

GOLDEN CRISP PREMIUM FOODS, INC.



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COMPANY BACKGROUND

Golden Crisp Premium Foods, Inc. is a division of Patrick Cudahy LLC, headquartered in Milwaukee, Wisconsin. The Sioux Center, Iowa, facility is 107,000 square feet and employs 425 people. The Golden Crisp team processes fresh pork bellies into smoked, sliced, cooked and ready-to-eat bacon products for both food service and retail customers. Golden Crisp is dedicated to sustainable practices and strives for continuous improvement.

PROJECT BACKGROUND

Although notably efficient in their operations, Golden Crisp generates waste streams largely comprised of recyclable materials. Much of this waste is fibrous or plastic packaging. Employees have initiated some recycling efforts, including cardboard and plastic conveyor belts, but an employee dedicated to establishing a comprehensive recycling project is not a possibility. An intern was placed at the Golden Crisp facility through the Pollution Prevention Intern Program to research and implement a comprehensive recycling project.

INCENTIVES TO CHANGE

The goal of the waste management project at Golden Crisp was to maximize waste reduction and recycling efforts, and reduce landfilling and associated costs. Objectives include identifying the facility's waste profile and recyclable waste streams, finding local markets for these materials, reducing the amount of waste generated at the source, and minimizing the time and people-power required for handling the waste sustainably. A strong underlying goal is to positively affect behavioral changes throughout the company and grow the culture of sustainability.

RESULTS

With work shifts that differ between the two sides of production (Raw and Ready-to-Eat), a series of waste audits were conducted on a by-shift and by-production-side basis that cumulatively composed a 24-hour plant-wide waste audit. Several recycling service providers were contacted, resulting in a variety of value offered. Three refurbished balers will be purchased with the assistance of a forgivable loan from the Iowa Department of Natural Resources' Solid Waste Alternative Program. New carts and receptacles will also be purchased. This project is economically net positive with a simple payback of less than one year.



CONVENTIONAL AIR POLLUTANTS AND GREENHOUSE GASES DIVERTED IN METRIC TONS

TOTAL FOR ALL SECTORS							
CO ₂	SO ₂	CH ₄	N ₂ O	CFC	NO _x	VOC	PM ₁₀
589							



Plastics Diversion: Plastic waste comprises a substantial portion of Golden Crisp’s waste stream. Two general types were identified: stretchy and non-stretchy. The former was found to be easily recyclable when clean. However, 98 tons of one particular stretchy-plastic waste stream is consistently contaminated with meat residues, rendering it undesirable to recyclers. Rinsing this material is not economically feasible. Recycling vendors do assure, however, that because this waste is common in the meat processing industry, a multi-company collaboration on a local shred-and-rinse process is in development. Non-stretchy plastic, or film, is more difficult to recycle due to its composition of multiple, differing layers. Landfill diversion options such as waste-to-energy facilities would reduce disposal costs until a viable reuse or recycle option is available.

Fiber Diversion: Fibrous materials also comprise a substantial portion of Golden Crisp’s waste profile. Fiberboard tubes from materials that come into the plant on rolls account for more than 51 tons of waste annually. Other recyclable fibrous materials such as corrugated cardboard, brown Kraft bags and various paper materials can all be comingled through the recommended vendor.

Wood Diversion: Golden Crisp recycles 22,000 non-contracted pallets annually. However, a vendor located closer to the facility was identified that offered higher rebates and runs a landfill free operation, whereas the current vendor landfills all scrap wood. Switching vendors will generate annual savings of more than \$14,000 through revenue and reduced disposal costs.

The most substantial amount of wood wastes are hardwood chips used in the meat smoking process, at more than 42 tons per year. A partnership was initiated with a local landscaper to blend these with mulch or compost.

Rubber Diversion: More than two tons of rubber boots are used throughout the production floor annually. A local rubber-recycling vendor made an easy alternative outlet for these, as well as comingling with all other rubber-based waste from the facility, such as belts and hoses. Although no rebate was offered, avoided landfill costs will generate a cost savings for the company.

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
PLASTICS DIVERSION	\$10,300	106.8 TONS	IN PROGRESS
FIBER DIVERSION	\$12,000	107.2 TONS	IN PROGRESS
WOOD DIVERSION	\$16,700	43.8 TONS	IN PROGRESS
RUBBER DIVERSION	\$150	2.5 TONS	IMPLEMENTED

