

TENNESSEE GREEN STAR PARTNERSHIP MEMBER HIGHLIGHT



Frito Lay – Fayetteville, TN



By: Vaughn Cassidy

Frito-Lay in Fayetteville, TN, makes many well-known snack foods, such as Lay's, Ruffles, Doritos, Tostitos, and Cheetos. As a wholly owned subsidiary of PepsiCo, Frito-Lay production at the Fayetteville, TN, location contributes to PepsiCo's status as the largest globally distributed snack food company in the world. Beyond being a leading producer of snack foods, the company has made a significant commitment to sustainability and their community.

Frito-Lay Fayetteville is a 3rd party certified zero-waste-to-landfill facility. Over 120 trucks of various sizes, loaded with Frito-Lay product, come in and out of the facility every day. Over 2 million pounds of snack food are produced each week. This makes being a zero waste facility even more impressive, since food processing can generate significant amounts of discarded material. One of the many potential wastes generated by food production is process water. Frito-Lay washes potatoes and cooked corn as they come in to the facility, which produces over 3 million gallons of process water per week. Most facilities treat process water onsite and then deliver it to the local public wastewater facility to be further processed before being released back to the environment. However, the Fayetteville Frito-Lay facility has a far more efficient use for that water.

"We operate a 1,100 acre farm nearly three miles away," said Brian Hunt, the Environmental Health and Safety Manager. "Our process water is used to grow hay, which is harvested for livestock. We partner with local farmers but we also have several Frito-Lay employees working the farm as well." The process water contains an enormous amount of potato starch that is recovered and packaged prior to the water being pumped to the farm. Frito-Lay recovers and packages over 50,000 pounds of potato starch per week to sell to secondary markets. The farm also benefits from another byproduct: potato peelings, which contribute to the production of high quality compost.

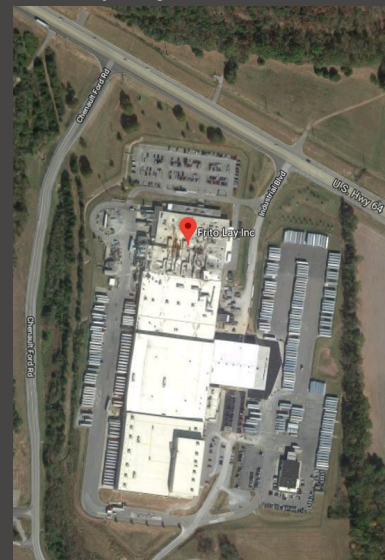
Although food waste is a primary concern, Frito-Lay also has more traditional waste streams, like cardboard, plastics and metals. Handling of incoming material and outgoing product is a monumental task at a facility like Frito-Lay in Fayetteville. "All of our finished product goes out in cardboard boxes, and incoming supplies to make and package our product is mostly in cardboard boxes," said Adam Wright, Environmental Health and Safety Coordinator with the Fayetteville plant. "We pride ourselves on reusing the boxes to the maximum degree possible." Ideally, a cardboard box for Frito-Lay may be reused 8 times if the integrity and general aesthetics of the box are maintained.

FEATURED THIS MONTH:

- Established 1997
- Employs 1,000
- Member since 2004

INTERESTING FACTS

- Operates their own 1,100 acre farm.
- Reuses cardboard boxes up to 8 times.
- World's largest globally distributed snack food company.



We used to have employees grade and sort the used boxes, and that worked fairly well,” said Wright, “but people get fatigued with the work, so we developed a pilot project using a robot sorting system.” The automated sorter is a unique system designed especially for Frito-Lay and is still in the R&D phase of development. However, it has resulted in a tremendous increase in the amount of cardboard boxes that can be reused for shipping.

Frito-Lay in Fayetteville has now reduced its landfill footprint to less than 1% through several other projects as well including: rebuilding pallets rather than disposing of them, recycling plastic film and cardboard cores from the used rolls of plastic wrap and using an oil and water separator to recover and then sell oil as a byproduct.

The level of constant production at Frito-Lay has seasonal ups and downs that make successful energy efficiency projects a challenge. Jenny Kubisch, Maintenance Resource and Project Engineer, is not afraid of the challenge. “Our exterior lighting project last year will save us approximately 540,000 kWh annually.” The upgrade to LEDs for all exterior lighting was a relatively easy decision. Kubisch’s next project is a proposed heat recovery system from the fryers and ovens to more efficiently heat the facility in winter.

Frito-Lay isn’t just focused on efficiently producing snack food. The employees are involved in the community as well. Recently, Brian Hunt took 14 of his fellow managers down the Elk River for the annual Elk River Clean Up Event. The team cleaned up a five mile stretch of the river that wraps around their farm; a total of 300 pounds of trash was removed, including four tires. Frito-Lay’s commitment to sustainability within the physical environment and the community is clear, and we are proud to call them a Tennessee Green Star Partner.

The [Tennessee Materials Marketplace](#) is a collaboration between industries, facilitated by an interactive online materials exchange, to recycle, repurpose, and return material discards back to Tennessee’s economy.



“Partners like Frito-Lay are consistently leading the effort for a sustainable Tennessee through innovation, vision and determination.” – Kendra Abkowitz, Director of the Office of Policy and Sustainable Practices.

The [Tennessee Green Star Partnership](#) is a voluntary environmental leadership program designed to recognize industries in the state that are committed to sustainable practices. If you are interested in joining Frito Lay of Fayetteville and other sustainable industries in Tennessee by becoming a member, please contact us.