

The ideal hen for organic and free range systems

Introduction

Organic and free range systems use layer genotypes selected for and in conventional indoor systems. This may be the reason for some animal health and welfare issues and also for reduced performance of layers in organic and free range systems.

Objective

The aim of LowInputBreeds is to develop a system to evaluate layer genotypes in free range and organic systems and to optimise the management of those systems. www.lowinputbreeds.org



Methods

- Questionnaire survey on 257 farms in CH, F, and NL.
- Detailed phenotyping on 40 farms per country (completed spring 2013).
- Farm network to test and optimise genotypes (planned to go on after end of project).

Summary

- A total of 20 genotypes were present.
- White hens performed well compared to brown and silver hens.
- Organic flocks had in general lower production, higher mortality and more feather damage than free range flocks (except F, where organic birds were beak treated).
- More hens were outside on organic than on conventional free range farms.
- Detailed phenotyping in CH reveals lower mortality and better feathering than indicated by the farmers in the questionnaire survey; several flocks had high % of animals with broken breast bones.

Main results of questionnaire survey

(Leenstra *et al.*, 2012, *British Poultry Science*, 53:3, 282-290)

	Switzerland		France		Netherlands	
	Free range	Organic	Free range	Organic	Free range	Organic
N of farms	35	91	31	11	48	57
N of flocks	52	102	31	11	71	57
➤ Brown (10 brands)	38		37		81	
➤ White (3 brands)	35		0		7	
➤ Silver (4 brands)	5		0		36	
➤ Mixed/other	72/4		0		1/2	
Ø Flock size (min-max)	3'093 (500-8014)	1'635 (500-2000)	7'577 (1700-18000)	4'682 (2298-9000)	17'625 (1500-45050)	8'077 (330-18350)
Egg production	244.1	241.9	247.0	245.4	244.9	231.0
Mortality (%)	5.9	6.6	4.9	4.7	6.6	12.0
Feather damage (score 0: no birds; 2>25% with bad feather cover)	0.71	1.11	0.35	0.9	0.96	1.35
Hens outside (%)	No answer	69	29	35	25	54

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