



REFRESH NEBRASKA

Stop the Rot

4th Edition, Fall 2018

Solutions in Food Waste Prevention

In the last issue of ReFresh, we found that while food waste occurs from farm to fork, it increases dramatically among consumer facing businesses and in the home. Although research into the causes of food waste is limited, and studies analyze loss in different ways, the evidence suggests that around 80 percent of all food waste occurs in these last two links of the food supply chain. Producers and manufacturers are also more efficient at recovering loss, and since each step in the process adds to the environmental and monetary cost of putting food on the table, waste becomes more expensive the closer it gets to consumers. In fact, more than 90 percent of lost value is estimated to occur in these last two groups as well.

While the majority of farm waste is essentially composted, and production waste finds its way into animal feed, solutions do exist further up the Food Recovery Hierarchy. That said, if we're ever to reach the goal set by the federal government of a 50 percent reduction in food waste by 2030, the majority of efforts must focus on consumers and the businesses that feed them - grocery stores, restaurants, cafeterias, and the like. Here again, the broader findings of these studies generally agree on the steps needed to get there, but only the latest - ReFED's 2016 Roadmap To Reduce U.S. Food Waste - actually tries to quantify impact. "A collaboration of over 30 business, nonprofit, foundation, and government leaders committed to

reducing food waste in the United States", the study "builds on previous work, and prioritizes solutions based on cost, diversion potential, and applicability across the food chain". In all, 12 broad prevention solutions were identified, with the top six accounting for nearly 85% of estimated diversion potential. Following is a brief description of the most beneficial.

6. Smaller Plates

Regardless of plate size, studies have found that a 70% fill rate is the most "visually pleasing" to consumers. When applied to self-serve buffet style dining, research suggests that the smaller the plate, the less food consumers take, and inevitably waste per trip. According to ReFED, this strategy alone accounts for a diversion potential of some 178K tons with an economic value of \$382 million.

5. Packaging Adjustments

Two words - hotdogs and buns. The purchase of both readily demonstrates how packaging can lead to waste no matter how hard one tries. And the longing it induces for matched quantities illustrates how effective packaging can ensure consumption. A similar conundrum exists for penny pinchers looking for that per unit savings when buying in bulk - it's only cheaper when none of it goes to waste. Either way, according to ReFED, both types of packaging adjustment represent a diversion potential of some 208K tons with an economic value of \$715 million.

4. Imperfect Produce

Often referred to as "Ugly" fruits and vegetables, imperfect produce are those items that don't fit cosmetic standards associated with robust sales, so are routinely discarded at each stop along the food chain - exceptions like "baby carrots" notwithstanding. As we saw in our last issue, retailers like HyVee, in partnership with farmers and wholesalers, can offer such items at a discount rate. Restaurants and cafeterias can get into the act by working them into recipes like soups where presentation is less of a concern. And given that "ugly" has nothing to do with nutritional value, all of the above can donate to soup kitchens and food pantries. In all, ReFED estimates that improvements in the handling of imperfect produce can have an annual diversion potential of some 266K tons annually with an economic value of \$277 million.

3. Standardized Date Labeling

Terms like "sell by", "best by", and "use by" have little or nothing to do with product safety, but instead denote the date through which manufacturers guarantee perceived freshness. Unfortunately, some 90 percent of consumers and retailers misunderstand the difference, tossing many such items as soon as they reach the date. To make matters worse, nineteen states actually restrict the sale of items after "expiration", causing stores to remove them from shelves days before it even arrives. While retailers and manufacturers have little or no incentive to

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either eliminate or standardize date labeling, the cost of doing so would be negligible, and the potential impact significant. According to ReFED's Roadmap, standardized labeling alone has a yearly diversion potential of some 398K ton per year, with an economic value of \$1.8 billion.

2. Waste Tracking & Analytics

Back in March, the 2nd Issue of ReFresh focused on the Food Waste Challenge - a six week food waste assessment designed by EPA for use in the home, but which can easily be scaled for use in restaurants and cafeterias of all sizes. That said, there are several computer and web based tools available to consumer facing businesses that are far more sophisticated than the lowly pen and paper. While requiring an upfront investment, companies that actually follow through and make changes recommended by such tools, find that increased profit margins generated by lower overall waste levels, ensures that the investment was a good one. Indeed, according to the ReFED study, waste tracking and analytics represent a 571K ton diversion potential with an economic value of some \$1.3 billion.

1. Consumer Education Campaigns

Over the last 40 years, while all other categories of Municipal Solid Waste (MSW) have decreased, many are surprised to discover that food waste in the United States has actually doubled. While taking great pains to at least recycle, if not reduce or reuse other material in our daily lives, increases in food waste have largely gone unnoticed. Poor planning, apathy and a lack of awareness have all contributed to a problem that seems to have reached crisis level all along the food supply chain. Simply put, folks won't fix what they don't know is broken, so it should come as no surprise to learn that the number one prevention solution according to ReFED is Consumer Education. Campaigns like EPA's Food Waste Challenge or SaveTheFood, developed by NRDC and the AD Council, engage consumers on a national level, dramatically increasing visibility of the issue. They also provide tools that can be utilized by nonprofits and municipalities to help educate on a local, state and regional level. In all, ReFED's Roadmap estimates that education has a 584K ton diversion potential with an economic value of some \$2.65 billion.

That's a lot to digest to be sure, but also exceedingly practical as none of the solutions described require extraordinary efforts to achieve. In fact when you think about it, there's a nugget of clean-plate-club wisdom to be found in each and every one. If interested in reading ReFED's Roadmap for yourself, go to www.refed.com/download for more information.



Composting A Full Building Success At Pound Middle School

by Anica Brown

Pound Middle School won this year's Keep Nebraska Beautiful School Recycling Award

Come into any school lunchroom and you will find students chatting loudly, involved in conversations with friends, laughing, and hustling to eat up their lunch in time to hurry out for a quick recess break. This is pretty ordinary for most lunchrooms, but what is changing is the way we dispose of our lunch waste when we are done eating. We don't throw the leftovers in the garbage can anymore, at least not most of them. Composting is the norm now. We are doing our part for the health of our environment and we are seeing a positive change in doing so.

At the end of lunch time, students line up along the compost and garbage line with trays sorted into small piles of milk cartons to be recycled, food and composting materials dumped into the green composting bin, minimal garbage to be tossed, and a recycling box for plastic baggies. Students are actively involved in composting to save landfill space, and in the long term, understand that our leftover food, compostable containers, and paper products will eventually become good soil for others to use.

For the past three years, Pound Middle School has been involved in composting our lunches, and now we compost and recycle the rest of our building throughout. We could only do this with the help of everyone on our staff, administration, custodians, office and cafeteria, teachers, paras, parents, and students. It is a whole Pound effort. All classroom containers were evaluated and relocated or removed if necessary. Staff were asked to have complete waste stations that included a blue 28 qt bin for recycling, a brown 28 qt bin for compost, and a small gray hanging side bin that is for landfill items. This station encourages students and staff to examine their waste streams and strive to recycle and compost more than they landfill. Large waste containers in restrooms were relabeled for paper towels only.

As a result, our school diverted 78% of waste from the landfill during the 2017-2018 school year. This is over a 20% increase from our diversion the previous school year, and over 60% increase from our pre-composting numbers. Our school composted 27,409 lbs of material, recycled 4,364 lbs of cartons, and 20,800 lbs of paper, cardboard, cans, bottles, newspaper, and tin. Whole school composting has been established as a permanent part of school infrastructure and standard procedures, fostering a culture of environmental stewardship among our students, staff and community here at Pound Middle School.

REFRESH RECIPES

Shopping your fridge first is an important strategy for reducing food waste. Here's a recipe idea that will help you use what you have before buying more!

SCRAPS FALAFEL

Make this forgiving falafel recipe with all sorts of pantry leftovers - mashed potatoes, wrinkly herbs and half-used onions are all fair (and delicious) game.

SERVINGS:
15

USES UP:
Onions, Herbs,
Veggie Pulp, Potatoes

This falafel recipe lets you get creative with whatever's on hand. The measurements don't need to be exact, and you can always spice it up with a 1/4 teaspoon of cayenne pepper, cumin, and cardamom. Serve the falafel alongside a creamy dressing like horseradish buttermilk, or on its own with tangy pickles.

INGREDIENTS:

1 cup chickpeas or 2 cups mashed potato
1 cup wrinkled herbs, finely chopped
(parsley, celery leaves, cilantro)
1/2 wrinkled onion, chopped
1 tsp salt
1/2 tsp baking powder

1 egg (optional)
2 Tbsp chopped nuts (optional)
1 cup flour (use leftover vegetable
pulp from juicing as a gluten-free
substitute: 3/4 cup pulp to 1/4 cup
regular flour)

DIRECTIONS:

Soak chickpeas overnight in water, then drain. Blend with the salt and herbs until coarsely blended (not pureed). Add baking powder and vegetable pulp or regular flour. Mix in the egg. The dough should form a ball and not stick in your hands. Refrigerate several hours. When ready to cook, form into balls about 1 1/2" - 2" wide. Heat oil in wok or saute pan and test 1 falafel ball, browning 2 minutes per side. If it doesn't hold together, add a little more flour to the batter. Fry in batches of six. Remove, drain oil and serve warm.

CREDIT: From "Eat it Up!" by Sherri Brooks Vinton, Da Capo Lifelong Books, 2016

For those of you dedicated to the old school card file recipe box, here's the recipe in a 3"x5" format to print

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SAVETHEFOOD.COM

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FOOD STORAGE TIPS FROM SAVETHEFOOD.COM

FRUITS

GRAPES

REFRIGERATE IT: Yes AT FRESHEST: 2 weeks

OPTIMAL STORAGE: Do not wash until ready to use. Keep unwashed bunches (grapes still on their stems) in a paper or breathable bag on a shelf in the refrigerator.

FREEZING: Wash, dry, place separated on a baking sheet and freeze, then transfer into an airtight container. A single grape cluster can also be frozen whole.

USE IT UP/REVIVAL: If a small amount of grapes in a container show mold or are wrinkled, do not discard the entire container. Pick through and throw away those that are obviously bad. Do this as soon as possible to prevent mold from spreading.

The powdery white coating on grapes is called bloom and is a naturally occurring substance that protects grapes from moisture loss and decay. Frozen grapes are their own mini-sorbet bites. This is a fantastic thing to do with grapes that you might not get around to eating in time.

MELONS

REFRIGERATE IT: After ripe AT FRESHEST: Whole, 5 to 15 days, depending on ripeness; cut, 3 to 5 days in refrigerator

OPTIMAL STORAGE: If unripe, store whole in a cool, dry place out of sunlight. Once ripe, store on a shelf in the refrigerator. Refrigerate cut melon, regardless of ripeness, wrapped or in airtight container. If possible, do not remove the seeds from the remaining sections of cut melon, as they keep the flesh from drying out. For watermelons, avoid storing them near apples, bananas, peaches, and avocados unless trying to ripen quickly.

FREEZING: Remove the rind and cube the flesh. Place separate on a baking sheet and freeze, then transfer to an airtight container. Frozen melons are best used straight from the freezer in smoothies, margaritas, or other blended drinks.

USE IT UP/REVIVAL: Melons often have discoloration or deformed husks/rinds. This is no reason to discard them—check the inside before throwing a melon away. Melons that have spoiled often have an unpleasant odor and are overly soft.

The white part of watermelon rind can be pickled—an old favorite in the Southern United States. Watermelon seeds, even the black ones, are edible and can be toasted as you would pumpkin seeds for a nutritious snack. Melons should be washed before eating, even though the rind is not eaten.

To download the entire Food Storage Guide, go to www.savethefood.com/food-storage

QUICK TRICKS

Food tossed is money lost. Refresh still edible foods, re-purpose leftovers and reuse or “recycle” them in new ways.

VEGETABLES

1. Easily remove just the membrane part from peppers and the seeds from cucumbers and zucchini by using a melon baller or measuring spoon when preparing these foods to eat alone or use in recipes.
2. Freeze chopped fresh herbs in olive oil for a quick delicious addition to sauces and pastas.
3. To revive leftover french fries, heat a small amount of oil in a heavy skillet over medium heat. Spread fries in a single layer, leaving plenty of space around the fries. Otherwise they'll steam instead of saute. Turn until all sides are evenly heated and crisp. Place on a paper towel to drain extra fat.
4. Saute chopped cabbage and onion (about 1/2 head cabbage and 1/2 onion) in olive or canola oil in a skillet over medium heat until tender. Season as desired with salt & pepper.

For more ideas on how to makeover your leftovers, go to: food.unl.edu/cook-it-quick-documents/makeover-your-leftovers.pdf

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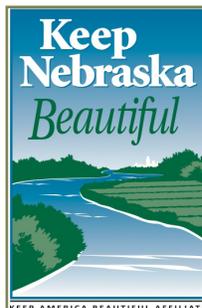
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NEBRASKA EXTENSION



**TRASHING ONE EGG WASTES
55 GALLONS OF WATER**

COOK IT, STORE IT, SHARE IT,
JUST DON'T WASTE IT.

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