

Influence of farm factors on the occurrence of feather pecking in organic reared hens and their predictability for feather pecking in the laying period

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Feather pecking is one of the most obvious welfare problems in laying hens, also in organic farming. Rearing circumstances play an important role in its development. We investigated the presence of feather damage (being the result of feather pecking) in organic rearing hens, the correlation between feather damage during the rearing period and during adult life and what farm factors were related to feather damage at young and adult age. We monitored 29 commercial flocks of rearing hens that were split up into 51 flocks of laying hens. Feather damage was scored during rearing at the ages of 7, 12 and 16 weeks and during laying at the age of 30 weeks. On the rearing as well as the laying farms, data were collected about the housing and management. We used logistic regression to analyse our data. Feather damage was seen in 13 out of 24 (54%) of the rearing flocks. The percentage of correct predictions concerning non feather damaged chicks not showing feather damage at adult age was 71.4%. When chicks showed feather damage, in 90.0% of the cases they did so during adult life. Logistic regression showed that a higher number of chicks being kept per square meter in the first 4 weeks of life, was associated with feather damage during the rearing period (Wald 5.434, df 1, sign 0.020, odds ratio 1.17). Moreover, the combination of not having substrate in the first 4 weeks and having much daylight in the age of 7 to 17 weeks, was a significant predictor of feather damage during the laying period (Chi square =13.957, df=3, p=0.003). These results can be used to improve animal welfare not only during rearing but also during later life. Although the observations were done on organic farms, the results can be applied for other non-cage systems too, where high density is also a common feature in chick rearing.