

Case Study

Validated CO₂ and energy reductions with feed mill efficiency solutions



Overview

The Kemin feed mill efficiency program is a modular solution designed to optimize feed milling, through advanced moisture management and process efficiency.

By leveraging surfactant technology and precise dosing systems, it ensures uniform solution distribution and penetration, reducing variability and supporting improved pellet durability. This approach enhances conditioning, lowers energy consumption and minimizes waste, delivering measurable sustainability benefits. Customers can achieve higher throughputs, improved feed safety and consistent quality, while reducing CO₂ emissions and operational costs. Tailored to each mill's needs, Kemin feed mill efficiency program combines engineering support, digital monitoring and technical expertise, to support improved outcomes in profitability, environmental impact and product performance.

Kemin has developed a robust, independently validated model to quantify the sustainability benefits of its feed mill efficiency program, enabling reliable assessments of energy use, CO₂ emissions and waste reduction across diverse mill configurations, drawing on extensive industry experience and a robust database of production metrics. A new web-based platform has been launched in 2026 to allow these impact calculations to be performed with custom inputs from each site.

The Kemin feed mill efficiency program ultimately provides a measurable, technology-driven pathway towards more sustainable feed production.

Impact

Implementation of the Kemin feed mill efficiency program delivers quantifiable sustainability and production improvements. Typical cases show ~ 8.5% energy savings or more, contributing directly to reduced Scope 1 & 2 CO₂ emissions. The validated impact model indicates > 10 kg CO₂ avoided per tonne of feed produced. Improved moisture retention reduces shrinkage and dust, increasing yield recovery by ~ 1.1% or more and cutting feed wastage. Standardization of conditioning improves throughput and reduces process variability, while maintaining water activity at safe levels, supporting better feed hygiene and reduced spoilage. Combined, these gains translate into more sustainable feed production, improving the financial benefits for participating mills.

Supporting Material

- [From Feed Mill Efficiency to Measurable Sustainability](#)
- [Our Feed Processing & Feed Safety Solutions](#)

*This sustainability-related case study was provided by **Kemin**.*

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