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Stauning Rye Whisky Process Optimization



Issue: Unable to produce malted rye whisky for six months due to burning on the internal surface of the direct fired stills



Goal: Mitigate burning of solids/ sugars/ grain particles and improve yield

C A S E S T U D Y

Key Strategies:

- **Root Cause Analysis (RCA):**
 A RCA was performed with the team to identify potential origins of the issue. The analysis incorporated impacts from raw materials, equipment, processing, and other factors.
- **Design of Experiments (DOE):**
 Outputs from the RCA were used to design trials, and execution was prioritized based on ease of implementation, potential impact, and cost. Focus areas were narrowed to raw materials and upstream processing.
- **Assessment and Validation:**
 Visual assessment of the still after distillation was a key metric in determining success; however, extract recovery and yield were also a top priority. As part of the DOE, data collection was standardized to ensure a solid foundation for future optimizations.
- **Implementation:**
 Once the optimized solution was validated, updated procedures were prepared and implemented with the team. Additional quality protocols were also introduced to allow for better process control.

"We hired Liz to find the best solution to our issue with rye beer burning onto the surface of our direct fired stills. Approaching the problem methodically, she applied theory to develop a practical and sustainable solution. Staying true to the essence of Stauning quality, Liz embraced our story and kept the team engaged throughout the entire process. Her efforts led us to resume production without recurrence of the issue and increase our efficiency."

Lasse Vesterby, Stauning CEO

Results:

- **Restart of Production:**
 Rye production resumed after the first trial as the burning issue was eliminated.
- **Process Optimization:**
 After additional trials, throughput into distillation increased by 30 percentage points, resulting in:
 - Substantial cost savings by increasing alcohol yield per batch.
 - Cost avoidance by eliminating the need for CapEx solution.
- **Sustainable Solution:**
 Rye production has continued since January 2020 without recurrence of burning.



About Stauning Whisky

Started in 2005 by 9 Danish friends as a hobby. Curious about what a Danish whisky could be, this led them to create whiskies that reflect the unique landscape of Denmark's west coast. The distillery incorporates a mix of old and new world methods as all their whiskies are made with floor malted local grain and distilled in 24 small, direct fired copper pot stills. True to their vision, their whiskies capture the essence of the region, full of distinct grain aromas, wreathing fragrant smoke with notes of flowers and fruit.