

How to enrich littered housing systems for laying hens?

Problem

It is recommended to provide environmental enrichment routinely and preventively to reduce the risk of feather pecking and improve hens' health and productivity. When production is transitioning from a cage to cage-free system, hens housed previously without enrichment may be unprepared to take advantage of it even if accessible in non-cage system.

Solution

Provide the same environmental enrichment sufficient to promote hen behaviour, in the rearing phase and during the laying period.

Benefits

Environmental enrichments improve bird health and welfare during laying periods. The aim of different enrichment materials is to: 1) Increase the amount of time birds spend actively: standing, walking, running, jumping, and dustbathing; 2) Increase foraging behaviours, providing the opportunity to seek and peck at other materials in their environment, reducing the risk of injurious pecking towards other birds; 3) Reduce the number of aggressive interactions between birds and creating environments in which birds can escape from confrontation and find safe refuges.

Practical recommendations

WHEN: Provide adequate environmental enrichment during rearing (see practice abstract no. 8b) and lay to reduce the risk of feather pecking

WHY: The type of enrichment material is important: pet toys, for instance, do not lead to the benefits mentioned above, while the materials listed below do. Effective enrichment include: a) straw and shaving bales to jump on, to create low barriers and partitions within larger spaces, and provide a substrate to peck at (i. ex., alfalfa hay in bales); b) perches and platforms at different levels to support different behavioural uses during the day and night, including refuge from other birds (i. ex. perches with grip/wood as perch material); c) novel food for pecking; d) pecking blocks – some may incorporate nutritive value or beak blunting effects (i. ex. pumice stone); e) a range of pecking objects; f) dustbathing boxes; and g) “verandas” or “winter gardens” to provide additional space, litter, and access to natural daylight in housing systems where range access is not available or may be restricted for periods of time; h) in free range systems use of the range encouraged by a high percentage of sheltered areas.

HOW: The types of enrichment should target the behavioral needs of the birds, i.e., be biologically relevant. Replace enrichment variants that are not used well by the birds with alternatives!

APPLICABILITY BOX

Theme

Environmental enrichment

Keywords

Enrichment materials, welfare, feather pecking

Context

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

Period of impact

During the whole lay period

Equipment

Environmental enrichments

Best in

All cage-free housing systems for laying hens

Target audience

Producers, Farm Advisors



Figure 1 (left): Dried alfalfa bale provides entertainment, diversifies feeding and is hung to prevent unused dispersal. (Source: Vera Bavinck, Fair Poultry). Figure 2 (right): Perches use to support different behavioural uses during the day and night (Source: Vera Bavinck, Fair Poultry)

On-farm application

System approach

Relatively low-cost enrichments promoting resilience:

- Structural enrichments suited to hens' locomotor and flying skills (perches, different high levels of the housing constructions) are needed to optimize skeletal development.
- Good light helps in optimal navigation within commercial housing systems to prepare birds for specific types of adult non-cage housing environments.
- Enrichments enhancing immune function through the application of mild stressors promote adaptability.

Further information

Further readings

Lohmann Tierzucht, 2011. Management Empfehlungen für die Aufzucht von Legehennen in Boden-, Volieren- und Freilandhaltung. Lohmann Tierzucht. <http://docplayer.org/13901122-Management-empfehlungen-fuer-legehennen-in-boden-volieren-und-freilandhaltung.html> (German)

Weblinks

<https://www.compassioninfoodbusiness.com/media/6207569/welfare-issues-table-laying-hens.pdf>

About this practice abstract and Best Practice Hens

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Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences (IGAB PAS)
ul. Postepu 36A, Jastrzębica
05-552 Magdalenka
Poland, +48 22 736 70 00, <https://www.igbzpan.pl/en>

Authors: Joanna Marchewka & Patryk Sztandarski

Editors: Mariana Y. R. Couto, Ángela Morell Pérez, 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/

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