

## Thematic Article

### Free range and organic poultry farms and farmers: do they differ?

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For the LowInputBreeds project we interviewed 275 farmers in Switzerland, France and The Netherlands with free range and organic hens by e-mail and telephone in order to find out in what way free range and organic farms differ. There were several questions to characterize the farm and management issues. We identified some differences between organic and free range farms, but also quite a lot of similarities.

In France and The Netherlands farmers already had several years of experience with poultry before they started with free range or organic laying hens. In Switzerland it appears that most farmers started right away with free range or organic egg production. On average farmers with free range or organic hens have 10 years of experience with this type of production. On almost all farms one or two people take care of the hens.

In Switzerland laying hens are the main income source for 26 percent of the free range farmers but only 10 percent of the organic farmers. In France on about 50 percent of the farms hens are the main source of income, while in The Netherlands this is for 73 percent of the free range farmers and 60 percent of the organic farmers.

Only a limited number of farmers report direct selling of eggs from the farm. In Switzerland all farms have a contract with an egg trader. In France a large majority had a contract, mostly with an egg trader, but also with integration through the feed company. In The Netherlands about 20 percent of the farmers do not have a contract for marketing the eggs.

In Switzerland and The Netherlands almost all farms participate in a quality control programme, but in France about 70 percent of farmers do not participate in a quality program.

Almost all farmers record the performance of their stock. The proportion of farmers that use a data management program is over 50 percent in The Netherlands and about 50 percent in France and Switzerland. Online database management programmes are provided more and more through independent and feed companies.

In Switzerland and France all farmers have data on egg grades and egg weight although in The Netherlands about 10 percent of the farmers do not keep this record.

On some farms there are several houses with production data registered for separately each house or flock. On most farms however, the hens are considered to be in single flock, that is in the same house and/or data on egg production are only available for all hens together. In The Netherlands about 50 percent of the farms record more than one flock, in France about one third and in Switzerland about 12 percent.

In The Netherlands about 30 percent of the farms have two different ages (more than one month difference) in parallel. In France this is similar for free range farms. In Switzerland and on organic farms in France on almost all farms only one age is present.

Flock size clearly differs between countries and systems: organic flocks are smaller than free range flocks, and flocks in Switzerland are smaller than those in France, which are smaller than those in The Netherlands.



**White layers in an aviary system in Switzerland (Photo: FiBL)**

In Switzerland almost all hens are in aviary systems, where hens can freely move between tiers in the house on top of each other, thus having more usable area than the ground surface of the house. In France the hens are for a large majority in floor systems (with one tier only), while in The Netherlands aviary and floor systems are equally present.

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More farmers with organic birds report higher mortality than farmers with free range birds, often reported to be due to *E. coli* infections other diseases and predation.

In The Netherlands the majority of farmers provide roughage, often daily and especially on organic farms. A variety of sources are used: alfalfa, maize silage, grass silage. In Switzerland only on a limited number of farms provide roughage. In Switzerland and The Netherlands additional grain is provided, inside the house, but also in the wintergarten (quite common in Switzerland). From France we did not get indications that either roughage or grain was provided. Supplementing litter was most common in Switzerland.

However, answers on feeding and management often had question marks and seem less reliable than data on egg production and mortality. During the farm visits, carried out in 2011, special attention is being paid to these issues.

Striking differences between the systems and the countries are flock size and the proportion the laying hens have in the farm income. Organic farms are smaller and provide a smaller part of farm income compared to free range farms. This is the case in all three countries. However, in The Netherlands the proportion of farms where laying hens are the main source of income is larger than in France, and in France it is larger than in Switzerland. This is directly related to flock size.

We are now recording management, performance, and animal health and welfare parameters into more detail on 40 selected farms per country. This will give a further insight into differences and similarities of the two production systems and, hopefully, help to improve weak points of both systems.

## Progress reports from the subprojects

### Subproject 1: Dairy cow and beef cattle production systems<sup>5</sup>

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#### Phenotyping and Genotyping

The sixth and last phenotyping tour of approximately 1300 Swiss Brown dairy cows on 40 farms was finished in May by Anna Bieber and Anne Isensee (Research Institute of Organic Agriculture, FiBL). Cows were evaluated for several phenotypic characteristics. Meanwhile data sets for different phenotypes have been extracted from the database at FiBL and

<sup>5</sup> The work packages of subproject 1 'dairy and beef cattle production systems' are:

Work package 1.1 Development of within breed selection systems to improve animal health, product quality and performance traits; comparing genome-wide and traditional quantitative-genetic selection

Work package 1.2 Development of improved cross breeding strategies to optimise the balance between 'robustness' and performance traits; comparing cross-breeds with pure-bred Holstein Friesian genotypes

Work package 1.3 Design of optimised breeding and management systems for different macro-climatic regions of Europe; model-based multi-criteria evaluation with respect to performance, animal health and welfare, product quality and environmental impact

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