

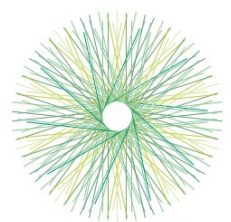
Misting as a method to reduce heat stress

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The use of misting in barns to reduce heat stress in the poultry industry is not universal. Misting (i.e. high-pressure water through nozzles creating a fine mist that helps cool broiler chicken houses) is a good practice with multifaceted benefits. While some farmers hesitate to invest in a misting system, it is already widely used in certain regions in France during heat waves. Misting positively affects health and animal welfare by mitigating heat stress and mortality. However, this GP requires careful humidity management as excessive moisture during heatwaves could lead to wet litter and pododermatitis issues. Good control of litter quality (dry and friable) is therefore essential with this technique to guarantee chickens health and welfare. According to farmers, misting can also ensure a more continuous growth and feed intake, resulting in more homogeneous growth patterns. This is attributed to regular feed intake due to reduced heat stress facilitated by misting during heat waves. From the farmer's perspective, despite installation costs from €7,000 to €18,000 based on building size and equipment, misting system enhances their control of the house atmosphere, while it also reduces summer mortality and provides better thermal comfort to animals and humans workers. However, farmers highlight the need for proper building ventilation and occasional maintenance of nozzles. Misting may not be cost-effective for free-range farming (as animals can choose outdoor areas), but it is beneficial for indoor farming. Despite the initial cost, farmers highlight the rapid return on investment and sustainability of misting systems, which contribute positively to broiler welfare and overall farm performance if litter quality is well managed.

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