**Title:** Designing and managing on farm trails as a cost effective way to support product and commercial development

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**Abstract**
From the perspective of the feed additive sector, commercial trials are a necessary tool for evaluating product performance within both the dairy and beef feed industries. Although these trials may not follow the rigid structure of controlled experimental methodology, they are routinely used alongside well-designed scientific studies to provide comprehensive evidence for customers. The practical, real-life nature of commercial trials allows assessment of product efficacy under real-world conditions, which is highly valued by end-users seeking relevant and applicable results.

To mitigate sources of error and improve reliability, steps such as robust herd selection, detailed data collection, and statistical adjustments for confounding factors are employed. In particular, robotic dairy herds have emerged as a valuable resource, offering precise and continuous data on feed intake, milk production, and animal behaviour. Similarly, the development of automated weighing systems and digital record-keeping in commercial beef herds has significantly improved the ability to conduct large-scale beef feeding trials. Regular weight measurements and performance tracking in intensive and semi-intensive beef systems allow for real-time assessment of feed efficiency, growth rates, and carcass yield, providing robust datasets to support product validation.

Nevertheless, these trials are not without challenges. Variability in herd management, environmental conditions, and genetics can complicate interpretation, while the need for large-scale studies can introduce logistical and financial constraints. Beef trials, in particular, require careful design and consideration of animal performance variability. Despite these obstacles, commercial trials remain a cornerstone of the feed industry, providing essential insights, often giving a ‘feel’ for a product, and ultimately aiding customers in their decision-making processes.

This presentation will elaborate on the challenges and best practices of commercial dairy and beef feeding trials, highlighting their role in advancing business and application development.