



Litter for broilers

APPLICABILITY

Theme/Keywords

Broiler, welfare, litter, substrate, footpad dermatitis

Context

Optimal litter should be used in all types of housing and broiler systems. It is used inside the housing and in verandas. Litter is used in all climate zones but is especially important under humid conditions.

Geographical coverage

Worldwide

Required time

Can be used immediately after purchase

Period of impact

Beneficial effect on welfare during the whole production cycle

Equipment

Manual application or in large housings with machinery

Best in

Intensive, extensive, free-range and organic broiler production systems

Problem

Litter influences the housing climate and the health of birds and may also create favourable conditions for pathogens. Wet, non-absorbent or small amounts of litter can cause animal welfare problems in broilers, such as footpad dermatitis.

Solution

Problems connected to suboptimal litter quality should be identified. Litter adapted to the type of system and stage of production should be used.

Benefits

A high-water holding capacity of the litter binds the moisture in the stable and prevents the spread of pathogens, footpad diseases and other infections. A high-quality litter enables the broilers to perform natural behaviour.

Practical recommendations

Litter should be dry and loose. It should offer the opportunity for pecking, scratching, dust bathing and reduce the germ pressure from excretions.

If the litter is too dry, it can lead to fine dust pollution and respiratory diseases.

The traditional litter is made of straw, but the water-holding capacity is low, and its sharp edges can cause injuries.

These are examples of different types of litter:

- Chopped straw
- Straw pellets
- Wood shavings
- Straw flower
- Sunflower shells
- Spelt husk



Figure 1: Dry litter at the drinking line (Source: K. Rath, Naturland e.V.)



Figure 2: Litter in a small organic housing (Source: L. Vogt, Naturland e.V.)

On-farm application

System approach

Please check which litter and substrate types are available in your region.

Evaluation

Please make sure that the floor is completely covered by litter. Monitor the litter quality during the daily inspections and use litter with good absorption.

FURTHER INFORMATION



Figure 3: Good litter quality improves animal welfare (Source: Katharina Rath, Naturland e.V.)

Further readings

Boussaada et al., 2022. [Effects of common litter types and their physicochemical properties on the welfare of broilers](#). Veterinary World, EISSN: 2231-0916

Durmuş et al., 2023. [Effect of different litter materials on growth performance, the gait score and footpad dermatitis, carcass parameters, meat quality, and microbial load of litter in broiler chickens](#). PoultryScience102:102763

About this practice abstract and mEATquality

Publishers:

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mEATquality: The mEATquality project aims to provide consumers with better-quality pork and broiler meat and animals with a high level of welfare by developing scientific knowledge and practical solutions together with farmers and chain partners.

The mEATquality project, an H2020 project, is coordinated by Wageningen Research (The Netherlands) and is a multidisciplinary team of 17 partners organisations representing 7 EU countries. The project is running from October 2021 to September 2025

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Project partners: Wageningen Research, Wageningen University, Aarhus University, Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences, Naturland e.V., CLITRAVI, Ecovalia, University of Salamanca, University of Cordoba, Centro Ricerche Produzioni Animali, Stazione Sperimentale per l'Industria delle Conserve Alimentari – Fondazione di Ricerca, Danish Technological Institute, Hubbard S.A.S., Poznań University of Life Sciences, Universitat des Saarlandes, Marel Poultry B.V., Universitaet Rostock ©2024

