

# Management tools in organic egg production, focusing on animal welfare and food security

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## Background

During the last couple of years there has been in-creasing public concern about intensive animal productions systems and their consequences for animal welfare, food security and environment. This has among other things lead to an increase in organic food production, incl. organic egg production. However, recent figures point to severe problems with increased mortality, feather pecking and cannibalism in organic flocks. Some of these problems could correlate with problems managing large flocks of loose-housed hens. It is therefore necessary to develop advisory tools for organic egg producers, to secure animal health and welfare in the flocks.

The HACCP system is a quality assurance system, which is widely used in the industry, but also recently adapted to animal production. It aims to prevent problems by identifying and monitoring critical control points in the production and suggests proper actions in cases of deficiencies. It is a control system well suited for authorization. Another approach to improve welfare on farms is via welfare assessment reports, which works as an input for discussing welfare with the farms and simultaneously gives farms the opportunity to compare themselves with other farmers and thereby points the attention to problematic areas regarding welfare in their own production.

## Objective

The aim of the project is to develop management tools for organic egg producers using the welfare assessment system and HACCP-concept, thereby securing animal health and welfare at the farms and accounting for food security.

## Progress - 2005

Status seminar was held in January.

Data collected on farms for the welfare assessment reports was analysed and presented at workshops in Nijmegen, the Netherlands, April 18-20 2005 and WAFL-05 in Vienna, Austria, 22-24 September 2005.

An expert panel analysis has been initiated in order to select risk factors for welfare hazards in organic egg production and establish control points for better management. The analysis is conducted according to the Delphi method and involves a series of four questionnaires. Eighteen experts have accepted to participate, and completed three of the four questionnaires.

The rest of 2005 have been taken up with 6½ months of leave.

## Courses

The following course have been concluded "HACCP i Husdyrproduktionen" (DJF, 10.06.04-08.10.04, 5 ECTS).

## Plans - 2006

Developing a HACCP plan, based on results from the expert panel analysis. Submitting papers and writing of the thesis.

## Publications

Hegelund, L. (2004) [What is welfare? And a Welfare Assessment System](#). [oral] Presentation at *Nordic Poultry Consultant and Veterinary Conference.*, Nokia, Finland., 26-28 November, 2004..

Hegelund, L.; Sørensen, J.T. and Hermansen, J.E. (2005) [Use of range area, plumage condition and mortality](#). Poster presented at *Should hens be kept outside?*, Nijmegen, Holland., 18-20 april.

Hegelund, L.; Sørensen, J.T.; Horsted, K. and Hermansen, J.E. (2004) [Velfærdsvurderingsrapporter, økologisk ægproduktion. Rapport fra afdelingen for Husdyrsundhed og Velfærd](#). Report, DIAS.

Hegelund, L.; Sørensen, J.T.; Horsted, K. and Hermansen, J.E. (2002) [Velfærdsvurderingsrapporter fra økologisk ægproduktion. Rapport fra afdelingen for Husdyrsundhed og Velfærd, Danmarks Jordbrugsforskning](#). Report, DIAS.

Hegelund, L.; Sørensen, J.T. and Johansen, N.F. (2003) Developing a welfare assessment system for use in commercial organic egg production. [Animal Welfare. Proceedings of the 2nd International Workshop on the Assessment of Animal Welfare at Farm and Group Level. Animal Welfare 12\(4\) 649-654. Animal Welfare\(12\):pp. 649-653.](#)

Andersen, D.B.; Hegelund, L. and Sørensen, J.T. (2001) [Faktorer med mulig indflydelse på høners benyttelse af udearealet i økologisk ægproduktion](#). Report, DIAS.