

1991-2001  
2001

# FOOT & MOUTH DISEASE IN IRELAND

2001

UK FMD # #

REPORT NO. 5

18 April 2001

Department of Agriculture, Food and Rural Development  
Kildare Street, Dublin 2

# Update on Outbreak of Foot and Mouth Disease in Ireland

SVC of 18 April 2001

## Outbreak Number 2001/1 in Broughattin, Co. Louth

The protection zone in Broughattin, Co. Louth was lifted on 12 April, in accordance with the requirements of Article 9 of Council Directive 85/511/EEC and of Commission Decision 2001/295/EC. Prior to the lifting of the zone, all herds within the area were clinically examined. As all sheep flocks within the area have been culled, only cattle herds remain. As an additional precaution, these herds were randomly serologically tested. A total of 1389 samples were taken. All results were negative.

The surveillance zone will remain in place until at least 27 April. Clinical examinations and serological testing of remaining sheep flocks is due to commence on 19 April, 21 days after preliminary cleaning and disinfection was completed on the infected premises. These flocks are located in the extreme west of the control zone (outside the 10 km area), and south of Dundalk town (within the 10 km area). Some serological surveillance will also be carried out in cattle herds.

Animals Remaining in the Control Zone		
	Holdings	Animals
Sheep	26	4,103
Cattle	383	19,000

## Laboratory testing

A total of 11,000 serological samples from 397 holdings have now been tested on antibody ELISA. Of these, 6,000 samples have been taken from 274 holdings in County Louth. The only positive findings were those reported at SVC on 10 April – in wild goats and in two contiguous flocks to premises involved in outbreak number 1. In respect of one of these flocks - the rare breed of Kerry Hill Sheep - further samples were taken following the reporting of positive antibody ELISA and VNT results. These samples were negative on virus isolation. The sheep were slaughtered following sampling.

## Suspect cases

The total number of suspects to date is 122, of which 31 have been sampled. All results to date have been negative, with the exception of outbreak number 2001/1. There are currently no "hot" suspects.

## Controls on Border with Northern Ireland

Following the confirmation of outbreak number 2001/2 in Northern Ireland on 13 April, controls at the border were immediately increased, using Department of Agriculture, police and army personnel. No imports of products of susceptible species are permitted, unless in accordance with treatments as per those laid down in Commission Decision 2001/172/EC.

# **FOOT & MOUTH DISEASE IN IRELAND**

**2001**

**REPORT NO. 4**

**10 April 2001**

Department of Agriculture, Food and Rural Development  
Kildare Street, Dublin 2

## Update on Foot and Mouth Disease in Ireland SVC of 10 April 2001

### *1. Slaughter of animals imported from GB*

Where it has been identified that a premises has received animals that were legally or illegally imported from GB between 1 February and 21 February, all susceptible species on such farms have been slaughtered and destroyed. The total to date involves 16 holdings:

Sheep	4,509
Cattle	391
Pigs	11
Goats	1
TOTAL	4,912

### *2. Cull of the Cooley Peninsula*

- 2.1 Prior to the slaughter of animals on the outbreak number 2001/1 farm, serological samples were taken from sheep in the different fields belonging to the farm in question. These samples revealed one sheep (which had shown no clinical signs of FMD prior to slaughter) serologically positive (positive to Elisa, negative to VNT) in a field belonging to the flock-owner at a place known as Slievenaglogh Mountain, Cooley Peninsula, Co. Louth (This was reported at SVC on 3 April). This field was at some distance from the fields which contained the affected sheep and was outside the corridor which had already been designated for culling. While the sheep in this field had been slaughtered as part of the slaughter of the outbreak holding, and while all sheep and goats within one kilometer of this field had also been culled, a decision was taken to cull all of the remaining sheep and goats on the Cooley peninsula and all susceptible species within one kilometer of any serological finding of antibodies.
- 2.2 Furthermore, samples taken on 28 March from wild goats slaughtered and destroyed on Slievenaglogh Mountain, Co. Louth adjacent to the field belonging to that flockowner were also found to be antibody positive (positive on antibody ELISA, positive on VNT). These goats had been seen in close proximity to sheep in the field at Slievenaglogh in the same ownership as outbreak no. 2001/1. The goats were examined following slaughter and showed no evidence of any lesions suggestive of FMD. The results of these samples were received on 4 April.

### *3. Progress and extent of the cull*

- 3.1 The cull was started on the 23 March and finished on 8 April. The total animals culled in the Cooley Peninsula to 6 April is as follows:

Sheep	46,988
Cattle	1045
Deer	277

Pigs	55
Goats	243
TOTAL	48,608

- 3.2 Sheep have now been removed from an area of 161 km<sup>2</sup>.
- 3.3 Aerial surveillance has taken place to ensure that all sheep have been located and destroyed. Military personnel and helicopters have been involved. There now appear to be no sheep left on the Cooley Peninsula. In order to ensure that all wild goats and deer have been culled, surveillance will continue on the mountains in question for some time.

#### 4. Sero-surveillance of Culled Animals

- 4.1 In the course of the overall cull, samples were taken for serological examination from flocks being culled. This revealed two other sheep flocks with a single seropositive animal. The first related to a flock of Kerry Hill Sheep (a rare breed of Irish Sheep) at Jenkinstown, Co. Louth, located on the opposite side of Slievenaglogh Mountain to that mentioned in paragraph 2. There were 226 sheep on the holding. The land is **contiguous to the home farm of the owner of outbreak premises 2001/1**, and extends onto mountain pasture.
- 4.2 On **26 March** the sheep were examined prior to slaughter of all sheep contiguous to premises owned by farmer involved in the first outbreak. 2 animals had non-specific foot lesions. Although these were not considered to be strongly suspicious of FMD, both animals were sampled as a precaution (tissue, clotted blood and heparinised blood). A further 60 clotted blood samples were taken at random from the remaining sheep. All samples taken on 26 March were negative on tests for FMD. 214 sheep were slaughtered and destroyed the same day as part of the cull strategy. However, 12 animals of higher genetic merit were retained in view of their importance as a rare breed, and the owner's extreme reluctance to have them slaughtered, on condition that they were housed inside and regularly examined and sampled.
- 4.3 On **28 March** the 12 remaining sheep were blood sampled. One sample was positive on antibody ELISA and VNT. This result was received on 4 April. The 12 sheep were then slaughtered and buried.
- 4.4 Initial epidemiological enquiries have shown that wild goats had been seen intermingling with these sheep by official staff, during the course of their clinical inspections.
- 4.5 In addition to this flock, samples taken from a **contiguous sheep flock** to outbreak no. 2001/1 in Proleek, Co. Louth on **23 March** showed 1 positive antibody ELISA (negative VNT) out of 61 samples tested. The result was received on 4 April. There were 189 sheep on the holding. The sheep showed no clinical signs at the time of sampling, and were slaughtered and destroyed the same day.

### 5. Serology to date

A total of 8,000 samples have been serologically tested to date. These samples have been taken from:

- outfarms belonging to outbreak no. 2001/1
- culled animals in County Louth
- flocks that have received imported sheep from GB
- flocks traced from illegal imports of GB sheep
- suspect holdings

### 6. Suspect investigations

A total of 114 suspicions of FMD have been notified to date. In 30 of these cases, FMD could not be ruled out, and samples were sent to Pirbright Laboratory for further investigation. 28 have been negative for FMD. The holding at Broughattin, Co. Louth remains the only holding to have been confirmed positive for FMD. The results of one set of samples is awaited.

### 7. Epidemiological Investigations into Outbreak No. 2001/1

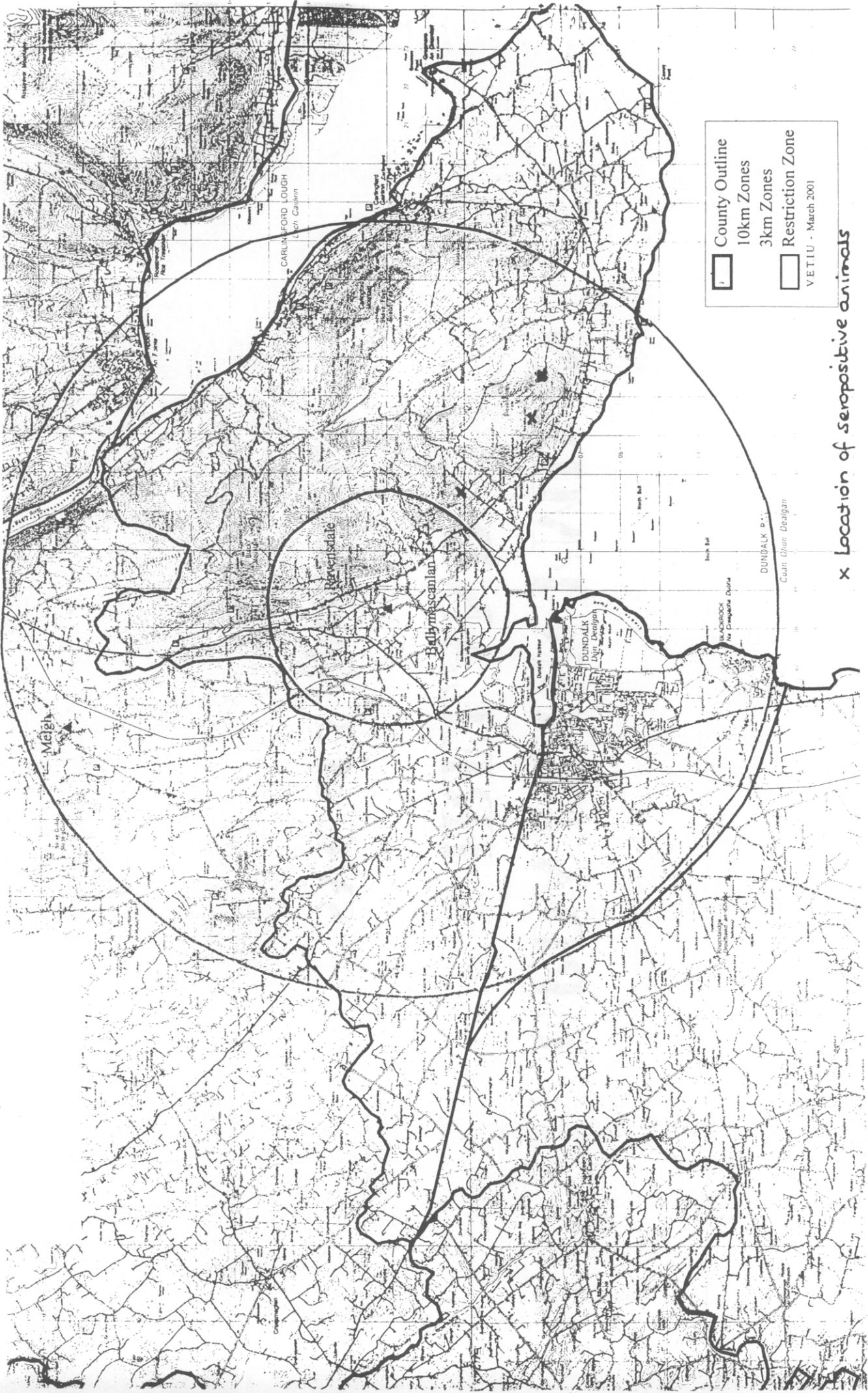
Investigations into the source of this outbreak are continuing, by the police, the Department of Agriculture Special Investigation Unit and an Epidemiological Team.

### 8. Protection and Surveillance zones

Clinical inspections are continuing in the Protection and Surveillance zone. At this stage only cattle are present in the Protection zone, and serology is currently being carried out on random herds in this area.

### 9. Control Measures

A nation-wide ban on the movement of animals remains in force. The only exceptions to this, are movements direct to slaughter, and direct from one farm to another farm for welfare reasons. A nation-wide ban on markets and the use of assembly centres remains in force. Controls on ports and airports, and on the border with Northern Ireland are also still in place.



[ ] County Outline  
 [ ] 10km Zones  
 [ ] 3km Zones  
 [ ] Restriction Zone  
 VETIU - March 2001

X Location of seropositive animals

**UPDATE ON FMD IN  
IRELAND**

**SVC of 3 April 2001**

# MOVEMENT CONTROLS

- Ban on imports of animals of susceptible species & their products from UK on 21 February
- Nation-wide ban on markets from 26 February
- Nation-wide ban on movements of animals of susceptible species from 28 February
- Control zone in operation in North Louth after outbreak in Meigh, NI from 1 March
- Control zone extended from 22 March after o/b 2001/1 confirmed
- Controls on animals & products from Louth from 22 March (C.D. 2001/234)

# OUTBREAK 2001/1

- Suspected on 20 March on routine clinical
- 8 of 97 sheep with ulceration of dental pad, hard palate & lips. 15 dead lambs in 24 hours.
- Confirmed on 22 March
- Farm at Broughattin, Co. Louth
- 113 cattle, 447 sheep on 7 parcels
- Preliminary C & D on 28 March

## SEROLOGY ON HOLDINGS

- 7 holdings - 2 with cattle & sheep, 5 sheep only
- 1 positive on virus isolation (Broughattin)
- 2 positive on antibody ELISA (Proleek & Slievenagogh)
- Proleek - 2 fields from Broughattin
- Slievenagogh - 7 km away, within S zone  
(Result received 30 March - 1/10 +ve on SN )
- All animals & contiguous flocks already  
slaughtered

# SOURCE OF INFECTION

- Estimated date of introduction 25 February - 1 March
- No animal movements in previous month
- People link to o/b in NI still under investigation
- Wind-borne from NI unlikely

# CULL

- Imports of GB sheep from 15 February (all seronegative)
- All susceptible species within 1 km of Infected Premises (commenced 23 March)
- All sheep within 3 km of each parcel of land (commenced 24 March)
- Wild goats & deer on the Cooley Mountains
- Extended to include all sheep on the Cooley Peninsula (commenced 2 April)
- 27,701 to 31 March  
(600 cattle, 26,831 sheep, 200 goats, 15 deer, 55 pigs)

## CULL (2)

1 km      2-3 km      3km+ border

Farms	33	73	108
Cattle	600	1,517	1,580
Sheep	2,336	5,628	7,881

15,000 sheep on the Coolley Peninsula

**FOOT & MOUTH DISEASE  
IN IRELAND**

**2001**

**REPORT NO. 2**

**27 MARCH 2001**

Department of Agriculture, Food and Rural Development  
Kildare Street, Dublin 2

# Report on Outbreak of Foot and Mouth Disease in Ireland

SVC of 27 March 2001

## Control Zone

The control zone established in Co. Louth on 1 Mar, following the outbreak of FMD in Co. Armagh, Northern Ireland, was extended southwards on 22 Mar and now includes the town of Dundalk. Within the whole of County Louth, there are no milk plants or export abattoirs. There are two meat product plants and three small abattoirs supplying only the home market. Milk from the control zone is being processed according to the criteria of Commission Decision 2001/234/EC in a milk product plant in Co. Monaghan. All tankers have been fitted with virus filters. Collection within the control zone is carried out separately from collection within the remainder of the County.

## Outbreak FMD/2001/1

Following discussions with the IAH, Pirbright on the serological results for this flock, we have now revised the time frame for the possible introduction of FMD to the flock at Broughattin. We now think that that infection was introduced **between 25 Feb and 1 Mar**, and that the virus passed twice through the flock. The source of the virus is still unknown, but an epidemiological team is continuing to carry out investigations into all contacts. There is a possibility of a human link with the premises in Co. Armagh which has been confirmed infected.

## Cull

On 23 <sup>March</sup> Feb a strategic cull of all susceptible species within 1 km of Broughattin was commenced. The cull was extended on 24 Feb to include all sheep within 3 km. Up to 9 a.m. 26 <sup>March</sup> Feb, a total of 10,505 sheep, 485 cattle and 13 goats have been slaughtered. An abattoir at Ravensdale which has recently been idle and which is within the 1 km zone, is being used for this. All animals are clinically examined before slaughter. There have been no clinical signs seen in any of these. The carcasses are being transported under official supervision to a dedicated rendering plant in Co. Meath. All meat and bone meal produced will be incinerated as for SRM material.

We have discussed a co-ordinated approach to an extension of the cull with the Northern Ireland authorities. This will involve moving northwards from the 3 km zone, towards the border with Northern Ireland. A cull of the wild deer and goats on the Coolley Mountains is also planned.

## Laboratory testing

Sampling has continued of suspect cases, contiguous sheep flocks to the confirmed infected flock, dangerous in-contact premises, random flocks within 1 km and flocks thought to have received illegally imported sheep from GB. To date, all results have been favourable.

### Suspect cases

To date we have received 83 reports of suspected FMD. All have been further investigated. In the case of 20 of these, FMD could not be ruled out and the animals were sampled. Two reports were found to be hoax calls. There are currently no "hot" suspects in the country.

### Illegal imports from GB

An intensive investigation into possible illegal imports of sheep from GB has been carried out by our Special Investigation Unit and the police, who have been co-ordinating with the equivalent authorities in Northern Ireland. As a result of information received, we now think that more sheep than initially thought, were imported from Longtown Market, Carlisle via Co. Armagh, Northern Ireland into the Republic of Ireland. Susceptible species were slaughtered as a precaution at farms in Co. Laois, Meath, Carlow and Wexford on 24 and 25 Mar, as they are thought to have received one or more sheep from this consignment. All of these premises contain both sheep and cattle, and on detailed examination show no clinical signs of FMD. All have been sampled and final results are awaited. Contiguous herds are currently under observation, and other tracings are being followed up.

### Exports

As a result of the notification of further outbreaks in mainland Europe, we have looked at our exports from 13 Feb, and investigated the movements of the hauliers on these journeys. We have notified the Dutch and Italian authorities that they have received sheep or calves which may have stopped at the Reboux staging point in Mayenne. In addition, as the result of a breakthrough at the weekend, in regard to our investigations into illegal imports of sheep from GB, we discovered that a small number of GB sheep were exported to France on 22 Feb. These sheep are thought to have originated in Longtown Market, Carlisle on 15 Feb. As soon as this was known, we informed the French authorities.

The movements of two consignments of calves that travelled together from Ireland on 22 Feb via France with destinations in the Netherlands, have been investigated by the Dutch authorities. The calves were rested at the Reboux staging post in Mayenne, France on 23 Feb. The farms of origin of the calves have been traced. In addition a pig herd which received pigs transported in the same vehicle on its return from the Netherlands, has been traced. All of these herds have been clinically inspected and show no signs of FMD.

where? Limerick

26 March 2001

Department of Agriculture, Food & Rural development

## CONTROL MEASURES FOR FMD IN IRELAND IN 2001

- 21 Feb Ban on imports of susceptible species & their products from the UK, following the confirmation of the first FMD case on 20 Mar
- 26 Feb Nation-wide ban on livestock markets
- 28 Feb Ban on movement of susceptible species within the country, except under permit to slaughter
- 8 km control zone established in County Louth around NI suspect in Co. Armagh
- 1 Mar NI suspect case confirmed. 3 km protection and 10 km surveillance zones established in Co. Louth. Clinical inspections commenced.
- 6 Mar First movements of animals to slaughter under permit.
- 7 Mar Movement permit system established for welfare reasons
- 9 Mar Emergency legislation introduced, giving additional powers to authorised officers, powers to regulate dealers, forbidding re-sale of purchased animals within 30 days and increased penalties.
- 20 Mar Suspected case reported in Broughattin, in the surveillance zone in Co. Louth. Flock sampled and slaughtered.
- 22 Mar First outbreak in Broughattin, Co. Louth confirmed on antigen ELISA
- S.I. No. 90 and 91 of 2001 defining the infected and controlled areas
- Commission Decision 2001/234 on protective measures with regard to FMD in Ireland in force from 5 pm
- 23 Mar Start of strategic cull of susceptible species within 1 km of Broughattin, of contiguous herds/flocks of all land parcels belonging to the owner of the infected premises and of dangerous in-contact premises
- 24 Mar Start of cull of sheep within 1-3 km of Broughattin

---

**Foot & Mouth Disease Investigations and  
Controls in Ireland**

SVC of 20<sup>th</sup> March , 2001

**Update on Sampling Results.  
23<sup>rd</sup> February – 16th March 2001.**

---

SUSPECTS AND IMPORTS EXAMINED AND SAMPLED FROM 23RD OF FEBRUARY TO 16TH OF MARCH 2001

County	No. Ovines x UK	No. ov. Contact	No. Bo. Contact	No. Por. Contact	No. Slaughtere	Date of Art	Date of Stat	Species	Type of Sample	No. Sampled	No. Anima	Sampled	Rep Date	Ab Elisa	VNT	Result	Ag Elisa	TC
1 Wexford	810*	500	150	11	1464	28 Feb	2 & 3rd Mar	Ovine	Sera	60	60	23/02/01	01/03/01	40 neg	20 neg	60 neg	nt	neg
2 Tipperary	NA	NA	NA	NA	NA	NA	NA	Ovine	Heparin	2	2	28/02/01	05/03/01	nt	nt	nt	nt	neg
3 Mayo	309	NA	NA	NA	NA	NA	NA	Ovine	Sera	2	2	28/02/01	05/03/01	1 pos	1 neg	1 neg	nt	nt
4 Louth	63*	215	NA	NA	278	19/02/01	01/03/01	Ovine	Heparin	60	60	02/03/01	08/03/01	155 neg	7 neg	neg	nt	neg
Louth								Ovine	Sera	20	20	02/03/01	08/03/01	neg	nt	neg		
5 Meath	0	300	NA	NA	NA	NA	NA	Ovine	Epithelial	1	1	02/03/01	5/3/01	8/3/01	nt	neg		
Meath								Ovine	Heparin	2	2	04/03/01	11/03/01		nt	neg		
Meath								Ovine	Sera	1	1	04/03/01	08/03/01	neg	nt	neg		
Meath								Ovine	Crust From Foo	1	1	04/03/01	04/03/01		nt	neg		
6 Kilkenny	NA	NA	9	NA	NA	NA	NA	Ovine	Mixed Tissues	1	1	04/03/01	11/03/01		nt	neg		
Kilkenny								Ovine	Heparin	1	1	04/03/01	11/03/01		nt	neg		
Kilkenny								Ovine	Sera	1	1	04/03/01	08/03/01	neg	nt	neg		
Kilkenny								Bovine	Milk	1	1	04/03/01	11/03/01		nt	neg		
Kilkenny								Bovine	Epithelium Tong	1	1	04/03/01	04/03/01		nt	neg		
7 Carlow	NA	195	NA	NA	NA	NA	NA	Ovine	Heparin	3	3	04/03/01	11/03/01		nt	neg		
Carlow								Ovine	Sera	3	3	04/03/01	08/03/01	neg	nt	neg		
Carlow								Ovine	Epithelium ex T	3	3	04/03/01	04/03/01		nt	neg		
8 Louth	5	400	NA	NA	2901/01	NA	NA	Ovine	Sera	5	5	04/03/01	08/03/01	neg	nt	neg		
Louth								Ovine	Heparin	2	2	04/03/01	11/03/01		nt	neg		
Louth								Bovine	Sera	2	2	04/03/01	08/03/01	neg	nt	neg		
Louth								Bovine	Epithelium	2	2	04/03/01	04/03/01		nt	neg		
10 Meath	NA	66	2	NA	80	03/03/01	03/03/01	Ovine	Sera	15	15	07/03/01	15/03/01	neg	nt	neg		
Kilkenny	NA	40	NA	NA	NA	NA	NA	Ovine	Heparin	1	1	07/03/01	09/03/01	neg	nt	neg		
Kilkenny								Ovine	Sera	1	1	07/03/01	15/03/01		nt	neg		
Kilkenny								Ovine	Heparin	1	1	07/03/01	09/03/01	neg	nt	neg		
Kilkenny								Ovine	Epithelium	1	1	07/03/01	09/03/01		nt	neg		
12 Kilkenny	NA	NA	41	NA	NA	NA	NA	Ovine	Heparin	1	1	07/03/01	14/03/01	neg	nt	neg		
Kilkenny								Bovine	Sera	1	1	07/03/01	09/03/01	neg	nt	neg		
Kilkenny								Bovine	Epithelium	1	1	07/03/01	09/03/01		nt	neg		
13 Galway	NA	80	29	NA	NA	NA	NA	Ovine	Heparin	1	1	07/03/01	15/03/01		nt	neg		
Galway								Ovine	Sera	1	1	07/03/01	09/03/01	neg	nt	neg		
Galway								Ovine	Epithelium	1	1	07/03/01	15/03/01		nt	neg		
14 Louth	NA	185	NA	NA	185	NA	1 & 11/3/01	Ovine	Sera	33	33	09/11/01	11/03/01	33 neg	nt	neg		
Louth	NA	135	NA	NA	135	NA	1 & 11/3/01	Ovine	Heparin	5	5	08/03/01	15/03/01	20 neg	nt	neg		
Louth								Ovine	Sera	17	17	08/03/01	15/03/01	neg	nt	neg		
Louth								Ovine	Sera	43	43	13/03/01		38 neg	5 pending	neg		
Louth								Ovine	Sera	11	11	14/03/01		(11 neg)	nt	pending		
15 Monaghan	309	1096	NA	NA	1096	27/02/01	05/03/01	Ovine	Sera	25	25	03/03/01	15/03/01	49 neg	1 neg	neg		
16 Westmeath	NA	NA	150	NA	NA	NA	NA	Ovine	Heparin	1	1	09/03/01	16/03/01		nt	neg		
Westmeath								Ovine	Sera	1	1	09/03/01	16/03/01	neg	nt	neg		
Westmeath								Ovine	Epithelium	1	1	09/03/01	16/03/01	neg	nt	neg		
17 Louth	NA	9	NA	NA	9	10/03/01	10/03/01	Ovine	Clotted	6	6	09/03/01	13/03/01	6 neg	nt	neg		
Louth								Ovine	Epithelium Mou	1	1	09/03/01	16/03/01		nt	neg		
Louth								Ovine	Epithelium Foot	1	1	09/03/01	16/03/01		nt	neg		
Louth								Ovine	Clotted	6	6	09/03/01	13/03/01	9 neg	nt	neg		
Louth								Ovine	Tissue Mouth1	1	1	09/03/01	16/03/01		nt	neg		
Louth								Ovine	Tissue Mouth2	1	1	09/03/01	16/03/01		nt	neg		
19 Roscommon	NA	176	NA	NA	176	NA	08/03/01	Ovine	Clotted	68	68	08/03/01	10/03/01	59 neg	neg	neg		
20 Monaghan	NA	NA	NA	NA	NA	NA	NA	Ovine	Clotted	2	2	12/03/01	13/03/01	1 neg	nt	neg		
21 Monaghan	NA	NA	NA	NA	NA	NA	NA	Ovine	Clotted	9	9	12/03/01	13/03/01	9 neg	nt	neg		
22 Louth	NA	NA	NA	NA	8	NA	NA	Ovine	Sera	8	8	13/03/01	15/03/01	(8 neg)	nt	pending		

# Foot and Mouth Disease Investigations & Controls in Ireland

SVC of 13 March 2001

## Outbreak in Northern Ireland close to the ROI border

The existence of a "hot" suspect in Northern Ireland (NI) was first notified to our officials on 28 Feb, when we were informed that they were intending to impose a precautionary area restriction of 8 km radius. As the premises involved was 2 km North of the border with ROI, the 8 km restriction zone would also take in part of the County of Louth in ROI. Legislation was introduced the same day by DAFRD to effect such a zone. In addition local control measures were put in place. On 1 Mar the outbreak was confirmed as 2001/01 for NI, and a more extensive control area was prescribed, for police control purposes, involving the whole of County Louth North of the national road "N53".

A LDCC was set up in Ballymascanlon, on the edge of the 10 km zone, on 2<sup>nd</sup> March 2001. As the outbreak involved a consignment of sheep which had been illegally imported into Northern Ireland, incident centres for the DAFRD Special Investigation Unit and another for the police were also set up.

The control zone includes a large number of small farms, containing mostly sheep; with some dairy cattle towards the southern part of the zone. In the initial stages of the implementation of the control measures, clinical inspections were prioritised in those farms falling in the protection zone, followed by the surveillance zone. Using computer simulation a virus plume was generated originating on the farm in Northern Ireland. The results of this showed that no farms in the ROI fell within the risk areas of > 1 km. Two rounds of clinical inspections have been completed in the protection zone, and one in the surveillance zone. To date 3 farms within the protection zone have been found to have sheep with healed lesions of unknown origin, possibly feed abrasions, in the mouth (on 9 and 10 Mar). These farms have been sampled and slaughtered as a precaution, along with other in-contact animals. Results from Pirbright Laboratory are awaited.

An initial census showed 4 farms within 3 km (38 cattle, 411 sheep), 297 farms within 3-10 km (9,791 cattle, 14,715 sheep) and 277 farms in the remainder of the control zone. Local geographical constraints have had a major impact on the compilation of an accurate census, as the area includes the Coolley Mountains, on which a considerable number of sheep are grazed, and on which there are a number of wild goats and deer. It is intended that a proportion of the sheep, goats and deer on the mountains be examined and sampled. A plan of action for this is currently being drafted.

The control zone does not contain any export premises or markets. There is one small Local Authority abattoir and there are 3 small meat cutting/distribution premises, which are under Local Authority control.

Link to import of sheep from Carlisle, GB [Evidence to date]

On 15 February two consignments of sheep were bought at Longtown Market, Carlisle (Group A : approx. 266 and Group B : 83). Group A consisted of a mixture of mostly lambs, with some hoggets and a few ewes and rams. It is known that Group A included one or more animals from the farm at Ponteland [outbreak number UK 2000/6]. Group B consisted of Scottish blackface crosses and some sheep with "Roman noses".

Group A were sent to a lairage in Penrith, Scotland from 15 Feb to 18 Feb. Group B were sent to a lairage in Lockerbie, Scotland from Feb 15 to Feb 18. On 18 Feb a haulier picked up Group A and brought them to Broadway Market, Carlisle to be certified to Northern Ireland for slaughter. The Health Certificate stated 291 sheep, but this is understood to be inaccurate, as the sheep were not counted. The haulier continued to the lairage at Lockerbie, Scotland where he picked up Group B. In the process 8 pure-bred sheep belonging to the Lockerbie farm were accidentally loaded, and due to lack of space on the truck, 20 of Group B were left behind. The total in Group B was now 71. The sheep were loaded onto the last two pens of the bottom deck and the last pen of the middle deck of the 3-tier truck. Loading occurred at 5:30 pm on 18 Feb.

The haulier proceeded to take the ferry from Stranraer, Scotland to Belfast, Northern Ireland, arriving at 1:30 am on 19 Feb. From here he drove to a field belonging to Kieran King, just North of the border between Northern Ireland and ROI at Killeen, Co. Armagh. He dropped Group B in the field at around 2:30 am, and then dropped the remaining sheep in a yard belonging to Collins at Meigh, Co. Armagh, Northern Ireland at 3 am. Group A were put into a field with around 5 other sheep which were already on the premises. A second haulier arrived on the evening of 19 Feb to bring these sheep to Kepak, Athleague, Co. Roscommon, ROI for slaughter. 238 sheep were loaded into this truck. A further 10 were brought in a separate van. 2 had died just after arrival. The remaining 21 sheep stayed on the farm at Meigh, Co. Armagh, Northern Ireland. 248 sheep arrived in Athleague around 3 am on 20 Feb and were slaughtered between 10 am and 12 noon. The 21 sheep remained in Meigh, Co. Armagh, Northern Ireland from 19 Feb to 1 Mar when they were confirmed positive for FMD and slaughtered by the NI authorities.

Meanwhile Group B remained in the field at Killeen until 21 Feb, when they were transported to Dromin, Dunleer, Co. Louth, ROI. 71 sheep arrived in Dromin. 8 were immediately reloaded onto the same truck and taken back to Killeen by King. These were the 8 which had been brought accidentally from the farm at Lockerbie, Scotland. 63 sheep remained on the farm in Shed A until 1 Mar when they were located by ROI officials, inspected, sampled and slaughtered. The result of the inspection was negative for clinical signs, and samples taken for antibody and virus isolation were also **negative**. Whilst these 63 sheep were on this premises, a number of contacts onto and off the farm occurred. All of these were traced. Of most concern was the movement of sheep off the site to slaughter in Kildare Chilling Company, Co. Kildare

on 26 Feb and 28 Feb (303 and 218 sheep respectively). A dispersion model was used to determine a potential virus plume from the farm at Dromin had the sheep been excreting virus, and all farms within this area have been clinically examined and have shown no symptoms of FMD.

Given that these sheep were negative on clinical examination, tested negative, and had only travelled with Group A for 9 hours, it now seems unlikely that these sheep were at risk of transmitting FMD.

#### Kepak, Athleague

Given that the 21 sheep which were left behind in Collins, Meigh, Co. Armagh, Northern Ireland were confirmed positive for FMD on 1 Mar, it is reasonable to assume that some or all of the 248 sheep slaughtered in Athleague on 20 Feb had been exposed to virus. It is estimated that clinical signs were first evident in Meigh, Co. Armagh, Northern Ireland on 26 Feb, a full six days after the remaining sheep were slaughtered in Athleague. Thus the lack of clinical signs on ante-mortem in Athleague is not surprising. However, on a worst case scenario there was a risk that virus was being shed from these sheep on 20 Feb. A dispersion model was again used to determine a potential virus plume had the sheep at Athleague been excreting virus from the abattoir. All farms falling within the plume area were clinically inspected, and found to have no clinical signs of FMD.

Precautionary measures were taken on 27 Feb, as soon as the situation became known, with immediate tracing of all products from the production day, all personnel involved in handling the sheep in the abattoir and all vehicles involved in deliveries to the plant during the relevant time period. All premises containing livestock resulting from these traces were restricted and clinically examined on a regular basis. A total of 158 premises are involved. No clinical signs have been reported. Premises will be de-restricted from 13 Mar, following final inspections. All products produced from the animals slaughtered on 20 Feb are being destroyed. A single holding containing sheep which grazed land on which belly contents had been stored has also been slaughtered out.

#### Kildare Chilling Company

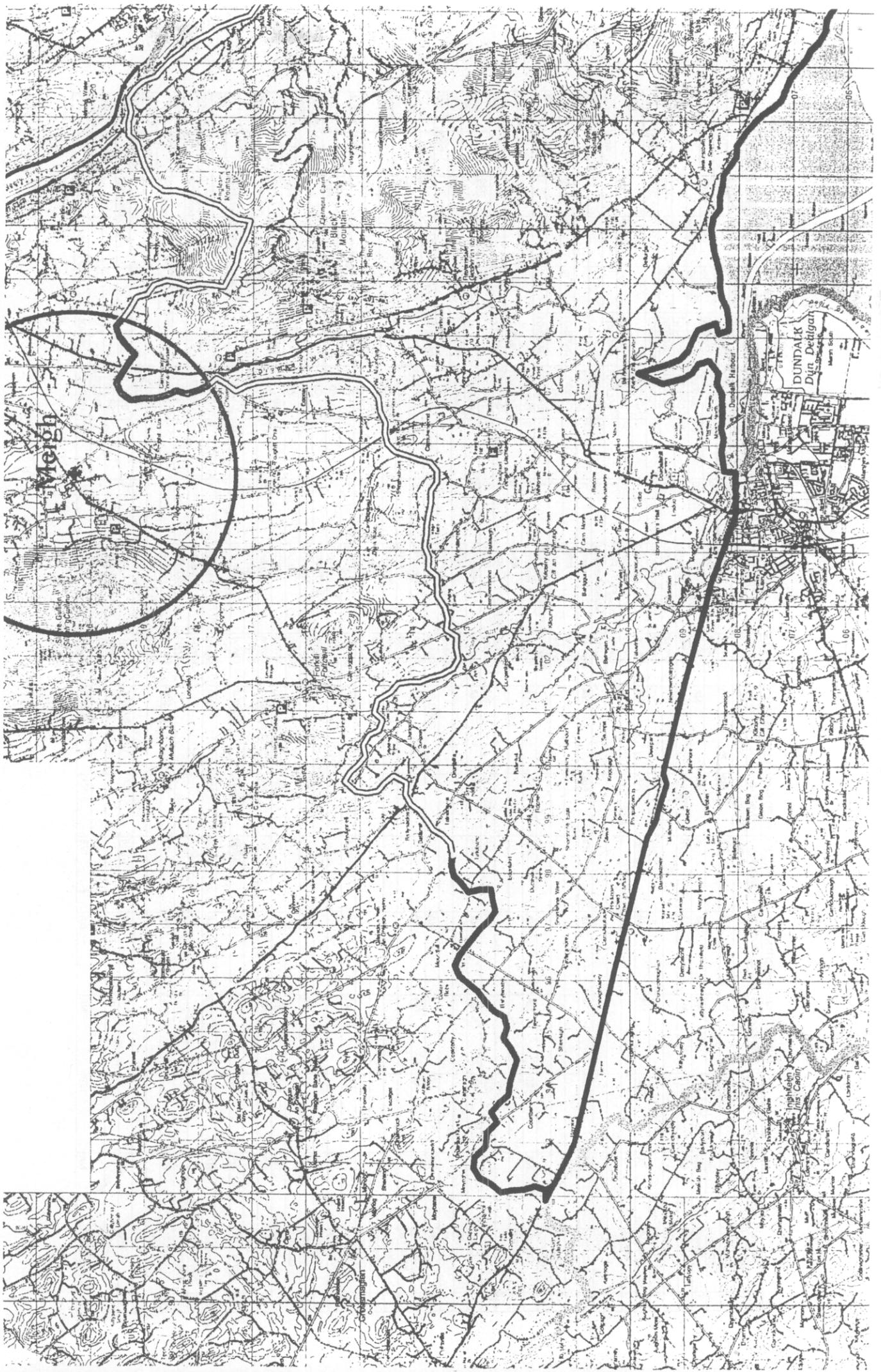
Precautionary measures were also taken in relation to Kildare Chilling. Similar tracing of products, personnel and vehicles with contacts to Kildare Chilling Company on 27 Feb and 1 Mar was also carried out. A total of 430 contacts have been traced. Restrictions are currently in place on all contact premises. No clinical signs have been reported in any of these. Current information indicates that it is unlikely that any sheep incubating FMD were involved in the two consignments slaughtered on 27 Feb or 1 Mar.

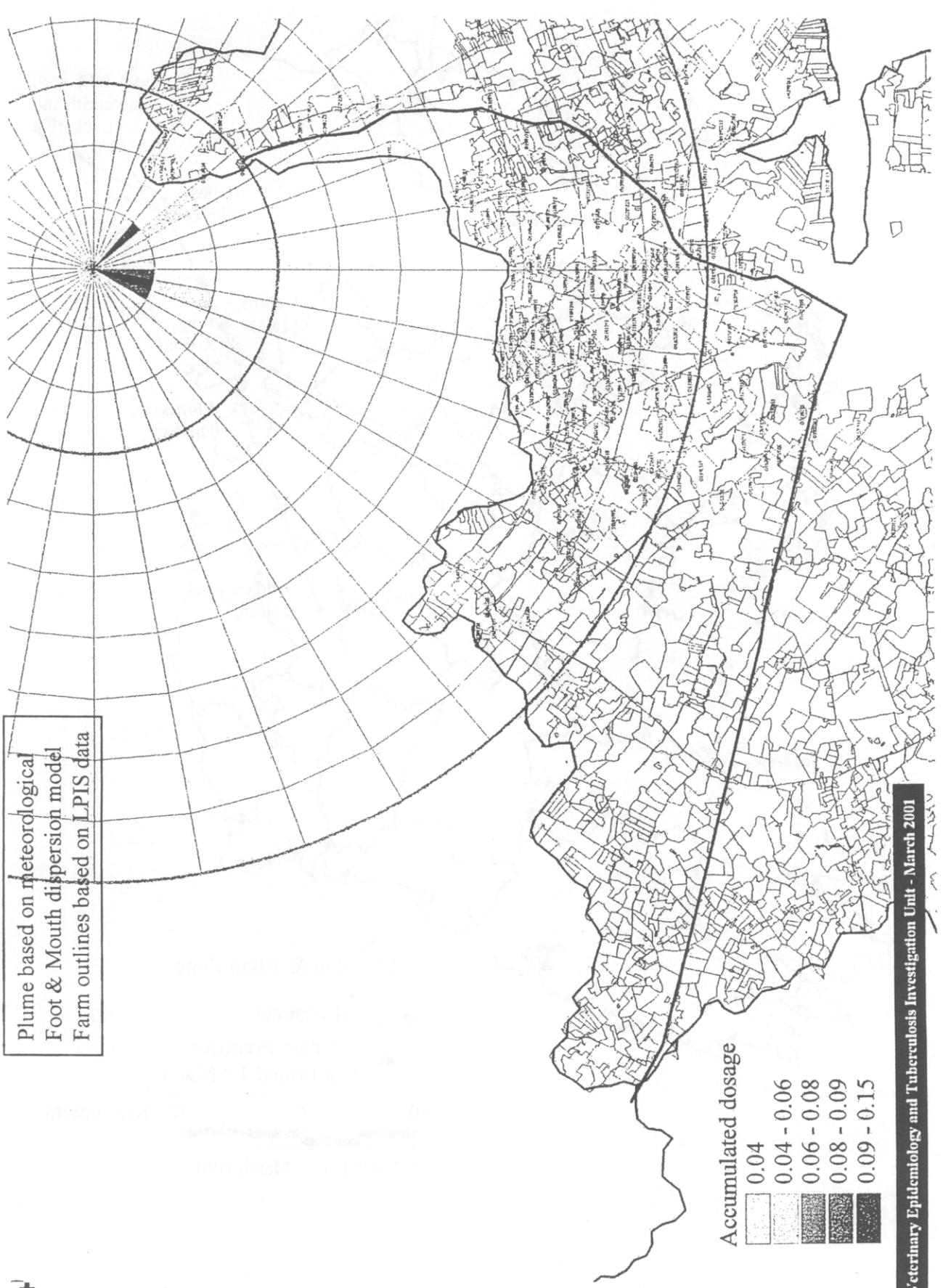
### Laboratory sampling

A total of 19 farms have been sampled to date. These include 14 potential "suspect" farms, and 5 farms which received sheep imported from the UK (2 from GB and 3 from NI). All results to date have been negative.

SUSPECTS AND IMPORTS EXAMINED AND SAMPLED FROM 23RD OF FEBRUARY TO 9TH OF MARCH 2001

County	No. Bovine x UK	No. ov. Contacts	No Bo Contacts	No Por Contacts	No Slaughtered	Arrival Date	Date of Slaughter	Species	Sample Type	No. Samples	No Animals	Sampled	Rep Date	Ab Elisa	VNT	Result AN Elisa	TC
1 Wexford	810*	500	150	11	1464	2 & 3rd March	NA	Ovine	Sera	60	60	23/02/01	01/03/01	40 neg	20 neg	60 neg	
2 Tipperary	NA	NA	NA	NA	NA	NA	NA	Bovine	Heparin	2	2	28/02/01	05/03/01				
3 Mayo	309	NA	NA	NA	NA	NA	NA	Bovine	Sera	2	2	28/02/01	05/03/01	1 pos	1 neg	1 neg	neg
4 Louth	63*	215	NA	NA	278	19/02/01	01/03/01	Ovine	Heparin	20	20	02/03/01	08/03/01	55 neg	7 pending		neg
Louth								Ovine	Sera	20	20	02/03/01	08/03/01	neg	nt	neg	neg
Louth								Ovine	Epithelial	1	3	02/03/01	08/03/01	neg	nt	neg	neg
5 Meath	0	300	NA	NA	NA	NA	NA	Ovine	Heparin	2	2	04/03/01	08/03/01	neg	nt	neg	neg
Meath								Ovine	Sera	1		04/03/01	08/03/01				neg
Meath								Ovine	Crust From Foot	1		04/03/01	04/03/01				neg
Meath								Ovine	Mixed Tissues	1		04/03/01					neg
6 Kilkenny	NA	NA	9	NA	NA	NA	NA	Bovine	Heparin	1	1	04/03/01	08/03/01	neg	nt	neg	neg
Kilkenny								Bovine	Sera	1		04/03/01					neg
Kilkenny								Bovine	Milk	1		04/03/01					neg
Kilkenny								Bovine	ium Tongue&Teat	1		04/03/01	04/03/01				neg
7 Carlow	NA	195	NA	NA	NA	NA	NA	Ovine	Heparin	3	3	04/03/01	08/03/01	neg	nt	neg	neg
Carlow								Ovine	Sera	3		04/03/01					neg
Carlow								Ovine	hellium ex Tongue	3		04/03/01	08/03/01	neg	nt	neg	neg
8 Louth	5	400	NA	NA	NA	29/01/01	NA	Bovine	Sera	5	5	04/03/01					neg
Louth								Bovine	Heparin	2	2	04/03/01					neg
Louth								Bovine	Sera	2		04/03/01					neg
Louth								Bovine	Sera	2		04/03/01	08/03/01	neg	nt	neg	neg
9 Meath	NA	66	2	NA	80		03/03/01	Ovine	Sera	15	Ovines 14	04/03/01	05/03/01	neg	nt	neg	neg
Kilkenny	NA	40	NA	NA	NA	NA	NA	Ovine	Heparin	1	2	07/03/01		neg		neg	pending
Kilkenny								Ovine	Serum	1		07/03/01					pending
Kilkenny								Ovine	Heparin	1		07/03/01					pending
Kilkenny								Ovine	Serum	1		07/03/01					pending
11 Kilkenny	NA	NA	41	NA	NA	NA	NA	Bovine	Epithelium	1	1	07/03/01					neg ending
Kilkenny								Bovine	Heparin	1		07/03/01					neg ending
Kilkenny								Bovine	Serum	1		07/03/01					neg ending
12 Galway	NA	80	29	NA	NA	NA	NA	Bovine	Epithelium	1	1	07/03/01					neg ending
Galway								Bovine	Heparin	1		07/03/01					neg ending
13 Louth	NA	185	NA	NA	185	10/3 & 11/3/01	NA	Bovine	Serum	33	33	09/11/01	11/03/01	33 neg		neg	pending
Louth	NA	135	NA	NA	135	10/3/01 & 11/3/01	NA	Ovine	Heparin	5	17	08/03/01		3 neg		neg	pending
Louth								Ovine	Serum	17		08/03/01		neg		neg	pending
15 Monaghan	309	1096	NA	NA	1096	22/02/01	05/03/01	Ovine	Serum	25	25	03/03/01		49 neg	1 pending	ending	
Westmeath	NA	NA	150	NA	NA	NA	NA	Bovine	Heparin	1	1	09/03/01					pending
Westmeath								Bovine	Serum	1		09/03/01				pending	pending
Westmeath								Bovine	Epithelium	1		09/03/01				pending	ending
Louth	NA	9		NA	9	10/03/01	NA	Ovine	Clotted	6		09/03/01				pending	ending
Louth								Ovine	ithelium Mouthx 2	1		09/03/01				pending	ending
Louth								Ovine	Epithelium Foot	1		09/03/01				pending	ending
Louth	NA	28		NA	28	10/03/01	NA	Ovine	Clotted	6		09/03/01				pending	ending
Louth								Ovine	Tissue Mouth1	1		09/03/01				pending	ending
Louth								Ovine	Tissue Mouth2	1		09/03/01				pending	ending
19 Roscommon	NA	176	NA	NA	176	08/03/01	NA	Ovine	Clotted	68	68	08/03/01	10/03/01	59 neg	1 pending	ending	ending





Plume based on meteorological  
Foot & Mouth dispersion model  
Farm outlines based on LPIS data

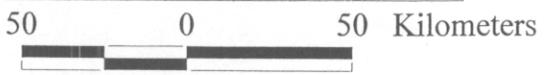
Accumulated dosage

0.04
0.04 - 0.06
0.06 - 0.08
0.08 - 0.09
0.09 - 0.15

Veterinary Epidemiology and Tuberculosis Investigation Unit - March 2001



○ 3km & 10km Zones  
 ↗ Movement  
 ▲ Infected Premises Confirmed 1st March



V.E.&T.I.U. - March 2001