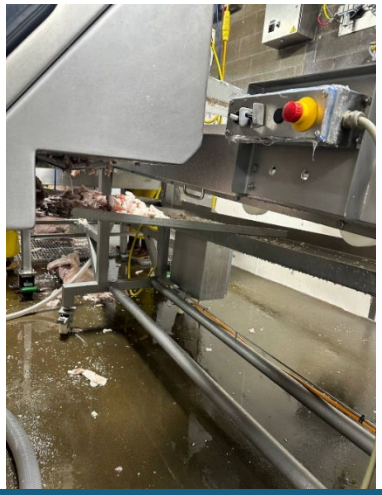
Summer Internship Program Case Study: June-August 2024

Company Profile: Daily's Premium Meats, founded in 1893 in Missoula, Montana, is renowned for its high-quality smoked and processed meats. Known as "The Bacon Specialists," the company produces a variety of pork products, including honey-cured and hickory-smoked bacon, sausage links and patties, and smoked hams. With plants in Missoula, Salt Lake City, and St. Joseph, Missouri, Daily's aims to be the premier national supplier of innovative pork products, maintaining a commitment to quality inspired by its founder's legacy.

Internship Experience

My role as an Intern involved several key projects aimed at reducing waste and improving efficiency. One of my primary tasks was to reduce wastewater usage at the cure machine. By implementing measures to optimize water usage, such as installing water-saving devices and monitoring water flow rates, we achieved a significant reduction in wastewater generation (1gal per min). Additionally, I focused on reducing waste from the slicing machine by analyzing the slicing process to identify areas where waste could be minimized. Adjustments to machine settings was suggested but there was a problem of space constraints which led to the installation of a conveyor that helps reduce energy consumption from the old weighing scale, man-power energy, and time from weighing and carrying the waste from the slicing machine to the waste inedible bin.

Another important aspect of my internship was avoiding overproduction. I developed a new standard measurement for the brine ingredients calculating how much we are saving back, which helped in reducing overproduction and associated waste. Furthermore, I worked on improving safety and reducing cycle time in the pressing room. Contacted a Fusion Tech. Company to help redesign the belly remover to reduce worker fatigue and injury, while streamlining the pressing process increased productivity.



Designed sheet to capture brine and pump back

Challenges Faced

One of the primary challenges encountered was the lack of employee engagement in waste reduction initiatives. Many workers were primarily focused on completing their tasks and showed limited attention to saving waste. Additionally, there was a noticeable level of complacency, with a prevailing attitude of "this is how it's always been done." This mindset hindered the adoption of new, more efficient practices. Furthermore, the facility, being one of the oldest in Daily's operations, had outdated infrastructure and equipment, which posed additional obstacles to implementing modern, efficient processes.

If implemented					If Not Implemented		
Recommended P2 Actions	Annual Reductions						
	One-time cost to implement ($)	Annual savings from P2 Action	Water pollution (lbs.)	Water use (gal)	Barriers to Implementation	Plans to implement within 5 years?	
Cure Recycle sheet	N/A (used materials from store)	$60,520	1,367,572	230,908	Already Implemented	Done	
Conveyor for Waste carrier	$3,150	$25,200	N/A	N/A	Shipping delay	Yes	
Belly remover remodification	TBD	$33,790	N/A	N/A	waiting on company feedback	Yes	
Filter bag housing + 20 micron filters	$2,561.6	$214,450	450,765	120,089	Already implemented	Done	

Recommended Solutions for Future Actions

To further enhance sustainability and operational efficiency, several future actions are proposed. Firstly, installing new washbasins in the restrooms that dispense water only when needed can significantly reduce water wastage. Secondly, investing in a biodigester to convert bacon waste and waste from pork bellies into value-added products can not only benefit the environment but also generate additional revenue for the company. Lastly, engaging with Seaboard Foods to ensure the supply of uniform pork bellies or considering alternative suppliers can help minimize waste and improve overall production efficiency.

Conclusion

My internship at Daily's Premium Meats provided valuable insights into the meat processing industry and the importance of sustainability. The experience has reinforced my interest in environmental and conservation biology and has equipped me with skills and knowledge that will be beneficial in my future career.

Case study by Michael Adunbi, Biological Sciences , Western Illinois University, MMEC Advisor: **Steve Dybdal**