

EXPLANATORY MEMORANDUM

1(i) Title of instrument

The TSE (England) (Amendment) Regulations 2004 No.1518

(ii) Laying Authority and purpose

This explanatory memorandum is laid before the House of Commons by Command of Her Majesty.

(iii) Department responsible

Department for Environment, Food and Rural Affairs.

2. Description

The statutory instrument provides powers for the enforcement of EU legislation introducing controls on farms that have had a confirmed case of scrapie. It sets out procedures to be followed, regulates movement of animals and provides for potential derogations. It provides an appeals procedure and specifies compensation rates.

3 Matters of special interest to the Joint Committee on Statutory Instruments

No matters of special interest have been identified.

4. Legislative background

The statutory instrument is being made in order to provide powers to enforce Annex VII to EU Regulation (EC) No 999/2001 of the European Parliament and of the Council laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies (TSEs), as replaced by Commission Regulation 1915/2003. It amends the TSE (England) Regulations 2002 SI 2002 No 483 by providing for the addition of a new schedule to those regulations.

5. Extent

The statutory instrument applies to England.

6. European Convention on Human Rights.

The statutory instrument includes an appeals procedure against notices served under the schedule.

7. Policy background

Scrapie is a fatal brain disease of sheep and goats. There is a theoretical risk that BSE could be present in sheep masked by scrapie although it has not been found naturally occurring in sheep. The EU legislation therefore requires

action to be taken on farms that have had confirmed cases of scrapie in order to eliminate the disease from affected farms, reduce the risk of transmitting the disease within and between flocks and reduce the theoretical public health risk from animals affected with scrapie entering the food chain.

The action involves genotyping the flock and culling those animals that are more susceptible to scrapie or culling the whole flock. In the case of goats, culling of the whole herd is required. Farmers then have to breed from more resistant animals and there are restrictions on the animals they can send off the holding for breeding or for the food chain.

In 2003 there were 231 confirmed reported cases of scrapie in England. In addition 109 cases have been found through surveillance at abattoirs and of dead on farm animals in Great Britain.

Interest in the new measures has been shown mainly by industry organisations.

The changes introduced by the EU measures are important from a public health perspective but not politically or legally.

8. Impact

A final Regulatory Impact assessment is attached which shows the impact on businesses and the exchequer.

9. Contact

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COMPULSORY SCRAPIE FLOCKS SCHEME- FULL REGULATORY IMPACT ASSESSMENT

1. Title

The TSE (England) (Amendment) Regulations 2004

2. Purpose and intended effect of the measure

(i) The Objective

The purpose of the Regulations is to implement Commission Regulation 1915/2003 which introduced measures to eradicate scrapie from farms that have a confirmed case. The measures apply to any sheep or goat farm with a confirmed case of scrapie.

The Regulations will apply to England. Parallel regulations will apply in Scotland, Wales and Northern Ireland.

(ii) The Background

Scrapie- a spongiform encephalopathy- is a fatal brain disease of sheep (and goats). Other spongiform encephalopathies include bovine BSE and human CJD. It has been a notifiable disease in the EU since 1993. Scrapie can be transmitted within and between flocks and it is currently believed that transmission is most likely to occur during lambing and other periods of intensified husbandry.

Prior to the Commission Regulation, the only requirement where a case of scrapie was suspected was for the suspect animal to be slaughtered, for diagnosis, with compensation payable to the owner. However it is recognised that this approach alone will not eliminate the risk of transmission of disease in and between affected flocks.

In April 2002, the European Union's Scientific Steering Committee issued an Opinion, which recommended that where a case of scrapie is diagnosed on a small ruminant holding the entire flock/herd should be culled. However it recognised that culling sheep of the most resistant (ARR/ARR) genotype would carry little risk reducing benefit. As a result, the European Commission proposed compulsory EU wide measures, which were adopted in December 2002 as Regulation 260/2003. Some detailed amendments to the measures, which introduced more flexibility, were agreed in September 2003 in Regulation 1915/2003. Further amendments, introducing further flexibility at the UK's request, were proposed by the Commission in early 2004 (Doc SANCO 4908/2003).

(iii) Risk assessment

The EU Regulation was introduced in order to eradicate scrapie from affected farms. In the early 1980s it is possible that sheep were exposed to the same contaminated feed which gave rise to BSE in cattle, albeit at lower levels. There is therefore an acknowledged theoretical risk that BSE might have been transmitted to sheep and if so it might be masked by scrapie (as the

clinical signs are similar to experimental BSE in sheep). Flocks with scrapie therefore represent a theoretical public health risk, and they also pose a risk in terms of transmitting disease. Goats are also susceptible to scrapie and scientific advice is that goat herds would also pose a public health risk if BSE were to be found in sheep. According to the current scientific advice goats are not known to possess specific genes which confer resistance to TSEs so a genotyping approach is not yet appropriate for them.

The Regulation applies to holdings with cases of scrapie confirmed from 1 October 2003. There are estimated to be approximately 46, 000 holdings that keep sheep and 7,500 holdings that keep goats in England (Figures for the UK are 86,000 and 10,000). It is difficult to estimate how many of these holdings will have scrapie in future. In 2002 the number of confirmed reported scrapie cases and affected farms involving small ruminants in England was 225 and 68 respectively. In 2003 the numbers in England were 231 and 72 respectively. For 2004 up to April, there have been 57 confirmed cases in England on 24 farms. There have been very few reported cases involving goats in England in recent years (1 in 1996, 1 in 1997 and 1 in 2003). However most scrapie cases are believed to go unreported. Scrapie can often re-occur, with some flocks having persistent problems.

In addition to reported cases, about 109 cases have been found in Great Britain through the active surveillance at abattoirs and of fallen stock required by EU legislation since spring 2002. There has already been some decrease in reporting of scrapie since 1 October 2003 and it is expected that this will reduce further once the EU measures are being enforced.

(iv) Business sectors affected

Sheep and goat farms which have a confirmed case of scrapie. As indicated above, it is difficult to estimate how many farms will report suspect scrapie.

Flocks/herds in TSE or other research projects can be exempted from the on-farm measures required by the EU Regulation.

It is not envisaged that there will be an effect on other sectors, apart from possible knock-on effects on processing and other outlets where large dairy flocks /herds have a confirmed case of scrapie.

(v) Issues of equity and fairness

The measures will impact on sheep and goat farmers who report a case of scrapie in their flocks/herds, which is then confirmed. They will also impact on cases confirmed following surveillance at abattoirs where it is possible to trace back to a farm of origin. However there will be cases where tracing back is not possible. Or, where farmers do not report cases to avoid being caught by the measures. Scrapie cases occur throughout the country where sheep and goats are farmed and in different breeds. There may be some local effects- as affected holdings can occur in clusters – but these are not expected to be significant.

3. Options – identification

Option 1- Do nothing

Option 2- Implement the EU Regulation, using, according to the circumstances, either the option of (i) whole flock/herd slaughter if the farmer is content or (ii) genotyping all sheep and culling the more susceptible ones and culling all goats.

Option 3- Implement the EU Regulation, using the option of whole flock/herd slaughter in all cases

Option 4- Implement the EU Regulation, using the option of genotyping all sheep and culling the more susceptible ones and culling all goats in all cases.

4. Benefits of the Options

Option 1-Do nothing

This would not meet the objective of scrapie eradication on known affected farms. The EU regulation is directly applicable and non-compliance would be a breach of community obligations. It is therefore not a feasible option.

Option 2 -Implement using, according to the circumstances, whole flock/herd slaughter if the farmer is content or genotyping all sheep and culling the more susceptible ones, and culling all goats

The Regulation allows the following options when a case of scrapie is confirmed and the inquiry to identify all the small ruminants on the farm has been carried out:

(a) killing all the animals (sheep and goats), embryos and ova identified by the inquiry.

or

(b) genotyping all sheep and culling the more susceptible ones and culling all goats.

This option would meet the EU Regulation by applying whichever course of action would best suit the circumstances of the flock. The competent authority (the State Veterinary Service (SVS)) would take a decision based on veterinary advice, the farmer's wishes and other factors. Criteria are being drawn up to be followed when taking such decisions. In most cases, it is envisaged that the genotyping approach would be used with whole flock slaughter applied only rarely where the farmer was content. This approach will provide for flexibility.

Once an option has been activated, there are then genotype-based restrictions on which animals can be introduced to, and moved off, holdings. A farmer can restock immediately but will be subject to the restrictions for 3 years from the date when all of the sheep are of prescribed genotypes and, if goats are to be reintroduced on to the farm, subject to increased brain testing of culls and fallen stock and provided there has been thorough cleaning and

disinfection of all sheep and goat housing on the premises following de-stocking. Derogations from certain provisions are available for breeds with low levels of resistance or at risk of inbreeding.

Alternatively a farmer who has had his whole flock/herd slaughtered can leave his holding without sheep or goats for a 3 year period if he cannot, or does not wish to, restock immediately. Thereafter, no genotype-based restrictions would apply.

This option will benefit the public sector by reducing sources of TSE infection from known scrapie affected flocks/herds and transmission to other flocks/herds thus helping to reduce the level of risk these flocks/herds pose. It will reduce the risk of theoretical BSE in sheep which would have significant effects for the exchequer and more widely. (BSE in cattle has cost the exchequer £4.5 billion and has led, through vCJD, to the loss of over 120 lives). It has been estimated that the minimum cost should BSE be found to be in the national sheep flock is £968.5m, as indicated in the partial RIA for the BSE in sheep contingency plan recently issued for consultation. These costs exclude costs for businesses e.g. loss of output.

It will benefit consumers by dealing with flocks/herds with confirmed cases of TSE so reducing the theoretical public health risk that might arise from eating meat or dairy products from infected flocks/herds. (Whilst dairy products from BSE infected cattle are not considered to represent a risk, due to the different distribution of scrapie agent in scrapie affected sheep, the risk of contamination of sheep and goat dairy products with BSE agent is unknown). Only animals with a specified level of resistance would be allowed to go into the food chain from affected flocks. Consumers would therefore have greater assurance about the meat and dairy products that they eat.

It will benefit businesses (farmers with a confirmed case) by eliminating scrapie on their farm, and reducing the risk that it might reoccur. Farmers for whom the genotyping approach would apply will be able to retain some of their sheep so making this a sustainable solution, consistent with the Government's commitment to sustainable farming and biodiversity. These farmers would also establish a resistant flock, so helping them in the longer term. Farmers who are able to restock will be able to maintain their livestock businesses. Those involved in the export of breeding sheep will be able to export to other Member States any most resistant (ARR/ARR genotype) breeding sheep regardless of any recent occurrence of scrapie on their farm, as allowed under the Regulation. A total of 63,467 sheep, of which 1,236 were sheep used for breeding, were exported from the UK to other Member States in the financial year April 2003 to March 2004.

Option 3 - Implement by whole flock/herd slaughter in all cases

This would involve using only the option of slaughtering the whole flock or herd. The restrictions described for option 2 would apply.

This option will benefit the public sector in the same way as option 2 although the benefits might be realised more quickly with whole flock/herd slaughter being the only approach taken.

The benefit to the consumer will be as for option 2.

The benefit to business (farmers with a case) will be as for option 2 although scrapie might be eliminated more quickly, by a whole flock/herd slaughter policy.

Option 4- Implement using the option of genotyping all sheep and culling the more susceptible ones and culling all goats.

The benefits will be as for option 2 but more sheep farmers than under 2 will be able to retain some of their sheep so making better use of existing resources. This is therefore a more sustainable solution. This option will also help more sheep farmers to establish a more resistant flock than under option 2. This should assist them in the longer term and enable those involved in the export of breeding sheep to export on the basis of having fully resistant animals.

5. Costs of the options for business, charities and voluntary organisations

Except where otherwise indicated, the costs below have been based on the following assumptions: an average of 80 farms with new cases of scrapie per year in England; an average flock size of 500 animals made up of 5 rams, 150 ewes, 50 cull ewes and 295 lambs; 50% of the animals having to be replaced when the flock is genotyped and 2 free genotype tests for replacement animals provided by the Government.

Option 1- Do nothing

As already explained, this is not a feasible option. We would be in breach of EU obligations and if the Commission took infraction proceedings against the UK for non-compliance there would be costs arising and fines.

Option 2 – Implement by using, according to the circumstances, either whole flock/herd slaughter if the farmer is content or genotyping all sheep and culling the more susceptible one and culling all goats.

Cost to business

Sheep

It is difficult to say how many confirmed cases would be dealt with under whole flock slaughter and how many under the genotyping approach. This will depend on a veterinary assessment. We would only envisage applying the whole flock slaughter option in rare cases after full consultation with the farmer, and if the farmer wishes with his private veterinary surgeon. For the purposes of this RIA it is assumed that there would be a split of approximately 95% involving the genotyping approach and 5% whole flock slaughter. (There may possibly be slightly more cases involving whole flock slaughter in the early years of the scheme but fewer in later years as genetic resistance in the national flock improves).

For sheep farmers, there will be additional costs as follows:

(a) For gathering together sheep to enable them to be collected for slaughter or for genotyping. This may take time depending on the size of the flock. Sizes of flocks will vary considerably and two or more visits to collect or genotype animals may be needed in larger flocks. For a very small flock the farmer may need to set aside 2 hours to assist. For larger flocks or on a hill farm, this may involve 3 or 4 days at a minimum and involve several people assisting. Assuming that a sheep farmer's time is costed at a rate of about £6 per hour, the cost could range from £12 to £500/600.

(b) For maintaining a farm without income from sheep/subsidies. Payment of 2004 Sheep Annual Premia is dependent on an application having been made during an application window (4 December to 4 February) and sheep being on the farm during a specified retention period (4 February to mid May). As the Regulations will not take effect until July 2004, there would be no impact on payments made to any flock or animals culled during 2004.

Following the recent CAP reform package, subsidy will be paid on a hectare basis, rather than on the number of sheep on a farm, from January 2005. This will be based on the number of hectares claimed under the Single Farm Payment in 2005. The payment will include an element based on payments made in the 2000-2002 period which will progressively reduce over an eight-year period. Therefore subsidy entitlements for 2005 will not be significantly affected. It is possible that some moorland farmers who lose flocks through a cull may find it difficult to maintain their land in Good Agricultural and Environmental Condition and to meet associated cross compliance requirements under the Single Farm Payment.

There may be an impact on Hill Farm Allowance (HFA) for the 2005/6 financial year. Upland sheep farmers affected by a cull may have insufficient stock to satisfy the minimum stocking density required for HFA. In these circumstances, provided farmers confirm their intention to restock, an exemption to allow payment in 2006 will be sought from the European Commission.

In addition, any sheep farmer who has a confirmed case and is in an agri-environment scheme (such as the Countryside Stewardship scheme or Environmentally Sensitive Areas scheme) may not be able to comply with the required management prescriptions. It is likely that these circumstances would be regarded as *force majeure* under Article 30 of Regulation (EC) No 1750/1999 in which case no penalty would be applied and there would be no recovery of agri-environment scheme payments.

Farmers will also lose their sheep and the benefit they could derive from them. However compensation will be payable by Government for animals culled. This will be based on standard rates (which reflect average market rates) with provision for higher compensation for higher value -e.g. pedigree-animals based on valuation. The cost of having a valuation carried out will be payable by the farmer. This will be made up of a 'nomination fee' to the Royal Institution of Chartered Surveyors (RICS) of £115 and the valuer's fee for carrying out the valuation. It is difficult to estimate how many cases might involve valuation.

Losses should therefore be relatively small where a farmer restocks quickly.

For flocks where the genotyping approach applies, there would be a shorter period where the farmer has lost sheep and sufficient replacements have not been found. It is expected that the farmer will want to restock quite quickly depending on the availability of suitable genotype animals in the breed. In most cases he will have to replace only a percentage of his flock i.e. only those that are not of the more resistant genotypes, although the percentage will vary from flock to flock and breed to breed.

(c) For sourcing of suitable genotype replacement sheep over the period during which restrictions apply. Where farmers restock, there will be costs in purchasing suitable replacement sheep. The UK sheep breeding industry is very complex with a highly stratified structure and the availability and cost of resistant animals will vary considerably from breed to breed. Prices could be very high for purchase of some pedigree breeding animals but much less for animals in commercial flocks. The number of animals to be replaced will vary considerably from breed to breed and flock to flock and according to whether the option applied is whole flock slaughter or genotyping. (Government will pay up to £500 as assistance towards the purchase of a fully resistant ram as a replacement for one that has been culled, based on evidence of purchase and genotype being provided). Availability of replacement animals will also vary according to the time of year, with autumn being the main period for sales. It may take longer to replace animals outside this period.

The period during which farmers will have to comply with the restrictions on what animals can be brought on will also vary depending on how quickly their rams can reach most resistant-ARR/ARR- status and their ewes semi resistant -ARR/xxx but not VRQ-status.

If we were to take an example of a small pure bred hill breed flock of 3 stock rams (1 ARR/ARR and 2 ARR/ARQ) 2 shearling (i.e. 18 month old) rams of ARR/ARQ, 113 breeding ewes and 25 shearling ewes, predominantly ARQ and a normal replacement rate of 20%, based on a genotyping approach, it would take a minimum of 2 years for the farmer to turn his flock around so that all his rams were ARR/ARR and all his ewes ARR/xxx but not VRQ. There would then be a further 3 year period that would apply on top. This assumes that a farmer would not be willing or able to remain viable with a smaller flock.

In the case of commercial flocks, (which are larger - 1000 animals is the typical average in a flock), there is less information about their genetic make up. However it is a reasonable assumption that it should not take too long to

get all rams in such flocks most resistant – i.e ARR/ARR- assuming they are sourced from terminal sire breeds, which tend to be larger and have a greater prevalence of resistant and semi resistant genotypes. There would be a greater problem with getting ewes to semi-resistant status, as in some flocks many are often replaced every year. Therefore some commercial flocks could be under restriction for a very long time.

It is expected that sourcing of suitable resistant rams should become easier as membership of the National Scrapie Plan increases and more resistant animals become available. So costs should reduce over the years of the scheme. _

Assuming the cost of a resistant ram is £700 and the cost of a replacement semi resistant ewe is £100. On the basis of the average 500 sheep flock, 2 rams and 100 ewes would need replacing under the genotyping approach. Less the £500 financial assistance from Government the farmer would have to pay £200 per ram. The cost would therefore be £400 for rams and £10,000 for ewes = £10,400. For the whole flock slaughter option, 5 rams and 200 ewes would need replacing giving a cost of £21,000. Assuming 80 cases a year, with a 5/95 split of whole flock slaughter and genotyping, total annual cost would be £874,000 in the 1st year.

There will also be additional costs for testing replacement breeding sheep to see if they are of the prescribed genotype, before the flock owner purchases them. In some cases suitable rams will be able to be sourced from the National Scrapie Plan ram register. In other cases sheep will need to be identified and genotyped. The Government will pay for genotype testing of the animals the farmer wishes to purchase. (The assumption is 2 tests per animal culled and replaced with some flexibility for more tests for some breeds).

For flocks with a low level of resistance or where necessary to prevent inbreeding, the Regulation allows for a derogation either for up to 3 breeding years from the need to have animals culled or to allow animals not of the prescribed genotype on to the holding. This will include flocks or breeds where there are low levels of resistance, or where the breed is small or rare. In cases where derogation is granted from the culling requirement, additional costs arising from purchasing and testing of replacement animals will be delayed thus reducing the annual cost slightly in the earlier years. Where it is agreed that less resistant animals (expected to be type 2 rams and type 3 ewes) can be brought onto the holding there should be no or minimal additional costs as such animals will be more widely available than resistant animals. Until 1 January 2006, a derogation will also be available to allow non-pregnant ewes of unknown genotypes onto a holding where it is difficult to find replacements. Although farmers would have to purchase replacements, genotyping of these animals would be undertaken by Government and compensation would be paid for animals that had to be killed and destroyed. It is difficult to assess how many farmers will seek derogations and the number that will be granted.

(d) There will also be loss of earnings. For pedigree flocks selling breeding animals there will be losses in sales of breeding stock as a result of not being able to send semi-resistant or less resistant sheep off the farm for breeding. (Semi-resistant ewes can be sent to other scrapie affected holdings under

similar restrictions but this is not expected to be a common occurrence). The price of sheep sold for breeding can vary from £00s to many £000s depending on the quality of the animal. Some sheep breeders may therefore incur considerable losses which could last many years (or may have to close down their businesses) as they would only be able to send semi-resistant animals to the food chain under the Regulation (thus attracting a much lower price e.g. £50/£90 per animal). Take an example of an 80 ewe pedigree flock producing 100 lambs a year, including 50 ram lambs of which 40 are suitable for breeding. If the genotype situation in the flock is relatively poor only 5 or 10 of these 40 (less than a quarter) might be most resistant and so able to be sold. The remaining lambs would have to be culled for meat assuming they were semi-resistant, or else destroyed. These animals could be worth anything from the £300s to £10,000s. It is difficult to estimate how many such cases there would be. Where the genotyping approach is used, the costs will last for a longer period than where whole flock slaughter applies.

Assuming 30 ram lambs in the flock could not be sold for breeding, and the value of the animals, minus any return on them from sale into the food chain, was £500 each the loss would be £15,000 for the flock. Based on 20 flocks of the estimated 80 affected by scrapie annually being in this situation, the loss would be £300,000.

For commercial farmers, losses will be less as their main business is selling lambs for meat. A small amount of wool may also be sold. (Value estimated to be on average £2 per ewe per year).

For farms selling dairy products, losses could amount to £250 – 300 per ewe per year if they were selling milk as a commodity. If they were a producer/retailer selling yoghurt/ice cream/cheese, loss in sales could be 4 or 5 times this. They would also incur further costs, for example in buying in their own milk. It may take two to three years for a commercial milk flock to recover production levels. They may lose their market in that period and be unable to recover it for some time.

Assuming 300 ewes in a dairy flock, losses could be 300 x £250 at a minimum – i.e £75,000 per year. Based on 5 dairy flocks in the 80 affected annually being subject to measures, losses would be £375,500.

(e) For farmers with high value animals opting for compensation on the basis of valuation, there would be the cost of having a valuation carried out. This will include a nomination fee of £115, payable to RICS, and the cost of the valuer's fee for carrying out the valuation. This could range from £100 to value one high value ram to as much as £1,000 a day to value 100 animals. Assuming 10 valuation requests in the 1st year of the scheme with an average valuation fee of £300 plus £115 RICS nomination fee, the cost of valuation to the industry would be £4,150. However farmers opting for valuation, will receive higher compensation than the standard rates.

(f) Costs of maintaining animals that cannot be sent off holdings. Animals that would normally be sent off to "tack " grass away from a holding will not be able to be sent there if they are not most resistant. The cost to the farm of sending off to tack grass is £5-£8 per animal per winter (October to April). There will be extra costs for the farmer in looking after these animals.

However, in many cases it will not be physically possible to maintain the animals on the holding as the infrastructure is not present to meet legal restrictions on welfare grounds on methods of feeding and maintaining flocks on hills and uplands. In the remote possibility that the owner may be able to construct extra housing for these animals, there would be a one off cost of £50-£80 per sheep place. The cost of feed and ancillary machinery to feed and maintain the sheep in good health would be around £35 per animal per winter. In this case the maximum cost to the farmer would be £80 + £35 -£8 = £107 per sheep for the 1st year, £35 in subsequent years.

(g) Loss in asset value of farm. Farmers under restriction wishing to sell their farm will find that its value will be less than before any action was taken. However, it is very difficult to quantify the reduction in value. A sheep farm sells for £1,000 to £1,600 an acre at current prices. It will depend on the ease with which the land may be put to alternative use. Where there are substantial buildings in an attractive location they may command a premium that far exceeds the value of the farmland.

Goats

For goat farmers, there will be additional costs as follows:

(a) loss of income when goats are killed which could last for 3 years if they are not able to restock. This will include income from sales of dairy products and other products. Markets once lost may not be recoverable and it is likely that many businesses may not wish to restock.

Goat farmers can restock within this period if they meet specified requirements relating to cleansing and disinfecting the sheep and goat housing, allowing only fully or semi-resistant sheep to be present on the holding and requiring goats brought on to be subject to intensive monitoring involving scrapie testing of dead on-farm animals and culls. Goat farmers wishing to restock will therefore incur costs of finding and purchasing replacement animals and of cleansing and disinfecting all sheep and goat housing on the premises before replacements can be reintroduced. The cost of a replacement goat will vary but an average figure would be £200 – 300 for a stud male, £100 for goat kids and £250 for milking goats. It will be difficult to find replacement stock as goats kept in large dairy units need to be reared together in large numbers in order to perform to their potential. Many small pedigree breeders with long established herds will find it difficult, or will not wish, to restock.

Time and cost of cleaning and disinfecting any sheep and goat housing would vary according to the size of the herd ranging from 5 staff days for a small herd to 20 staff days for a large herd. There would also be associated costs, for example for chemicals, disinfectants, protective clothing. The farmer would be liable for the whole cost of cleaning and disinfecting. No CAP subsidies are payable to goat farmers so loss of premia would not be a factor. Based on previous experience, the number of scrapie cases confirmed per year is likely to be negligible if not zero.

(b) For farmers with high value animals opting for compensation on the basis of valuation, there would be the cost of having a valuation carried out. This

will include a nomination fee of £115, payable to the Royal Institution of Chartered Surveyors (RICS) and the cost of the valuer's fee for carrying out the valuation. This could be £100 to value an individual animal or as much as £1,000 a day to value 100 animals. However farmers opting for this route should receive higher compensation than the standard rates.

(c) for gathering together goats to enable them to be collected for slaughter. As indicated above, this will take time depending on the size of the herd. However unlike sheep flocks, large herds tend to be housed most of the time. Assuming that a goat farmer's time is costed at a rate of £6 per hour, the cost could range from £12 for a small herd to £1,200 for a large herd.

Other Costs

There will be additional costs to the public sector/government associated with carrying out an inquiry to identify the animals affected, and tracing back to the holding or flock of origin if necessary. It is estimated that an inquiry would take 2.5 days of a Veterinary Officer's time, slightly longer for larger flocks. There would also be Veterinary Officer time in visiting flocks to assess which option should be applied – slaughter or genotyping – and in visiting to explain the implications of genotyping results to the farmer. Estimated costs are £70,840 in the 1st year based on an average flock size of 500 sheep and 80 affected flocks.

Where the genotyping approach is used, there will be the cost of genotyping (estimated at £20 for a sampling/genotype test). The number of sheep to be sampled/genotyped will vary from flock to flock/breed to breed. Assuming an average of 500 animals in a flock, the cost per flock would be £10,000 in the 1st year.

There will be slaughter and disposal costs for animals that have to be culled- estimated at around £20 per animal. Based on an assumed average flock size of 500 sheep, the cost per flock would be around £10,000 for slaughter/disposal. Based on 50% cull rate when the genotype option is used, the cost per flock would be £5,000. Assuming 80 confirmed cases per year in England, (and a 5/95 whole flock slaughter and genotyping split) total cost would be £480,000 as a minimum in the 1st year.

There will be the cost of compensation, which would be payable for animals disposed of at a standard rate of £90 per sheep or goat, and £50 per lamb or kid (slightly lower rates apply where derogations have been granted). (For embryos the rate is £150 and for ova £5 although numbers that might be involved cannot be quantified at present). There is an option for higher value i.e. pedigree animals to be compensated at a higher rate- based on a valuation for which the farmer would pay. Assuming an average of 500 animals in a flock, comprising 155 sheep, 50 cull ewes and 295 lambs, with compensation payable at standard rates, the annual cost would be £30,500 per flock on the basis of a whole flock slaughter approach and £15,250 on the basis of a genotyping approach. (If the animals were high value pedigree animals, costs could be much higher). Total annual costs based on 80 cases and a 5/95 split would be £1,281,000 at a minimum. Where a derogation is granted to delay culling, these costs will be delayed.

Although not required by the EU Regulation, we envisage that the Government will help with assistance, of up to £500, towards replacement of a ram culled, with a resistant ram. As indicated earlier it is difficult to estimate how many rams will need to be replaced.

Government will also pay for sampling/genotype tests up to a certain amount per flock. It is assumed that this will be on average 2 tests per animal culled and replaced with some flexibility for more tests for some breeds. The average cost of a sampling /genotype test is estimated at £20.

The number of tests needed will vary according to how many animals need to be replaced and on how difficult it is to find suitable replacements of the resistant genotypes. The period during which restrictions apply on a holding could be lengthy particularly in commercial flocks where a certain proportion of ewes is often replaced on an annual basis, so costs could be incurred for a long time. The situation should ease as more resistant animals become available over time.

On the basis of the average flock of 500, the cost per flock of assistance for ram replacement will be £2,500 (5 x £500) and for genotyping will be £8,200 (200 ewes and 5 rams x £20 x 2) on the basis of whole flock slaughter giving a total of £10,700. On the basis of the genotyping approach the cost would be £5,080 (£4,080 for genotyping plus 2 x £500 for ram replacement assistance). Assuming 80 new cases per year with a 5/95% split of whole flock slaughter and genotyping, the total annual cost of genotyping and assistance for ram replacement to government would be £428,880.

There will be administrative costs and set up costs well as costs in training SVS staff and adjusting the current IT system. Estimated costs are £100,000 for the 1st year, decreasing in subsequent years.

There will be costs in dealing with appeals from farmers against decisions on the action to be taken on their farm. Estimated costs are around £3,000 per appeal, based on £1,000 a day for Counsel's time in preparing for and holding a hearing. The number of appeals is expected to be small.

There will be enforcement costs in ensuring that the farmers concerned comply with the restrictions. This will involve checks on records, spot checks and genotype testing of animals and intensive monitoring of goats by SVS. Costs at the end of the 1st year, based on 250 lambs to be tested per flock, are estimated at £5,000 per flock plus two SVS visits at £253 per day totalling £5,506 per affected flock.

There will be costs of carrying out TSE testing of a sample of culled and all dead-on-farm sheep over the age of 18 months of age during the period of restrictions on a holding. Based on an average flock size of 500 animals and assuming 150 animals destined for human consumption and 7 cases dead-on-farm or put down for health reasons, estimated costs would be £14,900 per flock, 80 flocks in the 1st year = £1,192,000 annually over the three year test period. (Dead-on-farm at £200 per animal, culls £90 per animal). (Detailed arrangements for testing are still being considered- it is possible that some costs may need to be borne by farmers)

There may be some environmental costs where whole flock slaughter applies in that if holdings are left unstocked for 3 years the land may not be grazed sufficiently and land management would be affected. These are difficult to quantify and there may in fact be environmental benefits from destocking in areas where overgrazing occurs. There may be some effect on the rural economy and knock-on effect on other businesses related to sheep farming if there were to be a number of cases involving de-stocking in an area. Certain flocks e.g. hefted flocks may be adversely affected.

Option 3- Implement by whole flock/herd slaughter in all cases

Costs to business

Sheep

For sheep farmers, additional costs will differ from those in Option 2 as follows:

(a) For maintaining farms without income/subsidies. In comparison with option 2, more farmers may be subject to loss of income under agri-environment schemes where they have lost sheep (and sufficient numbers of replacements have not been found).

(b) Loss of earnings are likely to be greater as the farmer will find it more difficult to get back into business. The action may mean that he cannot resume his business at all given the loss in trade or markets he has suffered. This could mean loss of income of up to £15,000 per year and £300,000 assuming 20 of the estimated 80 affected flocks annually being in this situation.

(c) Although difficult to estimate, it is possible that fewer farmers will be able to restock immediately. If so a smaller number of replacement animals of the prescribed genotypes will need to be found. As already indicated, the availability and cost of resistant animals and the period over which restrictions will apply will vary considerably. (This may mean fewer genotyping tests to find suitable animals compared with option 2). It is expected that sourcing of suitable resistant rams might be difficult to start with but should become easier as membership of the National Scrapie Plan increases and as more resistant animals become available. So cost should reduce over the years. Assuming only 30 cases of restocking from the estimated 80 flocks affected with scrapie annually and costs of £21,000 for restocking, total costs would be £630,000.

Goats

There are no differences compared with Option 2.

Other Costs

Compared to Option 2, costs of genotyping are not likely to occur normally. However there would be greater slaughter and disposal costs as all animals would need to be destroyed. On the basis of a flock of 500 animals, and a cost of £20 per animal for slaughter/disposal, the cost per flock would be £10,000 in the 1st year.

The cost of compensation for animals disposed of would be greater given the larger number of animals to be destroyed. Based on an average of 500 animals in a flock, the annual cost per flock would be £30,500 assuming a split of 155 sheep, 50 cull ewes and 295 lambs and £2,440,000 based on 80 flocks. (If animals were high value, and compensation was sought on the basis of a valuation, costs would be greater). The maximum size of a flock in England is around 20,000 although we do not know how many such flocks there might be and how many would have confirmed cases of scrapie.

The costs of assistance towards replacing culled rams with the most resistant rams might have to be made to a smaller number of farmers if they decide to restock. This could also mean that costs of assisting with sampling/genotype tests could be smaller. Numbers to be replaced and costs and the time period over which costs would be incurred will vary as explained for option 2.

On the basis of an average flock size of 500, and assuming 80 cases per year, the total cost of genotyping and assistance for ram replacement to the public sector would be £856,000 (£10,700 per flock x 80).

Option 4 - Implement using option of genotyping all sheep and killing more susceptible ones and culling all goats in all cases

Cost to business

Sheep

For sheep farmers, additional costs will differ from those in option 2 as follows:

(a) Loss of income/subsidies may be slightly less of a factor with fewer farmers affected and over a shorter period.

(b) Although difficult to estimate it is possible that more farmers may wish to restock. If so the cost of replacing animals could be less, as also the cost of replacement tests, although this will vary as already explained above.

Goats

There will be no differences compared with option 2.

Other costs

Cost of genotyping the sheep on affected farms would be greater as larger number of animals would need to be genotyped. Assuming an average flock size of 500 cost per flock would be £10,000 (500 x £20 per test).

Slaughter and disposal costs would be less as fewer animals would be destroyed. Assuming an average of 50% susceptibility in the 80 affected flocks with 500 animals per flock on average, then slaughter and disposal would cost £400,000 (based on a cost of £20 per animal) in year 1.

Cost of compensation would also be less as a result. Assuming 500 animals per flock made up of 155 sheep, 50 cull ewes, 295 lambs, compensation would cost £15,250 per flock and £1,220,000 based on 80 flocks in year 1. (This is the minimum based on no high value animals in an affected flock).

Costs of assistance towards replacement rams that have been culled could be greater, although this will depend on the situation in the flock and breed, and genotyping replacement animals. Based on the flock assumption above and two genotype tests per animal to be replaced, the cost would be £406,000 (£5,080 per flock x 80 flocks).

6. Consultation with small business: the Small Firms' Impact Test

The majority of sheep and goat farms could be classified as small businesses. The President of the National Sheep Association – a sheep farmer- has seen drafts of the partial RIA and the full RIA and his comments and suggestions were included. We have discussed this final RIA with other key industry representatives.

7. Competition assessment

The proposals have been checked against the competition filter. The policy options are not expected to have an impact on shares of the market for breeding animals and commercial animals. There would be implications for all sectors of the sheep industry (i.e. breeding sector and commercial sector) and for the goat sector but only for individual farmers with confirmed cases of scrapie. It is possible that some of these farmers may not wish to continue in business but this is not likely to change market structure given the large number of farmers in the markets. It is possible that there may be some impact on the availability of breeding animals from certain small breeds with low levels of resistant animals but this should decrease as levels of resistance in individual breeds increase over time. New farmers entering the markets would not be subject to additional barriers to entry compared with existing businesses.

8. Enforcement and sanctions

The State Veterinary Service (Veterinary Officers and the National Scrapie Plan Administration Centre) will enforce the Regulations. The regulations will include criminal sanctions for non-compliance with the restrictions in the EU legislation. Penalties will be those in the existing TSE (England) Regulations.

9. Monitoring and review

The effectiveness of the legislation in eradicating scrapie in flocks with a confirmed case will be measured over time by the number of scrapie cases picked up at abattoirs, the recurrence or otherwise of scrapie on affected farms and whether the legislation has an adverse effect on reporting of scrapie. These impacts will be monitored by the department on an annual basis starting in July 2005.

10. Consultation

(i) This has been drawn up in consultation with relevant divisions within Defra, the Small Business Service, Cabinet Office Regulatory Impact Unit, and Devolved Administrations.

(ii) We have consulted all stakeholders on the partial RIA as part of the consultation on the new regulations. A total of 20 responses were received and most thought that, of the options, Option 2 – genotyping, with whole flock slaughter only where the farmer was content- was the best approach. A number of concerns were raised about the EU regulation which we have taken up with the European Commission, so far without success.

11 Summary and recommendation

Option annum	Total cost per annum	Total benefit per annum
2	£6,439,330	£968,500m
3	£7,515,190	£968,500m
4	£6,315,850	£968,500m

See Annex A for a detailed summary of the costs.

Having regard to the issues, costs and benefits discussed in this RIA, the preferred option is option 2. This would enable us to meet the objective of the measure and address the theoretical public health risk from sheep flocks and goats herds affected by scrapie. Although this is slightly more costly than Option 4, it would enable us to operate the genotyping approach for sheep but also the possibility of culling a whole flock in the rare cases that this was the most effective option in the circumstances based on a veterinary assessment and the farmer was content.

12. Declaration

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed: Ben Bradshaw

Date: 17 June 2004

Parliamentary Under Secretary of State
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ANNEX A - RIA costs based on average flock of 500 sheep and 80 affected flocks per year			
	option 2	option 3	option 4
Costs to business			
gathering sheep = 2 days @ £6 per hour per flock	£6,720	£6,720	£6,720
Cost of purchasing replacements	£874,000	£630,000	£874,000
Loss of earnings- breeding sheep	£300,000	£600,000	£300,000
Loss of earnings- dairy	£375,000	£375,000	£375,000
Valuation of high value animals based on 10 requests per year average valuation fee of £300 plus £115 RICS nomination fee	£4,150	£4,150	£4,150
cost of keeping sheep that can't leave holding based on 10% of affected flocks & 50% of 295 lambs @ £107 per lamb	£126,260	£0	£126,260
Total costs to business	£1,686,130	£1,615,870	£1,686,130
Other costs			
administrative & set up costs at NSPAC	£100,000	£100,000	£100,000
Costs for genotyping flock	£760,000	£0	£800,000
Veterinary Officer time @ £253 per day for 3.5 days per flock	£70,840	£70,840	£70,840
Slaughter & disposal	£480,000	£800,000	£400,000
compensation for culls	£1,281,000	£2,440,000	£1,220,000
Ram replacement assistance payments	£86,000	£200,000	£80,000
free genotyping of replacement breeding animals	£342,880	£656,000	£326,400
Enforcement costs based on genotyping 250 progeny and SVS staff time for 2 days at £253 per day	£440,480	£440,480	£440,480
TSE testing assuming 150 animals for human consumption and 7 cases dead-on-farm@ £90 & £200 unit cost respectively	£1,192,000	£1,192,000	£1,192,000
Total other costs	£4,753,200	£5,899,320	£4,629,720
TOTAL Costs	£6,439,330	£7,515,190	£6,315,850
RIA benefits			
estimated minimum cost of BSE in sheep based on contingency plan	£968,500,000	£968,500,000	£968,500,000