2015 24–WEEK PROJECT

WEST LIBERTY FOODS, LLC

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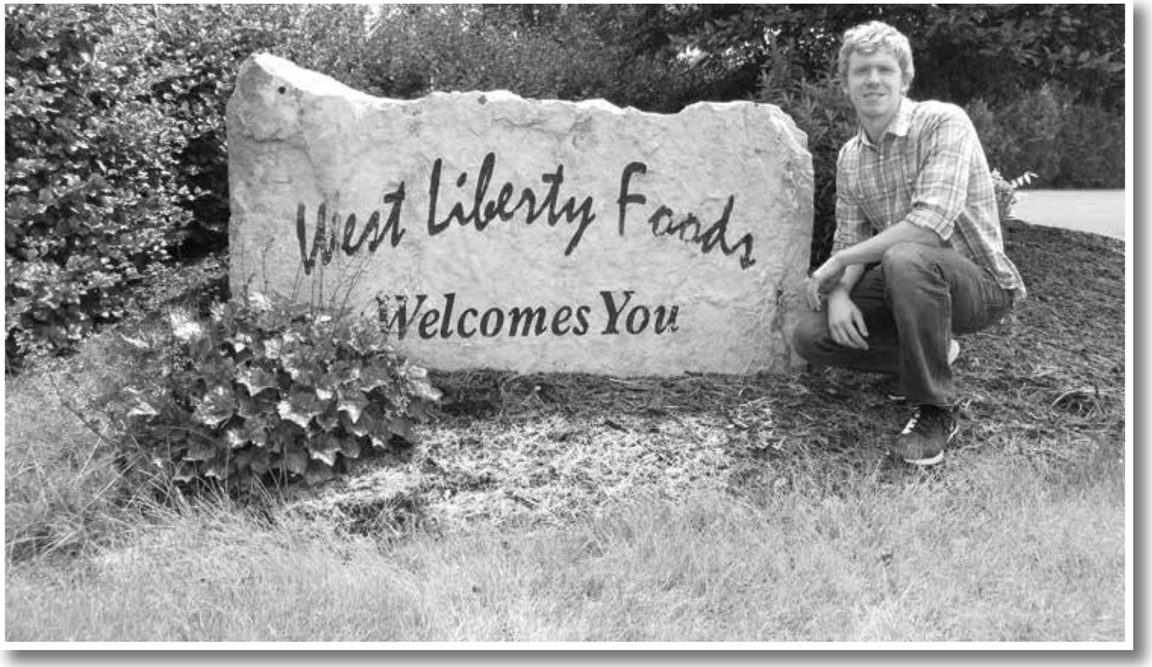
COMPANY PROFILE

West Liberty Foods is a meat processing and slicing company with four locations: West Liberty, Iowa; Mount Pleasant, Iowa; Tremonton, Utah; and Bolingbrook, Illinois. The West Liberty plant has 850 employees and is in operation 16 hours per day, 5 days per week with some weekend shifts, as required. All four plants have received ISO 14001:2004 certification. Additionally, three of the four plants have been third-party certified as "Landfill Free," meaning less than 1 percent of their waste is sent to the landfill. The newest facility in Bolingbrook is also approaching Landfill Free status.



PROJECT BACKGROUND

Currently, West Liberty Foods determines unit production cost by dividing total cost among the production lines based on the amount of product that is produced by each line. The purpose of the 24-week intern project is to create a template to determine the actual production costs and environmental and safety impacts of each production line. The template would allow West Liberty Foods to replicate the analysis and quantify the production costs and impacts of each product line.

INCENTIVES TO CHANGE

West Liberty Foods strives to be a good steward of the environment in all areas of their operations. The company has received numerous awards for outstanding environmental performance and continues to seek improvement opportunities. Gaining a better understanding of the environmental impacts of production will be useful as the company strives to maximize the efficiency in which it operates and achieve environmental excellence.

RESULTS

The production line for the cold-cut trio consists of eight distinct processes including Evisceration/Cutup, Pre-Blending, Blending, Stuffing, Cooking, Freezing, Slicing/Packaging, and Ship-Out. This line was selected as the model for the development of an assessment template that can be replicated across the remaining production lines.

Life Cycle Analysis: The intern first created a process map to identify all the equipment associated with the cold-cut-trio production line. Consumption of each resource was measured during each stage throughout the entire process. Costs considered include energy usage, water treatment and disposal, compressed air, steam, refrigeration, plant ventilation, chemicals, and labor.

The true cost and environmental impact of each resource was then applied to a life cycle assessment and cost analysis to quantify total operating costs of the process. Considerations for determining life cycle costs also included purchasing, production and disposal.

Development of Life Cycle Analysis Modeling Tool: The life-cycle data was then used to develop a calculating tool that can be replicated throughout the plant. The methods used to develop the life cycle analysis were included providing the company with a model for calculating the life-cycle costs and environmental impacts for other production lines.

Understanding the resource usage and production costs could enable the company to maximize the efficiency of their production lines and improve bottom line savings.

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
DEVELOPMENT OF LIFE CYCLE ANALYSIS MODELING TOOL	$64,000 (one time)	N/A	IMPLEMENTED