

## Israeli cows to get biometric ID cards

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A new facial recognition and the biometric system will be introduced in various dairy farms in Israel. It will be used to identify complications of the animal.

These data, new studies and a lot of information about the industry will be presented at the annual cattle and sheep science conference which is taking place soon. The conference is organised by the Department of Cattle and the Department of Sheep in the Training and Professional Service (SHAM) with the Ministry of Agriculture in cooperation and the Directorate of Agricultural. Real-time monitoring of the cows in the barn will be created out of the need to monitor and document the feeding times and location of each individual cow.

In the precision livestock farming lab at the Volcani Institute Precision Livestock Farming Lab (PLF), Prof. Noam Bergman together with Prof. Yitzhak Itzhaki from Ben Gurion University, and Prof. Ilan Halhami are developing an innovative biometric identification system, which can use as a unique and fast AI algorithm for facial recognition of cows. Cameras will be installed in barns. Each camera is able to monitor up to eight cows eating at the same time. In this way, the system can break down each video file into individual frames and within each frame identify with great precision the face of each individual cow by itself. In addition, the system is able to identify each cow using biometric characteristics based on its face alone. The system's unique characteristics offer high precision at maximum speed.

Real-time monitoring of the cows in the barn was created out of the need to monitor and document the feeding times and location of each individual cow.

These data can contain insights into the well-being of cows, prediction of distress situations, different eating behaviours, estimates of food consumption and more. Another advantage of the state-of-the-art system is that all the execution of its

operations takes place remotely - that is, without any physical means on the cow itself, and in fact without her knowledge at all.