

# Hock Lesions in Dairy Cows Found in German Cubicles: Occurrence and Risk Components

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## Description

Dairy farming plays a crucial role in the agricultural sector of Germany, and it is known for its high standards of animal welfare and production efficiency. However, despite these standards, dairy cows in German cubicles are not immune to various health issues, one of which is hock lesions. Hock lesions are a common problem in dairy farming worldwide, but their occurrence and risk components in German cubicles deserve special attention due to the country's significant dairy industry. In this comprehensive exploration, we will delve into the occurrence of hock lesions in German dairy cows, the risk factors associated with them, and potential strategies to mitigate this issue [1].

Hock lesions, also known as hock sores or decubital ulcers are skin lesions or open sores that develop on the hock joint of a cow's hind limb. These lesions can vary in severity, ranging from mild hair loss and redness to more severe cases where the skin is damaged, leading to pain, discomfort, and lameness in affected cows. Hock lesions are not only a concern for animal welfare but also an economic issue for dairy farmers, as they can result in reduced milk production, increased veterinary costs, and even culling of affected cows. The occurrence of hock lesions in German dairy cows has been a subject of concern in recent years. While Germany maintains high standards of animal welfare and management practices, hock lesions still persist as a prevalent issue [2]. The design and layout of cubicles have a significant impact on the occurrence of hock lesions. Inadequate cubicle dimensions, flooring materials, and improper bedding can contribute to increased pressure on the hocks, leading to the development of lesions. In some cases, cubicles may be too narrow, forcing cows to lie in unnatural positions.

Overcrowding in dairy barns can exacerbate the problem. When cows are forced to share limited resting spaces, they may experience increased competition for cubicles. This can lead to more time spent standing which in turn increases the risk of hock lesions. Lameness is both a cause and consequence of hock lesions. Lame cows are more likely to lie down in uncomfortable positions, which can increase pressure on their hocks. Conversely, hock lesions can lead to lameness as the cow tries to avoid putting weight on the affected limb. The choice of bedding material is critical in preventing hock lesions. While straw bedding is commonly used in German cubicles, its quality and maintenance are key factors. Dirty or compacted straw can create abrasive surfaces, increasing the likelihood of hock lesions [3].

Farm management practices such as milking frequency, feeding routines and hoof trimming, can also influence hock lesion occurrence. Properly managed routines can reduce stress and lameness, indirectly affecting the prevalence of hock lesions. Some cows may be more predisposed to hock lesions due to genetic factors or individual variation. These cows may have thinner skin or be more prone to skin damage, making them more susceptible to hock lesions. To effectively address the issue of hock lesions in German cubicles, it's crucial to

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understand the risk components associated with their development. The size and design of cubicles are critical factors. Cubicles should be appropriately sized to accommodate the cow's body comfortably, allowing her to lie down and stand up without excessive pressure on her hocks. Regularly providing clean, dry, and well-maintained bedding is essential. Inadequate bedding can lead to moisture build-up, which softens the skin, making it more susceptible to injury.

The surface of cubicles should be smooth and free from sharp edges or rough materials. Abrasive surfaces can cause friction and damage to the skin over time. Implementing measures to prevent and manage lameness can indirectly reduce the risk of hock lesions. This includes regular hoof trimming, monitoring cow gait, and addressing lameness promptly. Maintaining appropriate stocking density to ensure each cow has access to a clean and comfortable resting place can reduce competition and stress, thus lowering the risk of hock lesions. Providing cows with a balanced diet and addressing any underlying health issues can improve overall cow well-being, reducing their susceptibility to hock lesions. Ensuring cows are comfortable in their environment is paramount. Proper ventilation, temperature control, and protection from adverse weather conditions can contribute to cow comfort and reduce stress.

Regularly inspecting cows for signs of hock lesions and implementing timely interventions can prevent lesions from worsening and spreading to other cows. Addressing the occurrence of hock lesions in German cubicles requires a multi-faceted approach that combines management practices, facility design, and continuous monitoring. Here are some strategies that can help mitigate the problem. Assessing and, if necessary, redesigning cubicles to meet the comfort needs of cows can significantly reduce hock lesions [4]. This may involve adjusting dimensions, improving bedding quality, and ensuring a smooth clean surface. Paying close attention to bedding quality and cleanliness is crucial. Regularly refreshing and fluffing bedding material can maintain a comfortable resting surface for cows. Implementing lameness prevention programs that include regular hoof trimming and footbath treatments can help reduce lameness, which is closely linked to hock lesion development. Monitoring stocking density and ensuring cows have enough space to rest comfortably can prevent overcrowding and reduce competition for cubicles. Breeding programs can be developed to select for cows with thicker, more resilient skin, reducing their susceptibility to hock lesions. Providing cows with a balanced diet and promptly addressing any health issues can enhance overall cow well-being, making them less prone to skin lesions. Training farm staff on best practices for cow care and welfare is essential. Properly trained personnel can identify early signs of hock lesions and implement preventive measures. Keeping records of hock lesion incidence and severity can help identify trends and areas that need improvement. Regular farm audits can also ensure compliance with animal welfare standards [5].

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## Conflict of Interest

There are no conflicts of interest by author.

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