

HY-VEE, INC.

COMPANY BACKGROUND

Hy-Vee, Inc. is a supermarket chain with over 220 stores in seven states and more than 51,000 employees. The company is the largest private employer in Iowa. It is in the top 30 supermarket chains in the country and has annual sales of more than \$5.6 billion. The main distribution center is located in Chariton, Iowa, where there are three warehouses: a dry goods warehouse (grocery), a refrigerated warehouse (perishables) and a health and beauty care warehouse (HBC) totaling about 1.2 million square feet.

CHARITON



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PROJECT BACKGROUND

The project was to develop a model for increasing the efficiency of the facility's waste reduction and handling procedures. This included collecting data regarding waste generation handling and disposal methods, reviewing options for non-recycled materials, and developing recommendations for reducing waste. The project focused on four materials: cardboard, paper, organics and plastic. The model developed may be applied to other distribution centers or even some of the Hy-Vee stores.

INCENTIVES TO CHANGE

According to its sustainability mission statement, Hy-Vee is "committed to doing business in a manner that promotes the well-being of our customers, employees, communities and the global environment". Given the company's commitment to the environment and the current costs related to waste disposal, the project was implemented to review current practices and initiate positive change.

RESULTS

Cardboard: It was found that a total of approximately 1,000 tons per year of cardboard is generated by the three warehouses and only 60 percent is being recycled. By installing baling systems in each warehouse, most of the remaining cardboard can be recovered and recycled and all cardboard will receive higher rebates. A horizontal baler is recommended for the HBC warehouse and vertical balers are recommended at both the grocery and perishables warehouses. A potential 388 tons per year can be diverted from the landfill. In the first five years, an average of \$100,275 can be saved annually and all the necessary equipment would be paid off in less than two years.

Paper: Between the offices, print shop, and warehouses, there is an estimated 200 tons per year of paper waste. Only 17 percent is being recycled. By implementing an office paper recycling program and increasing the types of paper recycled by the print shop, an estimated 40 tons per year can be diverted. In the first five years, an average of \$2,600 can be saved annually.

Organics: The perishables warehouse handles produce, dairy and frozen items. There is about 300 tons per

year of out-of-date and damaged goods that are currently sent to the landfill, at least 80 tons of which are fruits and vegetables. An in-vessel composting container that would be located on site is recommended for all the organic waste. About 250 tons per year could be composted using this equipment. Increased labor would be needed to unpack the waste to eliminate the inorganics. In the first five years, an average of \$12,785 can be saved annually and the necessary equipment would be paid off in five years.

Plastic: Stretch wrap from incoming pallets is collected in sleeves and wooden bins in the warehouses. Shopping

bags are collected in the stores and shipped back to the distribution center. These two sources of plastic account for about 440 tons per year. Plastic is mixed, baled and sold to a plastic recycling company. About 87 percent of the plastic is recycled in this way. Most of the plastic that is not recovered is due to employees throwing stretch wrap into dumpsters that are more easily accessible than the plastic collection sleeves and bins. More wooden bins in place of sleeves are recommended. If half of the plastic that is currently thrown away can be recovered in more numerous wooden bins, a disposal savings and additional rebates of \$15,485 per year can be realized.



Green House Gases Diverted
in Tons (CO2 Equivalent)

	Total for all sectors
CO2	1916
CH4	—
N2O	—
CFCS	—

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
CARDBOARD RECYCLING	\$100,275	388 TONS DIVERTED	RECOMMENDED
PAPER RECYCLING	\$2,600	40+ TONS DIVERTED	IMPLEMENTED
ORGANIC WASTE	\$12,785	252 TONS DIVERTED	RECOMMENDED
PLASTIC RECYCLING	\$15,485	27 TONS DIVERTED	RECOMMENDED