

**‘Unless we announce
disasters, no one will listen’.**

Never said by Sir John Houghton
in his 1994 book ‘Global
Warming’.

Bovine spongiform encephalopathy

BSE

First case identified 1986

Peak number, nearly 40,000 cases, 1992

? scrapie

? Transmissible to humans

Feeding meat and bone meal banned
1988

Entry of offal into food chain banned 1989

CJD Surveillance Unit established 1990

vCJD

First cases identified 1995

Case numbers

1995	3
1996	10
1999	15
2000	28
2012-2016	2
2017	0

vCJD

Incubation period 11-12 years

Median age at death 28 years

(Sporadic CJD, median 60-65 years)

One cow to another:

‘This BSE is terrible, isn’t it.

Don’t ask me, I’m a squirrel.’



Salmonella, E&W

	Total	S.enteritidis
1981	5,172	1,087
1987	20,532	6,878
1997	32,986	23,231
2004	14,283	9,028
2014	7,250	2,331
2015	8,558	2,495

SATURDAY 30 NOVEMBER 1996





ABLE A

1	MR T
2	MRS T
3	MRS S
4	MRS S.
5	MRS MCP
6	MRS S.
7	MISS D.
8	MISS MCK
9	
10	MRS JACKSON
11	
12	
13	
14	MRS B
15	MR B
16	MR SWANSTON
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	

ABLE B

1	MRS CAMERON MR MCK
2	MRS MCK MRS S
3	MR S MRS C
4	MR S MRS B
5	MR SHAW
6	MRS FOSTER MRS MCD
7	MISS MCK MRS F.
8	REV D MR S
9	
10	MR H
11	MR H
12	MRS A MR W
13	MR GARDINER
14	MR J J. T
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	

ABLE C

1	MRS M
2	
3	MR W
4	MRS S MR D
5	MRS G MRS ROGERSON
6	MR D MR HENDERSON
7	MR G
8	MR D MRS P
9	MRS T MRS P
10	MRS B
11	
12	MR W
13	
14	
15	MRS W
16	RS C
17	
18	MRS H.
19	MRS S
20	MRS L
21	MRS T
22	MRS K.
23	
24	MR W

E.Coli O157

Bloody diarrhoea

|

HUS in 10 – 15%

|

Extrarenal effects- neurological, myocardial.

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Death in 4% of **HUS** cases



**BOY LEFT
UNABLE TO
SPEAK OR
WALK BY
E.COLI BUG
PICKED UP
ON SCHOOL
FARM TRIP
WINS HUGE
DAMAGES
PAYOUT**





Events

BSE linked to vCJD 1995

E.coli O157 Central Scotland 1996

S. enteritidis peak 1997

'Dad, ... what's a clone?'



ROBERT THOMPSON

Prevention is better than
cure, especially
when there isn't one.

~~MAFF~~

Food Standards Agency

Established 2000

Funded by Government

Reports to a Government Minister

Non-ministerial

Policy maker

Meetings held in public

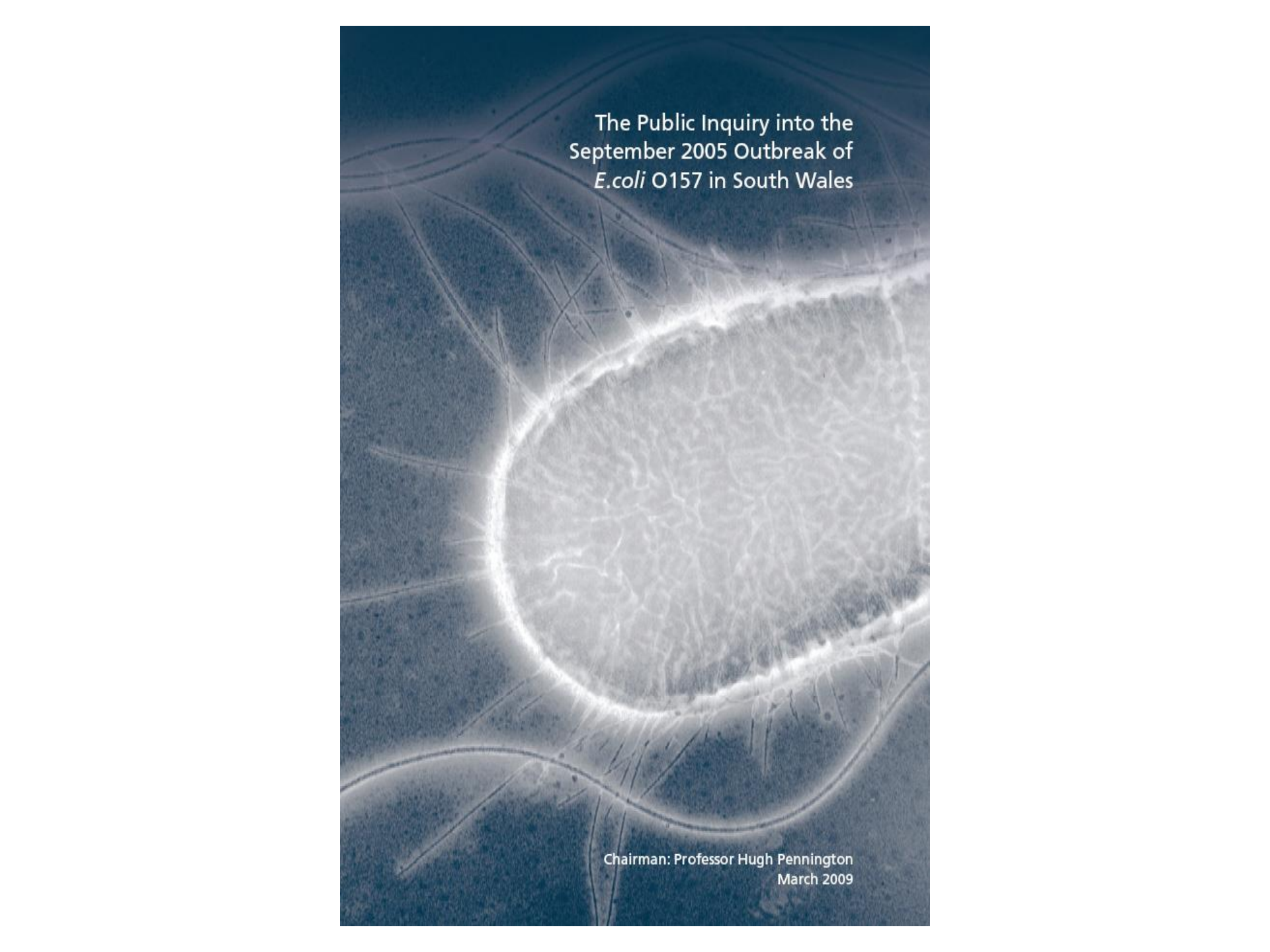
Audit local authorities

Outbreak of *E.coli* O157 in South Wales in 2005

- Primary Case(s) in School ▲
- Abercynon Infants School ▲
- Local Authority Boundary —
- City/Towns/Villages ■

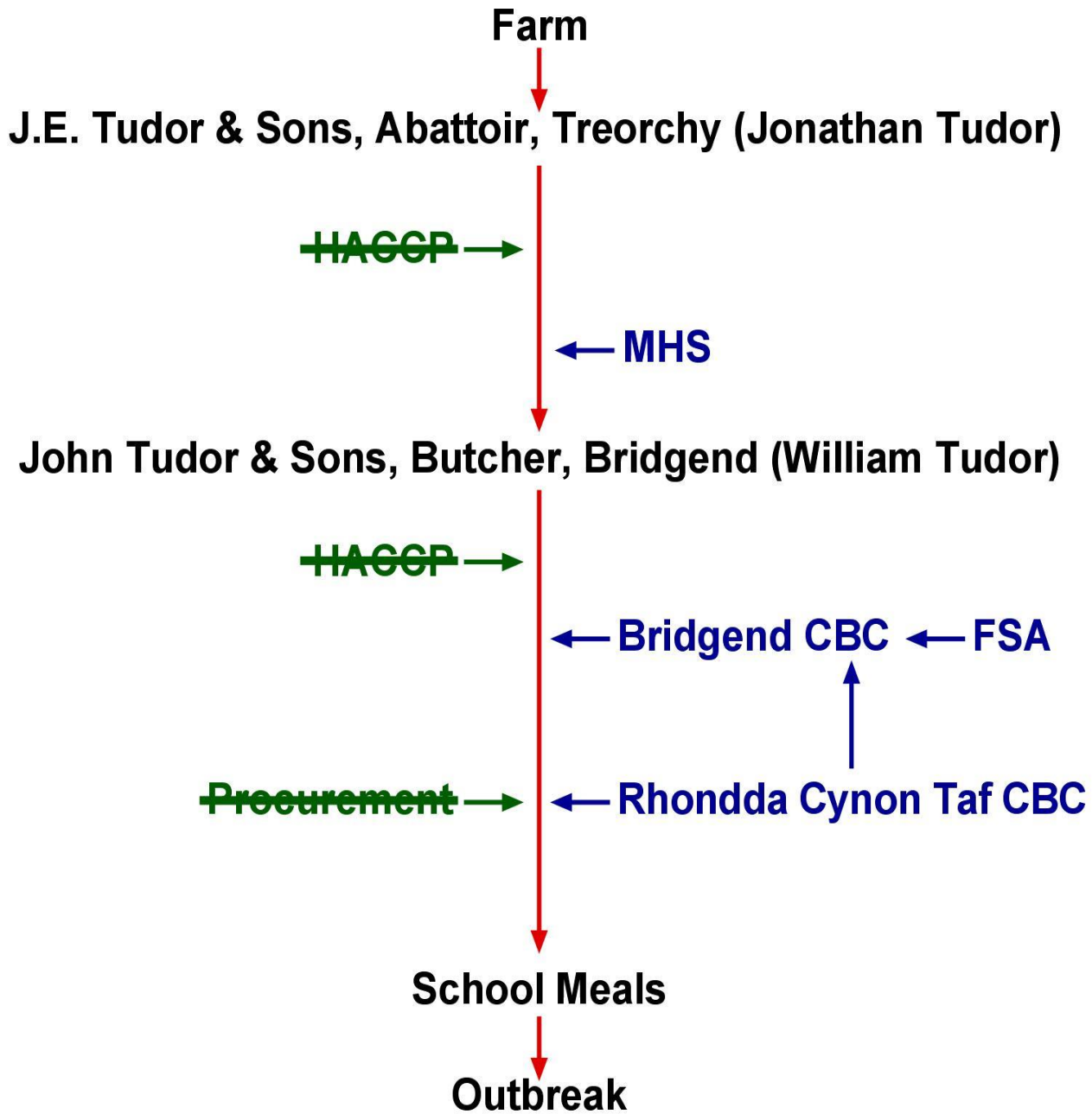


0 5 10 kilometres
0 5 miles

A microscopic image of E. coli O157 cells, showing a large, central, roughly circular cell with a dense, granular interior and a distinct, bright, wavy outer boundary. The background is dark blue with faint, wispy patterns of other cells or fibers.

The Public Inquiry into the
September 2005 Outbreak of
E.coli O157 in South Wales

Chairman: Professor Hugh Pennington
March 2009



Conclusion (Hazard Analysis)

Is the Hazard Analysis system satisfactory?	Y/N
If no, what is the timetable for the unsatisfactory matters identified in the assessment of compliance to be implemented?	

Comments in relation to hazard analysis and inspection of premises:	
Mr Tudor	
No records available.	
Informed by Mr Williams that Mr Tudor had taken ^{com} home that day per updating.	
Today's records not available either !!!	
Will contact Mr Tudor	
Draw a plan if necessary on a separate sheet	
Inspecting Officer: A. Coles.	Date: 18-1-05.

HACCP



Infective gastroenteritis UK

Norovirus 3 million (5734)

Campylobacter 500,000 (55,000)

Salmonella 6672

Rotavirus 4315

Giardia 3779

Cryptosporidium 3587

Shigella sonnei 1088

E.coli O157 891

10^6

Norovirus

10^5

Campylobacter

10^4

Salmonella

10^3

E.coli O157

HACCP

**‘Making predictions is difficult,
particularly about the future’**