# CORE organic II

# Short description of project funded by CORE Organic II partners in the first call of CORE Organic II

# HealthyHens - Promoting good health and welfare in European organic laying hens

#### **Project summary**

Egg production in line with organic principles includes outdoor access, preferential use of preventative measures and alternative treatment methods, a 100% organic diet from 2012 onwards and consistent use of non beak-trimmed birds. This proposal focuses on the main challenges for organic laying hen farms regarding disease management, adverse animal welfare and negative impacts on the environment. Parasite infestation levels as well as prevalence of major health and welfare problems such as feather pecking, cannibalism, keel bone and foot lesions are affected by a combination of housing and management factors, e.g. with respect to feeding or hygiene, genotype or therapeutic treatments. The design and management of the range influence how well and evenly it is used by the hens and the extent to which nutrients accumulate in the surrounding environment. By adopting an epidemiological approach, major risk factors for diseases, and negative welfare and environmental impacts will be identified. 107 flocks distributed over 8 countries will be included in the observational study with a cross sectional design. Flocks will be visited twice at specified age periods during two seasons. Housing, management and animal based data will be recorded during interviews, direct measurements or from farm documentation. Recommendations will be formulated based on analyses carried out in four specific work packages. These recommendations will help organic egg producers to further develop bird health and welfare according to the organic principles, and to enhance economic competitiveness through improved bird health and performance.

## Aim, objectives and hypotheses

The general aim of this project is to promote good health and welfare in European organic laying hens.

The objectives of the project are to identify management strategies that promote animal health and welfare in European organic laying hens while limiting environmental impacts. Special attention will be paid to potential problems related to the actual change to 100% organic feed ingredients.

The following hypotheses will be investigated:

- Health and welfare problems, such as feather pecking, cannibalism, keel bone 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.
- Design and management of the free range influences how well and evenly it is used by the hens. Range use also affects environmental impacts, e.g. emissions.

By adopting an epidemiological approach, important risk factors can be identified which will help to recommend efficient prevention and treatment strategies in order to secure good hen health and welfare and lower environmental impacts.

# Expected results and their impact/application

The main results from this project will be scientifically based recommendations about how to efficiently manage health, welfare and environmental impacts in organic laying hens. This knowledge will be transferred to farmers and advisors. Furthermore, the data recorded within the project can be used for European bench marking. Farmers and advisors can use the recording protocol that has been tested and refined in this project for their monitoring purposes.

The consumers are expecting hens in organic egg production to have good health and welfare, and that the production is sustainable for the environment. Therefore, it is highly relevant to improve the current situation of organic egg production, as it is partly unsatisfactory today, and recommendations for improvement will be proposed as a result of this project.

## Coordinator, partners and countries involved

Coordinator:

Germany:

Ute Knierim, Department of Farm Animal Behaviour and Husbandry, Faculty of Organic Agricultural Sciences, University of Kassel

Partners:

<u>United Kingdom</u>: Stephen Edge, ADAS UK Ltd.

<u>Netherlands</u>: Jan-Paul Wagenaar, Louis Bolk Institute

Austria:

Knut Niebuhr, University of Veterinary Medicine Vienna

Denmark:

Niels Christian Kyvsgaard, Department of Large Animal Sciences, Faculty of LIFE Sciences, University of Copenhagen

Jan Tind Sorensen, Aarhus University

Italy:

Paolo Ferrari, Fondazione CRPA Studi Ricerche

Sweden:

Stefan Gunnarsson, Dept. of Animal Environment and Health, Swedish University of Agricultural Sciences

Belgium:

Frank Tuyttens, Institute for Agricultural and Fisheries Research, Animal Sciences, Animal Husbandry and Welfare

