



Food Animal Initiative

ENVIRONMENTS FIT FOR ANIMALS FIT FOR THEIR ENVIRONMENT

FAI Technical Datasheet P2 - Free Farrowing for indoor sows - Update August 2005

Confinement in animals is one of the most common issues raised by animal welfare groups. Although a significant proportion of sows are free farrowed outdoors there is a need to provide a commercially viable free farrowing system for indoor sows as in many areas conditions are not suitable for outdoor pig keeping. In Sweden an indoor free farrowing system has been developed and has operated commercially for the past 20 years.

'the facts.....'

In the natural state sows will build a nest in the period about 24 hours before farrowing to create a safe and comfortable place in which to give birth. This can involve much carrying and manipulating of material.

Prevention of nest building activity causes frustration and stress.¹ The motivation to obtain food is usually considered to be very strong, if not the strongest. On the day before farrowing a sow's motivation to obtain straw for nesting is equally as strong.²

Once sows have farrowed they will resume their normal activities in addition to mothering their piglets. Sows are only able to stand up and lie down in farrowing crates and often have no material to make their nest. They substantially restrict behaviours which appear to be very important to them.

Current trends are towards large litters, this will predispose to small less viable piglets which are more difficult to rear. Sows confined by farrowing crates are more likely to be affected by MMA (mastitis-metritis-agalactia) which reduces milk production and hence piglet survival.³

In the majority of indoor commercial systems sows are confined in the farrowing crate from 1 week prior to farrowing until weaning when piglets are 3-4 weeks old to reduce the level of piglet mortality. The percentage loss in piglets between indoor systems and outdoor systems is very similar however, around 10%.

Previous work shows that when indoor free farrowing systems are used piglet mortalities are often high. The development of a reliable indoor free farrowing system which builds upon the benefits of good outdoor systems is potentially viable. Recent work shows that crushing of piglets is hereditary.⁴



Gilt nesting in farrowing pen

'.... the FAI response!'

At FAI a system has been developed based on a commercial Swedish system (where farrowing crates are banned) and work carried out in the 80s at Edinburgh. The system comprises:

- Sows farrowed in family groups of 5 and provided with individual farrowing huts with straw as for outdoor sows.
- Sows are penned off from their group around farrowing to give them complete privacy until the piglets are about 10 days old
- All pens have a front barrier allowing free access to sows. Piglets cannot get over the bar until they are 1-2 weeks old which mimics the natural behaviour of sow and piglets rejoining the family group when piglets are 1-2 weeks old.

We are developing a sow which has fewer piglets than commercially available sows (9-11 compared to 12+) and is selected not to crush piglets. The hypothesis is that this sow will have stronger piglets at birth, mortalities will be lower and sows will have a longer productive breeding life.

1. Lawrence AB et al 1994 Applied Animal Behaviour Science 39 p313-330
2. Arey DS 1992 Applied Animal Behaviour Science 33 p217-226
3. Report of EU Scientific Veterinary Committee 1997 on Welfare of Intensively Kept Pigs, section 5.3.6
4. Beattie VE Animal Behaviour 2005

additional information

FAWC Report on the Welfare of Pigs Kept Outdoors
TDS P1 Thermal and Physical Comfort for pigs.



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