



健康  
畜禽

# Healthy Livestock



## HEALTHY LIVESTOCK

Using antimicrobials in animals contributes to the rise and spread of antimicrobial resistance. By doing so it reduces the availability of safe and effective medicines against infectious diseases for both humans and animals. HealthyLivestock is a research project aiming to find ways to reduce the use of antimicrobials in livestock by improving the health and welfare of the animals.



## RESILIENCE

One way to protect animals against infections is by strengthening their resilience. More resilient animals have stronger defence mechanism of their own. They are less susceptible for infections. The chances that they get sick and will need to be treated with antimicrobials will be less. Hence, stronger resilience leads to less antimicrobial use and by that to less antimicrobial resistance.



## ELEVATED PLATFORMS IN POULTRY HOUSES

One way to strengthen the birds' resilience, tested in HealthyLivestock, is by improving their welfare through the introduction of elevated platforms. First, by providing elevated platforms, broilers can perform species-specific behaviour such as perching. Second, the platforms create a more complex and richer environment for the animals plus an extra space/area which the animals will use for resting and comfort behaviour. Compared to the litter on the floor the platforms provide the animals an elevated and dryer resting area. Especially towards the end of the fattening period the combination of less active birds, with laying on more moisty litter can lead to skin lesions, inflammation and infections with pathogenic agents. The dryer elevated platforms will allow chicken feet and legs to dry and thus potentially reduce prevalence of foot pad lesions and hock burns.

Elevated platforms can be combined with weighing beams that can support the farmer to monitor the activity level and body weight of the animals and thus to optimize health and production efficiency.

# ELEVATED PLATFORMS

## WP2 Resilience / Poultry / Elevated Platforms



## HEALTHY LIVESTOCK ON ELEVATED PLATFORMS

This study describes the use of a novel BEAT, the BEAT, to identify strengths and weaknesses in biosln a research trial three systems have been compared: elevated platforms with a steel or plastic grid (perforated surface), platforms with an aluminum plate (non-perforated) and a control system without the presence of elevated platforms.

The elevated platforms had a positive effect. Mortality, chest dirtiness, foot pad lesions and hock burn changes were less in the houses with elevated platforms than in the houses without such platforms.

Furthermore, weighing beams and the continuous recordings of the weighing allowed for an approximation of usage behaviour and animal activity throughout day 4 to the end of fattening. First observations show that the system could also be used for early detection of animal welfare problems.

The question whether the costs of structures are offset by improved performance or if a premium price for a higher welfare product can be obtained needs further investigation. However, in this context it should be noted that some legal and welfare standards allow to count the area of elevated platforms regarding stocking density, thus the costs for elevated platforms may at least partly be compensated by enabling a higher stocking density.



## CONCLUSIONS

HealthyLivestock survey identified that from 200 farmers in 4 different EU countries, more than 30 % of the farmers found the innovation useful and more than 30% would likely adopt it. Elevated platforms are a suitable possibility to enrich the environment of broiler chickens, and thus to strengthen their resilience and to reduce their susceptibility to infections. This may contribute to reducing the need to use antimicrobials and the risk for the emergence and spread of antimicrobial resistance.



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