



P3 Intern: Lucas Zelnio

Major: Biological Systems Engineering

Educational Institution: University of Nebraska – Lincoln



Company Background

Loveland Products was founded in 1970 and was originally a small privately-owned fertilizer plant. Loveland Products is now owned by Nutrien, a publicly-traded agricultural company. Loveland produces 32 products each year and provides farmers with fertilizer, plant nutrition and adjuvant products. Loveland is located in Fairbury, and has 40 full-time employees. This report covers Loveland's water usage as well as some assessment recommendations to help improve the facility's waste management.

Project Description

In the summer of 2020, Partners in Pollution Prevention (P3) intern Lucas Zelnio was assigned to observe material and resource waste, develop alternative options to improve sustainability, and present these recommendations.. The intern worked on this project full time for 11 weeks during the summer of 2020.

Pollution Prevention Benefits

By implementing the recommendations in the below table, electricity usage, demand, dry chemicals, and water can be reduced at Loveland Products.

Pollution Prevention Benefits

Recommendation	Annual Cost Savings	Annual Reductions
Upgrade Overhead Lighting to LED	\$27,121	117,273 kWh Usage; 32.16 kW Demand
Vacuuming Solid Waste	\$7,884	12,500 Gal Water; 3,500 lbs Chemicals
Installing Evaporator	\$25,621	753,564 Gal Trucked Water
Total Savings	\$60,626	