



ASSESSMENT OF PIG
PRODUCTION SYSTEMS

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INTRODUCTION

1. The remit of the Council is to keep under review the welfare of farm animals on agricultural land, at markets, in transit and at the place of slaughter, and to advise Agriculture Ministers of any legislative or other changes which may be necessary.

2. The Council keeps all animal production systems under review and this study, on Pig Production Systems, follows as part of this process. It was undertaken by a Working Group of ten Council members. The findings and recommendations contained in this report (which have been endorsed by the full Council) are based substantially on the investigation carried out by the Working Group.

3. The Council announced its intention to conduct the review in July 1986 and invited submissions from interested organisations and individuals. In response, nearly 500 submissions and comments were received from organisations, farmers and members of the public. Many aspects of pig production were raised and a wide range of views were expressed. All of these have been considered by the Working Group.

4. In addition, oral evidence on specific aspects of the review was taken from the Farm Animal Welfare Co-ordinating Executive, the National Farmers' Union (who also represented the interests of the NFU of Scotland), the Scottish Farm Buildings Investigation Unit, the Ministry of Agriculture's Experimental Husbandry Farm at Terrington and from a number of pig farmers. To supplement members' existing knowledge, the Working Group also undertook nine fact finding visits to various types of commercial unit. We should like to thank all those who have helped the Working Group with its review, particularly those who allowed us to visit and discuss with them, and with their stockmen, the operation of their units.

5. At all stages of this review the Group had very much in mind the Council's guiding principles - its welfare criteria - which were originally laid down in 1979 and are included in the Ministerial introduction to the Welfare Code for Pigs, published in 1983 and which state that all farm animals should be provided with:

- a) freedom from thirst, hunger or malnutrition;
- b) appropriate comfort and shelter;
- c) the prevention, or rapid diagnosis and treatment of injury, disease or infestation;
- d) freedom from fear, and freedom to display most normal (or natural) patterns of behaviour.

THE SYSTEMS EXAMINED

6. As the review progressed, and following examination of the submissions and evidence received, it became clear to members that a full study of all systems of pig husbandry in use in this country would not be practicable. It was therefore decided to concentrate on those systems which had been clearly and repeatedly identified in themselves as presenting major welfare problems. These were the High Temperature/High Humidity or "Sweat-Box" system for fattening pigs, the Multi-tier Cage system for housing very young pigs after weaning, and both the Stall and Tether systems used for housing the dry sow. A fuller description of each system, together with our views and recommendations will be made later in this report. We also examined several other aspects of pig husbandry.

Farrowing Crates

7. We received many representations about the use of farrowing crates, which are designed to restrain the sow (during farrowing and lactation) in such a way as to minimise the risk of crushing her piglets when she lies down. Some letters complained of the extreme confinement to which the sow is subjected during this period. We have also examined the research currently under way to discover better alternatives and have been impressed by the innovative way in which simple but effective modifications to improve welfare in farrowing systems had been made by some farmers we visited.

8. In view of this continuing research to discover better alternatives, the effectiveness of the crate in reducing piglet mortality, and the comparatively short time of confinement, we do not consider it appropriate at this stage to make any recommendation to control or phase out the use of farrowing crates.

Housing the Dry Sow - Less Restrictive Systems

9. It is important to note that with less restrictive systems, the need for a high standard of stockmanship is all the greater. When this need is met, we find that, in general, free access stall systems, and others employing loose housing with individual feeders present relatively few welfare problems. Where electronic feeders are used an even higher degree of stockmanship is essential.

The Young Pig - Weaning and Mutilations

10. We received many comments about the treatment of the young pig. There was general concern expressed about early weaning and about mutilations such as castration, tail-docking and tooth clipping. We do not approve of the weaning of pigs under 3 weeks of age, and when less than about 5 kg in weight, (except in emergencies) and we will keep this important aspect under review. We understand that this is seldom practised at present, but should it appear that the industry was moving towards weaning below this age and weight we would consider making a recommendation for legislation.

11. On mutilations, we are currently examining a report by the Royal College of Veterinary Surgeons and will be commenting separately in due course.

Lighting

12. The Welfare Code for Pigs recommends that "Pigs should not be kept permanently in darkness. Throughout the hours of daylight the level of indoor lighting, natural or artificial, should be such that all housed pigs can be seen clearly. Adequate lighting for satisfactory inspection should be available at any time." We were pleased to note that Ministers, in their recent response to our Interim Statement on New Welfare Regulations, accepted that this last point should be made the subject of legislation. Throughout the course of this review we have considered at length the scope to make further recommendations for legislation on lighting. Our view is that, at present, there is insufficient technical evidence on which to base legislation. We intend, however, to examine this further so that appropriate recommendations may be considered in due course.

Provision of Bedding Material

13. We support the advice contained in the Welfare Code for Pigs that "bedding, and especially straw, contributes towards the needs of the pig for thermal and physical comfort and satisfies some of its behavioural requirements," but are aware that many farmers, particularly those on the western side of the country, do not have access to plentiful supplies of straw at reasonable cost and are therefore not always able to use it. During the review we have talked to farmers in this position and have considered the practicality of some form of assistance whereby, for example, a subsidy could be payable for the transport of straw or other suitable bedding material to such units. We have been advised by MAFF that any such scheme would be difficult and costly to administer.

Inspection or Licensing of Units

14. The submissions we received included many suggestions about the need for regular inspection of units to establish the degree to which they comply with the 1983 Welfare Code for Pigs. We urge our new Enforcement Group to give further consideration to this and to the possibility of licensing livestock units. Such an initiative would, of course, apply to all species of farm animals.

Raising Standards of Stockmanship

15. In view of the great importance which is attached to the welfare codes and to the need for high standards of stockmanship we have considered how these standards could be improved. We believe that welfare should be given a higher priority in the training provided by bodies such as the Agricultural Training Board, the Agricultural Colleges and Universities, and in the testing organised by the National Proficiency Tests Council. We also suggest that the new Enforcement Group should consider whether stockmen should be licensed.

RECOMMENDATIONS FOR CHANGE

16. Earlier in this report we have mentioned four systems of pig production which were identified in many of the submissions received as presenting major welfare problems. Throughout the course of the review, and particularly during our visits, we have looked closely at these systems and their variations and assessed the extent to which they meet our welfare criteria. In this context, we have considered carefully the scope for improving the welfare of the pig by recommending legislation on the four systems set out below, in order to strengthen the advice given in the 1983 Welfare Code.

High Temperature/High Humidity (or Sweat Box) System

17. This system of production combines a high stocking density with a low ventilation rate to produce a high temperature and high humidity atmosphere. It is not in widespread use in this country.

18. A typical unit consists of rows of uninsulated rooms with a low monopitch roof and with a single door access to each room. Ventilation is via the door, which is normally in two halves so that the upper half can be opened or closed to vary the ventilation rate. Additional manually operated ventilators may be provided at either front or rear. Floors are solid, without bedding, and usually slope to a small slatted section beneath the front wall of each room. Stocking densities are high, often with group sizes of 40-60 or more. Feed is usually provided in the form of a wet mix in troughs and diets involving swill or by-products are common. Feed delivery is by pipeline or "river feed".

19. From the welfare point of view we have found very little to commend this system, which fails to meet the majority of our welfare criteria. It is a basic, low-cost design where animals are kept enclosed, and often overcrowded, in rooms with very limited access or scope for easy inspection. They have no freedom to choose their surroundings, and in the absence of a separate dry lying area are forced to lie in their own excreta on solid floor surfaces. High stocking densities combined with the high temperatures and humidity required to ensure the success of the system prevent animals from displaying their full range of normal behaviour patterns. Finally, careful management is required to maintain temperature and humidity within narrow limits; sudden variations can lead to unacceptable levels of temperature stress with disastrous results. **We recommend that this method of keeping pigs should be banned.**

Multi-Tier Pens

20. These consist of fully enclosed, insulated, environmentally controlled units with supplementary heating available in which pigs are penned in the post-weaning stage. Flooring is normally perforated over the total area and is constructed usually from metal or plastic; a number of profiles are available within each of these materials.

21. Units consist of tiers of cages, each cage holding approximately 10 pigs of similar ages in two or three tiers. Pigs in this system are housed from weaning up to 5 weeks of age. Dung passes through the mesh floors on to a solid surface from where it is removed. A trough with dividers allows all pigs to feed simultaneously. Water is provided through nipple drinkers.

22. This system, in its present form, fails to meet many of our welfare criteria. There is little doubt that the multi-tier cage unit can meet some of the needs of the deprived or under-privileged piglet, which would otherwise suffer if left to compete with its healthier litter-mates. However, the system's design makes inspection and rapid diagnosis of ill-health very difficult. Young pigs are prevented from displaying many desirable patterns of normal behaviour and are totally dependent upon the correct operation of automated equipment. Additionally, in the form commonly available, the relatively unstable manner of cage construction gives rise to vibration and noise which can cause fear or distress in young pigs. We therefore recommend that this method of keeping pigs should be phased out as soon as possible.

Dry Sow Stalls - Full Stalls without Tethers

23. This is a method of individual penning in which sows are kept in stalls, normally of tubular steel construction, measuring approximately 2.1 m long by 0.6 m wide. By means of a rear gate, each sow is enclosed on all sides. There are also bars across the top of the stall.

24. The system is normally operated within insulated, temperature controlled buildings. Floors are usually part slatted (enabling storage of slurry in a pit underneath) whilst solid areas are usually insulated. Bedding is not normally provided. Typical dry sow stall houses contain two or four rows of stalls with sows facing each other separated by a passage used for feeding and observation. A passage is also situated along the rear of each row to provide access, via rear gates, into the stalls. Feeding can be manual, direct into troughs, or automatic or manual distribution into containers above the troughs with simultaneous release at feeding time. Feed troughs and watering facilities are provided at the front of each stall.

Dry Sow Stalls - with Tethers

25. The layout of this system is very similar to full stalls except that sows are retained in position by tethers. The divisions between stalls extend only along the front half of the lying area. Absence of stall divisions at the rear end allows rows to be placed closer together. Tether stalls may be bedded with straw, or partially slatted. There are two methods of tethering: neck tethers attached to the stall division or girth tethers attached to the floor. Feeding and watering arrangements are the same as for full stalls without tethers.

26. Both stall and tether systems fail to meet certain welfare criteria to which we attach particular importance. As a result of their design the animals housed in them are prevented from exercising and from displaying most natural behaviour patterns; in the wide range of systems seen by members there was little scope to reduce the continuing stress which can be caused by confinement in these systems. Additionally, with the exception of tether systems with all-solid floors, it is not practicable to use any form of bedding material.

27. The current Welfare Code for Pigs, published by the Agriculture Departments in 1983, states that "the keeping of sows and gilts in stalls with or without tethers raises serious welfare problems"; it also strongly recommends the use of alternative systems "in which animals' behavioural and exercise needs can be more fully met, even though it is accepted that these systems might require a higher level of stockmanship and increased capital investment".

28. In the light of both this and the discussion earlier, we recommend that future trends in housing the dry sow should be away from the use of stalls and tether systems (both girth and neck types) and that the Government should introduce legislation as a matter of urgency to prevent all further installations of units of these designs.

29. Furthermore, we should like to emphasise that traditional systems are still being used with satisfactory results. Research and development into new alternatives has also been encouraging and has resulted in commercial applications which appear to be economically viable. In some of the alternative systems, however, we have seen evidence of aggression higher than generally accepted within the industry and believe that a high degree of stockmanship is vital.

30. We recommend that the Government should do all it can to encourage the adoption of alternative systems, whether new or traditional, and the improvement in husbandry skills needed to avoid welfare problems. As soon as it is satisfied that the necessary skills are available, that welfare-related problems have been eliminated from the emerging systems and that they are commercially viable, it should introduce immediate legislation to phase out stalls and tethers.

31. We urge the Government to make adequate funds available for Research and Development to ensure that the foregoing conditions are met within a reasonably short period of time.

The Cost of Change

32. In framing our recommendations for legislation to phase out the four production systems described above, we have been conscious that the industry should not be discouraged from making an early move towards alternative systems of production. We explored with MAFF the possibility of providing some form of incentive, perhaps via a capital grant, to influence a change towards more welfare-orientated production systems, but were disappointed to hear that the prospects for this were considered remote. We believe that such an incentive would have particular merit and recommend therefore that the Government should consider it seriously.