

THE RECYCLER

Newsletter of Recycle Rutherford, Murfreesboro, Tennessee Winter/Spring 2017

General Mills Money-Saving Efforts Reap Multiple Benefits

A long-term sustainability program at General Mills that put them in the forefront of manufacturing started as an effort to save money on utility bills at a cereal plant in Georgia, Leslie Marshall, energy engineer with the local General Mills plant, told the audience at Recycle Rutherford's October 2016 meeting. The program expanded to the Murfreesboro facility after a few years. "Initially, they put meters everywhere so that they could count every light, every motor, every operation," Marshall explained. "The goal was to see what consumed the most energy; the focus was on reduction. It looked good on paper." However, the very expensive program didn't really result in cost reduction.

Developing a long-term strategy based on environmental responsibility and sustainability resulted in the success sought earlier but in a more comprehensive and far-reaching way. "If you spend money but don't do wise things, you're not going to succeed," summed up Marshall in explaining that General Mills announced a strategy to tackle climate change by reducing carbon dioxide admissions; the strategy included employee behavioral changes, optimization of machine capabilities, and seeking maximum efficiency.

In 2013-2014, the Murfreesboro plant started making Greek yogurt, a very popular product but one that is also very wasteful. "Two-thirds of the milk used becomes waste," Marshall said. "I don't think we really understood the effect of the move. We couldn't process the waste whey so we collected it in tanks, which were then emptied into trucks—15 per day!"

Marshall went on to explain that they had a waste water treatment plant which used an aerobic digester, a specific type of organism to eat food solids, but 90,000 gallons was too much for their process to handle. "We had to plow it into the ground! We did that for more than a year," the speaker reflected, adding that the cost was more than a million dollars.

In 2014, General Mills invested in an anaerobic system in which bacteria produce methane gas as they digest milk solids. Marshall said they purchased other equipment which

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Postcard Contest Winners Announced



Winner and runner-up in the elementary school category

For the second year, Recycle Rutherford invited local students to enter a contest by submitting 8.5 by 5.5 inch postcards that promote recycling. The 2016 theme was America Recycles Day, which is sponsored by Keep America Beautiful. Winners from just over 100 entries representing several schools were announced at the October meeting. Recycle Rutherford thanks all those who participated.

There were three categories:

Primary—Grades K-2 (about 20 entries)
Winner: Asher Green (1st grade) Providence Christian Academy; Melissa Posch, teacher

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Postcard Contest Winners 2016

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Honorable Mention: Tessa James (2nd grade)
Providence Christian Academy; Katie Horn,
teacher

Elementary—Grades 3-5 (about 60 entries)
Winner: Katie Ledford (5th grade) Providence
Christian Academy; Melissa Hutson, teacher

Honorable Mention: Breannah Russell (3rd grade)
Providence Christian Academy; Renee Davis,
teacher

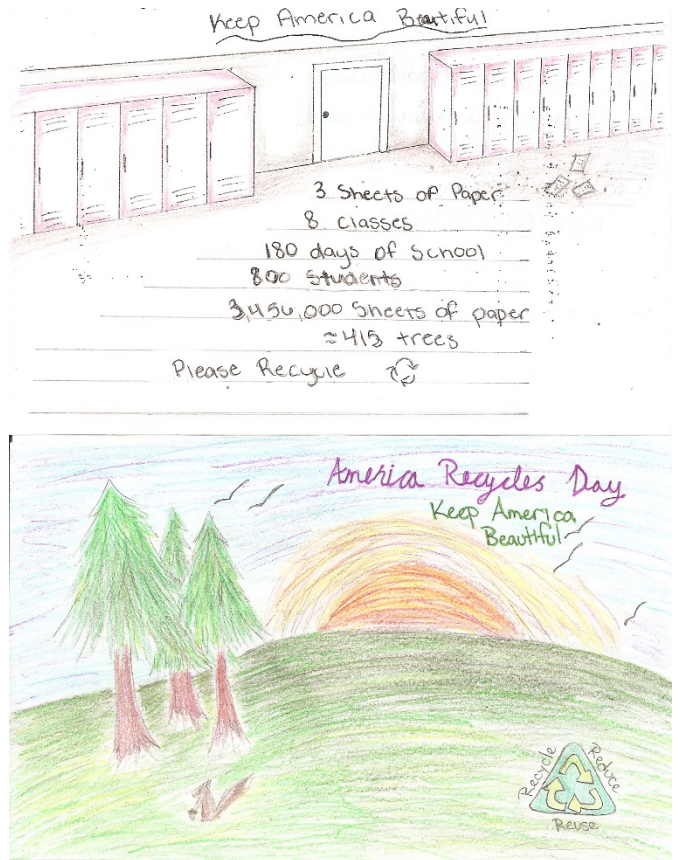
Middle School—Grades 6-8 (about 20 entries)
Winner: Jacob Jones (8th grade) Stewart's Creek
Middle; Tabitha Herrin, teacher

Honorable Mention: Kimberly Morrow (8th grade)
Rockvale Middle School; David Landry, teacher

Teacher Participation Drawing (54 entries)
--Rae Ellyn Kelley, Barfield Elementary, librarian
--Rachel Everett, Scales Elementary, 5th grade
teacher



Winner and runner-up in the primary school category



Winner and runner-up in the middle school category

--Jamie Starling, David Youree Elementary, 3rd
grade teacher
--Xan Lasco, Scales Elementary, 6th grade teacher

For the competition, students created postcards using any number of artistic mediums, including markers, paint, collage, digital media, and written words. Winners were decided by a panel of judges, including three members of Recycle Rutherford's Board, local artist Art Growden, and Mimi Keisling, Rutherford County environmental education coordinator.

Winning entries are used during the year on promotional materials. The postcard contest began in 2015 as a replacement for the phonebook recycling contest sponsored by the organization for many years to raise awareness among students of the importance of recycling. It made sense to launch the postcard contest with phone book use and contest participants in decline.

There are no plans to revive a phonebook recycling competition, but Recycle Rutherford urges that people continue to recycle used phonebooks. Those who want to learn more about recycling in Rutherford County should visit the website at www.recyclerutherford.org.

General Mills Program Reaps Multiple Benefits

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allowed them to flare—burn off—the methane. Then in 2015, the company installed a biogas generator that uses methane, allowing them to generate about 10 percent of the electricity they need to operate annually or 700,000 to 800,000 kilowatt hours. The waste heat recovered is used to produce hot water, for which there is extensive need for cleaning equipment.

Stressing the importance of overall impact, Marshall said that their efforts are not all about money. Benefits include

- Taking 15 trucks a day off the street
- Saving 25,000 gallons of diesel fuel
- Returning 35 million gallons of water to the watershed
- Returning 2,000 acres of farmland to agricultural use
- Reducing by 10,000 tons CO2 emissions, assuming that the electricity replaced TVA coal generated power

The nature of industrial food production is to generate large amounts of food waste; Marshall explained that they try to recycle everything—examples include ingredient barrels, pallets, batteries, plastics, and cardboard. They sell boxes for reuse. They make available excess or unusable dough products as food for farm animals and donate many products to food banks. “Yoplait makes about 80 cups of yogurt a minute,” the speaker said, adding that a slightly crooked label or other imperfection will result in the product being pulled.

Marshall said that the Murfreesboro facility spends about \$12 million annually on utilities.

Through methane-generated electricity and more efficiency, they have reduced energy use by 12 percent. Examples of efficiency include reducing maintenance costs, eliminating compressed air and steam leaks, and adding insulation to reduce heat loss.

“The big focus on behavior change is to train employees to be conscious of the impact of their work practices. We will never make progress if we don’t change what we do,” Marshall concluded.

--Suma Clark

Food Waste Is Serious Problem

Do you buy more food than you can eat before it goes bad? According to a recent *Parade* magazine, the U.S. Department of Agriculture (USDA) estimates that up to 40 percent of our food goes to waste, and almost one-third of that happens at the retail and consumer level. The USDA and Environmental Protection Agency have a goal of cutting food waste in half by 2030.

Several retailers, including Walmart, are promoting “ugly” (bruised or oddly shaped) fruits and vegetables that traditionally have ended up in landfills. ShopRite and other retailers save food from going to landfills by donating to food banks and also composting. Worldwatch Institute recognizes Safeway and Vons grocery chains for their donations of extra food to Feeding America. Food producers such as General Mills (see story) donate unsellable but nutritious products.

Learn more about what you can do as an individual by going to the following websites:

<https://www.epa.gov/recycle/reducing-wasted-food-home>

<http://www.feedamericafirst.com/>

<http://www.worldwatch.org/five-simple-things-consumers-can-do-prevent-food-waste-0>

Recycle Rutherford Membership Form

I enclose my annual dues to support Recycle Rutherford and receive the newsletter.

\$25.00 supporter \$15.00 student \$100.00 patron

I am contributing \$_____ in addition to my dues.

PLEASE PRINT:

name _____ amount enclosed _____

address _____

city, state, zip _____

telephone: day _____; evening _____

e-mail _____; volunteer interest _____

Please make check payable and mail to Recycle Rutherford, P.O. Box 1804, Murfreesboro, TN 37133-1804

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Dates to Remember

25th Annual Green Tie Affair—Tennessee Environmental Council:

Friday, April 21, 6 – 9:30 p.m.
Green Door Gourmet, 7007 River Road Pike,
Nashville;
Live bluegrass music, auction, Sustainable
Tennessee Award winners. Tickets \$75;
volunteer for two hours and receive free ticket
<https://app.etapestry.com/onlineforms/TennesseeEnvironmentalCouncil/GTA2017Feb.html>

Earth Day 2017—Murfreesboro:

Saturday, April 22, 2017, 10 a.m. – 2 p.m.
Public Square, Downtown Murfreesboro
**Theme “Bees: Nothing Would Sting More
Than Bee Extinction”**

Spring Annual Meeting—Recycle Rutherford:

Monday, April 24, 2017, 7:00 p.m.
Rutherford County Courthouse Courtroom
No election since all officers continue in office.
**Speaker: Janie Becker; her topic:
“Should We Be Afraid of Those Exotic
Invaders?”**

Household Hazardous Waste Collection

Saturday, May 13, 2017, 8 a.m. – 12 p.m.
Murfreesboro City Solid Waste Department
4765 Florence Road, Murfreesboro

This newsletter is printed on recycled paper.



P.O. Box 1804
Murfreesboro, TN 37133-1804

2016-18 Officers and Board

Recycle Rutherford holds elections each April at the annual meeting; in general, officers and part of the board are elected in even years for two-year terms, and approximately half the board is elected in uneven years, providing for staggered terms.

The officers are listed below with the board members, who are elected each April and serve staggered terms. The date indicates when the term of each ends. The board meets monthly on first Mondays at 6:15 p.m. at First Presbyterian Church, 210 N. Spring Street.

Rachel Cornett, president
Bonnie Black, vice president
Suma Clark, secretary
Rick Racker, treasurer
Glenn Himebaugh, past president

Board Members:

Gib Backlund, 2018
Linda Hardyman, 2018

**Reminder: To renew your membership,
please see the form on page 3.
Dues are only \$25 per year.
We don't want to lose you!**

**For more information, go to
www.recyclerutherford.org**

Like us on Facebook!