

# Body condition in different genotypes in organic and free range egg production

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## Introduction

Organic and free range egg production is increasing. In these systems the same genotypes are kept as in cage or barn systems. Although organic and free range systems aim to increase animal welfare, they show more feather pecking, smothering and a higher mortality. EU-project LowInputBreeds aims at improving performance, animal health, welfare and product quality in organic and free range systems ([www.lowinputbreeds.org](http://www.lowinputbreeds.org)).

## Methods

We do this by collecting data on genotype, rearing, housing, management, nutrition, performance and body condition from hens on farms in Switzerland, the Netherlands and France. With these results we try to support the industry and policy makers in improving genotypes, husbandry practices and regulations that are more appropriate for organic and free range egg production.

## Results

The results of our enquiry among 273 farmers (318 flocks) in Switzerland, The Netherlands and France are published (Leenstra et al., 2012). Now farm visits take place in Switzerland and The Netherlands. In both countries organic pullets are reared in lower densities than free range pullets, but Swiss pullets are reared in smaller groups (1000-2000). Swiss organic hens are kept in the smallest flocks (500 animals) compared to Swiss free range (3000), Dutch organic (3000) and free range (6000). Moreover, density of Swiss organic laying hens (5/m<sup>2</sup>) is lower than Swiss free range (6-7), Dutch organic (6/m<sup>2</sup>) and free range (9/m<sup>2</sup>). So far 151 flocks were visited when the hens were 44-62 weeks of age. Per flock 50 animals were caught and scored for several clinical aspects.

Average of all flocks per category (1 = bad, 4 = good).

	Netherlands organic	Netherlands free range	Switzerland organic	Switzerland free range
N of flocks	46	25	44	36
Brown (5 brands)	23	18	17	14
White (2 brands)	0	6	11	16
Silver (2 brands)	19	1	0	0
Mixed flocks	4	0	16	6
Comb wounds	3.2	3.5	3.4	3.4
Keel bone	3.1	2.9	3.7	3.5
Belly wounds	3.8	3.9	3.9	3.9
Foot pads	3.5	3.5	3.3	3.2
Neck feathers	3.3	2.5	3.8	3.3
Belly feathers	3.0	2.9	3.6	3.5
Back feathers	2.6	2.9	3.3	3.4
Tail feathers	2.7	2.5	3.4	3.2
Wing feathers	3.2	3.0	3.6	3.5

On many aspects Swiss organic flocks scored highest. This might be because the less intensive housing of these flocks and/or because they use other breeds. After the last flocks have been visited this summer, we will start analyzing the relations between genotypes, rearing, housing, health, welfare and performance.

Leenstra et al., 2012. Performance of commercial laying hen genotypes on free range and organic farms in Switzerland, France and The Netherlands. *British Poultry Science* 53 (3): 282–290.



Development of integrated livestock breeding and management strategies to improve animal health, product quality and performance in European organic and 'low input' milk, meat and egg production

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