

EDITORIAL



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This edition is focused on poultry welfare. Welfare aspects have become the dominating issue in animal production, and poultry plays a leading role in this debate.

The transition of laying hens from unlimited free-range systems to conventional cages in the 1960ies was driven by the control of infectious diseases and better bird performance.

Indeed, the cage system produced the lowest incidence of diseases and mortality. **However, concerns on health and mortality in chickens have been considered an economic issue rather than a welfare problem.**

In recent decades, the western society was not prepared to accept the extreme restriction of space and environmental stimuli in cages for ethical reasons (see *P. Kunzmann, 2011; Lohmann Information 46(1), p. 3-9*).

It may not seem appropriate to focus on animal welfare at a time when the world is dealing with the disastrous Covid 19 pandemic.

Planning of this edition has started long before the Covid 19 pandemic emerged and the present focus on this problem may not fundamentally change the attitude of our society to animal welfare. Therefore, we decided not to cease working on this issue.

Decisions on animal welfare should be based on scientific information. In the introductory article, U. Knierim and co-authors present the complex matter of welfare assessment under practical conditions and the interpretation of welfare indicators. The authors stress the importance of reliability of measurements and subjective scoring systems of animal- and resource-based indicators.

There is at present no generally accepted scientific system to assign weights to different welfare criteria to compute a comprehensive score of the level of welfare.

Views of experts, consumers or citizens may be used when discussing the ultimate question regarding the acceptable level of welfare.

Cavero and co-authors review actual problems in egg production systems. **Most problems are related to the behaviour of laying hens in non-cage systems, such as nervousness and smothering, floor eggs, feather pecking and cannibalism.** Alternatives to conventional molting methods and to killing day old layer male chicks are also discussed.

Bessei and co-authors report on changes in the production conditions of broilers and turkeys, which aim at improving the welfare status of the birds. Genetic selection has proved to be successful in reducing the incidence of leg damages and cardiovascular problems, like Ascites and Sudden Death Syndrome, and to a certain extent, footpad dermatitis.

The latter, however, is clearly a problem of wet litter and can be controlled by the use of adequate litter materials and ventilation rate. **Problems with stocking density, lighting programs and light quality are also treated in this article.**

Environmental enrichments have become the preferred subject in animal welfare research.

Two articles on this subject in this edition reflect this topic. W. Bessei reviews the theoretical background and expectations of enrichments in a general context and shows examples of the large variety of enrichments used in practical broiler and turkey production. **First estimates of the costs of enrichment are also presented.**

Julia Malchow reports results of three successive experiments where she investigated the use of elevated platforms by broiler breeds differing in growth rate. **There is a high motivation to use elevated platforms in all breeds.** Elevated platforms stimulate activity and walking ability and, thus, improve the birds' welfare.

The perception of animal welfare in the human population is subject to continuous development.

Retailers and consumers insist on information on the living conditions of animals used for meat production.

The present articles show that researchers and producers are prepared to develop measures and technical solutions to improve the welfare status of chickens and other poultry species under practical production conditions to meet the consumer's request.