

Minutes

Date: Wednesday 6 December 2000
Time: 9.00am to 12.30pm
Venue: Committee Room 1, National Assembly Building

In attendance

Members

Glyn Davies, Chair	Mid and West Wales
Mick Bates	Montgomeryshire
Jocelyn Davies	South Wales East
Delyth Evans	Mid and West Wales
John Griffiths	Newport East
Carwyn Jones	Bridgend
Elin Jones	Ceredigion
Peter Rogers	North Wales
Janet Ryder	North Wales

In attendance

Grenville Jackson	Mid Wales Training and Enterprise Council
Einir Burrowes	Mid Wales Training and Enterprise Council
Peter Rees	Coleg Sir Gâr
John Harries	Welsh Institute for Rural Studies
Professor Terry Marsden	Expert Adviser

Officials

Huw Brodie (items 2 and 5)	Director, Agriculture Department
Mike Dunn (item 2)	Head, Food and Farming Development Division
Rory O'Sullivan (items 2 and 5)	Head, Agriculture Policy Division
Simon Hewitt (item 4)	Chief Conservator, Forestry Commission
Huw Davies (item 4)	Policy Officer, Forestry Commission
Tony Edwards (item 5)	Assistant Chief Veterinary Officer for Wales
Joy Whinney (item 5)	Director for Wales, Food Standards Agency

Gareth Jones (item 6)

CAP Management Division

Secretariat

Adrian Crompton

Committee Clerk

Howell Rees

Deputy Committee Clerk

Item 1: Apologies and substitutions and declarations of interest

1.1 An apology was received from Huw Lewis. Peter Rogers declared an interest as a farmer, Mick Bates as a partner in a farming business. The Chair said that he was a farmer and was also in receipt of a Farm Woodland Grant. Jocelyn Davies declared an interest under item 4 as her son had recently started a wood product business.

Item 2: Minister's report - ARD 18-00(p1)

2.1 The Minister had nothing to add to his report and the Chair invited questions. The following points were raised:

- the help for small abattoirs was welcomed and the Minister was asked when the scheme would be introduced. He said that the Food Standard Agency (FSA) was expected to issue a consultation paper in January and the scheme would take effect from 1 April 2001;
- following his meeting with the Young Farmers Clubs (YFC) the Minister was asked how young people could be attracted into farming and if the issue of a new entrants scheme had been raised. The Minister said the YFC's attitude had been very positive and young people who wanted to farm were keen to consider new approaches. The Cabinet's position on a new entrants scheme had been explained and the YFC had accepted that there were other ways of providing help. As promised at the meeting on 8 November a paper would be provided to the committee in the New Year on help for young entrants;
- the Minister's explanation on Tir Gofal funding was noted. It was important to increase the take up of Tir Gofal if its full economic and social potential was to be realised. The Minister suggested that the Committee might wish to look at the targeting and effectiveness of the scheme in the New Year;
- many farmers were unable to take advantage of Tir Gofal. It was suggested that simple stand-alone environmental schemes, such as a hedgerow scheme, should be introduced so that more farmers had the opportunity to participate. The Minister said the Tir Gofal scheme had been approved by the European Commission and there would not be an opportunity to make any changes until April 2001 at the earliest but suggestions for improvement could be looked at then.

Item 3: Diversification Review - ARD 18-00(p2)

3.1 The Chair welcomed Grenville Jackson, Einir Burrowes, Peter Rees and John Harries to the meeting.

3.2 Grenville Jackson explained that the paper had been prepared in consultation between the Mid Wales Training and Enterprise Council (TEC) and the further and higher education and school sectors. He made a brief presentation on the contribution that education and training policies could make to improve rural development and competitiveness. (Click [here](#) to view the presentation).

3.3 The quality of the paper was praised and the Chair invited questions from the Committee.

3.4 One of the key messages in the paper was the need for a fully integrated approach to education and training. It called for policies to be based on evidence not myths and said that, in respect of agricultural education and training, market forces should not be allowed to prevail. The contributors were asked to explain and expand on these points:

- Grenville Jackson said that the Post 16 Education and Training Committee recognised that a more co-operative approach was needed and there should be equal recognition for vocational and non-vocational courses. The new National Council for Education and Training in Wales (CETW) would help improve integration, for example, by bringing together the funding of 6th forms, vocational training and the higher and further education sectors. The information currently available for planning education and training provision in Wales was poor. Future Skills Wales provided some useful information but there was still a need for better research and statistical evidence upon which to base strategic planning decisions;
- Peter Rees said that further education colleges were already required to assess local labour markets but this was difficult due to a lack of hard information. He hoped that a skills unit in CETW would help education and training providers assess the needs they were aiming to meet. He added that centres of excellence were spread unevenly across Wales making access in some areas difficult and the cost of providing training in rural Wales was higher than in urban areas. He suggested that lessons might be learned from the pilot Education Maintenance Allowance scheme in England to assist students with the additional costs they face;
- John Harries said that provision of agricultural training needed to be concentrated in fewer centres located throughout rural Wales and that better co-ordination was needed between the further and higher education centres.

3.5 Was a full review required of agricultural training provided by the further and higher education sectors? How could ordinary farmers be encouraged to take up training opportunities, what were the benefits to them and how could the value of training be evaluated?

- John Harries said that a wide range of skills were required to deliver agriculture training that were not available in smaller centres. However the courses had to be delivered close to the market. An integrated approach was needed to deliver consistency. Peter Rees added that catchment areas in England were larger which suggested there was scope for fewer, larger centres in Wales;
- Einir Burrowes said that it was often difficult to deliver training to farmers because of their geographical dispersion and their independent attitude. The cost of delivering training was

therefore higher than in urban areas. Farmers could be targeted through existing networks such as the unions and grassland societies. There was no hard evidence to indicate that training in information and communications technology (ICT) increased farmers profits. The benefit was improved management and getting this message across would encourage farmers to invest in suitable training;

- Grenville Jackson said that the provision of education and training must be customer driven. Farmers and small rural businesses needed to see training as an investment not a cost.

3.6 The paper recognised that linkages needed to be improved between the further and higher education sectors but what good practice already existed? How could training provision in rural areas be improved? Mid Wales had a good track record on education from GCSE to degree level but those who attained degrees did not usually return to rural Wales to work. How could this be addressed?

- Einir Burrowes said that the Mid Wales Partnership was looking at the contribution e-learning could make to training provision. The technique did not suit everyone and to succeed learners had to be motivated. E-learners needed to be supported by an appropriate network of tutors and mentors. She emphasised the need to develop a new set of skills and attitudes to enable people in the public sector to work across deeply entrenched organisational boundaries. The emerging CCET in Ceredigion had bid to the Assembly's Partnership Incentive Fund to develop and implement a 'Partnership Skills Development' programme as its first step towards effective planning;
- Peter Rees said that students on farming courses usually worked on a farm and were unable to move away or travel far. This made it difficult for them to access higher level courses. Better planning and integration of sites and provision could help with the problems of access faced by people in rural areas. Coleg Sir Gâr provided some free transport but this was expensive;
- Grenville Jackson said that the establishment of the CETW and the Community Consortia for Education and Training would allow better links between the further and higher education sectors to be made. The way that universities were assessed meant they did not receive any credit for community education. This should be changed if community education was to be encouraged. Generally small firms did not value degrees and it was therefore inevitable that well educated young people moved away to find employment. Offering more sandwich courses with placements in local businesses could encourage graduates to stay in their local area;
- John Harries said that co-ordination between the further and higher education sectors was vital. Good links existed between Aberystwyth University and the further education colleges in Carmarthenshire and Pembrokeshire which allowed students to undertake higher education courses through the colleges. This worked well and a significant number of students moved on to full time higher education. Universities did not receive specific funding for activities such as community development and such activities would take second place to teaching and research unless the funding regime was changed.

3.7 How could lifelong learning be promoted in rural Wales? How could the issue of the cost of transport for students, and other access problems, be tackled and what examples of good practice existed?

- Peter Rees said the Access Fund provided by the Assembly helped to break down barriers to further education. He felt that if appropriate infrastructure and opportunities were provided people in work would take up training opportunities;
- Grenville Jackson said that transport costs added up to 5% to the cost of training contracts in rural areas. He said he would provide examples of access models that existed in Wales.

3.8 What links existed between economic development agencies and the further and higher education sectors to identify and develop the skills required for the growth areas in the rural economy such as agri-food and renewable energy?

- Grenville Jackson said that learning was the key to economic development and CETW, the CCETs and the WDA must work in parallel. Growth areas were important but existing sectors would also need new skills as technology changed. He felt Wales had a unique opportunity to drive forward economic development with the model that was emerging;
- Peter Rees felt that Colleges now had good relationships with the WDA, but these often depended on individuals. There was some overlap on training and business support between colleges and enterprise agencies. He felt that clarification of roles was important so that bodies such as enterprise agencies identified needs on the basis of their links with business but left the provision of training to the education sector. To make the model work there needed to be close links between the relevant bodies.

3.9 Was the lack of advanced ICT skills holding back economic development in rural Wales and how best could skills be provided?

- Grenville Jackson said clear evidence existed that a lack of advanced ICT skills were a constraint on development. At present these skills were being imported and Wales had to invest to develop them. A good example of the way forward was the proposed combined innovation park and training centre at Aberporth linked to Aberystwyth University. There was a need to concentrate on longer term performance measures to encourage this sort of skills development as there were no quick fixes;
- John Harries commented that school leavers now had better ITC skills than three years ago. On the other hand the Institute had provided ICT courses for local authority employees and had been overwhelmed by the demand;
- Peter Rees said that the development of advanced ICT skills lent itself to distance e learning.

3.10 Concern was expressed about the decline in demand for agricultural courses. How could courses be made more attractive and take up improved?

- Peter Rees said that many farmers' sons and daughters needed to be encouraged to take up training opportunities by making it less costly through the provision of allowances. While these could be targeted on farming students initially there was case for making them available for all

those in post-16 education. Education and training should be marketed in more innovative and attractive ways;

- Grenville Jackson said that the Farm Development Group had identified possible future skills shortages if current trends continued, so expanding training was vital.

3.11 The Chair thanked Grenville Jackson, Einir Burrowes, Peter Rees and John Harries for their contributions.

Item 4: Woodland Strategy - ARD 18-00(p3)

4.1 The Chair welcomed Simon Hewitt and Huw Davies to the meeting. Simon Hewitt provided a brief overview of the paper. The Chair then invited questions and comments.

4.2 Walking was a very popular activity in Wales. Following the enactment of the Countryside and Rights of Way Bill would a commitment be given in the Strategy to allow access to National Assembly woodlands? Could this be a permanent dedication to protect access in the future in case woodlands were sold to the private sector?

- Huw Davies said that following consultation on the Bill it had been decided to make access to woodlands voluntary. When the provision on dedication came into force the Forestry Commission would make recommendations to the Minister on how the power should be used.

4.3 There were few references in the Strategy to renewable energy, biomass and short rotation coppice, the effect that forests could have on greenhouse gases or encouraging added value to Welsh wood. It was suggested these needed strengthening:

- Simon Hewitt said that the draft in front of the Committee was an outline of the Strategy and these areas would be elaborated in the final version. An estimated 125 megawatts of electricity could be generated in Wales from small round wood, forest and sawmill residues and short rotation coppice making an important contribution to renewable energy. The Forestry Commission was undertaking research into the contribution that forestry could make to combating greenhouse gases.

4.4 References were made in the Strategy to the need for Welsh timber to compete on the international market. Wales imported a lot of wood but had the best conditions in the UK for quality timber production and more use should be made of the poorest land. How could the commercial aspects of Welsh timber be developed?

- Simon Hewitt agreed that Wales was able to produce high quality timber but the strength of sterling, cheap imports and falling prices on the world market made it difficult to compete. When most timber producers had to accept the world price for their product, locally-based added value markets were important. Several of these were being developed with Objective 1 funding.

4.5 What was the balance of demand between soft wood and hard wood and were there any benefits to be gained from branding Welsh timber?

- Simon Hewitt told the Committee that the Strategy avoided the polarised debate about soft and hard wood because of the increasing use of continuous cover systems that would lead to mixed woodlands. As a result Wales would be able to benefit from both. Coed Cymru showed the potential benefits of Welsh branding and the Forestry Commission recognised the importance of branding for maximising financial returns.

4.6 What was the Forestry Commission doing to develop tourism and private forestry?

- Simon Hewitt said the Commission intended to develop tourism projects in Wales next year once the transfer of financial responsibility for its work in Wales to the Assembly had been completed. He added that he worked very closely with private sector forestry concerns to help develop their businesses.

4.7 Forestry could have an important role in flood prevention and flood defence. Had the Commission discussed these issues with the Environment Agency.

- Simon Hewitt agreed that forestry had an important role to play as it could lock up water and so reduce peak flows. A pilot scheme in South Wales was examining flood plain forestry. Forestry could also reduce acid rain run off. Huw Davies added that the Commission was working closely with the Environment Agency in the context of land use planning and the impact of planting and felling on river flows.

4.8 Concern was expressed about the possible closure of the BSW sawmills in Newbridge. The loss of jobs would have a devastating effect on the local economy.

- Simon Hewitt said that state of the art technology was needed for mills to keep ahead in a very competitive market. Milling companies were not concerned with location and would move if it was to their benefit.

4.9 The Minister told the Committee that he proposed to bring the final draft of the Strategy to a meeting in the New Year. The Strategy should look forward to new uses for forestry. Woodlands could make an important contribution to the environment and the community and help tackle social exclusion.

4.10 It was suggested that the Committee should hear the views of private forestry owners when it next considered the Strategy. The Chair thanked Simon Hewitt and Huw Davies.

Item 5: Phillips Report - ARD 18-00(p4)

5.1 The Minister reminded the Committee that, at its meeting on 2 November, it had agreed to look at the current animal health controls and their effectiveness.

5.2 The Chair invited comments and questions and the following points were raised.

5.3 The Minister was asked to outline the current position on Transmissible Spongiform Encephalopathy (TSE) research and the possible infection of milk.

- the Minister said that the Food Standard Agency (FSA) was responsible for food safety issues. Ongoing tests had provided no evidence of BSE in sheep or milk;
- Joy Whinney said that a difficulty with one of the current research projects relating to on BSE in sheep, based on analysis of pooled sheep brains from before 1992, was interpretation of the results. This experiment had not been designed to look for BSE in sheep. Criteria were needed to be able to evaluate any ambiguous results that might appear. Research had not found any evidence of BSE infectivity in milk. A note would be provided on whether the potential infectivity of different types of milk was being considered. Tony Edwards added that trials were ongoing to establish whether milk from cows suffering from BSE could be infected.

5.4 What were the prospects for the development of a live test for BSE?

- Huw Brodie told the Committee that the Ministry of Agriculture Fisheries and Food (MAFF) was working on live testing. The main test currently available involved mice and took two year to complete. Tony Edwards added that a live test was being developed in the USA but it was not yet sufficiently sensitive and unlikely to be so for at least two years.
- Joy Whinney said that the FSA was pressing for a live test especially for sheep.

5.5 The FSA was satisfied that standards in mainland Europe for the controls on beef were adequate but what about the controls on blood, gelatin and tallow?

- The Minister said that the FSA had welcomed the controls agreed at the Agriculture Council in Brussels which included a ban on meat and bone meal in animal feed and on cattle over 30 months going in to the human food chain;
- Joy Whinney said that the FSA had recommended that a ban should be placed on the use of blood, gelatin and tallow in animal feed as a precautionary measure. Huw Brodie added that the Agriculture Council had decided that blood, gelatin and tallow should be banned from all ruminant feed and that existing stocks should be withdrawn.

5.6 The FSA's review of the BSE controls indicated that the practice of spreading blood on land would be reconsidered. What was the time scale for this?

- Huw Brodie said that advice would be provided for the Minister on this issue in the next few weeks taking account of current practice and the views of the Spongiform Encephalopathy

Advisory Committee (SEAC) and the FSA.

5.7 There was no analytical method of identifying mechanically recovered meat. Who was responsible for developing a test?

- Tony Edwards said that mechanically recovered meat was included in the TSE research programme and he would cover that in his note on the subject.

5.8 What information was available on the research into pathways of infection?

- Huw Brodie suggested this might be something to explore in the joint meeting with the Health and Social Services Committee arranged for 24 January. Tony Edwards offered to provide a summary of the current review of research into TSEs, when it was completed.

5.9 The FSA had said that the over 30 month rule could not be relaxed until specific conditions were met. What were those conditions?

- Joy Whinney said that the FSA considered that January 2002 would be the earliest date on which a decision could be taken to announce the year of birth of animals that need not enter the over 30 months scheme. The conditions to be met before any such decision were:
- that the BSE epidemic were declining as currently forecast;
- that the number of BSE cases in cattle born after 1st August 1996 were in line with predictions; and
- that there was evidence of reliable and robustly enforced cattle identification procedures; and that the feed ban continued to be rigorously enforced.

5.10 More information was requested on the programme to breed rams that were genetically resistant to scrapie. Was there a similar programme for cattle?

- the Minister said a programme to breed scrapie out of the flock had been proposed but there were not enough resistant rams in some of the indigenous Welsh breeds. Huw Brodie added that the results of a consultation were being considered. The consultation had suggested a programme lasting around 10 years to remove scrapie from the flock. There were no such proposals for cattle as the measures already in place would remove BSE from the herd.

5.11 British cattle were fully traceable but was the FSA satisfied with the traceability of imported beef?

- Joy Whinney said it was difficult to assess the effectiveness of controls on imported meat but checks, recently stepped up, had shown a high level of compliance. The FSA wanted to see better country of origin labelling of beef. The FSA also wanted to see improvements in the operation of the cattle passport system in the UK.

5.12 The statement from Brussels on BSE controls in Europe was welcome but it had taken for too long to bring them in. Action was urged to prevent European beef processed before the ban on cattle over 30 months old entering the human food chain in Britain.

- the Minister said that the FSA had been set up to deal with food safety issues. Its independent advice was that there was no need to ban beef imports. It would not be in Britain's interest to start a trade war and, in any case, checks on European beef being transported in Britain would not be practical. BSE was a European problem and a co-ordinated approach was required;
- Joy Whinney said that any action must be proportionate to the risk and provided a table (copied at annex 1) which compared the incidence of BSE in France and the UK. The advice provided by the FSA had to be based on scientific evidence.

Action points

5.13 Summary to be provided of outcome of TSE research, including tests for mechanically recovered meat, when completed (Copies of the notes provided are at annex 3 and 4) - **Tony Edwards, Assistant Chief Veterinary Officer for Wales**

5.14 Note to be provided on work on BSE infectivity in milk. (A copy of the note provided is at annex 2) - **Joy Whinney, Food Standards Agency**

Item 6: Ombudsman's Reports - ARD 18-00(p5)

6.1 The Chair explained that the paper set out the proposed arrangements for dealing with Ombudsman reports in the future.

6.2 The suggestion of an annual summary report was welcomed. The Committee agreed to continue to receive reports on all Ombudsman cases and deal with them in the way set out in the paper.

Item 7: Public appointments

7.1 The Chair asked for nominations for Members to deal with public appointments.

7.2 Jocelyn Davies nominated Glyn Davies and Mick Bates nominated Delyth Evans. There were no further nominations and the Committee agreed the nominations.

Item 8: Minutes of previous meeting - ARD 17-00(min)

8.1 The Committee adopted the minutes of the meeting of 22 November.

The Minister was asked if the legality of the GM trial in Flintshire had been established, if the recent

flooding had prevented the destruction of the crop and whether any contamination had occurred as a result. He was reminded that he had promised to write on these matters but no letter had yet been received. The Minister said he had written to Friends of the Earth with his view on the trial's legality but the issue remained unresolved. Destruction of the crop had been delayed by the floods but he expected the matter to be resolved by the time of the next meeting.

Secretariat

December 2000

Annex 1

BSE Cases per Million Cattle

	Northern Ireland	Scotland	England	Wales	Republic of Ireland*	France
BSE cases January to October 2000	14	27	952	75	57	91
Cattle population (million)	1.77	2.1	6.35	1.05	6.99	21
No. cattle more than 24 months old (million)	0.74	0.9	3.8	0.6	3.5	11.04
BSE cases per million cattle over 24 months old	19	30	250.5	125	16.3	8.24

* Figures relate to January to August 2000

Annex 2

A Note by the Food Standards Agency Wales

BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) IN MILK - POSITION PAPER

1. As stated in the recently published BSE Controls Review report (1) there is no evidence, currently,

that BSE can be transmitted by milk. Milk for human consumption is therefore allowed to be produced from cows (other than BSE suspects) regardless of age, and it is considered to present no risk to consumers.

2. The evidence on which this advice is based comes both from laboratory research on mice and from field studies of naturally-infected BSE herds. In the early 1990s mice were fed large volumes of milk from BSE-infected cows ⁽²⁾: no infection was detected. A couple of years later a survey by MAFF's Epidemiology Unit ⁽³⁾ looked at the offspring of BSE-infected dams that had suckled them for at least a month - again, no cases were recorded.

3. Although there is overwhelming evidence that milk-borne transmission of the disease does not occur the Food Standards Agency is continuing to finance studies into this. A team at the Veterinary Laboratories Agency has submitted proposals for a project in which milk will be collected from experimentally-infected cattle: both high and low doses of BSE will be used, and collection will continue throughout lactation. The milk will then be fractionated. In particular, this will separate out the leucocytes. Tests will be carried out on the various fractions, to determine whether prions can be detected - and if so, in which fraction or fractions. Work is likely to commence within the next few weeks.

4. The project is expected to support current beliefs, that there is no transmission of BSE prions in milk. However, should this not be the case further work would be planned at that time to investigate what (if any) effects processing might have on transmission, including possible variations between skimmed, semi-skimmed and whole milk.

5. Meanwhile, milk continues to be a safe, nutritious foodstuff, and its known benefits far outweigh any theoretical and infinitesimal risks from BSE.

Notes

(1) Review of BSE Controls, December 2000. London: Food Standards Agency.

(2) Taylor DM *et al*, Absence of disease in mice receiving milk from cows with bovine spongiform encephalopathy. *Veterinary Record* **136**, 592 (1995).

(3) Wilesmith JW *et al*, Absence of BSE in the offspring of pedigree suckler cows affected by BSE in Great Britain. *Veterinary Record* **141**, 250-251 (1997).

M C Dragon
Agricultural Branch
4 January, 2001

The test being developed to detect MRM is based on a particular gene in the DNA strand. This gene can either be switched "on" or "off". If the gene is present and is "on" then there must be neural tissue present in the meat. The latest work is looking at the volume of neural tissue that needs to be present for the test to detect it. Thus the identification of MRM depends on the detection of neural tissue in the meat.

WA EDWARDS

Assistant Chief Veterinary Officer, Wales

Annex 4

SUMMARY OF TSE RESEARCH

Since BSE was first diagnosed the British Government has spent over £140 million on research into BSE and other TSEs. Of this sum of money, £76 million has been spent by MAFF on nearly 200 separate projects. Inevitably research into TSEs is difficult and slow since no definite infectious agent has ever been isolated and there is no detectable immunological response by the host - normally two prerequisites for confirmation of infectious disease. Another factor influencing the progress of the research is the extremely long incubation period of such diseases.

The MAFF programme can be divided into four main categories:

- Epidemiology - to confirm the origin of the disease and follow the course of the epidemic.
- Pathogenesis and the nature of the agent - to study the mechanisms of the disease.
- Diagnosis - research into improvement of the diagnosis of the BSE agent.
- Transmission - to identify routes of transmission and which species are susceptible.

A major programme is also underway examining Scrapie and the possibility of BSE being transmitted to sheep. Studies have already shown that sheep can be infected with BSE under experimental conditions by intra-cerebral injection or feeding brain material from cattle with clinical BSE. MAFF has a large research effort directed at the study of experimental BSE and Scrapie in sheep. The programme includes looking for the presence of BSE in sheep in the National Flock, transmission studies, diagnostic test developments, epidemiology of TSEs in sheep and the role of host genetics in resistance as susceptibility to Scrapie. A breeding flock of Scrapie-free sheep has been established from animals imported from New Zealand. These animals were sourced because New Zealand has no cases of Scrapie and they are being used extensively in this and other studies.

Turning to live tests, MAFF is currently funding several projects that aim to identify and define specific disease markers that could be used to diagnose BSE. These include examining urine and other mediums such as blood and spinal fluids. However, for a test to be effective it must be highly specific for BSE and

be sensitive enough to detect levels of infection before the development of clinical disease. This has not yet been accomplished but efforts are continuing to isolate possible markers. Currently a blood test is under development which looks promising but experts recognize that there could be at least two further years of development before it is sufficiently reliable to be used as a diagnostic test in the live animal.

Finally, the MAFF and the Medical Research Council (MRC) websites contain substantial amounts of information on the research programmes in this area and are constantly being updated to reflect the latest position.

WA EDWARDS

Assistant Chief Veterinary Officer, Wales