

SEPTEMBER 7, 2017; MIDWEST FOOD RECOVERY SUMMIT

**FOOD RECOVERY AT KANSAS RETAIL  
GROCERS:  
*REDUCING AND REDISTRIBUTING EXCESS  
FOOD***

# SUSTAINABILITY 2020 GOALS



## INCREASE ECO-STEWARDSHIP

### Source Reduction

#### Feeding People

- Continue to expand eligible foods into the Perishable Donations Partnership (PDP).
- Implement PDP programs in Kroger family of stores distribution centers.
- Continue to train associates and collaborate with local food banks.

### Zero Waste

Kroger aims to ultimately meet and exceed EPA's Zero Waste threshold of 90% diversion from landfill in our facilities by 2020.

#### Feeding Animals

In both our plants and retail locations, Kroger will continue to expand animal feed processes that allow us to donate safe and nutritious food scraps to animals, where feasible.

# FOOD RECOVERY

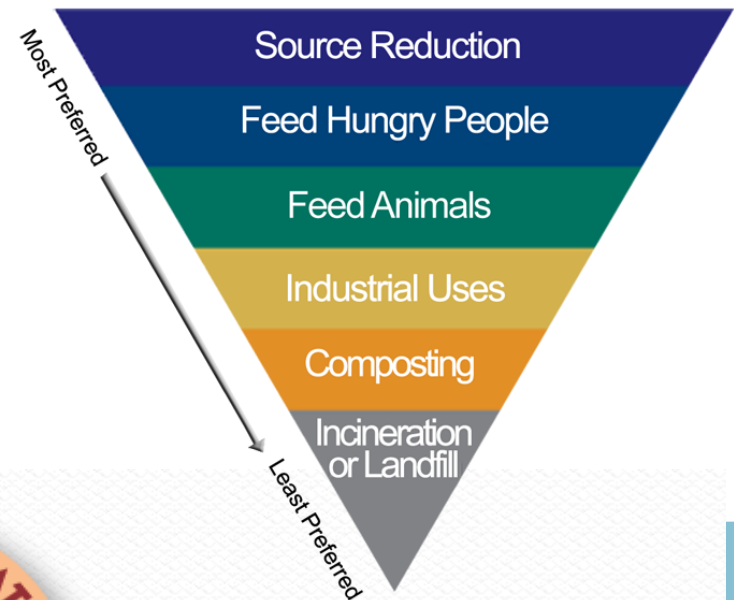
## FEEDS SEDGWICK COUNTY FOOD INSECURE

### Project Overview:

- Work with Sedgwick County Grocery Chains to identify food waste that can be reduced along with redistributing excess food. Identifying food waste that that can be donated to programs that feed the hungry.



### Food Recovery Hierarchy



A partnership between the stores in the Kroger family and local food banks that benefits hungry people in our communities.



# FOOD RECOVERY

## YEAR ONE INTERN: KARA HALL

In first year of two-year project, an intern was placed at two Dillon's grocery store locations in Wichita, Kansas.

- Dillon's is owned and operated under Kroger.
- Dillon's was already donating some food; worked with the Pollution Prevention Institute to improve and quantify source reduction efforts and food diversion.



Kara Hall, civil engineering student at KU



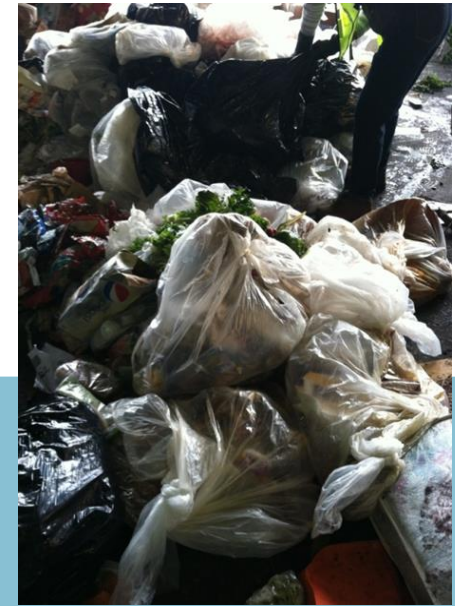
# Transfer Station June 6th, 2013



Large amounts of produce found in trash



Cornhusks account for a large amount of waste



Approximately 30% of waste was organics

# FOOD RECOVERY – YEAR ONE



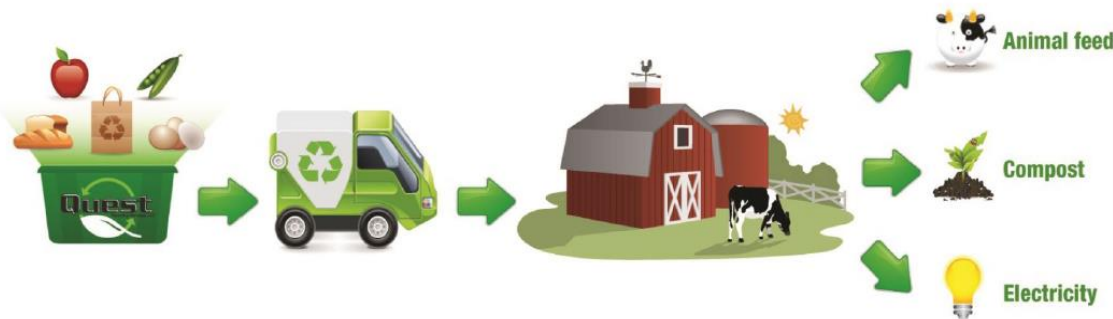
## Produce Shrinks Hunger



1 in 6 Americans are unsure where their next meal will come from. You are leading the charge to deliver fresh, nutritious items like healthy fruits and vegetables to Feeding America's network of food banks.

**SELL FRESH**  
shrink less

## Recycling :: Food Waste



**Specialized outdoor collection bins** fruits, vegetables, dairy and produce bags at your store.

**Bins are emptied frequently** and the content is sent to an organic waste processing facility

**Food Waste is recycled using one of the following methods**

1. Animal Feed: Ground, dried and mixed to feed animals
2. Anaerobic Digester: Ground, dried and mixed with manure to produce high quality compost. Methane gas generated is used to provide local electricity
3. Composter: Ground and spread into compost fields, bacteria eat food waste and generate high quality compost

## Kroger PDP Produce Items

### YES

Apples-Manzanas



Mangoes-Mangos



Avocados-Aguacates



Nectarines-Nectarinas



Cabbage-Repollo



Onions-Cebollas



Carrots-Zanahorias



Oranges-Naranjas



Corn-Elote



Papaya-Papaya



Cucumbers-Pepinos



Peaches-Duraznos



Pears-Peras



# FOOD RECOVERY – YEAR ONE

*Summary of 2013 intern recommendations for Dillons*

Project description	Annual estimated environmental impact	Annual estimated cost savings	Status
Grocery	2.7 tons	\$2,058	Planned
Produce	36 tons	\$2,863	Implemented
Bakery			
Bolilo Rolls	2.5 tons	\$14,202	Implemented
Donuts	2.1 tons	\$9,079	Partially Implemented
Deli	5.4 tons.	\$29,955	Recommended
<b>Total savings *</b>	<b>48.7 tons</b>	<b>\$58,157</b>	
<b>GHG reductions *</b>	<b>33 metric tons CO2e</b>		

# FOOD RECOVERY – YEAR TWO INTERN: BINTOU BAYO

## Dillons - Food Recovery Challenge

### Main Focus:

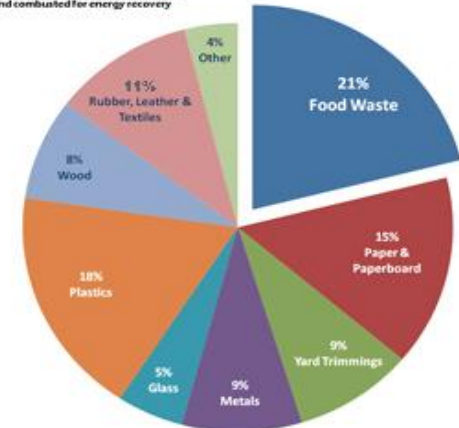
- Produce
- Bakery
- Deli
- Dairy
- Meat & Seafood

### Goals:

- Reduce food waste going into landfills.
  - Identify source reduction opportunities.
  - Maximize food donations to the Kansas Food Bank (KFB).
  - Increase Quest's food waste diversion program



**Food** makes up the largest percentage  
of waste going into municipal landfills  
and combusted for energy recovery



Bintou Bayo, WSU renewable energy engineering  
Now a Dillon's employee



# FOOD RECOVERY – YEAR TWO

## WATER CONSERVATION

### Reverse Osmosis System

- malfunctioning, leaking water to floor drain
- Reported and resulted in water savings of 1.1 million gallons
- Found similar problem at another store



### Thawing practices for deli & Chinese kitchen

- Recommended refrigerator thawing
- Conserve 210,240 gallons of water/yr.
- Implemented immediately



# FOOD RECOVERY – YEAR TWO

*Summary of 2014 P2 intern recommendations for Dillons Food Stores*

Project description	Annual estimated environmental impact	Annual estimated cost savings	Status
Deli BBQ baked chicken	0.5 tons	\$3,500	Recommended
Deli baked chicken	0.4 tons	\$2,300	Recommended
Deli small sides	1.4 tons	\$6,000	Implemented
Produce	26.6 tons	\$14,000	Implemented
Bakery	12.8 tons	\$1,000	Implemented
Water	1,300,000 gal	\$7,000	Implemented
<b>Total savings</b>	<b>41.7 tons waste diverted</b> <b>1.3 million gallons of water saved</b>	<b>\$33,800</b>	
<b>GHG reductions *</b>	<b>67.2 metric tons CO2e (MTCO<sub>2</sub>E)</b>		

# 2017 CIRCUIT RIDER INTERN



Venkatesan (Venki)  
Gunasekaran, WSU  
industrial engineering



# 2017 CIRCUIT RIDER - 2017 DRAFT RESULTS

Project Description	Annual Estimated environmental impact	Annual estimated cost savings	Status
Produce – store 12	9.1 tons	\$40,000	Recommended
Produce – store 89	-	\$65,000	Recommended
Bakery – store 12	11 tons	\$66,000	Implemented
Total Savings	20.1 tons	\$171,000	
GHG reductions	22 metric tons CO2e		

# QUESTIONS?

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