

# GREEN RETAIL DECISIONS

## Sam's Club Turns Chicken Grease from Cost to Profit

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Sam's Club is not leaving any stone -- or grease trap -- unturned as it works toward parent company Walmart's goal of zero waste by 2025.



Sam's Clubs sell a tremendous amount of rotisserie chickens, and when a group of executives asked the right questions, they discovered they could reclaim and recycle the yellow tallow grease by-product from the chickens, and turn a cost center into a profit center while benefiting the environment.

In partnership with Quest Recycling, Sam's Club is recycling more than 236,000 gallons of grease annually, selling it to manufacturing plants that convert it into bio-diesel fuel or animal feed. About 60 percent of the tallow is converted to animal feed and 40 percent into bio-diesel, a proportion solely determined by the closest manufacturing facility to a given warehouse club to keep transportation costs down.

Sam's Club found a reuse for the yellow tallow -- a direct derivative from the chickens that requires no additional treatment -- through a partnership with Quest Recycling, a relationship established through the company's Sustainable Value Network (SVN) meetings.



“We basically started digging into everything we were throwing away,” said Eric Voyles, senior manager of operational development at Sam’s Club. “One day we were standing by the rotisserie ovens and saw grease dripping down into the drain and into grease traps and started asking the questions -- Where does that go? What happens to it?”

It turns out that the grease ended up at waste water treatment plants, was sent through a digestion process and was later land-applied, said Voyles, noting that “it’s not the best solution for those materials.” Not to mention Sam’s Club had to pay the water treatment facility for this work.

What started as a pilot in one Arkansas warehouse club three years ago, has grown to 400 clubs stores today, with the balance of 200 more clubs coming on board this year, Voyles said.

#### Double-Oven Quandary

The lower-volume rotisserie chicken locations were the simplest to tackle first because they use single ovens, which had ample space underneath them to allow for gravity-fed tallow collection (see photo below).



In the interim, the company searched for a different solution for its high-volume locations with double-stack ovens with no space underneath them for grease collection. Eventually, the retailer discovered a pump solution through Goslyn Environmental Systems for its double-stack ovens, which it is currently rolling out.

In addition to the revenue generated recycling and re-selling the tallow, Sam’s Club discovered other important benefits along the way, such as plumbing maintenance cost reductions and material cost reductions for grease trap storage tanks, which now are 1,000 gallons, down from 2,500 gallons.

“Grease traps caught the grease underground and then the waste water would go down the drain,” Voyles explained. “A lot of the time, the grease would leak out of the traps and clogs plumbing lines. We were having a lot of backups before, especially in our higher volume locations. When we started testing this reclamation system, one of the side benefits we did not think about is those plumbing backups stopped. Our plumbing expense went down 20 percent in the first year in the units that switched.”

Grease trap collection costs also went down 66 percent. Sam’s Club used to pump out the traps monthly before and now only has to do its quarterly. The other upside -- using smaller underground tanks -- is “less material is used, it’s less expensive to buy and less invasive on the site dig,” Voyles noted.

Overall, the return on investment of the grease collection system installation is about 18 to 24 months, depending if the warehouse has a single or a double-stack oven, Voyles said.

Once all the club stores are on board, Sam’s Club will be reclaiming and recycling upwards of 500,000 gallons of tallow annually, if not more.

Asked if the program would extend to Walmart stores, Voyles said their rotisserie units are a bit different and they currently use another method, and collect fryer grease, which has different recycling and reuse applications. “ I know they are looking at solutions for their rotisseries, but I don’t know what their plans are for the future.”

Voyles credits the company’s SVN with helping it find efficient solutions to waste and other sustainability issues. Supplier partners are encouraged to come to the SVN quarterly meetings. “Some companies come once a year and others come to every meeting,” Voyles said. “The ones that participate consistently tend to be the ones that are able to help us find new approaches and new solutions to problems.”



***GRD Views:** Above all else, this is another great example of where associate engagement in sustainability can lead to innovation with multifaceted benefits. Walmart’s SVN model is proving to be an effective vehicle for delivering associate and vendor engagement in sustainability throughout the company.-- John Failla for Green Retail Decisions*

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