

Improving Productivity and Sustainability in Meat Processing by Optimizing Process Control

The meat industry is facing numerous challenges affecting productivity, including:

- Food safety & compliance and stricter regulations
- Shortage of labor
- Rising costs of raw material
- Sustainability concerns

Controlling processing parameters to eliminate food safety and quality problems that adversely affect productivity

When processing parameters are inefficient, there is a detrimental effect on bottom-line profits and product quality. Ineffective optimization and control of processes lead to losses throughout the value chain.



Asset & Maintenance
Increase Capacity and OEE



Limit Process Variation
Detect Non-conformance Faster



Ensure Product Safety
Detect Deviations Quicker



Sustainability
Optimize Energy Level



Streamline Resources
Production Optimization



Reduce Waste
Maximize Quality and Yield

Novolyze's Process Control Solution

Novolyze's science based digitalization solution introduces dynamic process monitoring to include a broader range of process temperatures when calculating log reduction. Optimization of processes with dynamic monitoring leads to an increase in throughput and a reduction of carbon footprint while maintaining the highest product safety and quality standards.

How does it work?

Implementation of proprietary modeling algorithms using:
D/z values
Recipe specifications
Other parameters used in lethality calculations



Use of patented technology and proprietary algorithms to estimate efficiency on both Batch and Continuous processes



Introduction of product specific D/z values to improve the efficiency of Log Reduction Estimation, and any other parameters used in lethality calculations

Case Studies

BEEF HOT DOGS // Batch Savings ~ 300 Hours

METRICS



4

Ovens



610

Batches per year



1 YEAR

Time period



180 minutes
Avg batch cook time

PROCESS CONTROL OUTCOME

30

Minutes

Saved per batch

305

Hours

Per year

- 100 additional batches using the same resources
- \$500,000 in additional revenue

CARBON FOOTPRINT REDUCTION



~ 212 MT CO₂

Utilities

METRICS



\$4.9M

Additional
production



410

Additional
batches per year



7.5%

Increase in
equipment
capacity



3,488

Hours saved
per year

PROCESS CONTROL OUTCOMES

Food Safety

- Acquire Log Reduction data during process
- Get instantaneous deviation alerts
- Reduce human error
- Execute CAPA and Root Cause Analysis quicker
- Improve audit readiness

Operations

- Optimize Process
- Reduce CapEx
- Reallocate labor to higher value tasks
- Reduce rework
- Track KPIs, trending, visibility across multiple tanks
- Work in an agile environment

About Novolyze

Founded in 2012, Novolyze empowers food and beverage companies to enhance food safety and quality performance through digitalization. The company was created with the ambition to invent a novel way to envision food safety and quality, which relies less on finished product testing and leads to superior positive impacts in environmental sustainability, yield, and production.

Over 20 of the world's top 100 food companies now use a Novolyze solution or product to help mitigate risks, ensure compliance, augment plant performance, and increase sustainability.

Are you ready to find out more?

Contact Us

contact@novolyze.com

+1 (301) 241-6261