

University of Minnesota

Madison Best

Project Abstract - Old Dutch Foods



INTERN

Madison Best

BS Bioproducts and Biosystems Engineering, University of Minnesota 2021 (expected)

PROJECT FOCUS

Water

ADVISOR

Brent Vizanko

COMPANY

Old Dutch Foods



COMPANY DESCRIPTION

Old Dutch Foods is a potato chip and snack foods manufacturer located throughout the upper Midwest and Canada. This project primarily focused on the facilities located in Roseville and St. Anthony, Minnesota which have been operational since 1968 and 1954, respectively. Potato chips in a variety of types and flavors are produced in Roseville, and corn chips and popcorn are produced at the St. Anthony site. Old Dutch

Foods takes pride in the quality and variety of products it is able to deliver to consumers.

INCENTIVE

This company is primarily motivated to reduce water consumption in order to slow a trend of increasing water use over the past 10 years and therefore also reduce the associated cost of water acquisition and wastewater disposal. Old Dutch understands the importance of making investments that will benefit not only the company but also the environment in the long run.

GENERAL APPROACH

Sources of water throughout the facility and the water recycling system were studied to determine areas for reduction. Once the major areas of water use were determined, alternative procedures and equipment were suggested. The areas with the greatest potential for improvements were found to be the potato washing system, the fryer, and the starch recovery system.

FOCUS OF RESEARCH / RECOMMENDATIONS

The recommendations for Old Dutch Foods focus on minimizing water used to wash and process both potatoes and corn while ensuring high quality chips. Maximizing the efficiency of water recycling in Roseville was another focus. Recommendations took water savings, cost, ease of implementation and necessary operator contributions into account.