

HealthyHens

Good health and welfare in organic laying hens depends on good management





• Main research questions:

Health and welfare problems, such as feather pecking, cannibalism, keel bone injuries and foot lesions, as well as endo- and ectoparasite infestation levels are affected by a combination of housing factors, feed, hygiene and other management factors, hen genotype and (alternative) therapies. All these factors may have considerable impacts on mortality and performance and may directly or indirectly interact with each other. By adopting an epidemiological approach, we aim to identify important risk factors which will help to recommend efficient prevention and treatment strategies in order to secure good hen health and welfare.



Main outcomes at this stage?

Data were collected on 115 farms at peak of lay and on 110 farms at end of lay. Parasitological autopsies were made on 15 hens per flock, on 55 farms. The sample shows a fairly even distribution regarding season of data collection, farm sizes and housing systems.

For hen health parameters, 50 hens were examined per flock at the end of lay and 15 faecal samples taken for helminth egg analysis at each visit (peak and end of lay).

Preliminary results show a wide range of flock prevalences concerning the different health parameters.

Plumage condition was scored for the back, the tail, the vent-cloaca area and the neck of the

hens and wounds at the back and vent-cloaca area. o to 100 % of the sampled hens per flock were affected by feather pecking and o to 96 % by wounds.

Regarding keel bones, there was no flock without either deviations or fractures present in at least one examined hen. Analysed separately, fractures were found in o to 88 % hens (mean 28 %) per flock and deviations in o to 84 % (mean 31 %). Prevalences of hematomas at the keel bone on the other hand were so low (median = 0 %) that they will not be included in further analyses.

On the basis of faecal egg counts infections with Ascaridia galli or Heterakis worms (eggs of these two species were not differentiated) were found in 55 % of flocks at peak of lay (61 % at the end of lay), Capillaria were prevalent in about one quarter of all flocks. All other helminth species





had considerably lower prevalences. By autopsies of slaughtered hens from 55 flocks, separate prevalences could be calculated for A. galli and heterakis worms. For A. galli, the mean prevalence across all eight countries was 68 % and for Heterakis it was 28%. The mean number of captured red mites in at least five traps recaptured after being installed for one week in the hen houses ranged from zero to more than 10.000 in the summer as well as in the winter season.

Thus, the variation between individual farms in the different countries was very large.

Recommendations to end-users

The main target groups are organic egg producers and advisors as well as political decision makers in Europe and other countries with comparable production systems.

Recommendations will be formulated after finishing the analysis.











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Relevance

Insights about the risk factors for health problems such as keel bone damages will help reducing them also on conventional farms with non-cage housing systems. Identified risks for feather and injurious pecking for non-beak trimmed flocks are applicable in conventional systems as well where beak trimming is or will be banned in the future.

New and important research questions

The collected data set from more than one hundred organic layer farms in eight European countries is very valuable in itself already. Combining the gathered data with other larger epidemiological data sets from European organic and conventional layer farms would increase the power and multiply the opportunities for investigations in current challenges in laying hen welfare, as e.g. to combat keel bone damages or develop sound parasite control strategies.



Further information

This project is funded via the ERA-net CORE Organic II by national funds to each partner. CORE Organic II is a collaboration between 21 countries on initiating transnational research projects in the area of organic food and farming. In 2011, CORE Organic II selected HealthyHens and 10 other projects.

Read more at coreorganic2.org/HealthyHens