



How a Poultry Rendering Plant Optimized their Production Processes and Achieved Substantial Savings and Benefits

CHALLENGE

Simmons Animal Nutrition produces specialised ingredients for the pet food, aquaculture and animal feed industries. Simmons drives innovation across the entire supply chain including traceable sourcing, custom transportation and quality control solutions.

As Simmons continues to grow and innovate they decided to look for better ways to make their current processes more sustainable and stable. They were experiencing:

- Variations in the residual moisture and thus in meal quality due to large variations in the discharge temperature from the cookers.
- Further variations in product quality caused by large variations in press amperage.
- Reduced throughput and capacity.
- Lower energy efficiency.

SOLUTION

In 2017, Simmons Animal Nutrition was introduced to CORE's Advanced Process Control (APC) package. Implementing CORE APC for their cookers and presses, the processes were optimized, and a more stable production was achieved. This has allowed Simmons to improve their yield, quality, energy efficiency and throughput..

RESULTS

After adding CORE APC to the their operation, Simmons achieved:

- **> 10 %** increase in throughput.
- **> 30 %** reduction in discharge temperature variations, and
- **40 %** decrease in the variation of moisture in the meal.
- **> 50 %** reduction in press amperage variations, and
- **45 %** decrease in the variation of fat in the meal.

Industry

- Poultry, Ingredients

Process optimized

- Dry Rendering
- 5 Cookers
- 9 Presses

Country

- United States

Company

- Simmons Animal Nutrition

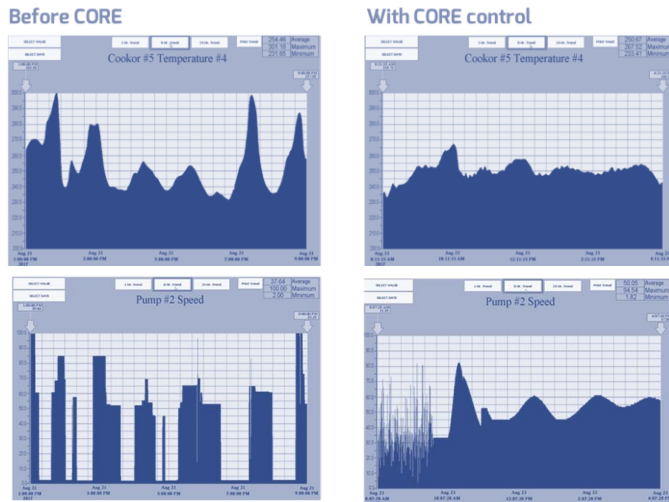
“Not only are the controllers saving us tons of money, the tight knit collaboration between CORE and Simmons operations has been like having an extra employee, CORE truly becomes part of the team and understands our process.”

- William Hada

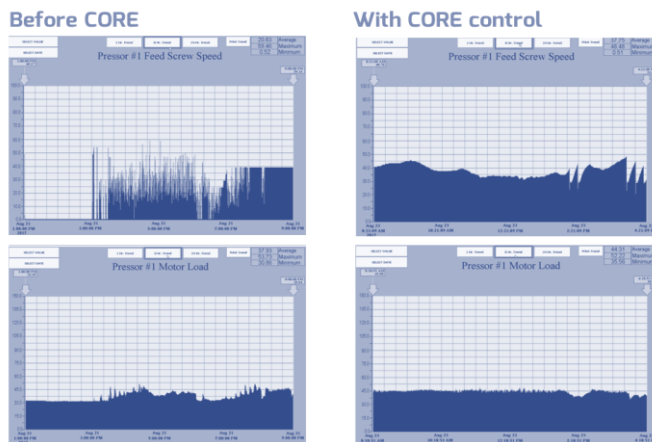
Simmons Ingredients

STORY DETAILS

The 8-hour trend curves below illustrate some of the results obtained by the implementation of the advanced CORE controllers on Simmons cookers and presses.



Top: Cooker - Discharge temperature variations reduced by 75%.
Bottom: Cooker - Feed speed from on/off to continuous.
Feed speed increased by 33% => higher capacity.



Top: Press - Feed speed increased by more than 20%.
Bottom: Press - Motor load variations substantially reduced.

In summary, the cooking and press processes have been improved with lower variations allowing for a higher energy efficiency, reduced quality variations and a higher throughput.

About CORE A/S

The DNA of CORE is about stable sustainable savings. We are focused on optimizing your energy efficiency, yield, product quality, capacity, reducing the level of your investment and increasing your profit. We deliver the world's most sophisticated advanced self-learning controllers, which within a few years have spread across the globe based on the significant savings CORE has provided, especially to the industry for animal by-products and fish processing. A partnership with Haarslev Industries was established in 2016.

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CORE BUSINESS VALUES

Advanced Process Control

- Improved stability
- Consistent quality of the final product
- Higher throughput, capacity and yield
- Reduced energy costs
- Reduced maintenance

CORE SERVICES AVAILABLE

CORE's optimization package

- Remote support
- Controller monitoring
- Optimization
- Visualization
- On-site visits
- Examination reports

CORE