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Common approach in order to reduce the number of keel bone fractures in laying hens

Information from the Danish delegation

A recent study¹ carried out by the University of Copenhagen has shown an alarming frequency of keel bone fractures in laying hens. The study, which comprised samples of hens from 40 flocks, showed that more than 85 percent of the hens, which were examined pathologically, had keel bone fractures.

Most of the fractures did not originate from collisions with perches or other equipment. Instead, the majority of the fractures – more than 90 percent – were found at the lower tip of the keel bone and could not be explained by traumatic accidents. These fractures seem to be caused by an inside pressure on the keel bone. Some of these fractures are considered to be painful to the hens.

The fractures have been found with the same, high frequency in laying hens from all production systems – enriched cages, barn egg systems, free range systems and organic egg production.

Although it seems that the fractures arise from a pressure from inside, it has not yet been possible to identify the underlying causes. Further research is needed to establish the exact causes of these fractures, as well as the degree of pain that they cause.

However, based on our present knowledge, the high incidence of these fractures is considered to be the result of breeding strategies, aiming at smaller hens with a low food intake, and at the same time high egg production with an early start of lay and big eggs.

The vast majority of laying hens in Europe originate from the same breeding companies and therefore these fractures are most probably common all over Europe – and, indeed, globally. This calls for a common approach from the EU, addressing the breeding companies and asking them to take initiatives which reduce the prevalence of non-traumatic keel bone fractures, which seem to arise from the breeding strategies.

Finally, this situation should lead to considerations about future breeding strategies, not only in laying hens but also in other animal species. In order to avoid future animal welfare problems as a result of breeding for certain production traits, there is an obvious need to include breeding issues in the EU legislation on animal welfare.

¹ <https://healthsciences.ku.dk/newsfaculty-news/2021/09/painful-fractures-large-eggs-push-small-hens-to-the-breaking-point/>