arise in creating and maintaining large numbers of Directive qualified herds due to limited laboratory capacity for carrying out the serum agglutination test.

Ireland

Date of commencement of Community financially aided accelerated scheme - 18.9.1978

The basis of the Irish plan for the accelerated eradication of brucellosis is:

- (a) to increase the area where compulsory herd measures (test, slaughter and compensation) are applicable requiring of course increased national financial intervention;
- (b) a premovement test of all eligible animals;

(c) increased levels of compensation for reactors plus an extension of the testing facilities to allow for the increased number of samples.

In 1977, 55.9% of the herds were under compulsory measures, it was envisaged in the accelerated plan that 62.0% of the herds would be under control in 1978, 72.3% of herds in 1979 and 77.0% of the herds in 1980. In fact on 1 October 1980 all the remaining herds which had not up to then been under compulsory measures were placed under such measures. All herds in Ireland are now under a compulsory test, slaughter and compensation regime - all the eligible animals in each herd receive at least one serum agglutination test every year and in addition the dairy herds receive a number of milk ring tests per year, usually three.

A serum agglutination test is carried out on all eligible animals 30 days prior to movement. Premovement tests are carried out on animals that move within the country as well as those intended for intra-Community trade (see table 17).

Table 17

: Year :	Number of premovement tests	: Number positive :	% :
: 1980 :	387,336	: 2010	: 0.5% :
: 1979 :	272,590	: 2031	: 0.7% :
: 1978 :	52,423 (3 1/2 months)	: 321	: 0.6% :

Total expenditure has been increased (see table 18).

Table 18

: Year :	Total expenditure (£Irl) :
: 1980 :	13,436,183 :
: 1979 :	7,440,486 :
: 1978 :	6,060,215 :
: 1977 :	5,160,000 :
: 1976 :	4,520,000 :

The levels of compensation paid to the farmer have been increased under the accelerated plan (see table 19). The figures in the brackets are the current level of compensation.

Table 19

:	:	Pedigree	:	Non pedigree	:
:	cows and in-calf heifers	:	£120 (£165)	:	£85 (£130)
:	other cattle	:	£ 80 (£125)	:	£55 (£100)

Note. Under the accelerated scheme pedigree cattle over 182 kg deadweight receive £85 and non pedigree £60.

The central laboratory was extended to cater for an extra 40,000 samples per day. A new laboratory has just been built in Cork and it is intended that this laboratory will cater for the south of the country. It is expected that it will come on stream during 1981.

Acceleration is also demonstrated by the increasing number of reactor animals that are being discovered and slaughtered (see table 20).

Table 20

:	Year	:	Number of reactors slaughtered	:
:	1980	:	55,445	:
:	1979	:	39,654	:
:	1978	:	15,549 (3 1/2 months)	:
:	1977	:	28,500	:

Acceleration may also be demonstrated by the increasing number of herds that are achieving brucella free status (see table 21).

Table 21

: Year :	Type B1 :	Type B2 :	Type B3 :	Type B4 :
: 1980 :	12,863 :	113,143 :	85,675 :	5 :
: 1979 :	55,000 :	91,275 :	58,855 :	:
: 1978 :	76,500 :	69,279 :	58,859 :	:
: 1977 :	94,000 :	11,900 :	:	:

The number of cases of abortion due to *B. abortus* have also decreased - 1980 (221), 1979 (392), for 3 1/2 months of 1978 (116).

Vaccination is under official control, only strain 45/20 is used and the animals are individually identified after vaccination. However, the trend unfortunately is to increase the number of vaccinated animals up to now but it is expected that this trend will be reversed (see table 22).

Table 22

: Year :	Number of animals vaccinated :
: 1980 :	231,752 :
: 1979 :	159,651 :
: 1978 :	198,602 :
: 1977 :	11,300 :

Testing procedures

All eligible animals are tested at least annually with a serum agglutination test. All positive samples to the S.A.T. are subjected to two further confirmatory S.A.T.'s on the same sample, plus a complement fixation test. The reactive end point (the titre) is carried out on all positive S.A.T. samples by carrying out if necessary a long ten tube S.A.T. Samples giving a suspect reaction to the initial S.A.T. are subjected to the complement fixation test - occasionally other tests are also used, namely, the American plate agglutination test, the Rose bengal plate test and the Coombs test. A percentage of the samples are also routinely blood typed. In 1980 for instance 5,227,960 blood samples were tested.

After removal of reactors and disinfection herds that have contained reactors are tested until they achieve two clear tests before reentering the system.

Conclusion

The eradication of brucellosis in Ireland is proceeding with success.

Belgium

Date of commencement of Community financially aided accelerated scheme
- 12.12.1978

The basis of the Belgian plan for the accelerated eradication of brucellosis is:

- (a) Putting the small number of remaining herds under official compulsory control.
- (b) Reinforcing of certain control measures (movement control, restocking and procedures in suspect and infected herds and also dissemination of information relating to the occurrence and location of infected herds).
- (c) Increase in compensation.

The increase in the number of herds under compulsory control is demonstrated in table 23

Table 23

: Year :	% under compulsory control :
: 1975 :	92.65% :
: 1976 :	83.71% :
: 1977 :	93.28% :
: 1978 :	98.7% :
: 1979 :	100% :
: 1980 :	100% :

The maximum level of compensation has increased between 30 and 50% depending on the category of animal, for instance compensation has been increased from 8000 BF to 12,000 BF for animals aged more than 1 year, likewise compensation has been increased from 12,000 BF to 22,000 BF for cows in milk or pregnant and for heifers more than 7 months pregnant.

Table 24 demonstrates the increase in the number of brucella status herds that has occurred since 1974.

Table 24

: Year :	Type B2 :	Type B3 :	Type B4 :
: 1980 :	6,557 :	820 :	74,729 :
: 1979 :	8,290 :	660 :	75,327 :
: 1978 :	27,668 :	19,631 :	42,268 :
: 1977 :	27,584 :	37,319 :	13,769 :
: 1975 :	50,084 :	33,212 :	9,688 :
: 1974 :	52,825 :	39,077 :	7,729 :

Further evidence of the reduction in the infection rate is demonstrated by the fact that for instance in 1980 there were only 171 animals that aborted as a result of B. abortus compared to 548 in 1979. When an infected herd is located the surrounding herd owners are informed.

Table 25 gives the number of animals that have been slaughtered due to brucellosis over a number of years.

Table 25

: Year :	Number of animals slaughtered due to Brucellosis :
: 1980 :	26,820 :
: 1979 :	28,967 :
: 1978 :	11,178 :
: 1977 :	18,477 :
: 1976 :	22,082 :
: 1975 :	32,317 :
: 1974 :	32,461 :

At first glance it would appear that table 25 would seem to demonstrate an increase in the level of infection rather than a decrease particularly when, for instance, the slaughtering for 1976 are compared to 1980, even allowing for the fact that in 1980 all herds were under a compulsory test and slaughter regime. However this is not so, although in 1979 and in 1980 the number of slaughtered animals has increased when compared to the previous years the number of actual reactors to a brucella test has decreased in 1979 and 1980. The increase in 1979 and 1980 is the result of an increase in the number of whole herd slaughtering when for instance only a few animals actually react and also combined with the fact that an increased number of in-contact (suspect) animals are also being slaughtered; these procedures are quite normal and can be expected, particularly in the terminal phases of an anti-brucella programme.

Vaccination is not allowed in principle but may be authorised in particular circumstances such as in heavily infected villages where ring vaccination may be carried out at the request of the herd owners and if the official veterinarian authorises it. There were 30,491 animals vaccinated in 1974 and this number dropped to 5,687 animals in 1977 and the current figure is very much less. Records are kept on vaccinated animals and their vaccinal status is entered on their accompanying card.

Testing procedures

All tests are carried out in laboratories under the control of the veterinary authorities (privately controlled laboratories were allowed to operate previously). The serum agglutination test is carried out routinely and also the milk ring test is utilised in dairy herds; if a positive ring test occurs all animals in the herd are subjected to an immediate S.A.T. The complement fixation test is sometimes used.

Conclusion

The eradication of brucellosis in Belgium is proceeding with success.

Italy

Date of commencement of Community financially accelerated scheme -
1.1.1980

The brucellosis programme commenced under government control in 1964. It is basically a voluntary programme whereby, as an increasing number of herd owners within a region join the programme, it takes on a compulsory nature. At the moment it can be said that practically all the herd owners in Northern Italy are included in the programme whilst in the South practically none of them are included. The basis of the Italian accelerated plan was to attract an increasing percentage of the remaining herd owners into the scheme, particularly those in the southern part of the country. This was to be achieved in two ways:

- (a) increasing the level of compensation paid to the herd owners so that more farmers would join the scheme
- (b) imposition of strict movement controls.

The previous level of compensation paid to herd owners was 80,000 lire per slaughtered animal to those farmers with more than 10 bovines and 160,000 lire to those with less than 10 bovines. Unfortunately, however, due to unavoidable parliamentary difficulties it was not possible to pass the new law enabling an increase in the level of compensation until May 1981. The new levels of compensation are 240,000 lire per slaughtered animal to those farmers with more than 10 bovines and 300,000 lire to those with less than 10 bovines. It is expected that this new law will be published in the official gazette during the course of June 1981.

Movement control is strictly enforced whereby movement of animals into B₃ or B₄ herds is only permitted if the animals come from other B₃ or B₄ herds. Movement out of a B₁ herd is forbidden unless the animal is going to another B₁ herd. Movement of animals out of B₂ herds is only permitted if they are going to a B₁ herd or another B₂ herd.

At the commencement of the scheme 46.1% of the herds were under control (routine testing, slaughter and compensation); during the first year of the scheme this has increased to 55%. Table 26 gives the number and type of status herds.

Table 26

: Year :	Type B ₂ :	Type B ₃ :	Type B ₄ :
: 1980 :	71,813 :	47,977 :	236,595 :
: 1978 :	91,979 :	29,490 :	210,431 :
: 1977 :	90,179 :	28,890 :	207,531 :
: 1976 :	80,286 :	32,999 :	195,425 :
: 1975 :	67,605 :	26,848 :	194,622 :

Number of herds in Italy (1980) = 615,834, number of B₁ herds = 259,469.

The position in Italy (April 1981 is demonstrated in table 27.

Table 27

Region	Herds under control	Infection
	%	%
VALLE D'AOSTA	100	1,21
TRENTINO ALTO ADIGE	100	0,01
FRIULI VENEZIA GIULIA	100	0,008
MARCHE	100	0,07
PUGLIA	94,10	0,95
LOMBARDIA	62,01	0,69
EMILIA ROMAGNA	60,45	0,51
VENETO	81,31	0,33
BASILICATA	67,22	0,38
PIEMONTE	43,66	0,37
TOSCANA	43,47	0,12
LAZIO	42,12	0,39
MOLISSE	41,57	1,96
ABRUZZO	48,07	0,60
LIGURIA	26,56	0,25
CAMPANIA	9,30	0,46
CALABRIA	5,02	1,89
SICILIA	0,5	5,26

Vaccination is restricted to herds in those areas with the highest incidence.

Testing procedures

Herds that are under control are subjected to annual blood testing as follows.

On arrival in the laboratory all blood samples (sera) are subjected to a rapid plate agglutination test; if a positive is found the sample is submitted to a serum agglutination test via the micro method (some laboratories utilise a classical tube method) - if a positive occurs then a complement fixation test is done and if the C.F. test is positive then the animal is considered a reactor and the local official veterinarian is notified and slaughter takes place within 30 days. In clinical cases of abortion that are positive for the presence of B. abortus slaughter must take place within 15 days. It is interesting to note that prophylactic measures are currently being applied to buffalo herds particularly in the region around Naples - a high rate of infection was found and all animals in the herd are tested including young males which if found positive are compulsorily slaughtered; the serum agglutination test is not a reliable test in these animals and therefore the complement fixation test is utilised - the milk ring test cannot be used either - the butter fat content is 7.2.

Conclusion

The accelerated eradication programme has only been in force in Italy for one year and it is too early for definitive trends to be indicated. However, it can confidently be expected that an increasing number of herd owners, particularly in the South, will join the scheme in the future as a result of the increased levels of compensation.

CHAPTER 6

TuberculosisFrance

Date of commencement of Community financially aided accelerated scheme
1.7.1978

The bovine eradication scheme commenced on a voluntary basis in the mid 1950's. In 1965 it became compulsory. It is applied to practically all herds in France, compulsory measures are not applied to a small number of extensive herds particularly in areas like the Camargue where certain difficulties exist in rounding up and handling the animals; these type of animals are primarily used for beef production and post mortem returns have not demonstrated any tuberculosis infection in these animals. It is not intended to put these type of herds under compulsory measures. Prior to the commencement of the scheme in 1955 it was estimated at National level that 10 % of animals and 25 % of herds were infected, in certain regions infection extended to more than 30 % of animals and more than 50 % of herds, by 1978 this was reduced to 1.7 % of herds and 0.26 % of animals. The figure for the animal prevalence rate was further reduced to 0.17 % in 1980.

The target of the accelerated scheme was a reduction over the three year period of the animal prevalence rate of infection to less than 0.10 % of animals and less than 1 % of herds that is to say that there would be a reduction to less than 20,000 reactors per year found in less than 8000 herds. This was to be achieved in the following manner

- (a) Period for slaughter shortened to 30 days
- (b) Increase in the level of slaughter compensation
- (c) Prohibition of the movement of non-reactors out of infected herds, except for direct slaughter
- (d) The mandatory requirement to procure animals only from herds which are officially tuberculosis free.

In France at the moment about 60 % of herds are tested annually whilst the remainder are tested every second year. Reactors are slaughtered within 30 days and in no cases was the derogation allowed for in Article 15 of 78/52/EEC applied.

Compensation has been raised up to a maximum of 1 100 French francs - this measure was introduced by Interministerial Decree (Finance, Agriculture) of 28 September 1977.

Prior to the implementation of the accelerated programme herd owners were allowed to move non-reactor animals out of their infected herds, this had the effect of allowing the majority of owners of infected herds to make the best of their situation indefinitely and not to seek disease free status; this is no longer possible and owners of infected herds cannot move animals out except under authorisation for direct slaughter. The current mandatory requirement to procure animals only from herds which are officially tuberculosis free has the effect of upgrading this status. Prior to the implementation of this requirement officially tuberculosis free status was only sought by dairy herds that were selling milk direct to the consumer.

Probably one of the best parameters to judge the efficiency of a tuberculosis eradication programme is to examine the number of lesions of tuberculosis that are discovered at routine slaughter of non-reactor animals during post mortem inspection, table 28 gives this figure; about 4 million bovines are slaughtered annually in France.

Table 28

: Year	: N° with visible lesions of T.B. :
: 1974	: 6474 :
: 1975	: 6487 :
: 1976	: 7360 :
: 1977	: 6718 :
: 1978	: 5900 :
: 1979	: 5476 :
: 1980	: 4928 :

The annual slaughter rate for T.B. is given in Table 29

Table 29

: Year	: N° of bovine animals slaughtered due to tuberculosis	:
: 1974	: 25,336	:
: 1975	: 25,585	:
: 1976	: 27,432	:
: 1977	: 35,069	:
: 1978	: 54,835	:
: 1979	: 45,699	:
: 1980	: 35,302	:

In France about 60 % of reactors demonstrate visible lesions of tuberculosis at post mortem examination. Note in 1979, 38,414 animals were granted Community financial aid but in fact 45,699 were slaughtered; this is due to the fact that the herd owners had not in all cases adhered to all of the technical requirements of the Directives and therefore no claim was made - also in 1980 only 29,440 animals were claimed for although 35,302 were slaughtered.

Table 30 gives the percentage of T2 and T3 herds in 1977 and compared to 1980.

Table 30

: Year	: % T2	:	: % T3	:
: 1977	: 1.5 %	:	: 98.45 %	:
: 1980	: 1.1 %	:	: 98.6 %	:

The level of infection in France is at a low level but it is not evenly distributed; for instance in the Department Manche the prevalence rate is 0.4 % of reactors whilst in the neighbouring region of Brittany it is 0.09 %; there are a number of possible explanations for this, for instance in La Manche there is a very big area of low lying land that is used as a common grazing ground by a large number of farmers and infection spreads within this area. The standard of tuberculosis testing may vary from region to region.

A number of herds were visited whilst a tuberculin test was being carried out and it was noted that measuring of the skin either prior to injection or at the 72nd hour was not carried out as a general principle; upon enquiry it was learnt that measuring with a caliper was only carried out if the animal was intended for export or in problem herds i.e. where lesions of tuberculosis were found either in a previous reactor or during routine post mortem examination at an abattoir. It would appear that interpretation of the result of a test is more dependent on the nature of a reaction rather than on its increase in size. Infected badgers have recently been found.

Testing procedures

The single intra-dermal test is used; HCSM tuberculin is used, standardised according to Annex 13 of Council Directive 64/432/EEC. Animals are tuberculin tested prior to incorporation into a herd. In problem herds a special tuberculin with a very high potency may be used.

Conclusion

Bovine tuberculosis has reached a low level in France. It will be necessary to implement specific measures in certain areas in order to further reduce the prevalence of bovine tuberculosis.

Ireland

Date of commencement of Community financially aided accelerated scheme
18.9.1978

The bovine tuberculosis eradication scheme commenced in Ireland in 1954. Indications were that the overall animal incidence prior to commencement was 17 % and that it was much higher in cows (22 %) than in other cattle (8 %). The disease was much less prevalent in the western and midland areas than in the south, which is the main dairying and breeding area. The overall animal incidence was found to be 6 % in the west, 12 % in the midlands and 26 % in the south.

The scheme itself was classical with compulsory operations (test, slaughter, and compensation) commencing in the North and proceeding gradually southwards, until such time as all the herds were under compulsory operations which was completed in 1965. Annual testing of all bovines has been carried out since then up to the present although there were some minor interruptions to this testing regime.

The basis of the Irish plan for the accelerated eradication of tuberculosis is :

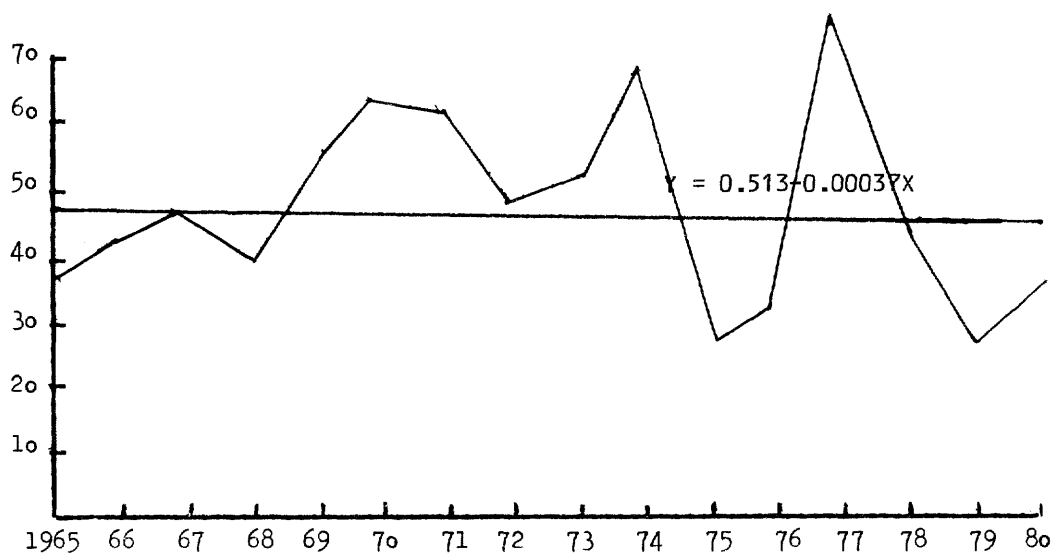
- (a) Increase in the level of compensation paid to farmers
- (b) Special check in high incidence areas
- (c) Provision of proper on farm handling and isolation facilities
- (d) Imposition of premovement tuberculin test

Levels of compensation have been increased (see table 19). Special check tests were organised in areas which had demonstrated a high incidence in the previous round of annual testing and also reactor herds were given a special test 6 months after they had gone clear. Provision of proper handling and isolation facilities for animals on farms was made, a condition for obtaining reactor grants and for the recognition of any new herds under the Department of Agriculture schemes. From the date of the commencement of the accelerated scheme all bovine animals over six weeks of age, moved from officially free herds, except those for immediate slaughter, were subjected to a premovement tuberculin test within 30 days of movement.

The bovine tuberculosis eradication scheme is in its 27th year; as has been explained during the greater part of that time all bovine animals in all Irish herds have been subjected to at least one test every year. Each year between 25,000 and about 50,000 animals are removed as reactors which represents on average about 0.5 % of the cattle population and these reactors are found in about on average 3 % of the herds. Table 31 shows the number of reactors that are removed annually expressed as a percentage of the total cattle population for each year from 1965 to 1980.

Table 31

Number of T.B. reactors removed as percentage of cattle population



A regression equation has been done on the above graph and the ensuing line is straight as demonstrated which means that since 1965 there has been no change in the bovine tuberculosis situation in Ireland.

Table 32 gives the number of reactors that have been slaughtered per year since 1974; it should be stated that 1975/76 is not representative due to the fact that very little testing was carried out due to a strike by the practitioners.

Table 32

Year	No of reactors slaughtered
1974	46,656
1975	21,339
1976	24,888
1977	52,267
1978	11,278 (for 3 1/2 months)
1979	25,382
1980	26,581

Table 33 gives the number of confirmed lesions of tuberculosis that were discovered in animals coming from officially free herds that were slaughtered and subjected to a post mortem examination.

Table 33

: Year :	No positive for T.B. :	Lesion incidence % :
: 1974 :	2685 :	.26 % :
: 1975 :	2068 :	.2 % :
: 1976 :	2606 :	.26 % :
: 1977 :	2661 :	.26 % :
: 1978 :	802 (31/2 months): :	- :
: 1979 :	1887 :	.18 % :
: 1980 :	1841 :	.18 % :

About 1 million bovines are slaughtered per year in export registered premises, that is to say that they are subjected to a detailed post mortem examination by a veterinarian, column 3 then above gives the lesion percent found in animals coming from officially free herds for the most part; as can be seen there is very little change over the years.

Table 33A gives the number of premovement tuberculin tests that were carried out and the number of reactors that were found.

Table 33A

: Year :	No of premovement tests :	No of reactors :	% :
: 1978 (3 1/2 months) :	212,956 :	343 :	0.16% :
: 1979 :	1,100,041 :	1,575 :	0.14% :
: 1980 :	1,017,422 :	1,442 :	0.14% :

The cattle population in Ireland in 1980 was 6,934,700 animals contained in 211,686 herds, from the above table it can be calculated that if 1,841 lesions were found in 1 million cattle than you could expect to

find 12,757 lesioned animals in the total population (1,841 x 6.93). All the animals were tested during 1980 at least once and only 6,981 lesions were found in reacting cattle, therefore at least 5,776 infected animals were not discovered during testing - the calculation can be made for the years previous to 1980 and it will be found that the situation is similar.

During the early 1970's about 50 temporary veterinary inspectors were employed by the Department of Agriculture to carry out tuberculin tests on a random sample of herds that were normally listed to the veterinary practitioners for testing. They tested about 18 % of the National herd over a number of years, table 34 gives a comparison of the results where it is demonstrated that they found approximatively 3 times as many reactors and reactor herds with lesions as did the practitioners.

Table 34

Temporary veterinary inspectors				PRACTITIONERS						
:	:	Herds	:	Animals	:	Herds	:	Animals	:	
:	1970	:	10.7 %	:	0.88 %	:	4.11 %	:	0.38 %	:
:	1971 to	:	9.7 %	:	0.87 %	:	2.87 %	:	0.27 %	:
:	30.6.71	:	:	:	:	:	:	:	:	:

Testing Procedures

The intra dermal comparative test is used using avian and bovine P.P.D. tuberculin standardised according to Annex B of Council Directive 64/432/EEC - a more potent tuberculin is sometimes used in known problem herds.

Conclusion

There has been no acceleration in the Irish bovine tuberculosis eradication programme.

It should not be concluded that this lack of progress is due to any lack of finance (£ 11 million was spent in 1980) but rather to the fundamental fact that $\frac{2}{3}$ rds of the reactors are being missed at annual round testing.

46

Italy

Date of commencement of Community financially aided accelerated scheme
1.1.1980

The tuberculosis programme commenced under government control in 1964. Preventative measures were voluntary in the beginning but they became compulsory throughout the National territory with the issue of the Ministerial Decree of 26 July 1977. By the end of 1978 91 % of the herds were under a test slaughter and compensation regime. In 1965 the animal incidence of infection in the controlled herds was 11 %; at the end of 1977 in a population of 6 691 957 bovine animals the incidence of infection was 0.56 %.

The object of the accelerated scheme is to bring all the remaining herds under compulsory control and to attain an animal incidence of infection below 0.2 %. The above object was going to be achieved in the following way:

- (a) increasing the level of compensation paid to herd owners
- (b) adoption of a period of 30 days for the slaughter of infected bovine animals
- (c) imposition of strict movement controls
- (d) restriction of sale of milk from suspect or infected herds.

The level of compensation has now been increased as described previously. Prior to the implementation of the accelerated scheme a slaughter period of up to six months and occasionally longer was allowed, now slaughter must take place within 30 days except where derogations under Article 15 of 78/52/EEC have been granted. If a clinical case is found and they are very rare nowadays then slaughter must take place within 15 days. The movement of animals between Type T1, and type T2 herds is forbidden. Movement into type T2 herds is forbidden except from type T3 herds.

Table 35 gives the figures for the increasing number of herds that have been put under control. In 1979 there were 719 841 eligible herds in Italy.

Table 35

: Year	: Number of herds under control	: %	:
: 1980	: 705 404	: 98	:
: 1978	: 659 567	: 91.62	:
: 1976	: 665 700	: 87.89	:

Table 36 gives the number of herds in Italy plus the number of herds that were classified as T2 or T3 from 1975 on words.

Table 36

: Year	: N° of eligible herds	: N° T2	: N° T3	:
: 1980	: 615,834	: 98,048	: 497,433	:
: 1978	: 659,567	: 122,590	: 536,977	:
: 1976	: 665,700	: 114,288	: 551,412	:

Prior to the implementation of the accelerated programme the herd infection rate was 1.6 % it is now 1.34 % in the controlled herds similarly the animal infection rate was 0.55 % in the controlled herds and it is now 0.51 %.

All the Provinces in Italy with the exception of those given in Table 37 have been declared officially tuberculosis free that is to say that they have an annual herd infection rate of less than 1 %.

Table 37

: Province	: Herds under control	: Infection %	:
: Alessandria	: 91,74	: 2,56	:
: Asti	: 96,50	: 0,47	:
: Cuneo	: 93,00	: 20,31	:
: Torino	: 93,60	: 3,33	:
: Vercelli	: 98,42	: 4,53	:
: Aosta	: 100,00	: 8,60	:
: Bergamo	: 96,26	: 0,64	:
: Verona	: 92,44	: 0,52	:
: Imperia	: 44,10	: 8,20	:
: Piacenza	: 78,58	: 0,83	:
: Latina	: 62,24	: 1,44	:

: Avellino	:	78,34	:	0,27	:
: Benevento	:	27,45	:	0,24	:
: Napoli	:	36,20	:	3,09	:
: Caserta	:	43,02	:	0,70	:
: Bari	:	100,00	:	2,13	:
: Palermo	:	100,00	:	5,35	:
: Ragusa	:	21,54	:	4,57	:
: Siracusa	:	8,76	:	4,56	:

Table 38 gives the number of reactors that have been slaughtered on an annual basis.

Table 38

: Year	: Number of reactors slaughtered	:
: 1980	: 36,081	:
: 1978	: 34 720	:
: 1977	: 36 134	:
: 1976	: 38 797	:
: 1975	: 49 506	:

During the course of the on the spot inspections a number of large abattoirs were visited, from discussions with the veterinarian in charge and from an examination of the records it became apparent that the occurrence of visible lesions at post mortem examination in animals coming from controlled herds was of very rare occurrence, no more than 3 or 4 cases in each abattoir per year. No system exists in Italy whereby back tracing can take place of animals that have been found to have lesions of tuberculosis in the abattoir. In 1978 for instance 396 animals were found to have visible lesions of tuberculosis on routine post mortem inspection.

Testing Procedure

The single intra dermal test is used (sometimes a comparative test is used). The testing procedures and the manufacture and standardisation of tuberculosis is done according to Annex B of Council Directive 64/432/EEC.

Conclusion

The eradication of tuberculosis in Italy is proceeding with success.

Chapter 7

Enzootic bovine leukosis

Note. Article 4 of Council Directive of 17 May 1977, 77/391/EEC in O.J. No L 145 requires Member States which have the above disease to submit plans for its eradication i.e. there is no requirement to accelerate already existing plans. Denmark and the Federal Republic of Germany were the only Member States that submitted plans.

Denmark

Date of commencement of Community financially aided programme - 15-5-1978.

The Enzootic Bovine Leukosis (EBL) control programme 1979/80

The leukosis control programme in progress in Denmark at the moment is part of a programme started in 1959. On the 1.1.1979 the use of total lymphocyte counts as a diagnostic tool in leukosis work was abandoned completely.

It is necessary to summarize the programme from 1959-78 which preceded the present programme, and which was based on haematology and histology as diagnostic tools. Administratively it was based on the following assumptions:

1. Persisting lymphocytosis (lymphocytotic blood picture for more than 2 months) is an indication of leukosis.
2. More than one leukotic (persisting lymphocytosis or tumorous leukosis) animal in a herd is indicative of EBL.
3. A leukosis herd can only be made leukosis free by slaughter of the whole herd followed by establishment of a new herd recruited from leukosis free herds.

This programme can be divided into the following 2 periods:

1. 1959 - 1968.

Suspect tumors of bovines was made a notifiable disease, and material from such cases, whether found at meat inspection or as clinical cases, had to

be submitted for histological examination. When leukosis was established in an animal an epidemiological examination was carried out including a haematological examination of all adult animals in the herd of origin and in-contact herds. Herd diagnosis and disease eradication was carried out according to the 3 assumptions mentioned above.

Herds considered suffering from EBL were closed (animals could only leave the herd directly for slaughter with a movement permit) and a public subsidy determined by the number and age group of the animals in the herd was offered in order to induce the owner to slaughter the whole herd.

Such a drastic herd slaughter policy was only possible because the overall prevalence of disease was low, and because, for other reasons, there was a rapid decline in the number of cattle herds anyway, particularly on the eastern islands where most of the disease was found.

II. 1969 - 1978.

During the first period it became clear that a herd could be infected, and spread infection, for many years without a clinical case. Development of electronic cell counters made large numbers of white blood cell counts possible, and routine haematological herd tests of all herds in the country was initiated in 1969. The first countrywide haematological test was done during 1969-71, the second in 1972-74 and the third in 1975-78.

During the third period investigations of serological methods developed during the early seventies were carried out. The main work was done with an immunodiffusion test. Almost immediately it became clear that this was a very valuable diagnostic tool, the test was specific and considerably more sensitive than the haematological test, and it was hence used in connection with haematologic or histologic evidence of leukosis.

During period I 603 and during period II 468 herds considered to be suffering from EBL were identified.

The present programme is planned for 3 years period 1979 - 1981.

As from the 1st of January 1979 the use of the haematological leukosis test was discontinued, and routine blood tests only carried out as an immunodiffusion test using a glycoprotein antigen. A routine herd test comprises all animals above the age of 2 years and calves up to 6 months of age (maternal antibodies). Special herd tests on suspect herds (i.e. in connection with finding an animal with leukotic tumours) comprised all animals irrespective of age.

During the three year period all herds on the eastern islands (previous high incidence area) were to be examined by the routine test, and at the same time a special test will be performed on all herds in which one leukotic animal has been found since 1969. All herds delivering animals to A.I. stations and performance testing stations must have passed a routine test within the past 3 years.

The findings in connection with this programme are summarized in 3 tables:

Table 39 is a summary of the serological herd examinations during the 20 months from the 1.1.1979 to the 31.8.1980. A is a summary of the routine herd monitoring in the former high incidence area (eastern islands). It shows that out of 2665 herds examined (calves and adults) 12 herds were found to contain 28 reactors. Out of the examined animals 0.04 pct. were reactors and out of the examined herds 0.45 pct. contained reactors. B shows that 6 herds containing 17 reactors were found by "follow up" examinations of the 1978 routine haematological examinations and of herds in contact with the infected herds found in the present programme. C is a summary of a special examination in the low incidence area (Jutland and Funen) of 216 herds previously under quarantine for 2 years due to the finding of one leukotic animal (haematology or histology). 3 herds (1.4 pct. of the examined herds) were found to contain 10 reactors. D shows that out of 98 herds examined because tumorous leukosis was found in them, only one herd contained 1 reactor (the tumorous animal).

This summary shows that the incidence of reacting herds (0.45 pct.) and reacting animals (0.04 pct.) is very low even in the former high incidence areas. It also shows that the herds previously quarantined due to EBL suspicion in the low incidence area of Denmark constitutes a higher risk, but even among such herds only 1.4 pct. are found to contain reactors.

And it finally shows that 97 out of 98 leukotic tumors found during the 20 months period are apparently not connected to EBL infections.

It is noticeable that nearly half of the 22 herds are jersey herds, while only 18 pct. of Danish cattle are of that breed.

Table 40 is a summary of the 105 leukotic tumors reported during the 20 months period. 98 tumors were found in herds considered EBL free at previous haematological herd examinations. On the basis of serological tests of all animals in the herds in which tumors were found only one tumor case in an adult animal could be connected with EBL infection. 45 tumors in animals >24 months were apparently not connected to EBL infection, the same as 42 tumors in animals <24 months and 10 tumors of the skin type. 7 tumors in adult animals were found in the about 40 herds under leukosis quarantine pending slaughter during the period.

Table 41 is an account of epidemiological investigations in connection with finding 22 herds with reactors. The investigations are based on the District Veterinary Officers routine report and on the records kept at the Veterinary Services headoffice. No special epidemiological investigations were carried out. Some interesting facts can be seen in this table: 8 of the 22 herds have already been strongly suspect (2 years quarantine) during the time of haematology, and only 6 herds have no immediately recognizable epidemiological connection to EBL records. Only one case of tumorous leukosis has ever been recorded in all of the 22 herds. That is the one herd with one reactor (the tumorous animal) out of the 98 "tumor herds" (table 39 and 40).

Summarizing the findings two striking facts stand out:

1) the very low number of reactors per reacting herd, on average 2.2 pct. of the entire herd. Out of the 22 herds found only 7 have 3 or more reactors (3x3, 1x5, 1x6, 2x8). 2) Outside the known leukosis herds it is very rare to find leukotic tumors connected with EBL.

These facts are, of course, due to the control programme carried out over the past 20 years, and including 3 haematological tests of all herds. The result of that programme is the virtual eradication of EBL as a clinical disease and very near eradication of EBL infection as determined by the immunodiffusion test.

However, it is worrying to note the extremely insidious nature of this infection in some cases. It appears, when scrutinizing the available herd histories, that several of the 22 herds with reactors have been infected with BLV for 10 years or more.

The virus has been able to survive during those years without giving rise to clinical cases or to more than single cases of lymphocytosis at the three haematological tests carried out from 1969 to 1978. And in most cases the serological herd test now reveals only one or very few reactors.

On the 31.12.1980 there were 2.921.000 million animals in Denmark and these were contained in 50.000 herds. There are 49.968 herds that are EBL free or to put it another way there were 32 herds which were EBL infected. Of the 32 infected herds 13 were discovered during the course of 1980 and 11 during the course of 1979. Eleven herds were also discovered during 1978.

TABLE 39

Summary of Danish Leukosis control programme 1.1.1979 - 31.8.1980.

	No. herds examined	No. reactors	No. of herds with reactors	pct. reactors	pct. herds with reactors	No. and pct. of reactors per reacting herd		Total no. of animals per reacting herd (range)
						No.	pct.	
A. Routine programme	2665	28	12	0.04	0.45	2.3	1.7	140 (23-928)
B. Contagious contact herds	-	17	6	-	-	2.8	3.1	90 (47-130)
C. Special examinations of previously suspect herds outside "routine area" (tumors or heamatology)	216	10	3	-	1.4	3.3	3.3	102 (51-200)
D. Examination of herds with leukotic tumors 1.1.1979 - 31.8.1980	98	1	1	-	1.0	1	16.7	6
Total		56	22			2.5	2.2	115

TABLE 40

Summary of leukotic tumors found 1.1.1979 - 31.8.1980.

Herd status	BLV tumors (serological herd test)	Sporadic leukotic tumors (serological herd test)		
		Juvenile leukosis	Skin leukosis	Sporadic adult form
EBL free	1	42	10	45
EBL infected	7			

TABLE 41

Summary of 22 new herds found to be suffering from EBL 1.1.1979 - 31.8.1980.

Herds identified through	Routine programme 2665 herds examined	Contagious contact herds	Special examination of 216 previously suspect herds outside "routine area" (tumors or haematology)	Examination of 98 herds with leukotic tumors 1.1.1979 - 31.8.1980
No. of EBL herds identified	12	6	3	1
No. of herds previously suspect (haematology)	5	0	3	0
No. of herds with history of contagious contact	2	5	0	1
Tumor history (no. of herds/no. of tumors)	0	0	0	1/1
No. of herds with no previous history	5	1	0	0

Federal Republic of Germany

Programme to eradicate enzootic leukosis in cattle in the

Federal Republic of Germany

Date of commencement of Community financially aided programme - 1-6-1978.

Since 1965 measures have been taken to combat enzootic leukosis in cattle in the Federal Republic of Germany. Initially a voluntary scheme was implemented under uniform Directives from the Federal Minister for Food, Agriculture and Forestry. To strengthen the position reached with voluntary measures and to support other necessary measures to combat the disease in the interests of the whole livestock sector, Federal provisions to prevent the spreading of this disease were laid down in the Regulation on the prevention of the spread of leukosis in cattle of 16 November 1962 (BGB1. I. p 1295). Under this Regulation cattle for breeding and production can only be brought into a herd or taken to cattle markets, public cattle shows, cattle auctions or on to common grazing land if they came from a herd certified by a veterinarian as not suspected of leukosis. This Regulation was supplemented by the EEC Commission's Decision of 23 January 1973 (as amended) authorizing the Federal Republic of Germany to require certain health guarantees in respect of cattle for breeding or production which were imported from an EEC Member State for introduction into herds in the Federal Republic of Germany not suspected of leukosis. Since 1 June 1975 the EEC uniform diagnosis (leukosis) key has been used for the assessment of blood tests however at the moment 100 pct. of testing is by serology.

New scientific knowledge on epidemics and the causes of bovine leukosis as well as progress made with the voluntary campaign against the disease suggested that it was appropriate to pursue this campaign with the aid of State funds. Therefore, on 10 August 1976 the Regulation to prevent bovine leukosis was adopted and this came into effect on 1 December 1976.

It should be noted that the discretionary provision on ordering the destruction of cattle in Article 9 of above Regulation was amended by the Federal Länder responsible for implementing the measures into a mandatory provision.

Programme for 1978/1979/1980

The campaign against the disease continued in accordance with the Regulation on the prevention of leukosis in cattle i.e. the examination of herds was continued in accordance with a view to assessing the leukosis status of all herds in the Federal Republic of Germany and eradicating the disease.

An E.B.L. free herd or an E.B.L. non suspect herd is a herd which has had at least 2 clear tests and in which there has been no clinical evidence of the disease for a period of two years. In routine testing all bovines over 2 years of age are tested.

If reactors are found in a herd it is unusual to slaughter the whole herd - rather the reactors are removed within 30 days for slaughter, disinfection then takes place and two months later a test is performed on all animals over 6 months of age. If this test is clear another one is performed 4 months later on all animals over 6 months of age, 4 months later another test is performed on all animals over 6 months i.e. if all goes well it is possible to reestablish the herd within a 10 month period. In some areas (Lower Saxony) an additional test is performed immediately after disinfection on all animals over 6 months of age that had not been tested in the previous test. The herd is then listed the following October for normal blood sampling by the practitioner.

There were 564,782 herds in the Federal Republic of Germany and at the end of 1979, 223,152 were E.B.L. free i.e. 39.5%.

During the course of 1979 there were 3,552,424 animals tested for E.B.L. These were contained in 176,211 herds (the total population in 1979 was about 15 million bovines); of the 3,552,424 animals that were tested 48,398 gave a positive reaction (1.35%). These reactors were contained in 13,286 herds.

During 1979, 501 tumours were notified as being leukotic. Like of which 231 turned out to be positive for E.B.L.

CHAPTER 8

Conclusions

In terms of a disease eradication point of view the progress to date has been excellent; in terms of brucellosis and tuberculosis it is estimated that all of the Community herds will be under control by 1983 at the latest; by the end of the current accelerated eradication programme it is estimated that 1 1/2 million animals will have been slaughtered, during the next two years all Member States who have not already reached the terminal phases of eradication of these two diseases will do so.

It can be confidently stated that the eradication of enzootic bovine leukosis in Denmark will be achieved in the not too distant future. In the Federal Republic of Germany there has been a dramatic drop in the incidence of this disease as more and more herds are coming under routine control. A number of Member States have not utilised the possibility of Community financial aid which has been offered to eradicate enzootic bovine leukosis from their territory.

CHAPTER 9

Recommendations

The terminal phases of the campaigns have been reached, however to achieve the final objective the Commission is of the opinion that there should be a further prolongation involving Community financial aid for a two year period. The Commission will make a proposal to this effect involving the resubmission of plans. It is not envisaged that these plans will necessitate any big changes except in those Member States that perhaps have not achieved the desired degree of acceleration for a particular disease.