

Adequate stocking density for pullets in cage-free systems

Problem

Pullets in cage-free systems may be housed at high stocking densities to compensate for potential economic losses during the transition phase to cage-free housing systems. However, if too many pullets are reared in an extremely limited area, they are not able to (fully) engage in natural behaviours, even in non-cage housing systems.

Solution

For white hybrids, stocking densities of 10-15 birds/m² at the end of the rearing phase are considered ideal, for brown hybrids it would be 9-13 birds/m² at the end of rearing.

Benefits

Adequate stocking densities during rearing reduce the risk of feather pecking in the laying phase by enabling pullets to perform natural behaviours. This improves pullet welfare, including health. It also increases economic benefits for the farmer (lower mortality rates).

Practical recommendations

High stocking densities during rearing are a risk factor for feather pecking behaviour during laying. For white hybrids, stocking densities of 10-15 birds/m² at the end of the rearing phase are considered ideal, for brown hybrids it would be 9-13 birds/m² at the end of rearing. Research has shown that rearing pullets at stocking densities higher than 21 birds/m² led to plumage damage due to feather pecking in 50% of the observed flocks already during the rearing phase. By reducing losses due to feather pecking, these lower stocking densities can also be economically profitable.

APPLICABILITY BOX

Theme

Animal husbandry

Keywords

Pullet, space requirement, housing

Context

Transition to and operating cage-free housing systems for laying hens

Best in

All cage-free housing systems for laying hens: barn, free range, and organic production

Target audience

Farmers, farm advisors



Figure 1: Pullets in a barn kept at adequate stocking density (Source: WUR)

On-farm application

System approach

- Consider limiting stocking density during rearing.
- Calculate the space allowance for pullets in relation to their demands on the whole environment (including air quality), their age, live weight, health and their needs to express certain behavior.

Evaluation

- Check if each pullet is able to express its natural behaviour such as: feeding and drinking, wing flapping, dust bathing, foraging, perching, resting/sitting, preening.

Further information

Weblinks

Guide on best management practice for the welfare of pullets https://ec.europa.eu/food/system/files/2021-06/aw_platform_plat-conc_guide-welfare-pullets_0.pdf

About this practice abstract and Best Practice Hens

Publishers:

Utrecht University (UU)
Yalelaan 2, 3584 CM Utrecht
<https://www.uu.nl>

Authors: Prof. T. Bas Rodenburg & Dr. Mona F. Giersberg
Editors: Mariana Yuan Ribeiro Couto, Mona F. Giersberg, T. Bas Rodenburg

Project coordinator: Prof. T. Bas Rodenburg, Utrecht University (UU), Yalelaan 2, 3584 CM Utrecht, t.b.rodenburg@uu.nl **Best Practice**

Hens: To support egg production in non-cage systems and improve animal welfare, a consortium consisting of 7 partners will develop Best Practices for Non-cage Egg Production Systems as a European Commission, DG Sante pilot project. These Best Practices will provide practical support to egg producers to encourage them to convert from cage to non-cage systems, including organic production.

Project website: www.bestpracticehens.eu/

Social media: Facebook and LinkedIn (@bestpracticehens) & Twitter (@BestHens) © 2022