



SCOTTISH EXECUTIVE

Environment and Rural Affairs Department

Animal Disease Control: Proposals for Legislation in Scotland

Consultation Document on
Protecting Scotland's Livestock Industry
and Wider Rural Economy

February 2003



SCOTTISH EXECUTIVE

Making it work together

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CHAPTER 1

Introduction and context

1. Amendments to animal disease control legislation are under consideration by the Scottish Executive to complement a suite of measures being taken to protect Scotland's valuable livestock industry and to enhance the Executive's ability to respond to animal disease outbreaks and minimise their impacts. These impacts can include significant costs to other sectors of the Scottish economy, such as tourism. **This consultation document invites comments on proposed legislative changes by 23 May 2003.**

2. The Scottish Executive led Economic Impact Assessment Group, which was established in March 2001 in response to the then outbreak of Foot and Mouth Disease (FMD), quickly identified that impacts were not confined to agriculture - businesses in a myriad of industries were affected. Their work found that while agriculture did face significant difficulties, other sectors such as retail, transport and tourism faced an equally, and in some cases arguably more, difficult period. The dynamic linkages within rural communities mean that businesses are often reliant upon one another and an impact on one sector has a knock on effect to others. The importance of the linkages between agriculture and tourism were further highlighted in January 2003 by the Parliament's Enterprise and Lifelong Learning Committee in their Report on the Future of Tourism in Scotland. The legislative proposals explained in this document are aimed at enhancing the Scottish Executive's ability to respond quickly to, and minimise the impact of, serious animal disease on all parts of the Scottish economy and society.

3. There are two points that the Scottish Executive would like to stress in this consultation. First, the legislative powers being considered for Part 1 of a Bill (see Chapter 3) would be for use only in the event of a serious and fast-spreading animal disease outbreak and, even if such an event occurred, these additional powers might not be used. The possible powers are judged to be necessary to provide Scottish Ministers with maximum flexibility in bringing a virulent disease quickly under control. In seeking to eliminate quickly such a disease outbreak, Scottish Ministers would be guided by the scientific advice at the time, which will take into account, for example, technical advances in diagnosis or in vaccination. It is worth noting that the Inquiry Reports into the FMD outbreak in 2001 acknowledged that considerable technical problems and trade implications existed with respect to vaccination against disease, and work is on-going to resolve these issues.

4. The second point to be stressed is that references to animals means predominantly farm animals such as cattle, sheep, goats, pigs, poultry and farmed deer, not domestic or companion animals such as dogs, cats, etc, or horses. However, the susceptibility of any animal to a major disease outbreak must be considered at the time.

5. The possible Scottish legislation mirrors animal health legislation already passed at Westminster for England and Wales. Broadly speaking the principles of disease control are consistent across Great Britain (GB) but the following proposals reflect the different approaches taken in Scotland and in some respects the different legal systems. As a result of this consultation, the possible legislative proposals for a Scottish Bill would reflect the views of Scottish stakeholders.

Context

6. The powers of Scottish Ministers are governed by the Animal Health Act 1981. Since then there have been a number of developments in the science of disease control, the identification of new and emerging disease threats and also heightened awareness of disease risks. The importance of this legislation was reinforced by the consequences of the 2001 FMD outbreak. The disease was fast moving - requiring a quick response to eradicate it. Whilst Scotland was able to eliminate the disease in 3 months, it had significant consequences for the livestock industry and the wider rural economy.

7. Whilst the existing legislation broadly served its purpose during 2001, it did highlight the importance of revising legislation to make some powers more explicit and to increase the powers available in the disease control 'tool kit' to make the legislation relevant to new and emerging diseases. The Phillips Inquiry into Bovine Spongiform Encephalopathy (BSE) highlighted such preparedness in legislation as a key lesson.

FMD Inquiries

8. The Scottish Executive's Response (<http://www.scotland.gov.uk/library5/agri/fmdr-00.asp>) to the main FMD Inquiries (<http://www.fmd-lessonslearned.org.uk>; <http://www.royalsoc.ac.uk/inquiry/>; and <http://www.ma.hw.ac.uk/RSE/>) provides a framework for:

- keeping out infectious agents of exotic (in lay terms, foreign) animal disease;
- reducing livestock vulnerability by reforms in industry practice; and
- minimising the impact of future outbreaks.

9. The Executive's Response also outlines the significant work programme that is proceeding in each of these areas. A possible Scottish Bill would contribute, in terms of the relationship to infectious diseases, to reducing vulnerability through powers for disease surveillance and minimising impact through its facilitation of a rapid disease control response. These issues are set out in the Scottish Executive's Contingency Plan (<http://www.scotland.gov.uk/consultations/agriculture/fmdcontingency.pdf>) which has been revised in the light of the Inquiry Reports and stakeholder comments.

10. This consultation document, and eventual possible legislation, should also be seen in the context of the Animal Health and Welfare Strategy. This is being developed on a GB basis to reflect the importance of co-ordination and co-operation within a single animal disease epidemiological unit. The strategy will set out an agreed vision for the GB's animal health and welfare status. The final strategy will provide a framework in which these goals will be met. However, delivery will be flexible enough to take account of Scottish circumstances and, reflecting this, any Bill would be considered by the Scottish Parliament.

Disease Control Response

11. The nature of the disease control response is set out in the FMD Scottish Contingency Plan. The revised Plan (February 2003) goes into some aspects in more detail and, in particular, highlights the role of vaccination as a key element of the disease control strategy. All the Inquiry Reports agree the continued need to slaughter animals on Infected Premises and Dangerous Contacts (where there is a confirmed link to animals known to have FMD) as

required by European Union (EU) legislation. Vaccination will be considered as part of the disease control strategy with the preference for “vaccination to live”. However, as the Royal Society Report in particular shows, there are a number of outstanding issues which need to be resolved to make vaccination a more practicable solution and in its Response to the Inquiries the Executive has undertaken to do its part to resolve these points.

12. Thus, Part 1 (see Chapter 3) of a possible Scottish Bill would endeavour to ensure that all necessary powers are available to deal quickly with any new outbreaks of FMD or any other major animal disease.

13. The other main component of a Bill (Part 2 of - see Chapter 4) would be to provide additional powers to eliminate Transmissible Spongiform Encephalopathies (TSEs) in sheep and goats. Scrapie is a TSE disease of sheep and goats, which has been present in the UK for over 200 years. Although Scrapie cannot be passed to humans, there is a theoretical possibility that sheep or goats, like cattle, could have been infected with BSE, having eaten contaminated meat and bone meal before the feed ban became fully effective. BSE in cattle has been linked to variant Creutzfeldt-Jacob Disease (CJD) in humans. BSE can be transmitted experimentally to sheep but has never been found in the national sheep flock, or in goats but, if it did exist, it could be masked by Scrapie.

14. To address this theoretical risk, in July 2001 the Scottish Executive, in conjunction with the Department for Environment, Food and Rural Affairs (Defra) and the Welsh Assembly Government, launched the National Scrapie Plan (NSP) for GB. This is a long-term programme to reduce and eliminate TSEs, including Scrapie and BSE if present, through a breeding programme for genetic resistance. The NSP is voluntary at present but, to ensure compliance, a move to compulsion at some point in the future may be necessary in order to accelerate the delivery of the aims of the Plan.

15. To summarise, Scottish primary legislation is being considered in the context of:

15.1 a possible outbreak, surge and spread of FMD or other such virulent and fast spreading OIE List A (see next Chapter) animal disease;

15.2 the need to provide Scottish Ministers with powers compulsorily to blood sample, genotype test and identify sheep under the NSP and provide also for testing of goats; and

15.3 the need, on a *contingent* basis, to allow a flexible and quick response to a crisis arising from evidence of BSE occurring naturally in sheep or goats.

CHAPTER 2

Disease risk, internationally and threatening Scotland

16. The international organisation that addresses security of international trade in animal disease terms is the Office International Des Epizooties (OIE). The United Kingdom (UK) is a member of the OIE which has 3 main functions:

16.1 it sets animal health standards for international trade based on the latest scientific information;

16.2 it advises on animal disease control measures including technical support to Member Countries; and

16.3 it provides an international disease surveillance database, covering 2 categories of disease:

16.3.1 OIE List A diseases (see Annex A) are diseases which have the potential for serious and rapid spread, irrespective of national borders, and can have serious socio-economic or public health consequences. They include FMD and a number of other acute epidemic diseases. Member Countries are required to give an immediate report of the occurrence of such diseases on their territory and the OIE in turn immediately notifies all other Member Countries.

16.3.2 List B diseases are less significant in the sense that they are less rapidly spreading but can still have significant socio-economic or public health consequences. The status of individual countries in respect of these diseases is notified in an annual OIE report.

17. When a List A disease is reported to the OIE this is followed by international trade restrictions on the country affected. In the case of FMD, regaining disease free status is subject to a set of conditions designed to ensure that virus is absent both from live animals and animal products. The disease must have been controlled in the first instance by a stamping out policy on Infected Premises and those judged to be Dangerous Contacts. Emergency vaccination may be used to help get ahead of the disease and prevent its transmission into disease free areas. If a programme of emergency vaccination has been followed, a waiting period is imposed before export status can be resumed. This is set internationally by the OIE and differentiates between the situation where animals are vaccinated and later slaughtered (not entering the food chain) and that where animals are vaccinated, allowed to live out their economic lives, and enter the food chain in the usual way. Until May 2002, a period of 3 months after slaughter of vaccinated animals or 12 months after “vaccination to live” was required. In the light of scientific advances the OIE has now reduced the 12 month period following a “vaccinate to live” programme to 6 months, provided that serological (blood) testing shows the absence of infection. This testing must be done using a non-structural protein (NSP) test which is capable of distinguishing infected from vaccinated animals. (Work is on-going to validate these tests but as yet no definitive test for international trade has been agreed.)

18. Whilst individual Member States of the EU are also members of the OIE, collectively the EU Commission also applies EU wide controls on acute epidemic animal diseases which impact on intra-community and international trade. For example, EU FMD policy is one of stamping out the disease and, as an EU Member State, it is binding on the UK to apply this policy. 'Stamping out' in the EU context refers only to Infected Premises and to Dangerous Contacts and can be extended to so-called “Slaughter on Suspicion”. Domestic legislation underpins this obligation. The Commission is preparing a new FMD Directive and, once approved, this will govern the future policy relating to trade within the EU.

Illegal imports

19. The Scottish Executive is also concerned about the illegal importation of meat and other animal products as a source of human and animal disease. A number of steps have been taken to deal with this problem and further work is ongoing. The main task is to assess and deal with the areas of greatest risk and the Veterinary Laboratory Agency has been commissioned to conduct a thorough risk assessment which will identify the risk of infected meat being fed to livestock. The study results are expected to be available at the end of March 2003 and will allow the enforcement agencies to target their efforts more effectively and make the best use of their resources. Furthermore, the Machinery of Government Secretariat in the Cabinet Office has undertaken a study of the administration of import controls on animal and plant products and their recommendation that the responsibility for detecting and detaining illegal meat imports be given to HM Customs and Excise has been accepted. It is hoped that this change will be implemented in April 2003.

20. In the meantime a number of important steps have been taken to tackle this problem: feeding swill to pigs has been banned; enforcement authorities have been given greater powers to search for and to seize meat; publicity campaigns have been launched to inform travellers about regulations and the dangers of bringing animal products into the country; and improved co-ordination arrangements have been introduced between the enforcement agencies and other government departments. As a result of pressure from the UK, personal imports of animal products (except baby milk and baby food) from Third Countries (countries outside the EU) have been banned since 1 January 2003, a duty has been placed on carriers to bring the import rules to the attention of passengers and all Member States are now required to display posters at arrival points.

Exotic Diseases threatening Scotland

21. There are a number of exotic (in lay terms, foreign) diseases that are capable of causing epidemics in Scotland and other parts of GB, if they were to be introduced. Few of the diseases, which threaten livestock, are new. Some have persisted due to relatively poor standards of disease control abroad or because wildlife has retained disease. In most cases their re-emergence is due to the vast increase in the international movements of animals and their products. In some countries livestock husbandry systems, which are of low density or low productivity, can cope with some of the diseases described. However, modern farming methods frequently bring together large numbers of livestock for breeding, production or marketing. Epidemics require a high density of susceptible animals.

22. Among the exotic diseases on the OIE List A are:

FMD – affects cloven footed animals, elephants and hedgehogs.

Swine Vesicular Disease – affects pigs only.

Classical Swine Fever – affects pigs only.

African Swine Fever – affects pigs only.

Newcastle Disease – affects poultry, turkeys and some game birds.

Highly Pathogenic Avian Influenza – affects birds of many species but could jump species barriers.

Bluetongue – affects ruminants, especially sheep.

Rinderpest (cattle plague) – mainly cattle but can affect sheep and goats.

23. There are also other diseases that would cause serious losses if introduced into the country. These include Vesicular Stomatitis of cattle and horses, Peste de Petits Ruminants (a Rinderpest-like disease of sheep and goats), Contagious Bovine Pleuropneumonia which causes a chronic lung disease in cattle, Lumpy Skin Disease of cattle which is fatal for calves, and Sheep and Goat Pox (these are 2 separate diseases which affect the skin and lungs). Rabies is a zoonotic (can affect humans) viral disease which infects domestic and wild animals. It is transmitted to other animals and humans through close contacts with saliva from infected animals, ie bites, scratches, licks on broken skin and mucous membranes. All of these diseases require swift action to control and eradicate to avoid animal welfare problems and economic loss to the farming industry and other parts of the Scottish economy.

24. The Scottish Executive's biosecurity and disease awareness website is <http://www.scotland.gov.uk/about/eradra/lah/00015721/biosecurity.aspx>

How exotic diseases could enter Scotland

25. Exotic diseases could gain entry through the import of infected animals, infected meat or other livestock products. The disease agents could be accidentally imported on contaminated vehicles or equipment – so-called mechanical transmission. Wildlife could bring in disease; this has happened in the past when Newcastle Disease or Avian Influenza outbreaks have coincided with the arrival of migrating wild birds. Other routes of infection include insect vectors that might bring Bluetongue; laboratory escapes; or malicious introduction of the more dangerous infections. As an example of the costs of such diseases, the National Audit Office Report into “The 2001 Outbreak of Foot and Mouth Disease”, published in June 2002, estimated that the cost to government bodies would be over £3 billion.

26. The following sections provide further information about the nature of some of the diseases, and costs, mentioned in paragraphs 22 and 23.

Foot and Mouth Disease

26.1 Studies into the likely origins of the primary outbreaks of FMD in Europe (1991-96) showed that the illegal introduction of live animals from infected neighbouring countries by smuggling or with forged certificates brought disease to Italy in 1993 and Greece in 1994. Imported meat brought infection to Russia in 1995 and the Balkans in 1996. Visitors were thought to have brought disease to Greece in 1996 and there have been 3 introductions of FMD to Bulgaria in 1991, 1993 and 1996 where the origin could not be found.

26.2 The rural economy in GB is still recovering from the effects of the 2001 epidemic, the direct cost to the public sector being estimated at over £3 billion and the cost to the private sector estimated at over £5 billion. A major epidemic of FMD in Taiwan in 1997 illustrated graphically the potential of this disease to disrupt livestock production. It caused the death of some 184,000 pigs and a further 3.85 million pigs

were slaughtered as part of the eradication campaign. The domestic price of pigs dropped to one quarter of that pertaining immediately before the outbreak and the lucrative export market in pig meat was destroyed. Similar effects were experienced in the Philippines when the virus was introduced there in 1994 and in continental south-east Asia FMD is a constant source of loss to meat and also rice production through loss of draught power.

Swine Vesicular Disease

26.3 Swine Vesicular Disease (SVD) is a contagious disease that only affects pigs. It was first diagnosed and probably first appeared in Italy in 1966. There was much speculation as to the origin of this apparently new disease, and some laboratory data supported the idea that it was a new virus derived in part from a human enterovirus.

26.4 The first outbreak of SVD in GB was in 1972. Over the next 10 years 532 cases involving a total of 311,668 pigs were confirmed before the disease was eradicated from GB in 1982. SVD has persisted at a low level in other parts of Europe, although in 1992 it reappeared as a disease of considerable significance in the context of the proposed free movement of livestock within the EU because, clinically, SVD cannot be distinguished from FMD.

Swine Fever

26.5 There are 2 diseases in this group. Caused by unrelated viruses, they cause similar disease syndromes. A serious outbreak of Classical Swine Fever (CSF) in the Netherlands in 1997-8 led to the death or slaughter of some 12 million pigs as part of the eradication campaign. The cost of the Dutch outbreak was estimated to be \$US 2.5-3 billion, half of which was public money and the other half was about equally shared among farmers and other participants in the livestock production chain. The effects of the epidemic were so severe that the Dutch government approved a national restructuring plan, which foresaw a reduction in the national pig herd of about 25% within 2 years.

26.6 CSF is endemic in wild boar on the Continent especially in North East Germany and also in bordering countries of central Europe. There have also been sporadic outbreaks caused by swill feeding imported meat, or from wild boar meat in some countries. Both CSF and African Swine Fever (ASF) are endemic in Sardinia where the nature of the terrain and husbandry system favours the maintenance of the disease. The origin of the East Anglia CSF outbreak in 2000 has never been confirmed. Infection first started in an outdoor pig herd and it seems likely that carelessly discarded imported meat was the source of the virus. CSF virus is capable of surviving more than 4 years in frozen meat, 45-71 days in fresh chilled meat and up to 102 days in cured/smoked hams and salamis.

26.7 ASF is endemic in parts of Africa; warthogs act as a symptomless reservoir host for the virus. ASF occurred for the first time in Cote d'Ivoire in 1996, where it killed 25% of the pig population and cost the country according to various estimates between \$US 13 and 32 million in direct and indirect losses and eradication costs. There has since been serious spread of ASF to Togo, Benin and Nigeria within West

Africa. The disease seriously constrains swine production development in a number of countries including Mozambique, Angola, Malawi and Uganda.

Newcastle Disease

26.8 Newcastle Disease (ND) is endemic in much of the world. It can be a highly fatal disease of poultry. The virus is normally spread by the ingestion of infected faecal material. It has a wide spectrum of virulence and has the potential for causing catastrophic poultry losses, as experienced in England in 1970. The disease, which first appeared near Newcastle in 1926, caused sporadic waves of disease throughout the 20th century.

26.9 Research has shown that it is possible to infect more than 241 species of bird, and wild birds play an important part in spreading infection. The last UK outbreak in 1997 (14 cases in GB and 47 in Northern Ireland) was probably introduced by migratory birds from Scandinavia. Biosecurity or vaccination are the keys to prevention but stamping out (slaughter) is used to deal with outbreaks of virulent disease.

Highly Pathogenic Avian Influenza

26.10 Fowl Plague is also known as Highly Pathogenic Avian Influenza (HPAI). There are 2 pathotypes of influenza A in poultry. One has low pathogenicity causing mild respiratory disease, depression, and egg production problems. On the other hand, HPAI causes severe disease with high mortality up to 100%. Transmission of influenza virus is by the faeco-oral route. More than 10 million infectious particles per gram of faeces can be excreted from infected chickens and infectivity could be retained in faeces for more than 44 days.

26.11 HPAI is a lethal virus disease with some zoonotic (human health) potential. An economic analysis of outbreaks of HPAI in Pennsylvania, USA in 1983-4 showed that the direct costs of eradication were \$US 64 million, and the indirect costs to consumers were \$500 million through increased prices of products. On the other hand, it was estimated that HPAI would have cost the US poultry industry \$US 2 billion annually if it had become endemic. The influenza virus causing an outbreak of HPAI in Hong Kong in 1997 was found to be capable of transfer to humans and as a consequence a decision was taken to completely cull all chickens there.

Bluetongue

26.12 Originating in Southern Africa, but having recently moved northwards into Europe, Bluetongue is a viral disease affecting ruminants, especially sheep. It is spread by the *Culicoides* family of mosquito, as is African Horse Sickness, and both occur most frequently in late summer/early autumn. Transmission of the disease is through the bite of certain types of *Culicoides*, with an incubation span of 7-10 days; it can also be transmitted from mother animal to foetus. Bluetongue is found most commonly in the sub-Saharan region; however, it is known as far north as 50° in China and North America. In 1999, the disease was identified in Greece, spreading through Sardinia and the Balearic Islands. In 2001, outbreaks were recorded as far

afield as Brazil, Argentina, France, Japan, the Balkans, and Italy. Many experts have linked the increased range of the disease to climate change.

26.13 Bluetongue generally manifests itself in feverish symptoms, which can last beyond a week, depending on the type and severity of infection. There are two main forms of the disease, pulmonary and coronary; the former often resulting in death within 24 hours of the first symptoms. Coronary Bluetongue is considered less lethal, but death rates can be as high as 50%. The disease is prevalent among certain types of sheep, though in other ruminants it may present itself 'subclinically' (i.e. not sufficiently virulent for proper diagnosis). The disease's name derives from the symptomatic swelling of the tongue, which can grow massively, and appears blue, through cyanosis. Other symptoms include oedema (swelling) of the head (in pulmonary form); lameness through swelling above the hoof, and torticollis (neck spasms).

Rinderpest

26.14 This is perhaps the most serious cattle plague but has been eradicated from GB since 1877. When this virus disease was first introduced to Africa in the late 19th century, it spread over almost the whole continent within 10 years, killing an estimated 10 million cattle and untold numbers of wildlife - irrevocably changing livestock husbandry and wildlife ecology there. Another rinderpest pandemic, in the early 1980's, which saw a resurgence of the disease throughout much of sub-Saharan Africa, was estimated in Nigeria alone to have caused losses to livestock production in the order of \$US 2 billion. In 1994, rinderpest spread to previously long-time free, remote mountainous areas of northern Pakistan killing an estimated 40,000 cattle and yaks and devastating local agriculture. The continuing presence of rinderpest in Pakistan has resulted in trade bans which for many years have denied access of countries to high quality meat and, perhaps more importantly, breeding stock of high genetic value. Wildlife populations in Africa have suffered considerably from rinderpest epidemics passed to them from cattle. The relatively small and fragmented populations, which exist today, are increasingly at risk from a future resurgence of the disease as was illustrated by the loss of 60% of the African buffalo population of the Kenyan Tsavo National Park in 1994-95.

26.15 Rinderpest has a long history in Europe. In 1712 a severe epidemic in the Papal States of Italy was only brought under control once very strict controls had been put in place. These included banning all cattle movement and markets. Treatment was prohibited and sick cattle were slaughtered. The penalty for lay transgressors was death, for the clergy it was lifetime banishment to the galleys. In 1866-67 a disastrous epidemic broke out in London and was spread throughout the country by cattle moving by rail. In controlling the outbreak the government set up the forerunner of the current State Veterinary Service.

Rabies

26.16 The annual number of human deaths worldwide caused by rabies is estimated to be between 40,000 and as high as 70,000 if higher case estimates are used for densely populated countries in Africa and Asia where rabies is endemic. An estimated 10 million people receive post-exposure treatments each year after being

exposed to rabies suspect animals. Since 1990 rabies in wildlife has been eliminated in some Western European countries that have conducted oral vaccination campaigns. With the help of this technique rabies could eventually be totally eliminated from its terrestrial reservoirs in Western Europe. Bat rabies is caused by a different serotype of the virus and is mainly confined to certain bat species and has only rarely been reported in terrestrial mammals.

CHAPTER 3

Control and prevention of specified, exotic animal diseases

27. A possible Scottish Bill to amend the Animal Health Act 1981, so far as Scotland is concerned, and to take new related powers, is likely to include the following:

An extended power to slaughter animals for disease control/prevention reasons

28. If an outbreak of a major animal disease is suspected, the Scottish Executive's policy is to take rapid action so that immediate and effective control measures can be implemented once its presence is confirmed. During the 2001 FMD outbreak in Scotland there were serious concerns about the possibility of a reservoir of "hidden" infection developing in sheep which had the potential to go on to infect further sheep, cattle and other susceptible animals over a substantial period. It was in this context that, following discussions with key stakeholders, an extensive sheep cull was developed and implemented. The aim was to tackle animals exposed to the infection at the edge of the disease outbreak.

29. During the 2001 outbreak, particularly in the 6 Judicial Reviews made against the culling process, there was debate about whether existing slaughter powers apply to certain circumstances, in particular whether animals had in fact been exposed to disease and whether Scottish Ministers acted reasonably in proceeding with decisions to slaughter. At present, only animals that are affected or suspected of being affected with FMD, have been in contact with affected animals, or exposed to the disease, may be slaughtered. The issue was also addressed in the FMD 2001 "Lessons to be Learned" Inquiry Report, published in July 2002: "We recommend that the powers available in the Animal Health Act 1981 be re-examined, possibly in the context of a wider review of animal health legislation, to remove any ambiguity over the legal basis for future disease control strategies".

30. The intention now is to make the slaughter powers explicit, i.e. slaughter wherever this is necessary for disease control and prevention reasons. Put simply, if animals are at risk of infection then the wider slaughter power would be available as part of a number of measures within the strategy to control quickly, and then eliminate, a serious disease. The proposed new power could include, for example, animals that had been vaccinated against FMD. Thus, Scottish Ministers would determine, on the basis of then current veterinary and scientific advice, whether or not to slaughter any particular animal(s) to control and/or prevent the spread and, importantly, reduce the speed of disease. The exercise of the power would be subject to the usual constraints such as rationality and proportionality. Any such step would continue to be reviewable by the Court of Session.

31. It is also thought sensible, again to address the possible risk of animal disease spreading rapidly, to be able to extend these wider slaughter powers to diseases other than

FMD, for instance the 14 other List A diseases (see Annex A). For example, in the case of Classical Swine Fever, in a densely populated pig area, pre-emptive slaughter of these animals might be necessary to prevent disease spreading.

Question 1: What do you think of the Scottish Executive’s view on extending the power to slaughter animals where this is necessary for rapid disease control and/or disease prevention reasons?

A new power to slaughter vaccinated animals

A new power to pay compensation for vaccinated animals that are later compulsorily slaughtered

32. The existing powers to vaccinate animals under the 1981 Act (section 16) are subject to limitations. That Act did not envisage any of the disease containment vaccination scenarios which are examined in the Royal Society’s FMD Inquiry Report “Infectious diseases in livestock”, published in July 2002. The limitations of the 1981 Act include the absence of a clear differentiation between vaccination to prevent the spread of animal diseases (a vaccinate-to-live policy) and the slaughter of vaccinated animals. The Scottish Executive is currently reviewing its strategy on the use of emergency vaccination as a component of its future disease control strategy for FMD and other potentially fast spreading diseases. Whilst vaccination to live is likely to be the preferred approach, it is however considered sensible to have available an extended power to slaughter vaccinated animals, should this be necessary. The main need for this power might be:

- (1) to prevent the spread of disease, both from animals where vaccination had masked existing infection or those in which vaccination had induced a carrier state; or
- (2) to remove, for example, FMD antibodies from the national herd/flock; or
- (3) a means of staggering the disposal of slaughtered animals; and/or
- (4) to comply with international obligations and requirements put in place to control the spread of disease between countries.

33. A power for the payment of compensation would also be sought in the proposed legislation, to be used in the event of a “firebreak” policy, for animals requiring to be compulsorily slaughtered wherever necessary for disease control/prevention reasons. The level of that compensation, for the purpose of the proposed legislation, would not be pre-determined. However, in the case of FMD, the level of compensation to be paid for any FMD vaccine treated animals would be their value immediately before slaughter, though importantly no account would be taken of the fact that they had been vaccinated. In the case of the other diseases, compensation would be the value of the animal immediately before it is slaughtered.

A new power to introduce an Animal Health Biosecurity Code with associated offences

34. In March 2002, the Scottish Executive engaged in a separate consultation exercise on the terms of a Code of Recommendations on Animal Health and Biosecurity, which ended on 7 June 2002. In total 58 responses were received from representative organisations or

individuals and, in general, there was support for this initiative. The Code is now on a statutory footing having been approved by the Scottish Parliament on 7 November 2002. The Code alerts farmers and other owners of farm animals to their legal obligations as well as providing practical precautions they can take against bacterial, viral and parasitic infections that affect animals. But the Code, made under section 3 of the Agriculture (Miscellaneous Provisions) Act 1968, applies only to “persons concerned with livestock” and “situated on agricultural land”. It therefore does not apply to ‘hobby’ keepers of farm animals, nor does the Code, of itself, provide for any penalties for those who breach some of the most important biosecurity measures, i.e. disease risk related and distinct from welfare issues. In circumstances of disease risk, account must be taken of the threat to the wider community.

35. The intention now is to enable Scottish Ministers to have the power to introduce an Animal Health Biosecurity Code by means of secondary legislation, applicable to all farm livestock animals (see paragraph 4) as well as to farm pets/companion animals, and horses, all with a view to reducing the risk of disease. The power being sought would also enable prosecution by summary criminal procedure, for failure to adopt specified, veterinary based, biosecurity practices contained in the Code. A person found guilty by a Sheriff of an offence would be liable to a maximum fine of not more than £5,000 (Level 5 as currently fixed by the Criminal Procedure (Scotland) Act 1995), or a maximum of 6 months’ imprisonment, or both.

Question 2: Views are invited on a new approach designed to emphasise farmers’ and others’ responsibilities for safeguarding their farm animals and horses against serious disease. In principle, do you agree with the Scottish Executive’s proposals to have available a power to introduce an Animal Health Biosecurity Code?

Question 3: And do you agree with the Executive that, for disease prevention and welfare reasons, the Bill should create an offence for those found to have breached specified biosecurity measures?

Amended power relating to disposal of carcasses

36. Section 35 of the 1981 Act enables Scottish Ministers to make an Order requiring the seizure of anything where it appears that any disease might be being carried or transmitted - and the disposal or treatment of anything seized. The Executive believes that clarification of the law would be helpful when a person is seeking to dispose of carcasses (or parts thereof) in circumstances such as:

36.1 where animals have been slaughtered under the proposed new extended slaughter power; or

36.2 where it cannot be shown that the disposal of these carcasses would prevent the spread of disease (for example, to prevent the carcass getting into the food chain); or

36.3 where the genotype of the sheep or goat (see Chapter 4) is not known.

It is therefore considered desirable to put the position beyond doubt by amending section 35.

New powers of entry/forcible entry

37. The intention in the possible Scottish Bill is to modernise the power of entry in the 1981 Act. These powers would apply also to animals slaughtered for wider disease control/prevention reasons, to powers of entry to vaccinate and to entry for genotyping tests (see Chapter 4) and sampling.

38. There would be a warrant procedure for entry by an authorised animal health inspector. The warrant would last one month and would be granted where certain requirements are met. This should make it easier for an animal health inspector, if there are reasonable grounds, to gain entry to any premises, land, building or other place, if necessary using reasonable force and, if urgent, at any time, where animals are located so that they can be physically examined for any disease, vaccinated, or if necessary slaughtered, and/or blood or other samples taken for analysis. The inspector would be able to take with him other persons he thinks necessary to assist, and equipment he thinks necessary. The inspector would be able to call on the assistance of the occupier of the premises or a person appearing to have charge of the animals. Refusal of admission, obstruction or failure to assist would be an offence.

Amendment of the power of arrest

39. This is a technical amendment. Section 60(5) of the 1981 Act provides a power of arrest by a police officer or other officer whilst exercising his duties without a warrant. The reference to “other officer” requires amendment to an “inspector”, thus making it consistent with the definition of that term elsewhere in the 1981 Act (section 89(1)).

New power to authorise random inspections of vehicles in Restricted Infected Areas

40. Restricted Infected Area (RIA) (also known as ‘Blue Box’) arrangements are a key component in the Scottish Executive’s armoury to tackle serious and fast spreading diseases. They form part of contingency planning, and operated successfully in parts of England during the latter stages of the 2001 FMD outbreak. The arrangements comprise a number of animal disease containment measures that are introduced as soon as possible within a FMD (or other notifiable disease) Infected Area to minimise the risk of disease spread. The main objective of the RIA is containment of a notifiable disease within a specific area, the boundaries of which are defined by roads, rivers, railway lines or similar clearly recognisable geographic features, distant by at least 10Km from the nearest farm/premises with confirmed disease. The size of the RIA is determined following a veterinary and scientific assessment of risk. The RIA concept forms part of the Executive’s FMD Contingency Plan, which was subject to consultation over the summer of 2002. A revised Plan was published in February 2003.

41. When the Scottish Executive confirms any notifiable disease outbreak in Scotland, the immediate local area will be designated as a RIA. Disease prevention measures will be quickly introduced including prohibition of general access to farmed land and the countryside in general. Access outwith the RIA will not be affected. Movements on and off farms in the RIA would be minimised; all people, vehicles and machinery entering and leaving farms will require a movement licence. Likewise, movement of livestock within the RIA will be strictly limited to essential movements only, which will also be carried out under licence. Normally, a RIA area will continue for a minimum of 21 days after the last outbreak in the area (this is to allow for the incubation period of, for example, FMD). But once the incubation period for

the disease ended and, following a veterinary and scientific risk assessment that permitted the RIA to lapse, general access could be re-instated.

42. With the above circumstances in mind, the police may normally only carry out a search *after* arrest or with a warrant for that particular search. They may also embark on a search without a warrant in a case of necessity or urgency, for example to prevent the loss of important evidence.

43. During the Scottish FMD outbreak, and following some reports of alleged illegal night-time movement of animals, police patrols were put in place under the general powers in sections 60(1) and 60(10) of the 1981 Animal Health Act. Section 63(1) of that Act confers on Government or Local Authority inspectors all the powers which a police constable has in the place where the inspector is acting. Search powers under the Act exist only in connection with rabies offences.

44. The existing powers in the 1981 Act are not thought sufficient to permit veterinary, agricultural or animal health inspectors to undertake random inspections of vehicles in the RIA to check on animal movement licences. In extreme circumstances, it might be necessary to check vehicles systematically at road checkpoints. Any such road checkpoints would only be established as part of the major disease control effort to prevent the infection/virus spreading to other key/populous animal areas. The powers for doing so would be under the terms of the existing, relevant, animal disease Order, made under the 1981 Act.

45. The current powers of these inspectors only enables them to take action if there is reasonable suspicion or reasonable grounds for supposing that legislation is not being complied with. The random inspections of vehicles or, exceptionally, systematic checks of vehicles at road checkpoints would be of major disease control importance in relation to, amongst others, the enforcement of the FMD cleansing and disinfection regime that operates both during the course of an outbreak and for a period afterwards. The intention therefore, as part of the Executive's FMD Contingency Plan, is to create a new power for inspectors to inspect vehicles to check compliance with disease control/prevention measures. The intention would be that the power would only be used in a RIA, for periods designated in an Order made under the 1981 Act and the inspector would require to be accompanied by a uniformed police officer.

Question 4: In the specific situation of a RIA described above, do you accept the principle of a new power to inspect vehicles randomly?

New offence of deliberately infecting an animal with certain notifiable diseases

46. At the height of the FMD outbreak there were reports (in Scotland and elsewhere) that disease was available for transfer to non-infected animals (most likely for compensation reasons). The 1981 Act (section 15(1)) indirectly covers the deliberate infecting of animals with notifiable diseases (among the more well known are FMD, Classical Swine Fever, Newcastle Disease, etc). In the view of the Scottish Executive, the seriousness of deliberately infecting animals, both on welfare grounds and the potential for the disease to spread, supports a new offence being created by the proposed legislation. The offence would apply to FMD and the 14 other particularly virulent notifiable diseases, known as List A diseases (see Chapter 2 and Annex A). If the prosecution were by summary procedure, the penalty would be the maximum Level 5 as fixed by the Criminal Procedure (Scotland) Act

1995 (currently £5,000), or 3 months imprisonment for a first offence, thereafter up to a maximum of 6 months. If the prosecution proceeded by solemn procedure the penalty would be an unlimited fine or imprisonment, commonly 2 or 3 years for offences of this gravity.

New power for a Court to disqualify those convicted of certain serious offences from keeping animals

47. This proposal is self-explanatory and is related to the deliberate infection of animals with FMD or other virulent notifiable disease (the other 14 List A diseases referred to earlier). A similar (though considerably wider) power was included in emergency legislation enacted in Ireland in 2001. That included disqualification from, among others, the preparation, storage, transport, distribution etc of food for human and animal consumption. The intention in Scotland is that a court would have the power to disqualify individuals from owning, keeping, dealing, having custody or control of livestock (or animals of a kind as the court may specify) for such periods as it sees fit. After one year (and each subsequent period of one year) the person could apply to have the disqualification lifted or its duration reduced.

Reform of penalties for offences against the Animal Health Act

48. The existing penalty provisions (section 75 of the 1981 Act) no longer reflect modern sentencing policy and practice, and have become needlessly confusing. For example, for an offence involving more than 10 animals, or for an offence where an animal's weight is the determining factor. It is now proposed that the maximum penalties for offences in Scotland should be standardised so that a person found guilty by a Sheriff of an offence would be liable to a maximum fine of not more than £5,000 (Level 5 as currently fixed by the Criminal Procedure (Scotland) Act 1995), or a maximum of 6 months' imprisonment, or both.

Extension of the 6 months' time limit for prosecuting Animal Health Act offences

49. Based on experience of the enforcement of the 1981 Act, there are concerns that evidence of commission of offences might not emerge until well into (and often beyond) the current 6 months' time limit. For example, the failure to record animal movements or failure to ear mark animals may remain undetected for a long time. It is therefore proposed that the time limit for all offences under the 1981 Act should be extended so that it runs from the date on which evidence of an offence is discovered rather than from the date on which the offence was committed, subject to a provision whereby no prosecution could be brought more than 3 years after the date on which the offence was committed.

Regulating the holding of Markets

50. Currently, section 8 of the 1981 Act allows markets to be prohibited and regulated by an Order made by Scottish Ministers. This power is distinct from the powers available to impose controls on areas which are declared to be infected with disease (section 17). There is no express power in section 8 to require the licensing of markets. It is considered that the clarification of this power is desirable because markets are one of the principal means by which animal disease can be spread quickly across distances. This was seen in the 2001 FMD outbreak. Licensing markets in this way would allow the supervising authorities the flexibility to tailor the detail of licence conditions (for instance on biosecurity) to individual market premises.

Use of blood etc samples collected for one purpose to be used for a different disease control purpose

51. A new power is proposed to enable blood, tissue or other samples necessarily collected for one disease control, prevention or surveillance purpose, for example FMD testing, to be used for a different disease control testing purpose, unless the owner of the animal(s) objects to such secondary, or following, tests. Another example would be cattle, sheep or goat serum samples already held for brucellosis testing. A time might come when the State Veterinary Service wanted to check them for evidence of a new disease to the UK such as Bluetongue. Such a facility would be a key component in veterinary surveillance and contingency planning terms.

CHAPTER 4

Scrapie, the National Scrapie Plan (NSP), and Bovine Spongiform Encephalopathy

What is Scrapie?

52. Scrapie is a fatal brain disorder of sheep and goats. It belongs to a group of diseases known as Transmissible Spongiform Encephalopathies or TSEs. It has been present in this country (and many others) for over 200 years. TSEs can be transmitted under natural conditions, and experimentally, and cause progressive damage to the brain, causing small holes which give the affected tissue a sponge-like appearance under the microscope. Other TSEs include Bovine Spongiform Encephalopathy (BSE) found in cattle, Creutzfeldt Jakob Disease (CJD) in humans and Feline Spongiform Encephalopathy (FSE) in cats.

53. Scrapie and the other TSEs are caused by unconventional disease agents which differ from bacteria or viruses and take many months or years to develop once the animal has been infected. The Scrapie agent appears to be transmitted between animals in an infected flock and between flocks. The way in which it is transmitted is not fully understood, but infected birth fluids, membranes and cleansings (placenta or afterbirth) could spread the disease agent around pastures or buildings during lambing. The agent can persist in the environment and may act as a source of infection to other sheep for some time. Scrapie usually affects only one or 2 animals in a flock at any one time but larger outbreaks can happen.

Scrapie and current legislation

54. Scrapie has been a notifiable disease since 1993 with compulsory slaughter and compensation for suspected animals since 1998. EU Regulation 999/2001 extends these requirements to all European Member States and the recent Commission Regulation (EC) No. 260/2003, formally adopted on 12 February 2003, widens the legislative measures. By law any sheep or goat suspected of suffering from Scrapie must be reported to the local Animal Health Office. There are many signs of Scrapie and most animals show a combination. No one sign is definitive of Scrapie and it can therefore be a difficult disease to recognise. It is probable that many cases of Scrapie go unrecognised or unreported. If Scrapie cannot be ruled out, the animal is killed and tissues tested to confirm Scrapie. Owners are compensated for the loss of the animal(s).

Public and animal health

55. Scrapie causes serious welfare problems in affected animals. We do not yet fully understand the disease agent. We know that there is more than one type of Scrapie agent but we do not know how many occur naturally or why they are different. Individual types of Scrapie agent can also change their characteristics and disease patterns - in a similar way that bacteria and viruses can mutate. Scrapie itself has not been shown to be a risk to man but there is the possibility that another variant may emerge at some point in the future that might pose a greater risk to animal or human health. There is also the theoretical risk that BSE may also have infected some sheep or goats in the past. In humans, variant CJD is strongly linked with BSE in cattle and is thought to have arisen through the consumption of meat products derived from infected cattle before measures to protect human health were implemented.

Trade

56. Scrapie directly affects the trade in breeding sheep and goats in the European marketplace. There are Scrapie related requirements for the export certification of breeding sheep and goats between EC Member States which were first introduced by EC Directive 91/68, in force since January 1993, and amended under EU Regulation 999/2001, with effect from July 2001. The following conditions apply to trade in ovine and caprine animals and have been formally adopted under Commission Regulation (EC) No. 260/2003, although the sub-paragraph below (57.3) will not be in place until 1 October 2003.

57. Ovine and caprine animals for breeding shall either:

57.1 come from a holding which has satisfied the following requirements for 3 years:

- it is subject to regular official veterinary checks;
- the animals are marked;
- no case of Scrapie has been confirmed;
- checking by sampling of old female animals intended for culling is carried out on the holding; and
- female animals are introduced into that holding only if they have come from a holding which complies with the same requirements; or

57.2 have been continuously kept on a holding or holdings complying with the requirements laid down above since birth or for the last 3 years; or

57.3 from 1 October 2003, are animals of the ARR/ARR prion protein genotype, as defined in Annex 1 of Commission Decision 2002/1003/EC.

BSE and Sheep

58. Research has shown that it is possible to infect sheep experimentally with BSE by feeding them BSE infected cattle brain or injecting such material into the brain or under the skin. The infective agent that causes BSE is thought to have been introduced into cattle from consumption of infected mammalian meat and bone meal (MBM). This is a dried material produced from parts of animal carcasses cooked at high temperature and pressure that was used as a protein supplement in animal feed. MBM made from ruminants was banned from ruminant feed in July 1988. In March 1996 the ban was extended to include MBM derived

from all mammals, and to exclude it from all livestock feed. However, it is theoretically possible that some sheep may have been infected by eating feed concentrates contaminated with infected MBM before the feed ban became fully effective.

59. The Spongiform Encephalopathy Advisory Committee (SEAC), the independent scientific experts who advise UK Ministers and other parts of Government on all matters to do with TSEs, concluded that the possibility cannot be ruled out that BSE may have transmitted to some sheep before the introduction of the feed ban. The European Commission also acknowledges this possibility. Research and surveillance programmes have so far failed to detect any evidence of BSE in sheep. However, the signs of experimental BSE in sheep and natural Scrapie are indistinguishable and, if BSE had infected some sheep and had been passed from sheep to sheep and established itself in the sheep flock, then BSE could be being masked by Scrapie. To counter this possible risk to human health, the UK Government and the European Commission have implemented a range of risk reduction measures, including a rolling programme of research and surveillance, harmonised sheep Specified Risk Material controls, measures to encourage reporting of Scrapie and a long term programme to control and eliminate TSEs from sheep.

How can Scrapie or other TSEs in sheep be controlled?

60. Once established in a flock, Scrapie can be very difficult to control because there is no rapid test for Scrapie, there is no cure or vaccine, the agent resists most disinfectants and the disease may possibly be transmitted by sheep which do not show signs of the disease. Previous control methods used have included selective culling of affected flocks or family lines, and prompt removal of afterbirths from lambing pens. More recently scientific research has demonstrated that there is a strong genetic influence on Scrapie. It is possible to identify whether sheep are naturally resistant or susceptible to TSEs by testing a blood sample or tissue containing the animal's DNA. The gene that controls resistance or susceptibility to Scrapie is called the prion protein gene or the PrP gene. Selective breeding to increase levels of natural genetic resistance provides a powerful tool for the control of Scrapie. The natural genetic resistance to Scrapie has shown to also protect against experimental BSE infection.

61. The natural genetic resistance to Scrapie forms the basis of the National Scrapie Plan (NSP). The use of genetics for the long-term control and eradication of Scrapie has been recommended by SEAC, the EU Commission's Scientific Steering Committee and is endorsed by the Food Standards Agency (FSA). After consultation with the sheep industry, the Executive, in conjunction with Defra and the Welsh Assembly Government, launched the NSP for GB in July 2001. The Netherlands and France have similar control programmes in place. Measures for EU-wide Scrapie-genotyping have recently been adopted by the European Commission.

What is the National Scrapie Plan?

62. The Plan (<http://www.defra.gov.uk/animalh/bse/bse-science/scrapie/nsp/nsp.html>) will over time breed natural genetic resistance to Scrapie and BSE into the national sheep flock through a selective breeding programme based on PrP genotyping. The aim of the Plan is to reduce and over time eliminate TSEs from the national sheep flock. In so doing human health and the Scottish sheep industry can be protected against any future threat from BSE in sheep.

63. Participation in the Plan by sheep farmers is currently on a voluntary basis to permit sheep producers the time and opportunity to build up sufficient levels of genetic resistance in breeding sheep whilst retaining other important breed characteristics. Under EU wide measures participation will become compulsory on 1 April 2005. However, earlier compulsion may be necessary to ensure maximum compliance and effectiveness of the Plan. It is generally accepted that only a proportion of suspected cases of Scrapie are actually reported.

64. The NSP has two main thrusts:

- A breeding for resistance programme for the national flock.
- A programme to deal with flocks known to have been affected by Scrapie.

How does the NSP work?

65. Scrapie develops when the normal form of the Prion Protein (PrP) in a sheep's brain converts to an abnormal form PrP^{Sc}. The PrP gene which produces the PrP protein determines whether a sheep is resistant or susceptible to Scrapie. There are 256 amino acids which make up the PrP gene. There are 3 positions on this gene which are important in determining susceptibility or resistance, position 136, 154 and 171. There can be variations of amino acids (see below) present at these locations.

66. Based on variations at these 3 positions on the PrP gene, 5 different scrapie related alleles in sheep have been identified. These are:

136	154	171
A	R	R
A	H	Q
A	R	H
A	R	Q
V	R	Q

Amino Acids Key: A=Alanine, H= Histidine, Q=Glutamine,
R=Arginine and V=Valine

67. Each *PrP* gene has 2 copies (or alleles), one derived from each parent. Fifteen possible genotype combinations are known to appear in sheep, although the prevalence and frequency of each genotype differs between each breed. The genotype is determined by referring to the amino acids encoded at the 3 relevant sites on both alleles.

68. The voluntary ram genotyping scheme involves genetic testing (genotyping) of rams, ram lambs and some breeding ewes to select resistant animals for breeding. The selection will be for the ARR gene which strongly confers resistance to scrapie and BSE by natural routes of transmission. Scrapie has never been confirmed to occur in sheep of the ARR/ARR genotype under natural conditions and disease can only be induced in this genotype under unnatural experimental conditions. It is recognised that it will take time for levels of genetic resistance to be raised and levels of susceptibility reduced in the national flock. To this end

the NSP is initially concentrating on promoting the ARR gene and excluding the VRQ gene. The Table below shows the 15 genotypes known to occur in sheep and their resistance or susceptibility to Scrapie. The Table also shows how these genotypes are currently classified under the NSP.

Table of National Scrapie Plan genotype susceptibility and consequence:

GENOTYPE	Consequence of genotype result
ARR ARR	Sheep that are genetically most resistant to Scrapie.
ARR AHQ ARR ARH ARR ARQ	Sheep that are genetically resistant to Scrapie, but will need careful selection when used for further breeding.
ARQ ARH ARQ AHQ AHQ AHQ ARH ARH AHQ ARH ARQ ARQ*	Sheep that genetically have little resistance to Scrapie but may be sold used for breeding without restriction until certain defined dates depending on breed of sheep.
ARR VRQ	Susceptible and may be used for breeding only in exceptional circumstances.
AHQ VRQ ARH VRQ ARQ VRQ VRQ VRQ	Highly susceptible to Scrapie and should not be used for breeding. Rams must be humanely slaughtered or castrated.

*Subject to review after the first year

Goats

69. The goat population in GB is small in comparison to sheep (post-FMD around 60,000 compared to about 34 million sheep). Scrapie is known to occur in goats, but only very rarely. There have been 8 recorded cases of Scrapie in goats in GB since the disease became notifiable in 1993. Scrapie in goats is similar to Scrapie in sheep, and goats can also be experimentally infected with BSE. Most of what is known about the goat PrP gene and its influence on resistance and susceptibility has been derived from research projects. With the very limited data available on genotyping of goats, it appears that they do not have the same genetic variability as sheep. Research into this area continues in respect of goats. The NSP genotyping programme at present is therefore targeting the UK sheep population.

Proposed NSP and BSE powers

70. A key lesson from the Phillips Inquiry into BSE was that legislation should not be constrained by current scientific knowledge and should cover the eventuality that a new disease might emerge for which powers may be vital.

71. There remains an acknowledged theoretical risk that BSE could be found in the sheep (or goat) population. New animal health measures or emergency measures may be needed in response to advice from SEAC or the FSA if BSE were to be found in sheep (or goats). There are fundamental differences between TSEs and conventional viral diseases such as FMD. FMD virus is highly contagious and poses a significant infection threat that requires

rapid and robust control measures. Conventional disease agents that can be controlled in this manner do not cause Scrapie and BSE which progress extremely slowly so immediate response action is less critical. Therefore, the means by which a BSE in sheep or goats crisis is controlled requires specific culling and re-stocking strategies based on animals' natural genetic makeup. This dictates a specific control policy based on testing, identification, culling and replacement preferably under a longer timescale.

NSP powers

72. At present the NSP is run on a voluntary basis to encourage industry participation and to permit individual breeds sufficient time to identify and breed up resistant animals. As part of the Forward Strategy for Scottish Agriculture (Action 11) the Scottish Executive is pressing forward in negotiating with other UK Agricultural Departments to speed up the eradication of Scrapie. To achieve its goal of fully eradicating Scrapie from Scotland it is likely that the NSP will have to become compulsory at some point in the future. How and when powers of compulsion should be applied would be subject to advice from SEAC and a full public consultation.

73. Several countries, such as the Netherlands and France, have or are in the process of setting up eradication schemes. Measures have recently been adopted for an EU-wide Scrapie eradication and breeding programme. It will be important for trade purposes that the UK achieves its goal of fully eradicating TSEs from the sheep population.

Scope of possible legislation

74. In the context of Part 2 of a proposed Scottish Bill, and in general terms, possible legislation would provide powers to:

- slaughter wherever necessary for disease control and eradication reasons;
- compulsorily genotype sheep and goats; and
- administer or implant electronic identification devices into sheep and goats.

75. These powers could also include steps relating to the sale of UK sheep and goat meat for human consumption based on the animals' genotype.

Detail of proposed Part 2 of a Bill

76. In detail, a Bill would provide:

76.1 A power for Scottish Ministers, by means of secondary legislation (an Order), to make provision for the arrangements to enable the Prion Protein (PrP) genotype of any sheep or goats to be established by means of blood sampling and laboratory test. These arrangements would seek to specify the relative susceptibility and resistance to TSEs of animals of specific PrP genotypes or the possibility of them becoming carriers of infection. These arrangements would be subject to on-going review based on the latest scientific advice.

76.2 If considered essential for disease control and/or eradication reasons, and having regard to the then up-to-date scientific and veterinary advice, an extended power to slaughter animals that are of specified PrP genotype.

76.3 Powers by Regulation to administer or implant electronic identification devices to any sheep or goat and for the keepers of these animals to keep records of the genotype of these animals.

76.4 Powers to impose restriction notices on keepers of sheep or goats identified as being of a specified genotype, from allowing those animals (or their semen, eggs or embryos) to be used for breeding or connected purposes, to require the destruction of their semen, eggs and embryos and, at the choice of the keeper, to castrate/sterilise these sheep or goats within a specified timeframe (one month of the restriction notice) or to slaughter them within a specified period (7 months of the restriction notice). The only exemption to the above would be under exceptional circumstances and under specified conditions for breeds with important breed traits in danger of extinction (to include their progeny) or for research or for Government controlled experimental purposes.

76.5 If the keeper failed to comply with the restriction notice, Scottish Ministers would use a new power of enforcement to arrange the required castration/sterilisation or slaughter or destruction of semen, eggs and embryos.

76.6 Provision for appeals to an assessor(s), appointed by Scottish Ministers. Examples include the owner disputing that the correct animal had been tested, or disputing the laboratory's findings, or while accepting the test results and the identity, making a case to retain the animal because of its genetic merit. In the event of an unsuccessful appeal there would be provision for the recovery of costs from the appellant of further sampling or tests within a specified period.

76.7 A power to make Regulations, should the need arise for the payment of compensation, for any losses suffered or any costs incurred as a result of using any powers in Part 2 of a possible Bill.

76.8 Powers for enforcement; a similar power of entry, including if necessary using reasonable force, to that in Part 1 of a possible Bill; for offences against contravention of the restriction notices, for example selling a sheep that is subject to a restriction notice; and an offence of obstructing an inspector or anyone else in the discharge of their functions.

CHAPTER 5

Human Rights, Sustainable Development and Equal Opportunities Issues

Human Rights

77. Under section 31(1) of the Scotland Act 1998, a Minister of the Scottish Executive must, on introducing a Bill in the Scottish Parliament, state that in his/her view the provisions of the Bill would be within the legislative competence of the Scottish Parliament. To be within legislative competence, a Bill's provisions must, amongst other things, be compatible with the "convention rights" – those rights drawn from the European Convention on Human

Rights (ECHR). In addition, the Presiding Officer of the Parliament must decide whether the provisions would be within the legislative competence and state his view.

78. In the light of responses to this consultation on possible new animal disease control legislation, and before issuing a draft Bill for further consultation, the Minister would consider again the ECHR implications of such proposals and, in doing so, must strike a balance between the rights and obligations of keepers of animals and the need to take quick and decisive action to stop and eliminate disease spreading.

Sustainable Development

79. Sustainable development is an important element of Executive policy. It is about combining economic progress with social and environmental justice. The key priority areas of resource use, energy and travel were set out in the Executive's statement on sustainable development, "Meeting the Needs...Priorities, Actions and Targets for sustainable development in Scotland" published on 30 April 2002. Animal health is an area where economic, social and environmental issues need to be considered together. One cannot deal with containment and speedy eradication of animal diseases without thinking about wider aspects of sustainable development. These proposals for the containment and speedy eradication of animal diseases will help to ensure that we make best use of our natural resources and help to ensure a viable long-term future for farming and our rural areas.

Equal Opportunities

80. When presenting possible new legislation to the Scottish Parliament, the Executive is required to submit a Policy Memorandum that assesses the effect that the enactment of the Bill would have on equal opportunities. The Executive places significant emphasis on its Equality Strategy which includes the following: "Ensuring that all policy, decisions etc have taken full account of the needs of different equality groups and considered the impact of policies on the different groups". The proposals on possible animal health legislation in this consultation document do not appear to have any direct impact on equal opportunity issues. However, if there are any equality issues to consider, whether direct or indirect, which the possible legislation should address, then we would be pleased to hear of them.

CHAPTER 6

Summary of the proposals

81. Here is a summary of the possible legislation proposed for a Scottish Bill:

Part One of a Bill

81.1 An extended power to enable susceptible, mainly livestock, animals to be slaughtered wherever necessary for disease control and/or prevention reasons. Such a power would only apply to 15 serious and fast spreading, internationally known, List A diseases (see paragraph 16 and Annex A). Any use of such a power by Scottish Ministers would be on the basis of the latest scientific and veterinary advice.

81.2 A new power to, if necessary, slaughter vaccinated animals. Reasons could include where vaccination had masked existing infection, to remove antibodies from the national herd/flock, a means of staggering the disposal of slaughtered stock or to meet international obligations and requirements put in place to control the spread of disease between countries.

81.3 In the above circumstances, a new power to pay compensation for vaccinated animals that are later compulsorily slaughtered.

81.4 A new power to be able to introduce a more wide ranging Animal Health Biosecurity Code applicable to all keepers of farm animals and horses, wherever these animals are kept, with offences in the event of certain breaches of the Code.

81.5 An amended, technical power relating to the disposal of carcasses or parts thereof, applicable to any of the diseases specified in Annex A or in the case of any Transmissible Spongiform Encephalopathies.

81.6 New powers, and also amend existing ones in the 1981 Act, so that it would be easier to gain entry to premises where animals are located, if necessary using reasonable force, and if urgent in disease control terms at any time, so that animals can be physically examined for disease and/or blood or other samples taken for analysis, vaccinated, slaughtered, or for any other animal health disease control or monitoring purpose.

81.7 A technical amendment relating to the power of arrest without a warrant so that “other officer” should read “inspector”.

81.8 A new power to enable the random inspection of vehicles by veterinary, agricultural or animal health inspectors, though this would only apply in areas directly and seriously affected by animal disease, and for a limited time. A uniformed police officer would be in attendance during the inspection.

81.9 A new offence of deliberately infecting an animal with any one of the 15 diseases specified in Annex A that, along with some other notifiable diseases, must by law be notified to the nearest Animal Health Office.

81.10 In the context of the above 15 diseases, a new power for a Court to disqualify a person from keeping animals.

81.11 Revise and bring up-to-date the penalties (financial and/or custody) if a person commits an offence under the existing and proposed animal health legislation.

81.12 Amend the time limit for prosecuting offences under the existing and proposed animal health legislation. The time limit would be extended so that it runs from the date on which evidence of an offence is discovered rather than from the date on which the offence was committed.

81.13 Strengthening the powers to regulate and if necessary prohibit the holding of animal markets.

81.14 A new power to be able to use blood, tissue or other samples collected for one disease control purpose to be used again for a separate disease control reason, unless the animal's owner objects.

Part Two of a Bill

81.15 A power to be able to specify the arrangements in secondary legislation (an Order), so that the genotype of any sheep or goat can be established by means of blood sampling and laboratory test. These arrangements would specify the relative susceptibility and resistance to Transmissible Spongiform Encephalopathies (TSEs) of sheep and goats of specific genotypes. These arrangements would be subject to on-going review based on the latest scientific advice.

81.16 An extended power to slaughter sheep or goats less resistant, or not resistant, to TSEs for the purposes of the control and eradication of the disease.

81.17 Powers, by means of Regulations, to administer or implant electronic identification devices into any sheep and goats and to register their individual genotype.

81.18 Powers to impose restriction notices, subject to exceptional circumstances such as for animals with important breed traits, on keepers of sheep and/or goats identified as being of undesirable genotypes, from allowing those sheep and/or goats (or their semen, eggs or embryos) to be used for breeding. Also, to require the destruction of their semen, eggs and embryos and, at the choice of the keeper, to castrate/sterilise these sheep/goats within a specified timeframe or to slaughter them within a specified period.

81.19 If the keeper failed to comply with the restriction notice, Ministers would themselves have the power to arrange to undertake the required castration/sterilisation or slaughter or destruction of semen, eggs and embryos.

81.20 Provide for appeals against the restriction notice to an assessor appointed by Scottish Ministers. A power for the recovery of costs from the appellant of further sampling or tests only where these confirmed the previous test result.

81.21 A power to make Regulations, should the need arise for the payment of compensation, for any losses suffered or any costs incurred as a result of using any powers in Part 2 of a proposed Bill.

81.22 Powers for enforcement; a similar power of entry to that in Part 1 of a Bill; and for offences against contravention of the restriction notice.

CHAPTER 7

Next steps

82. The Scottish Executive believes that these proposals for possible legislation represent an essential component of the strategy to tackle major and fast spreading animal disease outbreaks. They also address the possibility that BSE might be found in the sheep flock or in goats.

83. Your comments will help us to develop the best, balanced approach in dealing with virulent animal diseases such as Foot and Mouth Disease (FMD) and Classical Swine Fever (CSF).

84. Please note that the possible legislation would apply only to Scotland.

85. **Your comments on the Executive's proposals should be sent by 23 May 2003 to:**

Miss Jill Tait Room 345 Scottish Executive Environment and Rural Affairs Department Pentland House 47 Robb's Loan Edinburgh EH14 1TY Email: Jill.Tait@scotland.gsi.gov.uk

86. As usual, copies of replies received will be made available to the public on request, **unless those who respond indicate that all or part of their response is confidential.**

87. All comments received on these possible legislative proposals will be carefully considered, and would help the Scottish Executive to prepare any draft Bill. It will be for the new Administration, after the May 2003 Election, to decide on the future legislative programme for the new Parliament and there is likely to be a further opportunity for comment on the terms of any draft Bill.

88. This consultation document has been placed on the Scottish Executive website. The address is <http://www.scotland.gov.uk/library5/agri/adcp-00.asp>

SPECIFIED DISEASES

Foot-and-mouth disease
Swine vesicular disease
Peste des petits ruminants
Lumpy skin disease
Bluetongue
African horse sickness
Classical swine fever
Newcastle disease
Vesicular stomatitis
Rinderpest
Contagious bovine pleuropneumonia
Rift Valley fever
Sheep pox and goat pox
African swine fever
Highly pathogenic avian influenza

Draft Partial Regulatory Impact Assessment

Issue

1. The 2001 Foot and Mouth Disease (FMD) outbreak across Great Britain (GB) had enormous financial consequences for livestock farming, other rural industries, tourism and the government. It is therefore important to ensure that any future outbreaks of FMD and/or 14 other specified virulent, and internationally fast spreading, exotic animal diseases (see Annex A), can be dealt with as effectively and rapidly as possible. Scrapie has serious welfare implications for affected animals and the disease directly affects the trade in breeding sheep and goats in the European marketplace. Scrapie itself has not been shown to be a risk to man, however, there is a theoretical risk that Bovine Spongiform Encephalopathy (BSE) may have infected sheep or goats in the past and Scrapie could be masking BSE and, if so, measures would facilitate action to protect public health.

Objective

2. The purpose of any Scottish Bill is to amend the Animal Health Act 1981 and such possible legislation is a component of measures being taken to protect Scotland's livestock industry and to enhance the Executive's ability to respond quickly to animal disease outbreaks and minimise their impacts. Any Bill would also reflect lessons learned during the handling of the FMD outbreak in Scotland and would help implement parts of the Executive's Response to the FMD Inquiries¹.

3. The possible legislation would provide for:

3.1 additional control measures principally to tackle quickly any new outbreaks of FMD or 14 other specified virulent, and internationally fast spreading, exotic animal diseases;

3.2 additional powers to eliminate Transmissible Spongiform Encephalopathies (TSEs) in sheep and goats; and

3.3 a flexible and rapid response to a crisis arising from evidence of BSE occurring naturally in sheep or goats.

Risk Assessment

4. Veterinary advice suggests that there is a credible risk of FMD, Swine Fever and/or Fowl Plague (Highly Pathogenic Avian Influenza) breaking out in GB either now or in future. The powers in any Scottish Bill could assist in containing a serious disease and eradicating it rapidly before becoming endemic.

5. There is a theoretical risk that BSE could be present in sheep (and goats) and that it may be masked by Scrapie. BSE in cattle has caused disruption to the livestock industry, loss of export markets and major consumer concern. Scientific research continues and although it is uncertain whether BSE exists in sheep (or goats), the additional powers within any Scottish

¹<http://www.fmd-lessonslearned.org.uk>; <http://www.royalsoc.ac.uk/inquiry/>; <http://www.ma.hw.ac.uk/RSE/>

Bill, could assist in the rapid eradication of Scrapie (and, if present) BSE from the national sheep flock.

Option 1

6. No change to existing measures.

Option 2

7. A new Scottish Bill.

Costs to Business

8. **Option 1:** Veterinary and epidemiological advice is that no change to current legislation could mean that the measures in Scotland are not sufficient to support quick and effective containment and eradication of a virulent disease outbreak, thus minimising the effect on the wider economy. An outbreak of an infectious animal disease such as FMD has potentially devastating effects upon the livestock farming industry plus significant knock on effects to other rural industries, tourism and the public sector. The Royal Society of Edinburgh Inquiry into FMD in Scotland, published in July 2002, reported that the 2001 FMD outbreak resulted in compensation payments totalling £171m to cover the costs of compulsory livestock slaughter. The Report also suggested that the costs to the wider agricultural sector through factors such as loss of income while farms were without stock and disruptions due to movement restrictions were approximately £60m. The outbreak also had a large impact on the tourism sector with the Royal Society of Edinburgh citing a VisitScotland estimate that the industry lost £200-£250m as a result of the epidemic. A project to determine the full impact of the 2001 outbreak in Scotland has been commissioned by the Scottish Executive led Economic Impact Assessment Group and is expected to produce results in Spring 2003.

9. **Option 2:** In the event of a FMD outbreak or other 14 specified virulent, and internationally fast spreading, exotic animal diseases, there will be associated costs to farmers and related organisations, incurred for example through movement restrictions, disruptions to markets, etc. However, the measures implemented by any Scottish Bill itself should not bring significant additional costs to the farming industry.

Identify the benefits

10. The introduction of any Scottish Bill could bring the following benefits:

10.1 new powers of entry (forcible entry, if necessary) to enable an animal health inspector to gain entry to premises, thus enabling rapid examination of suspect animals and thereby aiding rapid containment and eradication of disease;

10.2 an extended power to slaughter animals, including animals that had been vaccinated, for disease control/prevention reasons would address the risk of animal disease spreading rapidly. Furthermore, a swift response to a serious animal disease outbreak should help to minimise the overall impact on disease control costs;

10.3 random inspection of vehicles within a biosecurity controlled area will enable Scottish Ministers to enforce disease prevention and control measures more effectively;

10.4 a new power to introduce an Animal Health Biosecurity Code with associated offences, with a view to reducing the risk of disease;

10.5 provide the means to penalise for the new offence of deliberately infecting an animal with certain notifiable diseases;

10.6 a new power for a Court to disqualify those convicted of certain serious offences from keeping animals;

10.7 regulate the holding of livestock markets;

10.8 use of blood samples collected for one purpose to be used for a different disease control purpose;

10.9 the compulsory genotyping of sheep and goats could help to bring Scotland closer to its goal of fully eradicating Scrapie and, if it is there, BSE.

Business sectors affected

11. The measures proposed by any Scottish Bill would directly affect those farmers keeping farm animals such as cattle, sheep, goats, pigs, poultry and farmed deer. It would not affect domestic or companion animals, such as dogs, cats or horses, although the susceptibility of any animal to a major disease outbreak would need to be considered at the time. Should there be another outbreak of FMD or specified virulent disease, some of the measures would affect only those farmers whose animals contract the disease or are slaughtered for disease control/prevention reasons. The measures would not impact more heavily on small businesses and so would not be discriminatory.

Compliance costs for a typical business

12. Option 2: The introduction of any Scottish Bill would increase penalties for breaches of existing disease control legislation.

Identify any other costs

13. Additional costs will arise from the compensation scheme for infected premises and from any extended culling programmes carried out under any new powers, including any culling of vaccinated animals. It is the objective of any such programme to contain rapidly and eradicate the disease and so reduce the total number of animals that need to be slaughtered overall. Such steps therefore should minimise the overall cost of compensation, slaughter, disposal, etc.

Results of consultation

14. After the responses to this consultation have been received and collated, they will be summarised and this summary will be circulated to consultees and available on the Scottish Executive website. The responses received will be used to review policy proposals.

