



Wholesale Produce Supply



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Organization Background

Located in Minneapolis, Wholesale Produce Supply Co. is a local produce wholesaler that employs 300 people. Founded in 1964, the company began as a produce supplier, wholesaler to wholesaler, to deliver fruits and vegetables to retailers across nine states in the Midwest and parts of Canada. With a facility of over 134,000 square feet, Wholesale Produce is a place of constant movement, with production, shipping, and sanitation operating seven days a week.



“Over the summer, I was able to experience first-hand the rewards and challenges of working at a large, high-production facility. I was able to talk to so many people about so many different opportunities, and I was truly happy to see my efforts align with my values of sustainability. I am forever grateful to MnTAP and Wholesale Produce for this experience.” ~ TL

Project Background

Wholesale Produce is continuously making investments to improve its production line while maintaining a high level of food safety and quality. Water and chemical usage are critical aspects of many production steps, whereas food waste disposal and energy efficiency are crucial to ensuring high-quality products. The goal of this project was to measure the environmental impacts of its production, and whether certain aspects could be improved.

Incentives To Change

Due to all the moving parts with 24-hour production, sanitation, and shipping, Wholesale Produce was drawn to the MnTAP intern project to better understand where it could improve as a company, particularly in the fields of

water conservation, food waste, energy efficiency and chemical use. The benefit would be to have better outcomes with its waste programs, water and chemical use, and refrigeration system, and to hopefully reduce some of its spending.

SOLUTIONS

Replace Tomato Spray Nozzles and Hoze Nozzles in Fresh Cut

Tomato processing lines spray water to rinse debris and potential chemicals off the tomatoes. The current nozzles have a high-water flow rate, which not only uses water unnecessarily, but the excess water on the tomatoes can also lead to spoilage in transit, leading to a lower-quality product. The replacement spray nozzles not only have a lower flow rate, but they also have a tighter angle to prevent spray overlap, further reducing the chances of excess moisture in shipping. Overall, this recommendation would save 513,000 gallons of water and \$6,090 a year. Additionally, current hose nozzles in fresh cut use 5.8 gpm, and new low-flow nozzles are recommended. The new nozzles offer the same range of pressures and are easy to install. This recommendation would save 323,000 gallons of water and \$3,830 annually.

“[Thomas was] a very personable person to work with, professional and polite. The potential savings he discovered in our business will be utilized for the most part. We will be implementing some of his ideas on water saving soon.”

*~ Bruce Jorgenson, VP of Operations
Wholesale Produce*

Solutions

Install Metal Guards on Flume

The flume leaks water, because as it runs, water splashes out at the ends, which not only wastes water, but it presents a health risk as well. Installing a metal guard on the end of the flume would stop most of the water from splashing out. Not only would this save roughly 4,680 gallons of water annually, which equates to \$55 of savings, but it would also improve sanitary conditions on the production floor. It would also pay for itself immediately.

Reduce Run Time of Greens and Flume Rinses

The flume and greens rinses are nozzles that spray debris from conveyor belts leading to the flume and greens packing stations, respectively. These nozzles are turned on during changeovers to prevent cross contamination and are left on for the entirety of the changeover. It is recommended to only have the nozzles run for one rotation of each conveyor belt to prevent unnecessary water consumption instead of the full duration of the changeover. This recommendation would result in a water reduction of 281,000 gallons of water per year, and savings of \$3,340 a year.

Divert Food Waste from Landfill to Organics Dumpster

Currently, all of the food waste from the splits packaging area is being sent to landfill. This is due to the close proximity of the landfill dumpster to the splits room, and

to the lack of a way to transport the food waste across the building to the organics dumpster. The installation of a large garbage bin on wheels in splits is recommended to allow for the transport of food waste to the organics dumpster.

Implement Upcycling Opportunities

Wholesale Produce is currently sending its food waste to be used as feed for hogs. However, there is potential for this food waste to be turned into consumer products for humans. This recommendation entails a collaboration with NetZro, a food valorization company, to investigate potential business opportunities to reutilize this food waste, whether in the form of veggie broth or even pharmaceuticals. This is a long-term project that could take years to implement; however, it has the potential to completely repurpose all of Wholesale Produce's food waste off the production line.



Recommendation	Annual Reduction	Annual Savings	Status
Replace Tomato Spray Nozzles	513,000 gal	\$6,090	Recommended
Replace Hose Nozzles	323,000 gal	\$3,830	Implementing
Install Metal Guards on Flume	4,680 gal	\$55	Recommended
Reduce Run Time of Greens and Flume Rinse	281,000 gal	\$3,340	Recommended
Divert Food Waste from Landfill to Organics Dumpster	700,000 lbs	\$18,000	Recommended
Implement Upcycling Opportunities	6,200,000 lbs	TBD	Investigating

MnTAP Advisor: Jon Schroeder, Sustainable Materials Management Specialist