

Positive findings: Emission reduction potential of profiKURA 3D

Walking alleys equipped with profiKURA 3D are significantly drier, as liquids are drained directly to the central guide via an integrated slope. This is not only good for hooves, but also reduces ammonia emissions. The report by the Dutch emissions expert Gert-Jan Monteny confirms the ammonia reduction potential of profiKURA 3D.



Advantages of the proven Swiss system integrated in a rubber mat

A concreted 3% slope towards the central guide on both sides of solid walking alleys has been seen as an emission-reducing floor design in Switzerland for many years. Also in Germany and some other countries, a 3% inclined floor is often recognized as a way to reduce emissions. The new, wedge-shaped profiKURA 3D walking alley mat reproduces this system precisely. The advantage: The 3% slope is already integrated in the rubber mat.

Slope concreting not required, retrofitting possible

Thanks to profiKURA 3D, complex slope concreting of the walking alley is no longer required. Further, the rubber mat is ideal for retrofitting an existing building. Real-world experience has shown that the very precise, integrated slope can compensate for minor unevenness in the ground. Unwanted puddles in the walking alley are, therefore, reduced significantly.

Initial results: Up to 44% less ammonia

The values measured for the 3% slope at the Agroscope test barn in Tänikon (CH) by Zähler et al. (2017) were used to calculate the emission reduction potential of profiKURA 3D. The prediction model for NH₃ emissions in a dairy barn developed and published by Monteny (2000) served as the basis for this. As such, it was possible to relate the results from Tänikon to a standard dairy barn. Monteny used these results to calculate an emission reduction potential of up to 44% for profiKURA 3D compared to a standard free stall barn without an emission-reducing floor.

Source: Monteny Milieu Advies, August 2021: Model-based assessment of the reduction potential for NH₃-emission of the innovative solid floor KRAIBURG – profiKURA 3D

