

STATEMENT OF WITNESS

STATEMENT OF: Sows in farrowing crates
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This statement, (consisting of 9 pages each signed by me), is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I shall be liable to prosecution if I have wilfully stated in it anything which I know to be false or do not believe to be true.

Dated the 22nd September 2014

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I hold M.A., Ph.D. and Sc.D degrees from the University of Cambridge and I have been employed as Lecturer and then as Reader in the Department of Pure and Applied Zoology, University of Reading 1967-1986 and as Professor of Animal Welfare in the Department of Veterinary Medicine at the University of Cambridge since 1986 (now Emeritus). I have carried out biological and veterinary research since 1964. This research has been concerned with animal behaviour, stress physiology, animal welfare, animal management, disease transmission and interactions between man and other species. In particular I have studied the effects of housing, management procedures, transport and handling on domestic animal welfare. The animals studied have included cattle, sheep, deer, pigs, chickens, ducks, dogs, cats, laboratory animals and fish. I have published over 300 refereed scientific papers and 8 books including "Stress and Animal Welfare" (with K.G. Johnson) and "Domestic Animal Behaviour and Welfare" (with A.F. Fraser). My advisory work to governments on animal welfare include the following:

Chairman of the E.U. Scientific Veterinary Committee, Animal Welfare Section 1990-1997,
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Member of the E.U. Scientific Committee on Animal Health and Animal Welfare 1997-2003,
Vice-Chairman of the European Food Safety Authority Scientific Panel on Animal Health
and Welfare 2003 – 2012.

Chairman of the O.I.E. (World Organisation for Animal Health) Working Group on the
Welfare of Animals during Land Transport 2003 -2007.

Scientific advisor to the Council of Europe Standing Committee of the Convention on the
Protection of Animals Kept for Farming Purposes 1987-2000,

Member of the Farm Animal Welfare Council (Ministry of Agriculture, Fisheries and Food,
U.K.) 1991-1999.

Member of the Animal Procedures Committee (Home Office, U.K.) 1998-2006.

I have carried out scientific research on the behaviour, physiology, production and welfare of pigs since 1981 and have written 64 scientific papers and parts of two books on the subject. Hence I have a specialised knowledge of pig management and welfare and, as a result, I have given invited lectures on the subject at scientific meetings in twenty countries. I have also given lectures to many pig farmers' groups. When I was chairman of the E.U. Scientific Veterinary Committee I was a member of the working group which produced "The welfare of intensively kept pigs" (208pp). I was also chairman of the working group of the European Food Safety Authority Scientific Panel on Animal Health and Welfare on the welfare of pigs in relation to stocking density and flooring and of the EFSA working group that produced a report on other aspects of the welfare of pigs. Some scientific publications from my research group concerning pig management and welfare are listed in the Appendix at the end of this report.

I have been shown a sequence of videos headed "Farrowing crate edit", running time 40minutes 35 seconds, sent to me by Mark Pearson. The sequences show sows in farrowing crates in a pig farm. I have not visited this farm. I have been given told that these extracts are taken from four and a half weeks of continuous recording. I describe here what I can see of the pigs shown in the videotape, referring principally to the effects on their welfare of the housing and management of these individuals. The farrowing crates are made of metal bars and have slatted floors. The sequences are taken from several positions and show between eight and 21 sows, all in farrowing pens. The dates on the sequences range from 15.4.2013 to 27.4.2013.

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On the farm shown in the videos, all sows are in farrowing crates made of metal bars with a space (creep area) on either side accessible to the piglets. Is such a system appropriate for farrowing sows? The use of a farrowing crate has in the past led to less mortality than that which occurs in a simple pen and various versions of the farrowing crate are now very frequently used on pig farms. Piglet survival is improved by using a warm creep area and bars on the farrowing crate that reduce the chance that the piglet will move under the sow. However, squashing of piglets by their heavy mothers (overlying) is a problem. After farrowing, the sow's environment is interesting because she is frequently visited by piglets. However, in a crate, she is very restricted in her movements and she cannot move much towards the piglets. This is a frustrating situation for the sow. Before farrowing, sows will build large nests if they are given the opportunity. Sows in farrowing pens cannot build a nest and inability to build a nest is frustrating for the sow. Overall, the widely-used farrowing crate is easy to manage but is far from ideal for the sow. Outdoor farrowing in huts on well-drained soil can provide good conditions for the sow and the piglets. Piglet mortality is similar to or lower than that in farrowing crates except in unusually bad weather conditions. However, indoor systems are needed in some climate and soil conditions.

Farrowing crates are widely used in commercial practice, but restrict sow movement and have received an increasing amount of criticism due to evidence that such restriction must impair welfare. Various alternative systems have, therefore, been developed which are less restrictive for the sow and allow varying degrees of freedom of movement. The best of these systems are pen systems, which confine the sows individually, without a common communal area, but allow some freedom of movement (Kirkden et al 2013b). In the review by Baxter et al (2012), the welfare score for farrowing crates was low and that for outdoor farrowing with huts and some larger farrowing pens was substantially higher.

Problems encountered with some systems other than farrowing crates have included difficulty in management in some of the earlier systems and high piglet mortality due to crushing. Benefits to the sow, such as greater freedom of movement and possibility to build a nest, must be balanced against costs to piglets. An individual pen system may

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therefore provide a solution in providing stockpeople with good protection, piglets with an area to avoid sow movements, i.e. being crushed, and the sow some degree of freedom of movement for the performance of behaviours including nesting behaviour. There will be some extra cost of systems that require more space in a building and this is quantified for several systems by Baxter et al (2012).

The NMBU farrowing pen is an example of a farrowing system that results in good sow welfare and low piglet mortality. This system, developed by scientists in Norway (NMBU), Cambridge, U.K. and Sydney, Australia, comprises two compartments: a nest area covered with a rubber mat and an area for activity and dunging, separated by a threshold that the sow can step over and removable doors for use if the sow has to be temporarily confined in one compartment. In trials of this pen in Norway and Australia, the piglet mortality rate of 12-13% was achieved without birth assistance or any particular surveillance around the time of farrowing. This is better than that often reported for farrowing-crates.

The sows shown in the videos show signs of particular problems. Firstly, they cannot build a nest. Several of the sows are showing stereotypies such as bar-biting and head weaving. These are repeated movements with no function that indicate serious welfare problems in the individual. Some sows shown have locomotor problems, for example, individuals that have difficulty in standing up, one shows repeated hind leg movements when trying to stand. Other sows show abnormal lying positions such as “dog-sitting” with the front legs only extended, and a rump high posture, with the hind legs only extended. Sows very seldom adopt such postures if they have sufficient room for normal lying. If the sows lie down on their sides, as is normal in sows, their legs extend under the lower bar and it can be difficult for the sow to stand again.

Many of the video sequences include the sounds of piglets screaming. Whilst piglets squeal or scream when they are fighting with other piglets, these squeals are usually brief and vary in pitch. The prolonged screams heard in the video are most likely to emanate from piglets that are being squashed, and possibly killed, by their mothers lying on them. It is difficult for the sow to stand up and lie down in a farrowing crate so the killing of piglets by “overlying” is the commonest cause of death in young piglets. A system is needed that does

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not result in high mortality of piglets before weaning (often 15% in Australia).

In some sequences shown in the videos, farm staff are shown prodding sows with paddles to make them stand. This can be in the interest of the sows because prolonged lying can lead to increased risk of urinary tract disorders. There was one sow that clearly had difficulty in standing because of a hind leg problem.

My conclusions after viewing these videos are:

1. Both sows and piglets shown in the farrowing crates have poor welfare.
2. I cannot tell whether or not these problems were worse or better than the average, situation on pig farms, which is rather bad.
3. New systems, using pens like the NMBU pen, have recently been developed that will result in substantially better sow welfare and no reduction in piglet welfare.

Appendix:

Reference quoted in addition to those below:

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