

© 2012 Universities Federation for Animal Welfare  
The Old School, Brewhouse Hill, Wheathampstead,  
Hertfordshire AL4 8AN, UK

*Animal Welfare* 2012, 21(S2): 69-74  
doi: 10.7120/096272812X13353700593608  
ISSN 0962-7286

## **Improving the poultry shackle line**

**JA Lines\*<sup>†</sup>, P Berry<sup>‡</sup>, P Cook<sup>§</sup>, CP Schofield<sup>†</sup> and TG Knowles<sup>#</sup>**

<sup>†</sup> Silsoe Livestock Systems, Silsoe, Bedford MK45 4HS, UK

<sup>‡</sup> PB Technical, 67 Rosamond Road, Bedford MK40 3UG, UK

<sup>§</sup> Food Animal Initiative, The Field Station, Wytham, Oxford OX2 8QJ, UK

<sup>#</sup> School of Veterinary Sciences, University of Bristol, Langford, Bristol BS40 5DU, UK

\* Contact for correspondence and requests for reprints: [Jeff.Lines@Silsoeresearch.org.uk](mailto:Jeff.Lines@Silsoeresearch.org.uk)

### **Abstract**

---

*The most significant welfare problems associated with the current design of the shackle lines and water-bath stunners are the pain caused by compression of the birds' legs in the shackles, the stress caused by being inverted and suspended by the legs, poor or inadequate stunning caused by the commercial need to minimise carcass damage, and poor water-bath entry. Research is described in which some practical solutions to these problems were investigated. The aim is to identify solutions that individually, or jointly, could be retro-fitted to existing plants, or incorporated into the design of new, small processing plants to improve poultry welfare. The development and commercial availability of such systems would enable small, local and niche market poultry processing lines to continue operating following the implementation of EC Council Regulation No 1099/2009.*

---

**Keywords:** *animal welfare, broilers, poultry, shackle line, slaughter, water-bath*