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Feather-pecking and injurious pecking in organic laying hens in 107 flocks from eight European countries

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Abstract

Feather-pecking and cannibalism may reduce the potential of organic husbandry to enhance the welfare of laying hens. We report risk factors for these issues based on a large survey of 107 commercial flocks in eight European countries. Information was collected regarding housing, management and flock characteristics (age, genotype). Near the end of lay, 50 hens per flock were assessed for plumage condition and wounds. Potential influencing factors were screened and submitted to a multivariate model. The majority of the flocks (81%) consisted of brown genotypes and were found in six countries. Since white genotypes (19%) were found only in the two Scandinavian countries, a country effect could not be excluded. Therefore, separate models were made for brown and white genotypes. Feather damage in brown hens could be explained by a model containing a lower dietary protein content and no daily access to the free range (30% of the variation explained). For feather damage in white hens, no model could be made. Wounds in brown hens were associated with not having daily access to free range (14% of the variation explained). Wounds in white hens were explained by a model containing not topping-up litter during the laying period (26% of the variation explained). These results suggest that better feeding management, daily access to the free-range area and improved litter management may reduce incidence of plumage damage and associated injurious pecking, hence enhancing the welfare of organic laying hens. Since this was an epidemiological study, further experimental studies are needed to investigate the causal relationships.

Keywords: *animal welfare, clinical scoring, free range, layers, management, poultry*