

North America's Commission for  
Environmental Cooperation

# Food Loss and Waste

## A trilateral priority

Joint FAO and CEC Webinar

**Stop food loss and waste. For the people. For the planet.**

First-ever International Day of Awareness of Food Loss and Waste  
on 29 September

Armando Yáñez Sandoval. Head of Green Growth Unit. CEC.

September 28, 2020



# Overview of CEC's work on Food Loss and Waste



- Parties set FLW as a tri-national priority on CEC's Strategic Plan 2015 – 2020
  - Group of experts is formed (Steering Committee) to define the vision and guide the process



## TARGET 12.3

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

1

Understand the issue at hand

2

Developing tools and resources

3

Test, improve and promote use

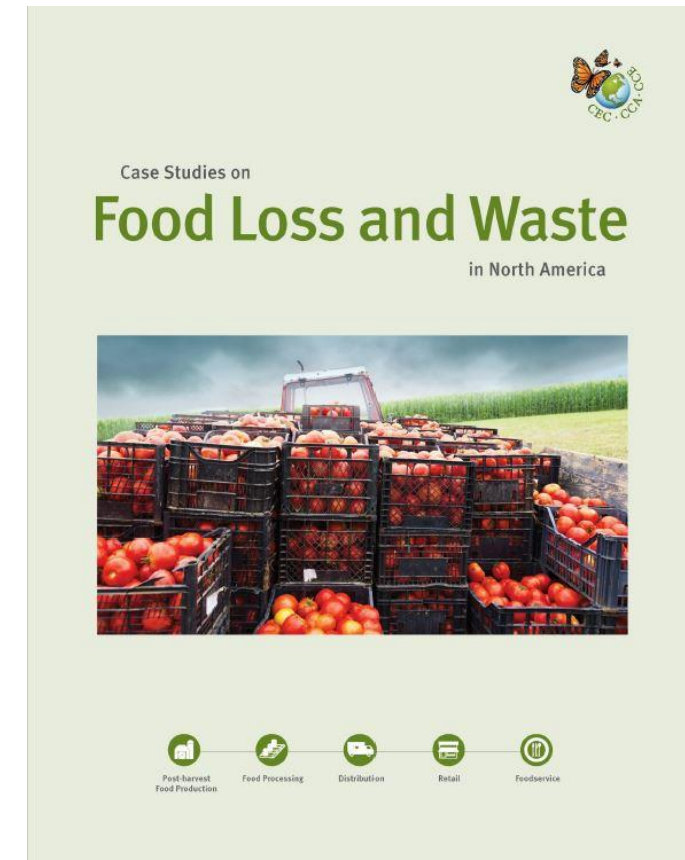
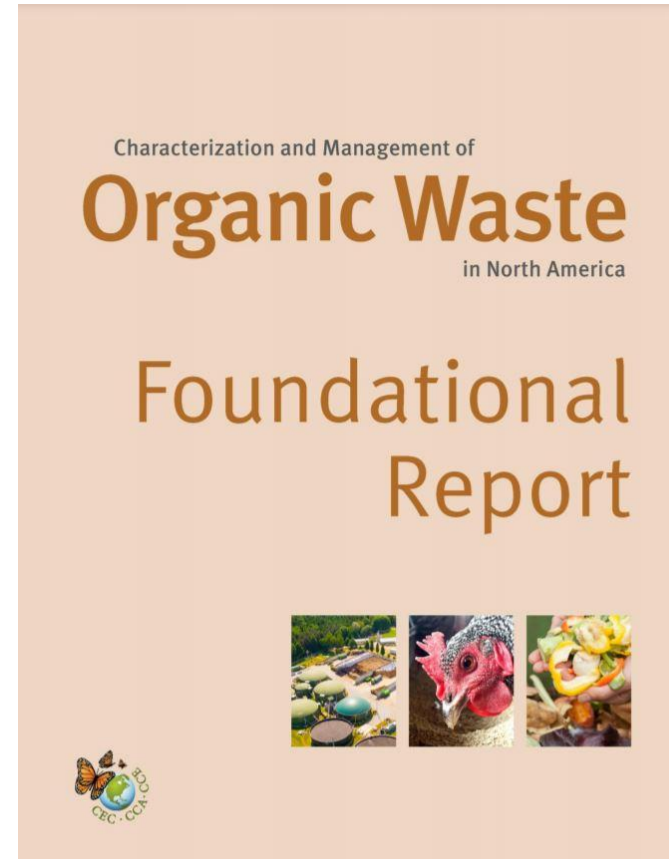
**Building partnerships; working together; empowering**



# 1 Understanding the issue at hand...

## North American Initiative on Food Waste Reduction and Recovery and the North American Initiative on Organic Waste Diversion and Processing

- ❖ Publications:
  - Foundational reports
  - White papers
  - Case Studies





# FOOD LOSS AND WASTE

**Approximately 168,000,000 tonnes are wasted  
in North America each year**







# Food Waste

## Facts & Figures

Approximately **168,000,000 tonnes** of food is lost or wasted in North America each year. Each year, the food we waste costs the North American economy **\$278 Billion US dollars** and could have fed **260 million people**.



Enough water to fill **7 million Olympic-sized swimming pools** (18 billion m<sup>3</sup>)

**39 million m<sup>3</sup> of landfill space**, equivalent to 13 football stadiums gets used up with our food waste each year

**193 million tonnes of greenhouse gases** emitted needlessly, the same as driving 41 million cars continuously for a whole year

Enough energy to power **274 million homes**

In the United States alone, over **32 million hectares of wildlife habitat** is lost to farmland to grow food that is never eaten

**\$1.9 billion US dollars** in wasted landfill tipping fees



# Food Loss and Waste Kilograms / Person / Year

CANADA

**396**



UNITED STATES

**415**



MEXICO

**249**





# Food Loss and Waste in North America across the Supply Chain Million Tonnes / Year



CONSUMER

67

PRE-HARVEST

49



POST-HARVEST

16



PROCESSING

20



DISTRIBUTION  
RETAIL  
FOOD SERVICE

15



# Causes of Food Loss and Waste across by Stage of the Food Supply Chain

POST-HARVEST	PROCESSING	DISTRIBUTION	RETAIL	FOODSERVICE
				
<ul style="list-style-type: none"> <li>✓ Inaccurate supply-and-demand forecasting</li> <li>✓ Low market prices and lack of markets (especially for second-grade products)</li> <li>✓ Grade standards for size and quality</li> <li>✓ Cold-chain (refrigeration) deficiencies</li> <li>✓ Others</li> </ul>	<ul style="list-style-type: none"> <li>✓ Inadequate infrastructure, machinery</li> <li>✓ Damage during production</li> <li>✓ Trimming and culling</li> <li>✓ Inconsistent/confusing date labels</li> <li>✓ Others</li> </ul>	<ul style="list-style-type: none"> <li>✓ Damage during transport</li> <li>✓ Rejection of shipments</li> <li>✓ Incorrect/ineffective packaging</li> <li>✓ Delays during border inspection</li> <li>✓ Others</li> </ul>	<ul style="list-style-type: none"> <li>✓ Rigid management</li> <li>✓ Marketing practices</li> <li>✓ Overstocking</li> <li>✓ Market over-saturation</li> <li>✓ Others</li> </ul>	<ul style="list-style-type: none"> <li>✓ Plate composition</li> <li>✓ Over-serving</li> <li>✓ Improper handling and storage</li> <li>✓ Food safety concerns</li> <li>✓ Others</li> </ul>



## 2 Developing tools and resources...



### Food Matters Action Kit

The Food Matters Action Kit provides North American youth with dozens of easy and fun activities that have a positive impact on our environment.



### Why and How to Measure Food Loss and Waste

This practical guide provides a step-by-step plan for organizations all along the food supply chain to measure food loss and waste.



### Food Loss and Waste: Infographic

What is the estimated impact of food loss and waste on our lives and on our surrounding environment?



### North American Initiatives on Food and Organic Waste

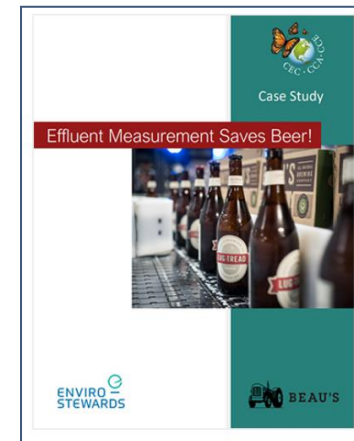
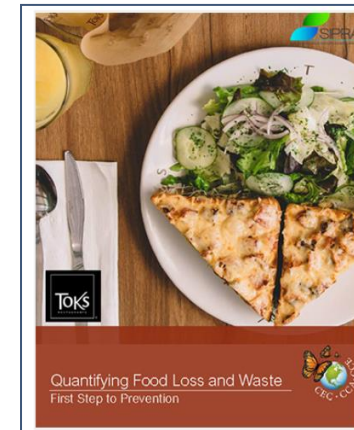
Peeling back the layers on the issue of food loss and waste in North America.

# Developing tools and resources - Measurement component



- ❖ **Technical Report: Quantifying Food Loss and Waste and Its Impacts**
- ❖ **Practical Guide: Why and How to measure Food Loss and Waste**
  - **Case studies**

✓	<b>Step 1: Determine <i>why</i> you want to reduce food loss and waste.</b> (Module: Why Measure FLW?)
✓	<b>Step 2: Establish your <i>business case</i> for reducing food loss and waste.</b> (Module: The Business Case for FLW Reduction)
✓	<b>Step 3: Prepare for the <i>change</i> of measuring and reducing food loss and waste.</b> (Module: Managing Change)
✓	<b>Step 4: Determine your <i>definition</i> of food loss and waste.</b> (Module: Setting Your Scope)
✓	<b>Step 5: Determine your <i>causes</i> of food loss and waste and identify solutions.</b> (Module: Determining Root Causes)
✓	<b>Step 6: Identify your <i>key performance indicators</i> and <i>impacts</i>.</b> (Module: Selecting Key Performance Indicators and Identifying Impacts)
✓	<b>Step 7: Select and implement a food loss and waste measurement <i>method</i> based on your sector.</b> (Module: Sector-Specific Guidance)





# Developing tools and resources - Education component

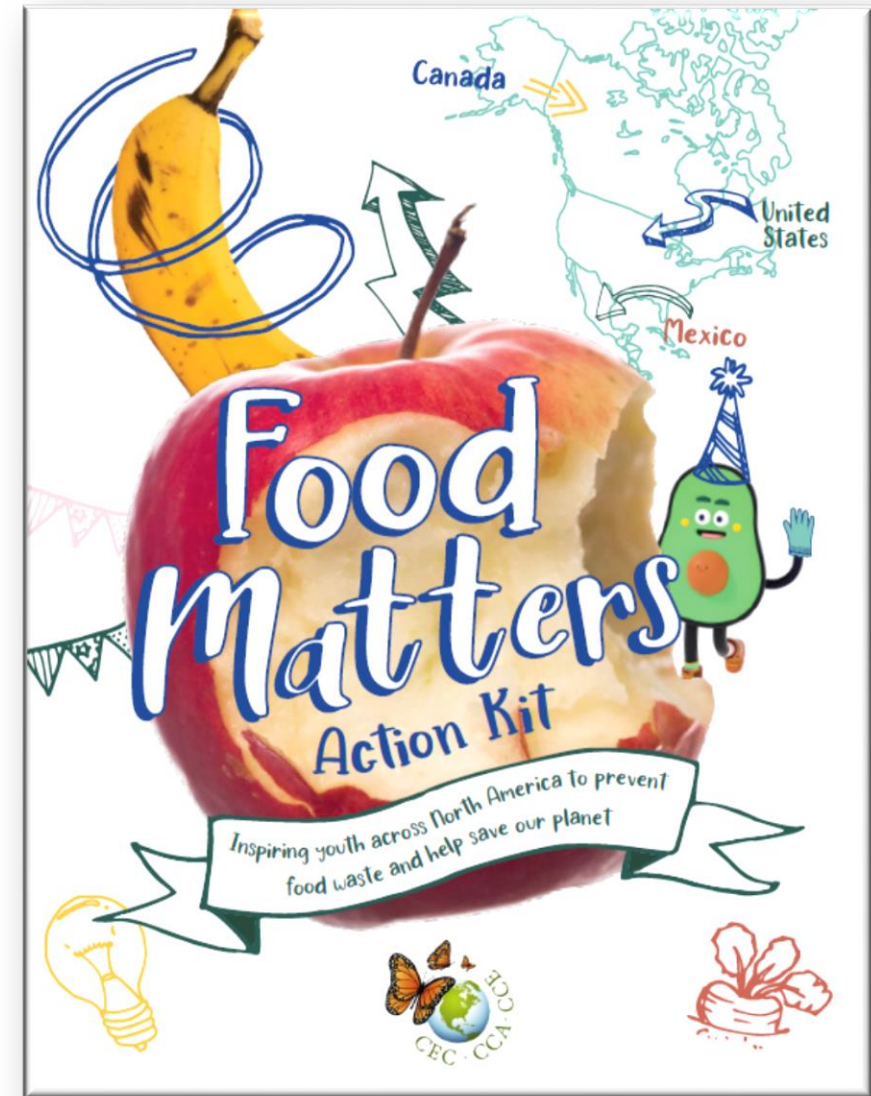


## The Food Matters Action Kit

The *Food Matters Action Kit* is an educational tool designed to bring awareness of the growing problem of food waste in North America to **kids and youth aged 5-25**.

Inspiring youth across North America to prevent food waste and help save our planet

This *Action Kit* was developed by the CEC as part of an initiative called **Empowering Youth to Prevent Food Waste, Protect Our Environment and Help Save the Planet**, completed under the CEC's 2017-2018 Operational Plan.





EACH YEAR, THE FOOD WE WASTE COSTS THE NORTH AMERICAN ECONOMY \$278 BILLION US DOLLARS AND COULD HAVE FED 260 MILLION PEOPLE!

## THIS IS WHAT ELSE WE WASTE WHEN WE WASTE FOOD:

**39 MILLION M<sup>3</sup>**  
of landfill space, equivalent to  
**13 FOOTBALL STADIUMS.**  
gets used up with our food waste each year



**\$1.9 BILLION**  
US dollars in wasted tipping fees

**193 MILLION**  
tonnes of greenhouse  
gases emitted needlessly,  
the same as driving

**41 million**  
cars continuously for  
a whole year



In the United States alone, over

**32 MILLION HECTARES OF WILDLIFE HABITAT**

is lost to farmland to grow food that is never eaten



Enough water to fill

**7 MILLION**  
**OLYMPIC-SIZED**  
**SWIMMING POOLS**  
(18 Billion m<sup>3</sup>)

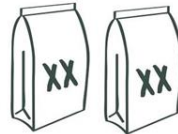
Enough energy to power

**274 MILLION HOMES**

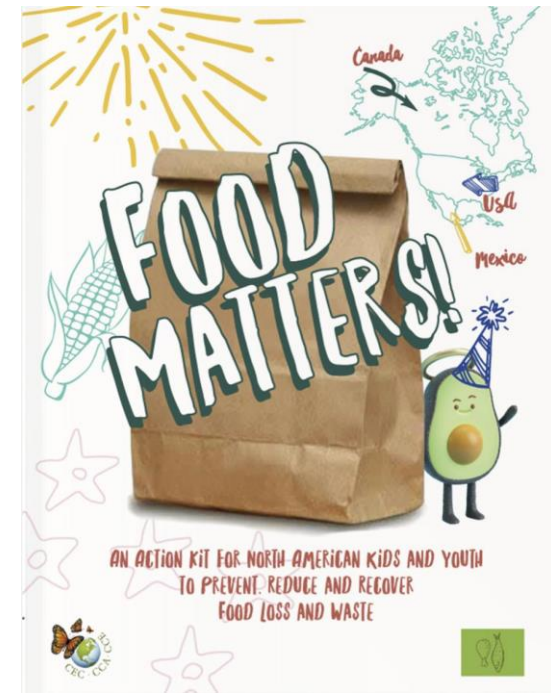


**3.9 MILLION**

tonnes of fertilizer



Source: CEC (2017). Characterization and Management of Food Loss and Waste in North America p.15  
<http://www3.cec.org/islandora/en/items/11772-characterization-and-management-food-loss-and-waste-in-north-america-en.pdf>  
And <http://www.cec.org/sites/default/twinteractive/index-en.html>



Inspiring youth across North America to prevent food waste and help save our planet



# Anatomy of the Food Matters Action Kit

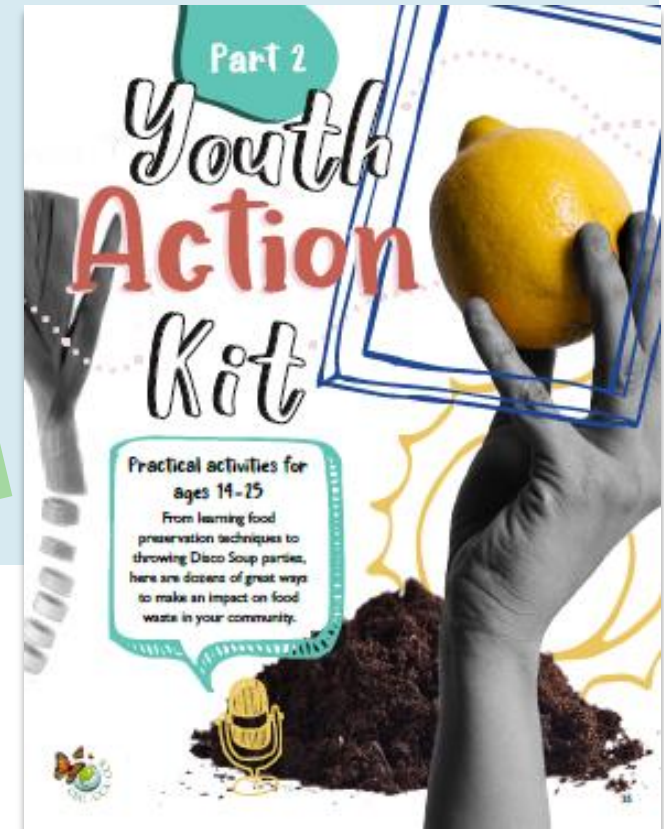
- Educators guide
- Activities range from 30 minutes to multi-week projects
- Impact-oriented
- Challenges and Recognition system



Part I  
Kids Action Kit  
(ages 5-13)



Part II  
Youth Action Kit  
(ages 14-25)



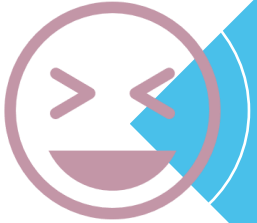


# Why use the Food Matters Action Kit?



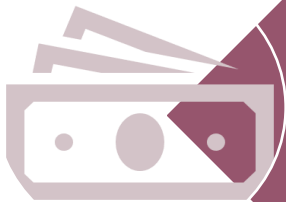
## It's relevant!

Food waste in North America and across the globe is a growing problem. Approximately one third of all food intended for human consumption goes to waste.



## It's fun!

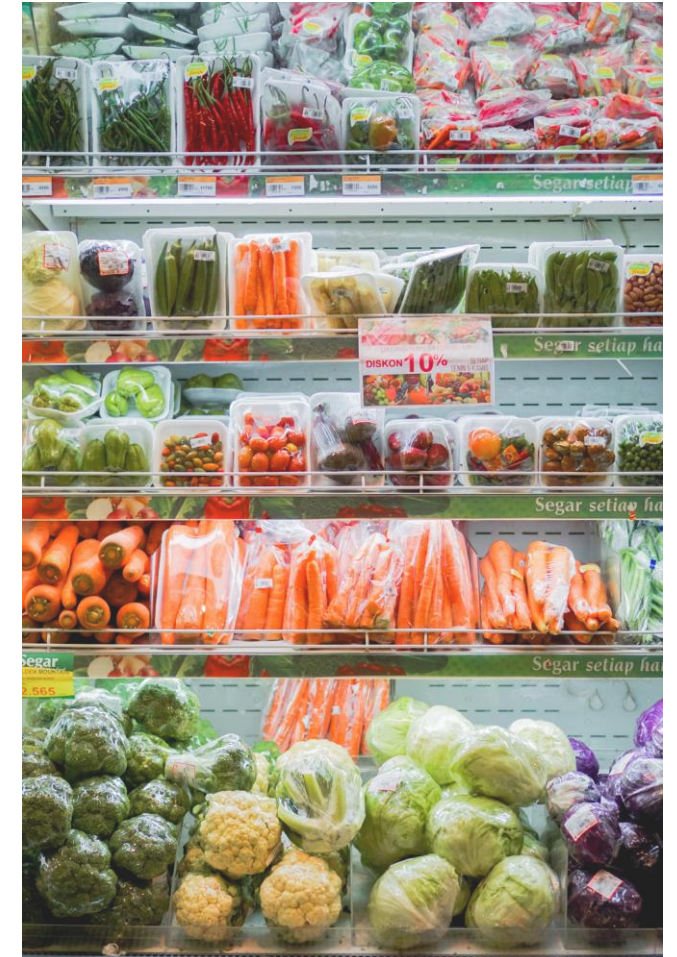
Through over 70 fun and engaging activities, the kit empowers youth to make a difference by making small lifestyle changes to prevent food waste and by spreading awareness of the issue.



## It's free!

The Action kit is available in English, French and Spanish and can be downloaded free of charge from the website:

[www3.cec.org/flwy/](http://www3.cec.org/flwy/)





# Register on the website! [www.cec.org/flwy](http://www.cec.org/flwy)

Create a  
profile

## Join the Youth Movement

These youth groups are all taking action on food waste. Check out their initiatives!

Join the youth movement! Register as an individual or as part of a club, organization, class, team, group of friends.

REGISTER YOUR ORGANIZATION

Upload photos  
or  
descriptions of  
completed  
activities



World Wildlife Fund

Country: United States



Lindsay Bunce

Earn Food  
Waste  
Hero  
Badges



See other organizations who have registered and  
view their initiatives!





### 3 Test, improve and promote use... Measurement component

**WHY AND HOW TO MEASURE FOOD LOSS AND WASTE**

About Checklist Sectors Methods Tools / Reports Case Studies

**A Practical Guide**

This guide will walk you through seven steps for measuring food loss and waste (FLW) within your business, city, state, or country. Use our checklist to track your progress and easily access the most appropriate section.

PRACTICAL GUIDE TECHNICAL REPORT WEBINAR

**Ready to Implement the Practical Guide? Contact us to become a partner now!**

We are looking for partner organizations to pilot the guide. We will provide technical support every step of the way. You will be profiled in a case study highlighting how you saved money while reducing food loss and waste.

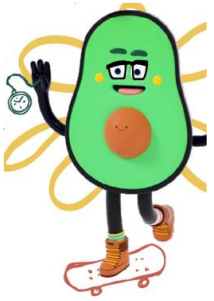
**Tell us what you think of our Practical Guide!**

Answer our questionnaire and your input will help us make improvements to the Practical Guide.

**Piloting the guide – different sectors and stages throughout the food supply chain**



# Test, improve and promote use... Education component



## #ShrinkFoodWaste campaign

Teaching kids and youth about the impacts of food waste can help shape their habits into adulthood and encourage them to live sustainably. Here are 3 ways the *Food Matters Action Kit* fosters change:

# 1



### Knowledge is Power

It teaches the impact of food waste on our planet.

# 2



### Shift Behavior

It shows youth how to prevent food waste by changing attitudes about food and by developing new habits and skills.

# 3



### Spread the Word

It allows youth to encourage food waste action and share tips at home, at school, and in their community, in order to help address the issue together.





# Let's Shrink Food Waste Mountain

## Réduisons la montagne de gaspillage alimentaire

## Reduzcamos la montaña de alimentos desperdiciados



#ShrinkFoodWaste

#FoodMattersActionKit

Module 1: Let's Shrink Food Waste Mountain

Module 2: Tale of the Forgotten Food

Module 3: Day of the Ugly Food

#RéduisTonGaspillage

#AntiGaspillageAlimentaire

Module 1: Réduisons la montagne de déchets alimentaires

Module 2: L'histoire des aliments oubliés

Module 3 : Les aliments moches en vedette

#ReduceElDesperdicio

#LosAlimentosImportan

Módulo 1: Reduzcamos la montaña de alimentos desperdiciados

Módulo 2: Historia de los alimentos olvidados

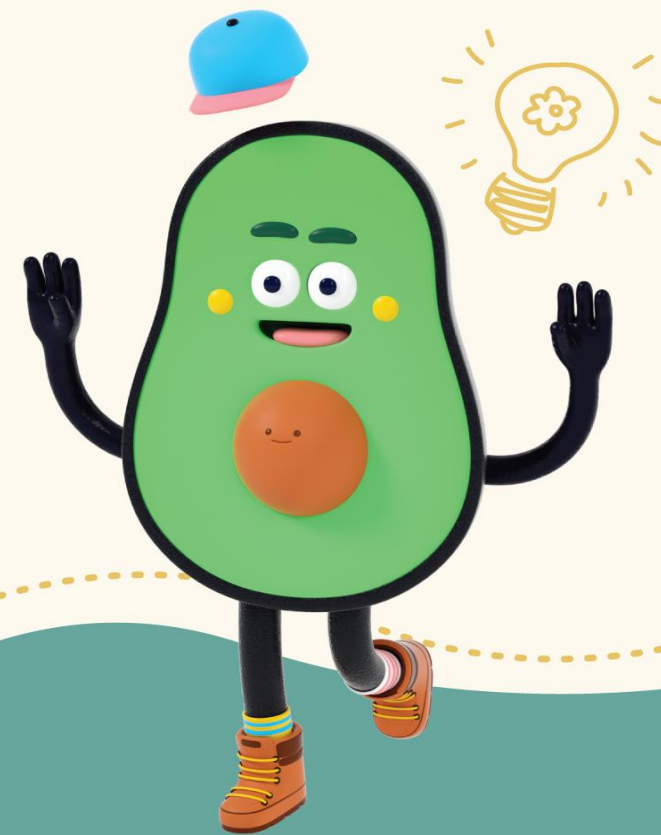
Módulo 3: Día de los Alimentos Feos



#ReduceElDesperdicio  
#LosAlimentosImportan



#RéduisTonGaspillage  
#AntiGaspillageAlimentaire



#ShrinkFoodWaste  
#FoodMattersActionKit





**Thank you!**  
**¡Gracias!**  
**Merci!**

Armando Yáñez — [ayanez@cec.org](mailto:ayanez@cec.org)

Commission for Environmental Cooperation  
[www.cec.org](http://www.cec.org)