

FINAL REGULATORY IMPACT ASSESSMENT

1. Title of Regulatory Proposal

1.1 'The Welfare of Farmed Animals (Scotland) Amendment Regulations 2002'.

2. Purpose and Intended Effect

(a) Issue and Objective

Issue

2.1 Specific rules on the welfare of pigs are set down in Council Directive 2001/88/EC and Commission Directive 2001/93/EC (amending the existing EU rules on the welfare of pigs in Directive 91/630/EEC). Member States of the EU must implement the new directives into national law by 1 January 2003. In Scotland, this will be achieved by amending the Welfare of Farmed Animals (Scotland) Regulations 2000 (S.S.I. 2000 No.442). Similar regulations will be made in England, Wales and Northern Ireland.

Objective

2.2 The objective of this legislation is to implement the directives and lay down minimum welfare standards for the protection of pigs. One of the key provisions of the Directives is:

A An EU-wide ban on close confinement sow stalls, to be fully in place by 1 January 2013.

This provision has already been implemented in the UK, so there will be no extra compliance costs arising from this measure. The use of close confinement stall systems for housing dry sows has been banned in the UK from 1 January 1999.

The remaining key provisions which this legislation has to implement into Scots law are:

- i) **From 1 January 2003**, permanent access to manipulable materials for all classes of pig.
- ii) **From 1 January 2003**, a minimum weaning age of 28 days, with the exception of 'all-in/all-out' systems.
- iii) Minimum space requirements for group housed sows and gilts and minimum pen side length – **existing buildings have until 1 January 2013 to comply.**
- iv) A minimum 'continuous' solid lying area for sows and gilts – **existing buildings have until 1 January 2013 to comply.**

(b) Risk Assessment

2.3 The "risk" in this context relates primarily to the welfare of pigs:

- i) The ban on close-confinement sow stalls has been in place in Scotland since 1 January 1999. The Government is committed to advancing animal welfare standards at the EU level. During the negotiations on the Directives we pressed for and secured a phasing out of close-confinement stalls across the EU. What has been achieved will advance animal welfare standards and level the playing field in Europe that is currently tilted against British producers.
- ii) Approximately 60% of pigs in Scotland are kept indoors. Minimum space requirements for weaners and rearing pigs have been fully in force since 1 January 1998, but up until now, no such requirements have been set for sows and gilts at an EU level. The setting of these requirements will minimise the development of behavioural and physiological problems.
- iii) The requirement for some form of environmental enrichment using manipulable materials is also essential for pig welfare, as it reduces stress and minimises aggressive behaviour and thus will reduce the incidence of, for example, tail biting.

2.4 A second area of “risk” would arise if Directives 2001/88/EC or 2001/93/EC were not implemented. Under Article 226 of the Treaty of Rome member states are obliged to implement EU law; failure to do so may result in infraction proceedings and ultimately ECJ action.

2.5 Failure to implement the directives might have a negative effect on the market. Public perception that pigs were not being kept at the highest standards might threaten the market.

3.(a) Identify Options

3.1 **Option 1: to do nothing** is not relevant. Member states are compelled by EU law to implement the Directives (see paragraph 2.4). Failure to implement would be contrary to the Government’s specific commitment in the Action Plan for Farming and the Government’s more general wish to see welfare standards for pigs improved across the EU.

3.2 **Option 2: taking unilateral action** is legally possible providing the minimum standards laid down in EU law are respected. However, stricter statutory requirements could not be applied to imported products and would, therefore, place an unfair burden on the UK industry without achieving any net welfare benefits.

3.3 **Option 3: full implementation of the Directives** is the recommended option, as this will improve pig welfare. The approach taken in preparing the draft legislation was to implement the directives without adding to them in any way. This is consistent with the Government’s Action Plan for Farming, which undertook not to over implement (‘gold plate’) EU legislation.

3.(b) Issues of Equity or Fairness

3.3 The fundamental principle underlying these proposals is the need to protect pig welfare. The legislation will apply equally across all keepers of pigs in the EU.

4. (a) Identify Benefits

4.1 The benefits of Option 3 – full implementation of the Directives -will mean that the Government's objective, of ensuring that pigs benefit from higher standards of welfare, will be met. In general, higher welfare standards lead to less disease and thus less need for veterinary interventions. Implementation will also mean that our producers will not be disadvantaged by imports produced to lower standards elsewhere in Europe (imports from non-EU countries are not significant), as all member states will have to implement the directives. The competitive impact on producers should be positive, as other member states will be introducing measures such as the close confinement sow stall ban, which already exist in Scotland and which will require pig producers in other member states to change their systems. Consumers should also have greater assurance as to the welfare standards which have been applied in the production of pork and pork products.

4. (b) Quantify and Value Benefits

4.2 It is difficult to quantify and value the benefits because the nature of this option relates to improved welfare standards for pigs.

Compliance Costs.

5. (a) Business Sectors affected

5.1 It is estimated that there are approximately 761 pig holdings in **Scotland** and a total population of approximately 596,000 pigs. (The Scottish herd will be significantly down on June 2001 figures) The June 2001 Census shows a UK breeding herd of 489,000 sows. Approximately 75% is housed indoors in a wide range of indoor housing systems. The use of close confinement stall systems for housing dry sows has been banned in the UK from 1 January 1999. Around 70% of indoor sows had been housed in this accommodation prior to the ban and this sector of the industry has already had to invest heavily to comply with the ban. **There will, therefore, be no extra compliance costs for the industry from the first key provision (A)**

described in Section 2.2. It is also worth stressing again that existing pig units will only have to comply with provisions i) and ii), outlined in section 2.2 from 1 January 2003. Provisions iii) and iv) only apply from 1 January 2013 for existing buildings.

5. (b) Compliance costs for a Typical Business

5.2 It is not possible to identify a 'typical business'. **A 'typical business' will not be affected by all four of the key provisions of the legislation outlined in points i) – iv) of Section 2.2.** The two examples given below are 'worst case scenarios', where holdings would be affected by all four key provisions, perhaps accounting for about 10% of those pigs housed indoors in Scotland.

5.3 A 400 sow slurry-based unit (approximately 300 dry sow places and 90 place farrowing accommodation, in an area of the country where straw is not readily available) has been used as the basis of the calculations below, with either:

Example 1 – Simple conversion sow housing from original stall and tether accommodation to loose housing (which could represent about 9.5% of sows housed indoors). Taking the key provisions in turn the estimated compliance costs would be:

i) **permanent access to manipulable materials** – the requirements of the legislation could be met either by the use of:

a) straw or similar material, which would have to be provided in each pen in each section of the herd. Using a material such as straw on slatted flooring would require some form of dispenser being installed, which would limit the amount of straw getting into the slots so that the storage and handling of slurry was not impaired. Facilities to store the material would also be required. There will also be on-going material and labour costs. The annual cost would be **£20,000**.

or

b) specialist equipment as an alternative to straw, which would still allow the pig to demonstrate its natural desire to investigate and manipulate, but would avoid any potential problems with blockages. This would be in the form of a deformable material, probably hanging above the pen. The annual cost would be **£6,300**.

ii) **a minimum weaning age of 28 days** – those farms without an all-in/all-out farrowing system will require additional farrowing accommodation to meet the extended period from birth to weaning. In addition, there will be increased labour costs and the increased suckling period has the potential to reduce breeding herd performance. The total annual cost would be **£18,600**.

There may be additional costs to be borne arising from the higher weaning age. One part of the welfare legislation which is already in place (WOFAR Schedule 6 part 2 para 14) is that “all pigs must be provided with an adequate supply of fresh drinking water each day”. It is considered that until about 3 weeks of age, provided the sow is lactating adequately and there is no disease, there is no need for water to be provided for pre weaning piglets and I doubt if this part of the legislation has been enforced. There will be significant costs both in the indoor and the outdoor herds in providing water for pre weaning piglets.

Further, the legislation also requires that “piglets must have sufficient space to be able to be suckled without difficulty” (part V para 26). Some crates will require modification.

iii) **minimum space requirements for sows and gilts and minimum pen side length** – the buildings are generally old and not suitable for structural modification, therefore the impact of this provision would mean that new dry sow accommodation would have to be built at an annual cost of **£11,300**.

iv) **minimum ‘continuous’ solid lying area for sows and gilts** – modification of the original floor would not be practical, therefore a new floor

would have to be laid. Costs would be covered as part of the full replacement costs in iii) above.

Total compliance costs for Example 1:

a)-using straw as the manipulable material = £49,900 per annum.

b)-using specialised equipment = £36,200 per annum.

Example 2 – a new (Directive 1997/98EC) fully slatted trickle feed system which complies fully with existing legislation (which could represent about 0.5% of sows housed indoors). Taking the key provisions in turn, the estimated compliance costs would be:

i) permanent access to manipulable materials – as in Example 1:

- using straw, annual costs would be **£20,000**.

- using specialised equipment, annual costs would be **£6,300**.

ii) minimum weaning age of 28 days – as in Example 1, annual costs would be **£18,600**.

iii) minimum space allowances for sows and gilts and minimum pen side length – buildings would need to be extended to comply at an estimated annual cost of **£9,900**.

iv) minimum ‘continuous’ solid lying area for sows and gilts – the floor would have to be modified to remove and replace slats at an annual cost of **£2,100**.

Total compliance costs for Example 2:

- using straw as the manipulable material = **£50,600 per annum**

- using specialised equipment = **£36,900 per annum.**

Details of how the costs for both examples were calculated are in Appendix 1.

5. (c) Total Compliance Costs.

5.4 Each of the key provisions of the legislation, listed in i) – iv) of section 2.2, are taken in turn below to estimate the total compliance costs. Details of how the costs outlined below were calculated are in Appendix 2 and Appendix 3 summarises the cost elements of the legislation.

i) **Permanent access to manipulable materials** – The UK pig industry is very diverse in terms of its use of housing systems. Not only is there a regional distinction between straw based and slurry based units, as described in paragraph 5(a), but there is also a distinction between different sections of the breeding and rearing/finishing herd. The great majority of housing for the breeding herd is now based on straw systems since the move to loose housing, following the ban on sow stalls and tethers in 1999. Much of the investment in new, specialised rearing and finishing accommodation in the last 10-15 years has been in fully slatted housing.

The provision for all pigs to have permanent access to manipulable material would cause few problems for straw based systems, where already available straw could be used for this purpose. For those units with slurry based systems, there is the potential for manipulable materials, such as straw, mushroom compost or wood to present practical and management problems associated with these materials getting into the slurry storage/handling systems, causing blockages, particularly below slat level. Some form of dispenser would have to be designed, which would provide permanent access whilst limiting the volume dispensed to such an extent that the storage and handling of slurry was not impaired. Alternatively, manipulable materials could be suspended from the pen or provided on the floor, which would not end up in the slurry system.

a) Use of straw or similar materials – the costs incurred in the implementation of this provision on slurry-based systems would include:

- Provision of a dispenser for each pen (different dispensers might be needed depending on the material used and the section of the herd)
= **£2,145,000** per annum (based on a 5 year write off at 7% interest).
- Permanent provision of the material itself – using straw as an example = **£540,000** per annum.
- Labour costs involved in handling and filling the dispensers = **£3,815,000** per annum.
- Storage of materials = **£140,000** per annum (based on a 5 year write off at 7% interest).

b) Use of specialised equipment designed for suspension over the pen – would require an initial investment and an on-going replacement cost. Annual charge for equipment = **£515,000** per annum (based on a 5 year write off at 7%). On-going costs of replacement parts = **£700,000** per annum.

ii) **Minimum weaning age of 28 days** – Currently the minimum weaning age is 21 days. The switch to a 28 day minimum weaning age will effectively require an extra weeks lactation, meaning the average weaning age be moved from 25 days to 32 days, enabling the youngest pigs to be weaned at 28 days and the oldest around 35 days of age. The legislation will allow for 21 day weaning to continue in circumstances where all-in/all-out farrowing accommodation is used. It is estimated that approx. 80% of sows are in herds which operate on this type of system and thus will not be affected by this provision. 20% of sows (80,000) will however require approx. 3,600 additional farrowing places, to meet the extended period from birth to weaning. In addition there will be increased labour costs and the potential cost of loss of production.

- Cost of new farrowing places = **£800,000** per annum (based on a 15 year write off at 7%).
- Labour costs = **£766,500** per annum.
- Cost of loss of production = **£2,320,000** per annum.

iii) **minimum space allowances for sows and gilts and minimum pen side length** – the space allowances should not affect the majority of systems. There will, however, be some fully slatted trickle feed systems which have been installed in the last few years and some ‘simple conversions’ of previous stall/tether systems which will not meet these specifications and will require major modification. If 10% of sows indoors were affected by this requirement, the cost of compliance would be **£241,000** per annum (based on a 20 year write off at 7% interest). The provision for minimum pen sizes will not affect the majority of the systems either. Some ‘cubicle’ housing systems (1% of indoor sows) and new trickle feed houses (5 % of indoor sows) would not meet this requirement and where modification of the penning was not possible, full rebuilding of the housing would be necessary. This requirement would cost in the region of **£70,400** per annum (based on a 15 year write off at 7% interest) for cubicle systems and **£528,000** per annum (based on a 15 year write off at 7% interest) for trickle feed systems.

iv) **minimum ‘continuous’ solid lying area for sows and gilts** – This provision would affect approx. 1 % of sow housing systems which are fully slatted. Part of the slatted area could be concreted over or some form of matting could be laid on top of the slats. The cost of modifying the slatted area would be about **£78,000** per annum (based on a 5 year write off at 7% interest).

5.5 The total annual compliance costs to industry of the legislation are:

i) Using material such as straw = £11,444,000.

ii) Using specialised manipulable materials = £6,018,900.

6. Small Business Litmus Test

6. Consultation with small business will be undertaken as part of the public consultation on the draft legislation.

7. Results of Consultation

7.1 Industry, welfare and other organisations had the opportunity to comment on the proposed Directives when they were being negotiated in Brussels. The domestic implementing legislation will be subject to a full public consultation process of which this partial RIA forms part.

8. Issue of Guidance

8.1 Guidance on the Welfare of Farmed Animals (Scotland) Amendment Regulations 2002 will be provided in the form of a new Code of Recommendations for the Welfare of Pigs.

9. Enforcement, Monitoring and Evaluation

9.1 Member States are responsible for taking the necessary measures to ensure that the competent authority carries out inspections to monitor compliance with the provisions of the Directives. Enforcement in Scotland will be by the State Veterinary Service at no additional cost to the industry. Inspections will be carried out (as they are now) to check for compliance with the welfare legislation and accompanying welfare code. In addition to carrying out ad hoc inspections to meet EU requirements, all complaints or allegations of poor welfare will be followed up, as they are now.

9.2 In most circumstances, advice and warnings with a timescale for compliance (followed up as necessary) will be given before a decision is taken to initiate prosecution action. The maximum penalty on conviction for an offence is £2,500 or three months in prison.

9.3 The EU Commission has responsibility for monitoring enforcement by member states in order to ensure uniform application of EU legislation.

9.4 The effectiveness of UK enforcement procedures is kept under review. Any evidence of failure to enforce in other Member States will be drawn to the attention of the Commission.

10. Competition Assessment of the Legislation.

10.1 The competition filter was carried out on the market for pig meat and on the pig breeding herd in England. The results suggest that the proposed legislation is unlikely to have a negative impact on competition in either sector. The cost of the legislation could affect some pig units substantially more than others, but only a small proportion would be affected by all four of the provisions outlined in section 2.2. Although there might be some changes to the number and size of holdings, the legislation would not lead to significant changes in the structure of competition within the market.

11. Summary and Recommendation

11.1 The Government is committed to high standards of farm animal welfare. It has long held the view that the current EU rules provide inadequate protection for sows and thus pressed the Commission to bring forward proposals. The two Directives that were agreed in Autumn 2001, banning the use of close-confinement sow stalls across the EU from 1 January 2013, together with the other welfare improvements, represent a major advance in pig welfare and will help achieve a level playing field for our producers with others in the EU.

Declaration : (to be completed for final RIA only)

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

Signed by the responsible Minister :

Appendix 1

Compliance costs for a typical business – calculations.

Example 1 – simple stall/tether conversion. Detailed cost assessment of complying with the key provisions of the proposal:

i) Permanent access to manipulable material:

a) straw or similar material – Assuming 519 pens, with 15 pigs in the rearing/finishing accommodation. Annual cost for equipment/buildings - cost of dispensers to hold straw or similar – $519 @ £50$ (written off over 5 years @ 7% interest) = £6330 per annum. Annual cost of additional 'pole barn' to store the materials (written off over 20 years @ 7% = £235. Total annual charge=£6,565.

Annual costs of material and labour – material-estimated @ 30gms/pig place/day, $4,614 \times 0.03\text{kg} \times 365 = 50.5$ tonnes per annum, @ £40/tonne (delivered in) = £2,020 per annum. Labour costs – estimated @ 5 minutes pen/week @ £5/hour. $519 \text{ dispensers} \times 5 \text{ mins} = 43.25$ hours/week @ £5/hour = £220/week. $£220 \times 52 \text{ weeks} = £11,440$. Total on-going costs= £13,460 per annum.

Total annual cost = £20,000.

b) specialist equipment – equipment costs £17. $519 \text{ pens} @ £17 = £8,825$ initial investment or an annual charge (written off over 5 years @ 7% interest) of £2,155. On-going replacement parts @ £8 per set = $519 \times £8 = £4,155$ per annum.

Total annual cost = £6,300.

ii) minimum weaning age of 28 days –

Equipment - In the absence of an all-in/all-out farrowing system, instead of 90 farrowing places (72 places occupied and 18 being

washed/disenfected/rested), an extra 18 places would be required to maintain the same system. The average cost would be approx. £2,000 per place. The annual charge (based on a 20 year write-off @ 7% interest) would be £3,384.

Lost production - the net effect of a move to a 4 week weaning is likely to be a reduction in pigs per sow per year by approx. 0.9 pigs/sow/year. A lost carcass value of approx. £70 against 'variable costs' (feed, vet/med, haulage, electric, levies, etc) of approx. £38, leaves a margin of approx. £32 per pig. The reduction in performance of 0.9 pigs per sow per year is therefore likely to cost of the order of £29 per sow. The 400 sow herd could potentially lose 400 x £29 = £11,600 per annum.

Increased labour requirement – looking after extra sows and litters in the farrowing accommodation which would otherwise have been in the service/dry sow accommodation is more labour intensive. It is estimated that an extra 2 hours per day (over and above the time saved by having less sows in the dry sow/service accommodation), is required in this example. This represents an additional 730 hours per year. At £5 per hour, the additional cost would be £3,650 per annum.

Total annual cost = £18,600.

iii) & iv) – **minimum space requirements for sows and gilts, minimum pen side length and detailed floor specifications** - full replacement of dry sow accommodation required: 300 places @ estimated £400/place, including cost of a new floor.

Total annual cost (based on a 20 year write off @ 7%) = **£11,300.**

Example 2 – fully slatted trickle feed system. Detailed cost assessment of complying with the key provisions of the proposal:

i) **permanent access to manipulable materials** – as in Example 1 above.

ii) **minimum weaning age of 28 days** – as in Example 1 above.

iii) **minimum space requirements for sows and gilts and minimum pen side length** – major modification of steelwork and feeding system would be required, in addition to extension of building shell and associated facilities. Estimated cost £300 per place including modification and extension of the building.

Total annual cost (based on a 15 year write off@ 7%) = **£9,900**.

iv) **minimum ‘continuous’ solid lying area for sows and gilts** – the floor modifications would cost an estimated £50/place to replace existing slats with a ‘solid’ slat or cover the conventional slats with concrete sceed over approx. 60% of slatted area.

Total annual cost (based on a 10 year write off @ 7%) = **£2,100**

Appendix 2

Total Compliance costs – calculations

Detailed cost assessment of complying with each of the key provisions of the proposal:

i) Provision of manipulable materials –

a) Use of materials such as straw – Estimated that 176,000 dispensers are required at an average cost of £50. Annual cost of dispensers = **£2,145,000** (based on a 5 year write off at 7% interest). Estimated that the cost of material storage would be approx. £0.75 per pig place, and the total pigs affected is 1.96 million. Annual cost of material storage = **£140,000** (based on a 20 year write off at 7% interest). Cost of material – 1.96 pigs requiring 30 grams of straw per day, which represents approx. 21,500 tonnes of straw per year, which at £25/tonne = **£540,000** per annum. Additional labour costs – 176,000 pens require filling twice a week. Each pen takes 5 minutes per week to fill, which equates to 763,000 hours per year. At £5 per hour, additional labour costs would = **£3,815,000** per annum.

b) Use of specialised equipment - Cost of 176,000 dispensers at £12 each would be **£515,000** per annum (based on a 5 year write off at 7% interest). Replacement of parts at say £4 per unit per year = **£700,000** per annum.

ii) **Minimum weaning age of 28 days** – cost of extra farrowing accommodation - increase in farrowing places of 20% would mean approx. 3,600 additional farrowing places needed, at an average cost of £2,000 = **£800,000** per annum (based on a 15 year write off at 7% interest). Cost of lost production – the net effect of a move to a 4 week weaning is likely to be a reduction in pigs per sow per year by approx. 0.9 pigs/sow/year. A lost carcass value of approx. £70 against 'variable costs' of approx. £38, leaves a margin of approx. £32 per pig. The reduction in performance of 0.9 pigs per sow per year is therefore likely to cost of the order of £29 per sow. On the basis of 80,000 sows (20% of the indoor herd) being affected by this

requirement, the cost of lost production is likely to be **£2,320,000** per annum. Cost of increased labour – it is estimated that an extra 7 minutes of labour per crate per day (over and above the time saved by having less sows in the dry sow accommodation) would be required. 3,600 extra farrowing places x 7 = 25,200 minutes or 420 hours. 420 hours x 365 = 153,300 hr/yr @ £5/hr = **£766,500** per annum.

iii) **minimum space requirements for sows and gilts, and minimum pen side length** – minimum space allowances -estimated that 10% of the indoor herd will be affected by this requirement, say 40,000 sows. If 80% of the herd is in dry sow accommodation at any one time, this equates to 32,000 places. If space allowances need to be increased by 20%, then this equates to 6,400 extra sow places. Thus cost of new accommodation having to be built, at an average cost of £400 per place = **£241,000** per annum (based on a 20 year write off at 7% interest). Minimum pen side length – some cubicle systems (approx. 1% of the national herd, i.e. 3,200 dry sow places) and some trickle feed systems (perhaps 5% of indoor sows, i.e. 16,000 dry sow places) might not meet this requirement. Average cost of replacing/modifying cubicle systems would be £200 per sow place, therefore annual charge would be **£70,400** per annum (based on a 15 year write off at 7% interest). Average cost of replacing/modifying trickle feed systems would be approx. £300 per sow place, therefore annual charge would be **£528,000** per annum (based on a 15 year write off at 7% interest).

iv) **minimum ‘continuous’ solid lying area for sows and gilts** – estimate that 1% of sow housing systems which are fully slatted will be affected by this proposal, say 8,000 sow places. Based on 80% of the sows on these units being in the dry sow accommodation this equates to 6,400 places. If it costs say £50 per place to modify these houses, this equates to an overall cost of **£78,000** per annum (based on a 5 year write off at 7% interest).

Note: The estimates given here are based on industry experience (using ADAS expert opinion) and some information is taken from the University of Exeter’s report on the ‘Structure

of Pig Production in England and Wales – Results of the national survey of pig production systems' (1998).

Appendix 3

SUMMARY OF COST ELEMENTS OF THE LEGISLATION

| Element of Legislation | Annual Cost or Annual Charge (£ per annum) |
|---|---|
| i) Provision of Manipulable Materials | |
| a) Use of materials such as straw | |
| Provision of dispensers | 2,145,000 |
| Cost of “material” storage | 140,000 |
| Cost of “material” | 540,000 |
| Additional labour | 3,815,000 |
| Or | |
| b) Use of specialised equipment | |
| Provision of equipment | 515,000 |
| Annual replacement of parts | 700,000 |
| | |
| ii) Minimum 28 Day Weaning | |
| Extra farrowing accommodation | 800,000 |
| Additional labour | 766,000 |
| Reduction in herd performance (0.9 pigs/sow/year) | 2,320,000 |
| | |
| iii) Minimum Space Allowance & minimum pen dimensions. | |
| Provision of additional accommodation | 241,000 |
| Cubicle systems in “3’s” | 70,400 |
| Trickle feed systems | 528,000 |
| | |
| iv) Incorporation of solid lying area | |
| Installation/conversion cost | 78,000 |

| | |
|---|-------------------------------|
| | |
| OVERALL TOTAL COST TO INDUSTRY | |
| i) With Straw or similar manipulable materials | £11,444,000 per annum. |
| OR | |
| ii) With Specialised manipulable materials | £6,018,900 per annum. |