

# Improving welfare: innovative technology to prevent sows from lying on piglets?

Harper Adams University  
Current Research Briefing



## Reducing piglet mortality?

**On-going research on the Harper Adams University farm is aiming to tackle the issue of piglet mortality, especially in the first 24 hours after birth. One solution is the introduction of an innovative high welfare crate to prevent sows from lying on the piglets.**

In a new litter of piglets, the smaller piglets are generally more at risk of dying but **any size** of young piglet is prone to being lain on by the great weight of the sow. This is a main cause of piglet mortality.

To help combat this, the Harper Adams University farm has introduced a special Dutch system – **the Nooyen Rising Floor crate**. This aims to prevent the sow from lying on the piglets. It has a switch with three short bars which don't touch the sow but are positioned above her when lying down (see photo below). When she moves to get up (see photo, right), the switch is activated and the floor area beneath her rises up, lifting her approximately 25 cm above the piglets so they are safely out of her way and less likely to be lain on.

## Study aims

This study addresses these three questions.

- Is the high welfare Nooyen Rising Floor crate beneficial in reducing pig mortality on the Harper Adams University farm?
- Does the age of the sow affect any benefits of the crate?
- Is the crate commercially viable?



## Methodology

Many measurements were recorded, using 537 litters, over one year (2014-2015) to compare sows and piglets in 16 Nooyen Rising Floor crates in one refurbished farrowing room with those in conventional accommodation.



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## So far...

This high welfare system is operating successfully on the Harper Adams University farm and is saving piglets from being lain on by the sow (see table 1, right). It was found to be of most benefit for older sows. A three to four-year pay-back on investment was calculated for this farm.

## Research programme

This briefing outlines some of the research undertaken by **Sarah Icely**, Pig Trials Technician and **Alan Stewart**, Senior Lecturer in Animal Production

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## Overlay percentages

**Table 1.** % Overlays 2014-2015 (using 537 litters)

Parity	Nooyen	Other
All	2.97	6.66
7+	2.83	8.12