Accelerating Digitalisation in the Dairy Goat and Sheep Sector through an Integrated ICAR ADE-Based Management Platform

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Background and Objectives: Digitalisation in the dairy goat and sheep sector is still at an early stage compared with dairy cattle. On many goat and sheep farms, reproduction and health events are recorded on paper or not recorded structurally at all. Milk recording is applied on only a limited number of farms worldwide, and traceability requirements differ between countries. Where digital systems are used, data are often spread across separate software programs, milking parlours and sensor platforms. As a result, valuable information is underused for performance recording, phenotyping and breeding decisions. This presentation shares a practical example of how digitalisation can be strengthened in dairy goat farming through the development of an integrated management platform using ICAR Animal Data Exchange (ADE) standards.

Approach: A modular platform is currently being developed to bring together kidding data, kid growth, reproduction, buck management, health events, milk production and genetics into one central and validated environment. Goat-specific processes such as seasonal breeding patterns, multiple births and extended lactations, including standardised 350-day production calculations, are incorporated. The system applies ICAR ADE standards to connect milking systems, feeding equipment and sensors, and to enable controlled data sharing with advisors and veterinarians. Challenges and Opportunities: During development, it became clear that certain goat-specific data elements are not yet fully covered within existing ADE structures. This creates an opportunity to further refine and expand ICAR standards, making them more applicable and visible within the goat sector.

Conclusions: This example demonstrates how practical digital integration can improve data quality, performance recording and phenotyping in dairy goats, while contributing to stronger and more widely adopted ICAR standards.