

© 2015 Universities Federation for Animal Welfare
The Old School, Brewhouse Hill, Wheathampstead,
Hertfordshire AL4 8AN, UK
www.ufaw.org.uk

Animal Welfare 2015, 24: 101-111
ISSN 0962-7286
doi: 10.7120/09627286.24.1.101

The risk factors affecting the development of vent pecking and cannibalism in free-range and organic laying hens

SL Lambton^{*†}, TG Knowles[†], C Yorke[‡] and CJ Nicol[†]

[†] School of Veterinary Sciences, University of Bristol, Langford House, Langford, Bristol BS40 5DU, UK

[‡] Stonegate Farmers, The Old Sidings, Lacock, Chippenham, Wiltshire, UK

* Contact for correspondence and requests for reprints: sarah.lambton@bristol.ac.uk

Abstract

Injurious pecking remains one of the biggest animal welfare and economic challenges for free-range egg producers. This prospective epidemiological study investigated the development of vent pecking (VP) and cannibalism on 62 free-range and organic UK farms (119 flocks). Flocks were visited at 25 (\pm 5) and 40 (\pm 5) weeks of age. Rates of VP were recorded and farmers were asked whether they had observed cannibalism in their flocks. Environmental and management data were collected for each flock. Risk factors associated with these behaviours were modelled using MLwiN. VP was observed in 19.5 and 29.9% of flocks, at mean rates of 0.35 and 0.21 bouts per bird per h, at 25 and 40 weeks, respectively. Cannibalism was reported at 22.6% of visits. The odds of flocks showing VP or cannibalism increased with rate of severe feather pecking (SFP). VP was more likely to be observed in laying houses with more and/or longer pop holes and where feed was scattered on the floor. Providing more aerial perch length, or perches > 0.5 m in height, was associated with increased risk of VP. When SFP was excluded from the model, likelihood of VP was higher in flocks fed pelleted feed. All of these may provide a useful basis from which to derive management strategies to reduce the risk of VP and thus improve the welfare of laying hens. However, it is important to remember that this study does not elucidate the causal relationships between these variables, and further work is needed to understand the mechanism behind these associations.

Keywords: animal welfare, cannibalism, free range, laying hens, risk factors, vent pecking