The U.S. Food Waste Challenge

USDA

Team Up: Best Practices for Maximizing Your Food Resources

Agenda

Welcome Remarks
Dr. Eileen Ferruggiaro – USDA Food and Nutrition Service

Moderator
Jimmy Nguyen – USDA Food and Nutrition Service

- **Background of Food Waste Challenge**
  - Jimmy Nguyen– USDA
- **Reduce**
  - Dr. Jeannie Sneed, Center for Excellence for Food Safety in CNP
  - Pamela Quisenberry, National Food Service Management Institute
  - Dr. Adam Brumberg– Smarter Lunchrooms Movement
- **Recover**
  - Dr. Kathleen Weil – The Food Bus
- **Recycle**
  - Andrew Cassily, Harford County (MD) Public Schools
  - Justen Garrity, Veteran Compost
- **Q & A**

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What is the U.S. Food Waste Challenge?

In 2013, the USDA & EPA launched the U.S. Food Waste Challenge, calling on farms, supermarkets, restaurants, and schools to join efforts to reduce, recover, and recycle food waste.

In Tennessee, tons of perfectly good green beans are discarded because they are too short or too long for standard packaging. Here Society of St. Andrew volunteers bag them up for donation.

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Goals of the U.S. Food Waste Challenge

- Disseminate information about the best practices to reduce, recover, and recycle food waste
- Stimulate the development of more of these practices across the entire U.S. food chain
- Provide a snapshot of the country's commitment to—and successes in—reducing, recovering, and recycling food waste

1,800 participants by January 2015

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Joining the U.S. Food Waste Challenge

Two ways to join

- Either complete the activity form on the USDA U.S. Food Waste Challenge website (more about this later)

- Or, join the *EPA Food Recovery Challenge* and benefit from EPA's technical assistance to set specific quantitative food-waste goals and attain them

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Wasted Food is a Big Problem

31% or **133 billion** pounds of food from U.S. retail food stores, restaurants, and homes goes uneaten.

All of the resources that went into producing that wasted food – including the land, labor, water, pesticides, and fertilizers – could have been saved or gone to uses of higher value to society.

Americans produce enough food waste to fill 44 Sears Towers every year.

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Why Fight Food Waste

Mitigate Climate Change & Conserve Resources

Reduce Hunger

Save Money

Mitigate Climate Change & Conserve Resources

- Food is the single largest component of municipal solid waste going to landfills *(U.S. EPA)*
- As food rots in landfills, it generates methane, a greenhouse gas over 20 times more potent than carbon dioxide *(U.S. EPA)*
- Landfills are the third largest source of methane in the U.S. *(U.S. EPA)*

Reduce Hunger……

14.3% of American households were food insecure in 2013.

We can help recover wholesome unsold food from our supermarkets, restaurants, and cafeterias and donate it to food pantries & soup kitchens.

Chef Taylor Johnson of TASTE restaurant donates food from his cafeteria to a local food pantry.

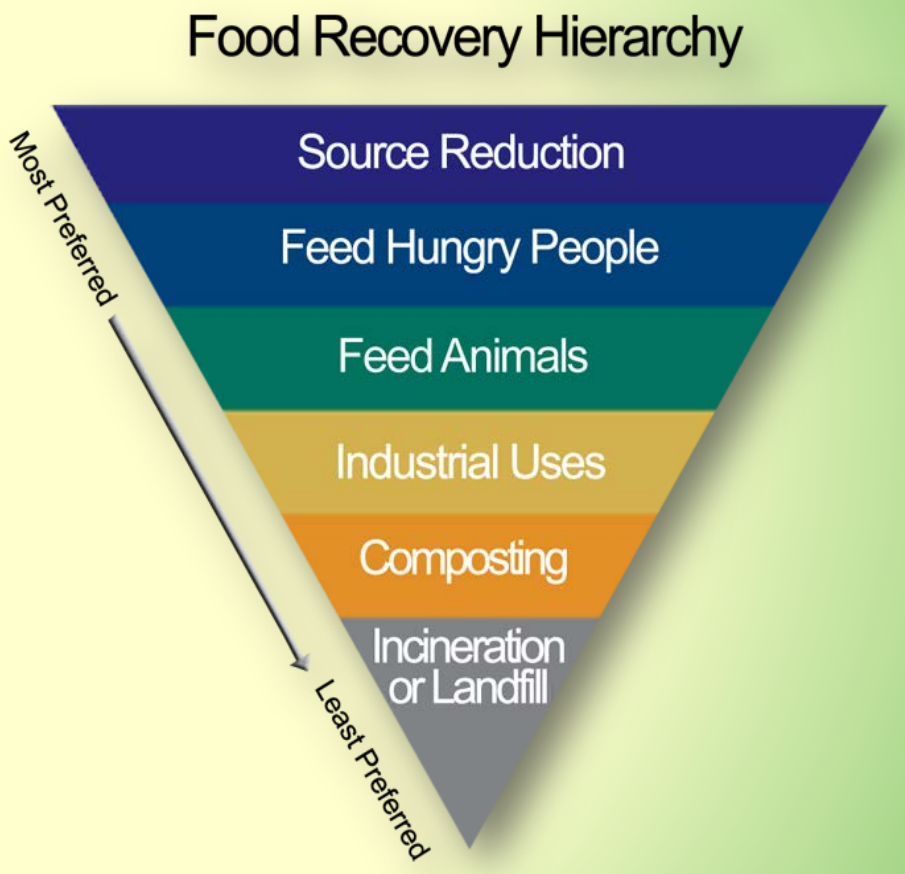
Save Money……

- Food donations are offered liability protection from the Bill Emerson Good Samaritan Act and allowed for Child Nutrition Programs
- Planning menu quantities to purchase accurately and using food safety recommendations for storage and service can help school programs save money.

- In homes, the amount of uneaten food in homes and restaurants was valued at $371 per person.
  - That's more than an average month of food expenditures and;
  - Three times average SNAP benefits per person

What Can Schools Do?

- Reduce food waste through improved ordering, prepping, & storage
- Recover wholesome, uneaten food and donate it to feed people in need
- Recycle discarded food for other uses including animal feed, compost, and energy generation



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Reduce… by encouraging consumption

- **Dr. Adam Brumberg– Smarter Lunchrooms Movement - Cornell Center for Behavioral Economics in Child Nutrition Programs**

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Reduce ……

Front of the House

The Smarter Lunchrooms Movement at Cornell University researches the best ways school lunchrooms can guide students to make smarter, healthier choices.

Some of their simple tips and tricks include:

- Introducing a “healthy options only” convenience line increased consumption of those nutritious items by 35%

- Give students a choice - Students given a choice between carrots and celery ate 91% of the vegetable taken vs. 69% when carrots alone were offered

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smarterlunchrooms.org

Reduce ……

Front of the House

How Behavioral Economics Helps:
Economics & Psychology

- **Reactance**
  - Rebelling against a threat to freedom
  - “Don’t press this button”

- **Attribution**
  - It was my choice, I will repeat it in the future
  - Choosing between celery and carrots

Reduce ……

The Name Game

Front of the House

- **Use cool or appealing labels to describe foods**
  - Carrots → X-Ray Vision Carrots → *Doubled* the consumption of carrots
  - Bean Burrito → Big Bad Bean Burrito → Increased burrito consumption by *more than 40%!* (It could have been more, but they *sold out* in the second of three lunch periods!)

Why not "Extreme Yogurt", "Mega-Milk" "Champion Cheese" & "High Flyin' Flat Bread"

Reduce .....

Front of the House

Enhance Taste Expectations

If it *looks* delicious and *sounds* delicious... it must ***be*** delicious!

- * *Food tastes how we **expect** it to taste* – which is why it's such a shame that people are taught to think healthy foods are yucky!
- * Name, appearance, and reputation create our expectations.

Reduce…..

- Pamela Quisenberry, National Food Service Management Institute at the University of Mississippi

- Dr. Jeannie Sneed, Center for Excellence in Food Safety in Child Nutrition Programs at Kansas State University

Reduce and Save Money

- Preconsumer or Back of the House
- Postconsumer or Front of the House

Steps where food loss can be controlled in school nutrition programs

Source: Center of Excellence for Food Safety Research in Child Nutrition Programs

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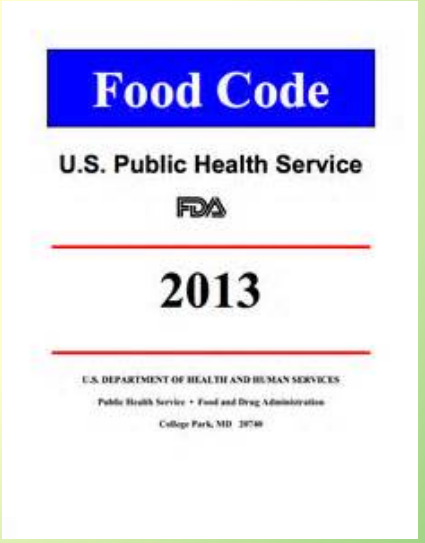
Food Safety Considerations

- Time and temperature control
  - Storing food at proper temperature
  - Cooking food to the proper end-point temperature
  - Maintaining proper hot and cold holding temperatures
  - Cooling food to meet Food Code standards
- Cross-contamination
  - Handling food properly
  - Covering food during storage

Use your Food Safety Plan and monitor and document actions!



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Reduce ……

Back of the House

Menu Planning

- Survey student preferences
- Manager reports
- New seasoning methods
- Name menu items
- Market your menu

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Reduce …….

Back of the House

Inventory Management

- Perpetual inventory
- Food Buying Guide
- Cycle menus

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Reduce ……

Back of the House

Purchasing

- Order fresh product deliveries daily or at shorter intervals to make ordering more accurate
- Assess the most cost effective market form of food based on food and labor costs and amount of waste generated

Receiving

- Inspect all products for quality and quantity
- Move items to proper storage quickly

Storing

- Store at proper temperature and humidity
- Store produce in reusable airtight containers to control dehydration and spoilage
- Date and label foods
- Organize food products so that employees can easily:
  - Use older products first
  - Find products when needed
  - Monitor inventory levels

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Reduce …….

Back of the House

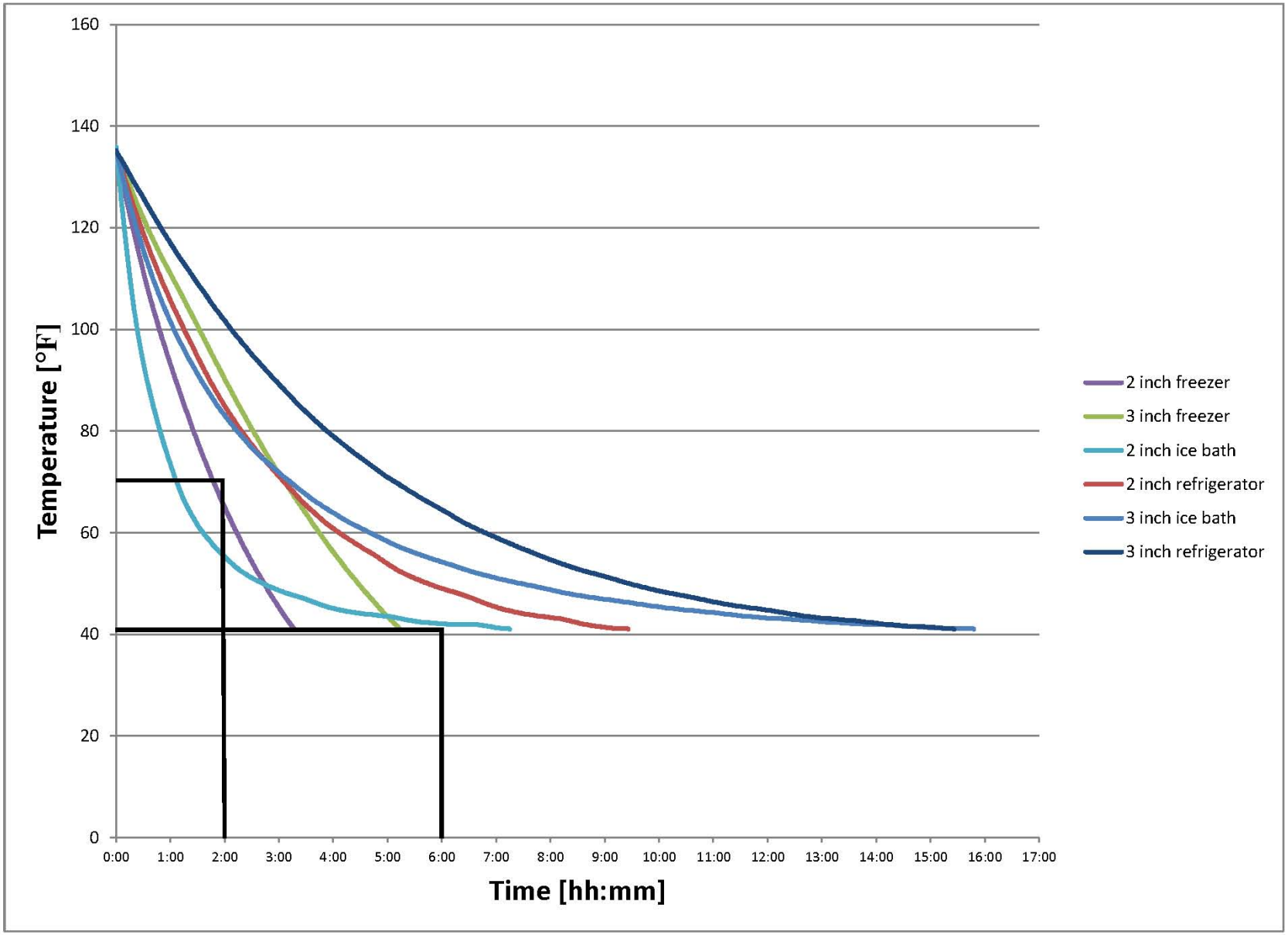
Training and Production

- Functional areas
- Quality expectations
- Food Production Records
- Batch cooking
- Repurpose leftovers
- Training materials

Cooling Food

- Cooling food that has been overproduced can save $$
- Use Food Code guidelines for time and temperature
- Use research findings to inform decisions

BEEF TACO MEAT



Source: Center of Excellence for Food Safety Research in Child Nutrition Programs

Lessons Learned

- Cooling is not as easy as it sounds!
- Validate cooling methods that work for your operation
- Document temperatures

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Reduce…..

Front of the House

- Scheduling recess before lunch can reduce plate waste by as much as 30%.
- Extending the lunch period from 20 to 30 minutes reduced plate waste by nearly one-third.
- Are snacks given in the classroom, if so what time?
- Generate excitement with cooking demos or classes.

- Educate your customer about menu items and meal requirements.
- Introducing “share tables” into their cafeterias allows students can exchange their unwanted food items (follow health department rules).

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Recover ……

- Don’t assume food can’t be donated – food banks take fresh produce, hot prepared foods, & processed goods
- Work with your local food pantry or food bank to keep good quality food from landfills
- Check with your local health department to see what foods you can donate
- Most schools can donate yogurt, fruit cups, fresh produce, milk, granola bars, juice, and more

A refrigerator at Chesterbrook Elementary School in Virginia is dedicated to recovered food that will be donated. Food banks and pantries have a high demand for fresh milk.

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Recover ……

- Schools can work with food recovery groups such as the Food Bus to setup a food recovery program in their schools.
- Or, they can start a direct relationship with a local food pantry or soup kitchen.
- Involve students - Form food recovery teams made up of students that help educate other students on which food items can be donated and which can be composted. These student teams can also help with donation collection and drop-offs.

"The children in the schools are not only learning how to *not* throw away their food and add it to the national waste stream, but they're learning that it can be used by someone who is hungry. They are getting a little spark of community service now that may have an impact in their life and the lives of the many people around them when they are adults."
– Kathleen Weil, Founder of the Food Bus

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Food Bus, Inc.

P.O. Box 7726 Arlington VA, 22207

www.foodbus.org

www.facebook.com/foodbus

Twitter: @foodbus

Recovering food, filling pantries, and easing hunger in our communities.

What is Food Bus?

- Recovery of unused food from school cafeterias for donation to to local pantries

Just one week's worth of food at a local elementary school

How Does Food Bus Work?

Food is saved at schools…

Volunteers deliver food to food pantries…

for distribution to hungry families

Why Does Food Bus Work?

- Providing supplies: Refrigerators, baskets, carts for schools to store perishables collected.
- Public education: Teach schools, administrators, volunteers and parents understand the amount of food wasted in their communities.
- Involving kids: our largest impact is with children.

Strengthening Communities

A policeman, a principal, a PTA/PTO president and a food pantry volunteer

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Show Your KG Pride!

Please help to reduce food waste by donating your **unopened** food to our local food pantry, SHARE of McLean.

Items that can be donated include:
Milk, cheese, yogurt, hummus, fruit juice, prepackaged apple sauce and marinara sauce (without meat), bananas, oranges, prepackaged apple slices, carrots and celery; chips, popcorn, graham crackers and cereal.

Do NOT donate: Hot or cold meat sandwiches, burritos, whole apples, chicken tenders, spaghetti with meat sauce, macaroni and cheese.

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Issues with Recovering Food in Elementary Schools

- Hyper-local decision making regarding collecting and donating the food.
- Fear about liability and illness.
- Lack of knowledge of Bill Emerson Good Samaritan Food Donation Act, 1996.
- Funding and volunteer issues relating to collecting and distributing the recovered food.

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Solutions:

- Food Bus collaborating to establish a national working group on school food recovery.
  - Develop a web based educational unit to answer questions about food recovery in schools.
  - Craft a national policy for county level food and nutrition directors to utilize in order to approve food recovery programs in public schools.
  - Accelerate the food recovery movement in the USA by using social media for diffusion of information.

Solutions, cont.

- Connect with leaders across the country

who are interested in moving this issue

forward so a critical mass of interested people is formed.

- Consult with schools on a state by state basis in order to establish localized, community led efforts that can spread.
- Partner with the USDA and the EPA by sharing information, ideas and results with government leaders who can influence change and understand the long history on this issue.

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Generational Shift

- Perhaps the most important work of Food Bus is our work with children in elementary schools.
  - We are showing them how they can make a difference in this world, no matter their age.
  - They are learning to make a choice about what to do with their unused food, rather than just throw it out.
  - We are building awareness in the next generation about the hungry around them, and how to be part of a solution.
  - We are integrating schools, parents, children and pantries into caring communities breaking down barriers that leave our less fortunate neighbors unnoticed and struggling

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School wide photo/demonstrating pounds of food donated over the course of one academic year

FOOD BUS, Inc.

A nonprofit organization dedicated to recovering food, filling pantries, and easing hunger in our communities.

The Food Bus Toolkit

Initial Process for Start Up:

1. Consultation with school leadership to assess viability of food recovery program.
2. Educational session(s) with school leadership and students related to food recovery and initiation of program.
3. Assessment of cafeteria and potential school needs for funding (for example, purchase of refrigerator, cart, scale, boxes for weighing food and delivering, table for donation site, etc).

Design of Food Recovery Plan:

1. Work with community outreach coordinator (or other assigned personnel) to create architecture of program in the school cafeteria.
2. Strategize with school physical placement of food donation collection site, refrigerator, scale, bags and other supplies.
3. Implement food recovery:
   - * as needed meetings with staff to assess progress and address issues.
   - *problem solve areas of concern.
   - *assist with coordination of volunteers for distribution of food donations.
4. Purchase materials for school as needed to recover/store/distribute the food.

Liaison with Local Pantry

1. School will choose local pantry to form relationship with. Suggestions can be provided by Food Bus if the school would like.
2. Coordinate pick up and delivery schedule.
3. Address and solve issues if they arise between school and pantry.

Maintenance

1. Stay involved as consulting organization as program develops.
2. Provide funding as needed.
3. Reassess and reengineer program as needed.
4. Hold yearly meeting with volunteers across participating schools to share insight, suggestions, and problem-solving.

P.O. Box 7726, Arlington, VA 22207
Kathleen.weil@gmail.com
Facebook: https://www.facebook.com/FoodBus
Twitter: @foodbus
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Kent Gardens Elementary School: Food Recovery/Donation Log

Food Pantry Chair: Rachel Simon (Rachel@simon.net)
2014-2015 School Year

Sept	5th	12th	19th	26th	
October	3rd	10th	17th	24th	31st
November	7th	14th	21st	26th	
December	5th	12th	19th		
January	9th	16th	23rd	28th	
February	6th	13th	20th	27th	
March	6th	13th	20st	27th	
April	10th	16th	24th		
May	1st	8th	15th	23rd	29th
June	5th	12th	29th		

Food Bus, Inc. P.O. Box 7726 Arlington, VA 22207
www.foodbus.org; www.facebook.com/foodbus; twitter: @foodbus

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Interested in Food Recovery in Your School?

- Please contact Food Bus, Inc. via our website:
- www.foodbus.org
- Like us: www.facebook.com/foodbus to hear about inspirational stories of people motivated to create change.
- Follow us on Twitter to check in about our latest work (@foodbus)
- Pay attention to what is being thrown

out in your child's cafeteria.

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Thank you!

Kathleen D. Weil, PhD
Additional credit to **Melani Spiegel**
who assisted in the
development of this presentation.

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Recycling .....

Composting

Schools can set up collection bins for compostable food items in cafeterias and classrooms.

Food waste can be:

- Sent to off-site composting facilities or;
- Composted on-site and used for school gardens

Vancouver Public Schools in Washington State have composting programs that annually divert 250 tons of organic material for composting.

Recycling .....

Livestock Feed

Five Chicago Lakes schools in Minnesota send their food waste to a local pig farmer.

If there are farmers nearby, you could start a relationship with them to see how your food waste can be used either for animal feed or composting.

Recycling .....

Industrial Uses

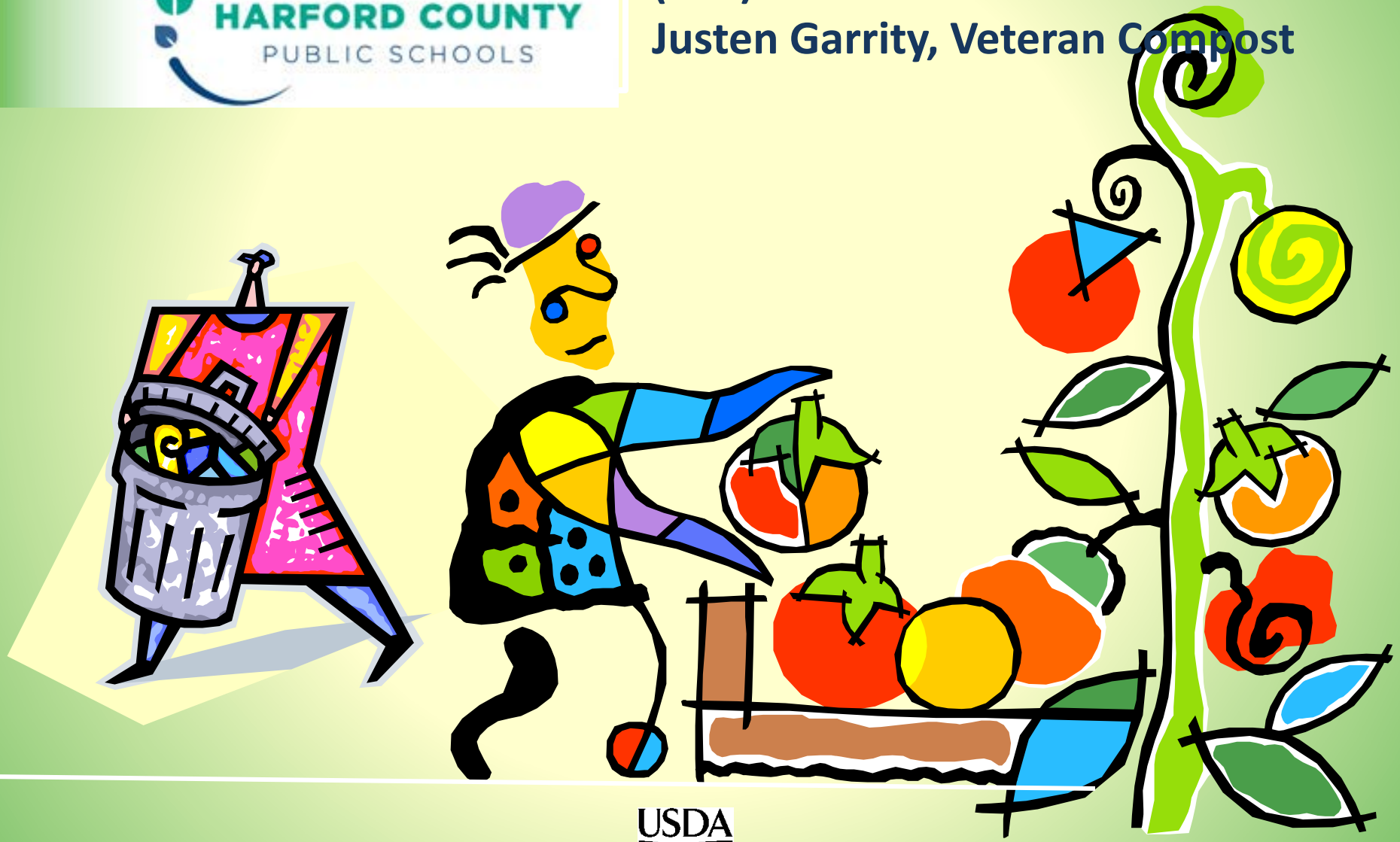
Fats, oil, and grease, such as fryer oil, can be used to make biodiesel and other consumer goods

- Contact a local biodiesel club or manufacturer to see if they are willing to accept used fryer oil
- Locate a nearby rendering facility – most companies provide storage barrels and free pick-up service

Biodiesel is pumped into a Paschal Sherman Indian School bus in Washington State.

HARFORD COUNTY
PUBLIC SCHOOLS

Andrew Cassily, Harford County (MD)
Justen Garrity, Veteran Compost



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Food scraps are collected in our kitchens and cafeterias

The sealed collection bins are rolled outside and ready for pick up

The organic waste is collected and removed from the site to a composting processing facility.

Once on site, organics are processed in an accelerated composting process.

The final compost product can be sold in bags or bulk for soil amendments

Truck loads of nutrient rich compost are delivered to our sports fields.

The rich compost will be added to sports fields to make the turf grow stronger and healthier.

The soil is loosened and grass seed is planted with this machine

Compost is loaded into this trailer and spread on the fields.

Benefits of our Organics Recycling Program

- Reduce the amount of recyclable material going to landfills and our carbon footprint.
- Eliminate heavy lifting of food waste by custodial staff.
- Improve the safety, appearance, and playability of our sports fields.
- Align our current waste removal process with our school curriculum and educational concepts.

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Resources for More Information

Resources

- EPA's Food Recovery Challenge offers schools access to data management software and technical assistance to help them measure and reduce their food waste.
- EPA's Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants (.pdf)
- Calrecycle's Restaurant Guide to Waste Reduction and Recycling
- The National Food Service Management Institute provides training to school nutrition staff to help improve ordering and management of food inventory. The institute has trainings all over the country and has free resources available on their website.
- USDA Basics for Handling Food Safely

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Join the U.S. Food Waste Challenge

It is as simple as checking the boxes on the Challenge activity form.

What activities will the school undertake in the next year? *(Check all that apply.)*

- ❑ Program to reduce the amount of excess food generated in the school
- ❑ Recover wholesome food from breakfasts and/or lunches to donate to feed people
- ❑ Recover food waste from breakfasts and/or lunches to feed animals
- ❑ Recover food waste from breakfasts and/or lunches for composting
- ❑ Recover food waste from breakfasts and/or lunches for energy generation or other uses
- ❑ Other

USDA will list your school and activities on its website to help inspire other schools to do their part

Fill out the form:
www.usda.gov/oce/foodwaste/join.htm

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Food Waste Infographic

Use our infographic for educational purposes and to try out new ideas.

Download for free here: http://blogs.usda.gov/2014/08/26/creative-solutions-to-ending-school-food-waste/

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For more information, visit:
www.usda.gov/oce/foodwaste

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