

Changing the Way We Look at Agriculture

Opportunities for RDNs

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and Dietetics
Foundation
Future of Food Initiative

North Dakota Academy of Nutrition and Dietetics

Bismarck Heritage Center

Bismarck, ND

Wednesday, March 11, 2015

12:00 -1:00 p.m.

Amy Myrdal Miller, MS, RDN

Founder & President

Farmer's Daughter Consulting, LLC

Carmichael, CA

@AmyMyrdalMiller



@EatRightPRO







Disclosure

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- This presentation is part of the Academy of Nutrition and Dietetics Foundation's Future of Food initiative and is supported through an educational grant to the Foundation from Elanco and National Dairy Council.
- This presentation was developed in collaboration with the RDN Farmer expert group.
- Stipend and travel funds to present at this meeting was received from the Academy Foundation through Elanco and National Dairy Council.

Speaker's Financial Disclosures

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CLIENTS/CONSULTING FEES

- American Beverage Association
- The Culinary Institute of America
- Innovation Center for US Dairy
- McDonald's (Northern California Owner-Operators Cooperative)
- Monsanto Company
- Northarvest Bean Growers Association

HONORARIA

- Academy of Nutrition and Dietetics Foundation
- National Dairy Council Ambassador
- Bean Institute/Dry Bean Quarterly Nutrition Editorial Board
- Monsanto L.E.A.D. Network
- *And various speaking engagements...*

Objectives

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- Describe the current state of US farming.
 - Identify at least two advances in agriculture innovation that increase healthy food production and reduce environmental impact.
 - Name at least one action affiliates and DPGs can take to help members be more informed and involved in promoting and impacting healthy food systems.
-

Today's Food Conversation

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- How many of you feel more people want to know more about where their food comes from and how it was grown?
 - How many of you are getting questions about locally-grown, carbon footprint, or sustainable or organic food?
 - How many of you are seeing more farmers' markets in your neighborhoods?
 - How many of you have ever been on a farm?
-

Future of Food Initiative

Academy of Nutrition and Dietetics Foundation

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Future of Food

Improving Food Security: Dietitians Bring Nutrition Expertise to the Table

POSTED ON JUNE 14, 2012



Ethan Bergman, President of the Academy of Nutrition and Dietetics, addresses the Future of Food Conference in Washington, D.C. Photo courtesy of Washington Post Live.

By Ethan A. Bergman, PhD, RD, FADA, CD
President
Academy of Nutrition and Dietetics

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Future of Food Initial Accomplishments

1 Take Action to Fight Hunger

Increase the awareness of hunger by educating families, and how to bridge the gap. View these h prepare to work with a food bank and/or food inse

- Advocate for Increasing School Breakfast Pa
- Educate Parent Groups about the Magnitud
- Educate Others about Food Insecurity »
- Volunteer at a Local Food Bank »
- Advocate for Anti-Hunger Solutions »
- Invite Media to Experience Hunger by Virtua

2 Hunger in Our Community. **eat right.**

What We Can Do.

Rage against Rumbles: Student-led Actions to End Hunger in Our Community

What is "Food security?"

- USDA defines an access by all people at all times to enough nutritious food for an active, healthy life.
- People who are hungry (or "food insecure") may:
 - Skip meals
 - Eat less than the amount or

How Does Hunger Affect Kids?

3 Future of Food CPEU Webinars

www.eatright.org/foundation/kidseatright

www.healthyfoodbankhub.org

4 Nourish to Flourish

Food insecurity and being overweight are two of the biggest childhood America's kids today. But they don't need to be. The solution lies in understanding the facts.

Food Insecurity: 16 million kids

Overweight: 23 million kids

5 Food Insecurity/ Food Banking Dietetic Internship Concentration

6 FOODS TO ENCOURAGE FOR HEALTHY LIVING

From USDA's Food and Nutrition Assistance Programs, these foods are encouraged as healthy choices. They are also easy to find at food banks and other sources of food.

FOODS TO ENCOURAGE FOR HEALTHY LIVING

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EJANCO



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Future of Food Expansion Accomplishments

1 RDN Farmer Expert Committee/ member survey

2 U.S. Farming 101 Part 1 Future of Food Webinar July 2014

U.S. Farming 101 for food and nutrition professionals

Who Grows Our Food? A Profile of American Farmers

3 SMART CHOICES For a Healthy Planet

<http://bit.ly/1t4Lt1V>

4 32 Affiliate Presentations "Changing the Way We Look at Agriculture"

5 Agriculture Alliance

6

US Farmers and The State of US Farming



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Fast Facts About U.S. Farms

Most Farms
are Family Farms⁴



2.1 million farms in U.S.⁴

915 million farm acres in the U.S.⁵

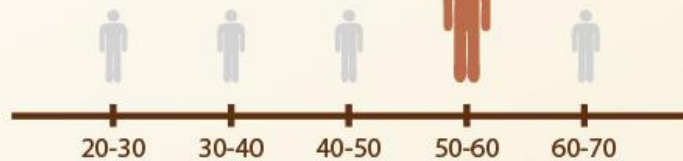


Who Grows Our Food?

A Profile of American Farmers

Average age
of a farmer²
in the U.S. is

58



Who Grows Our Food?

A Profile of American Farmers

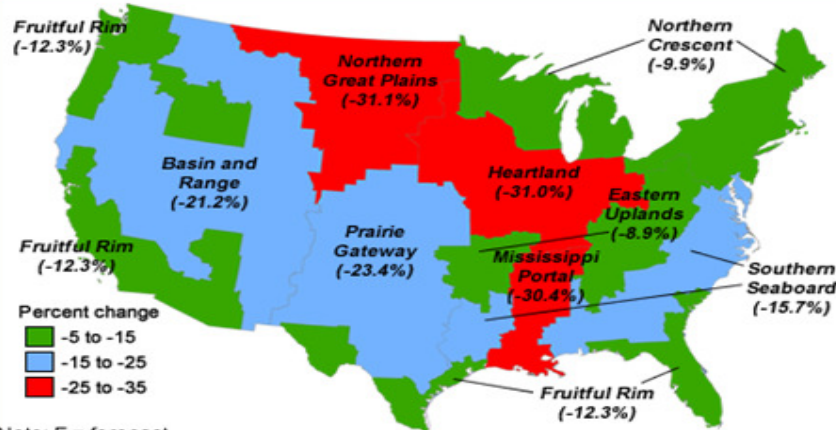


9 out of every **10** farmers
have some college education or a 4-year degree³

Forecasted Farm Economy

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Farm business net cash income, 2014F compared with 2013F

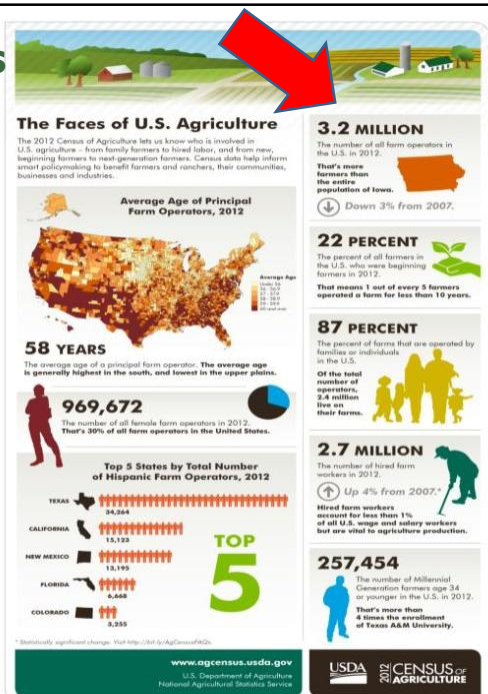


Note: F = forecast.

Source: ERS partial budget model based on the 2012 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. The model is static and therefore does not account for changes in crop rotation, weather, and other location production impacts that occurred after the base year. Data as of February 11, 2014.

Future Farmer Trends

http://www.agcensus.usda.gov/Partners/Infographics/Faces_of_Agriculture.pdf



Future Farmer Trends

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http://www.agcensus.usda.gov/Partners/Infographics/Faces_of_Agriculture.pdf

3.2 MILLION

The number of all farm operators in the U.S. in 2012.

That's more farmers than the entire population of Iowa.



Down 3% from 2007.

22 PERCENT

The percent of all farmers in the U.S. who were beginning farmers in 2012.



That means 1 out of every 5 farmers operated a farm for less than 10 years.

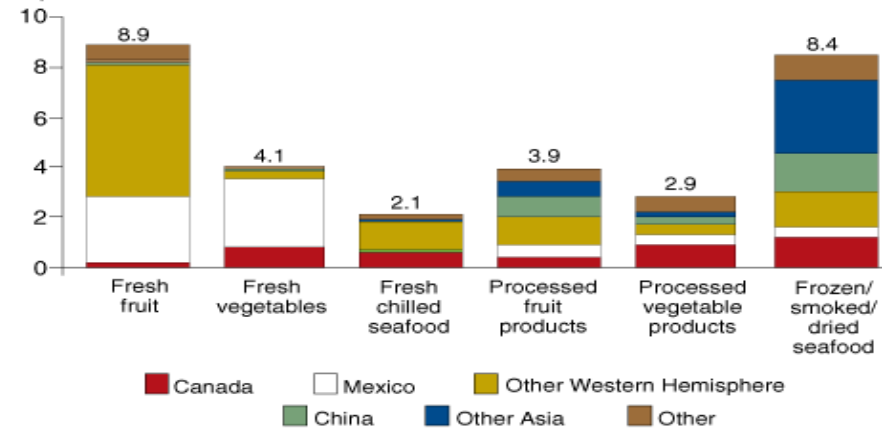
USDA 2012 CENSUS OF AGRICULTURE

Source: 2012 Census of Agriculture, May 2014

U.S. Food Imports

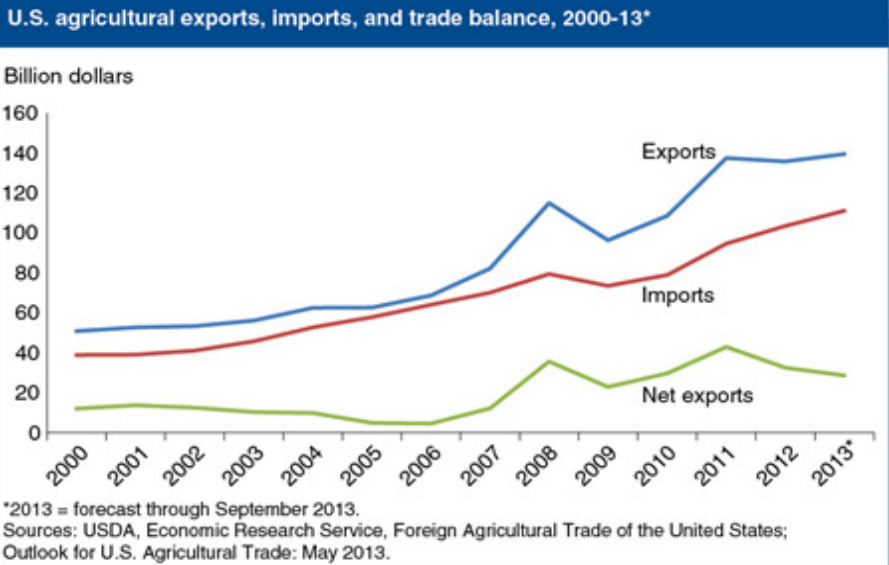
U.S. perishable food imports in 2007 mostly came from neighboring countries

Imports, billion dollars



Source: USDA, Economic Research Service classification using data from U.S. Department of Commerce, Census Bureau.

U.S. Agriculture Exports



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The State of Global Health & Nutrition



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State of Global Health

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- **Undernutrition** is responsible for 3 million deaths each year. That's 45% of deaths in children under 5.
- In 2011 there were 165 million children under 5 with **stunted growth**.
- **Suboptimal breastfeeding** results in more than 800,000 child deaths annually.
- **Fetal growth restriction** causes 12% of annual neonatal deaths.

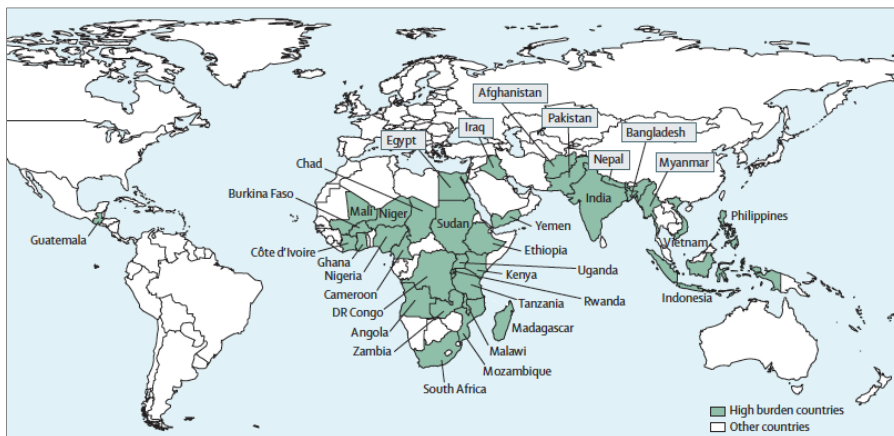
The Lancet – June 2013

Food Security & Nutrition: The Challenges & Opportunities for World Health

Understanding the Context

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34 countries bear **90%** of the global burden of undernutrition.



Lozano R. Lancet 2012; Lancet. 2012 Dec 15;380(9859):2095-128. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study.

Food Security & Nutrition: The Challenges & Opportunities for World Health

Advances in Agriculture



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Benefits of Agriculture Advances



Access to healthy food



Food production



Environmental impact

Who is advancing agriculture innovation to achieve food security and healthy food systems?

- Government
 - Nonprofit organizations/foundations
 - Industry and farmers
-

Government

Advances in Agriculture

USDA Sustainable Agricultural Systems

1. Integrating **sustainability** issues and approaches into a range of **USDA science priorities**, including food security, crop and animal production and protection, bioenergy, climate change, and natural resource management.
 2. Building a **framework for sustainability data** and information, and supporting research, education, and extension efforts to develop critical scientific and management information to fill gaps in the framework.
-

Sustainable Agricultural Systems, cont'd

3. **Advancing the understanding** of local and regional **food systems**, a key part of the **USDA strategy** for rural prosperity and a promising market for connecting producers with consumers, many of whom are interested in farmers and land management.
 4. **Improving** the performance of **organic agriculture** (the largest of the "transformative system" examples described in the NRC report).
-

WHO and FAO

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**World Health
Organization**

World Health Organization (WHO)

- Authority for health within United Nations



**Food and Agriculture
Organization of the
United Nations**

for a world without hunger

Food and Agriculture Organization (FAO)

- Works to achieve food and nutrition security globally

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Government, Nonprofit Organizations, Foundations

Advances in Agriculture

Examples from Academy Position Paper

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FROM THE ACADEMY
Position Paper

Position of the Academy of Nutrition and Dietetics: Nutrition Security in Developing Nations: Sustainable Food, Water, and Health

ABSTRACT

It is the position of the Academy of Nutrition and Dietetics that all people should have consistent access to an appropriately nutritious diet of food and water, coupled with a sanitary environment, adequate health services, and care that ensure a healthy and active life for all household members. The Academy supports policies, systems, programs, and practices that work with developing nations to achieve nutrition security and self-sufficiency while being environmentally and economically sustainable. For nations to achieve nutrition security, all people must have access to a variety of nutritious foods and potable drinking water, knowledge, resources, and skills for healthy living; prevention, treatment, and care for diseases affecting nutrition status; and safety-net systems during crisis situations, such as natural disasters or deleterious social and political systems. More than 2 billion people are micronutrient deficient; 1.5 billion people are overweight or obese; 870 million people have inadequate food energy intake; and 783 million people lack potable drinking water. Adequate nutrient intake is a concern, independent of weight status. Although this article focuses on nutritional deficiencies in developing nations, global solutions for excesses and deficiencies need to be addressed. In an effort to achieve nutrition security, lifestyles, policies, and systems (eg food, water, health, energy, education/knowledge, and economic) contributing to sustainable resource use, environmental management, health promotion, economic stability, and positive social environments are required. Food and nutrition practitioners can get involved

POSITION STATEMENT

It is the position of the Academy of Nutrition and Dietetics that all people should have consistent access to an appropriately nutritious diet of food and water, coupled with a sanitary environment, adequate health services, and care that ensure a healthy and active life for all household members. The Academy supports policies, systems, programs, and practices that work with developing nations to achieve nutrition security and self-sufficiency while being environmentally and economically sustainable.

- Feed the Future
- Save & Grow
- Urban Harvest
- Bangladesh Homestead Food Production Program



Nonprofit organizations

World Wildlife Fund

Working with business, government and communities to find and influence the adoption of solutions that will improve efficiency in the use of natural resources, reduce waste, and eliminate illegality.

**We have to do more with less.
Much less.**

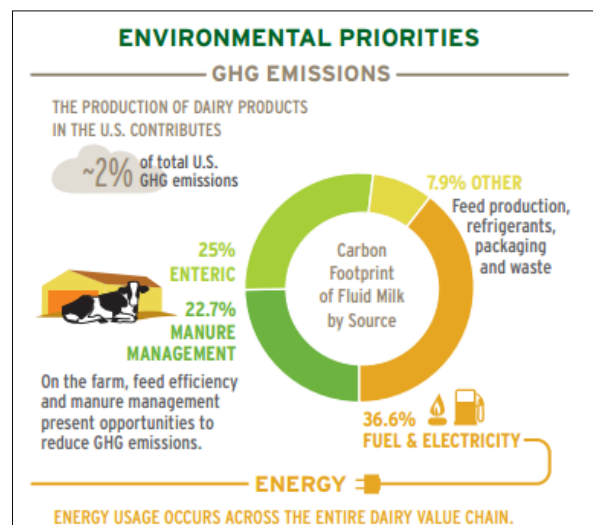
"Supply risk from unsustainable sourcing can destroy reputations, brands, biodiversity, communities and generate expensive legal disputes to companies and government".



Industry & Farmers

Advances in Agriculture

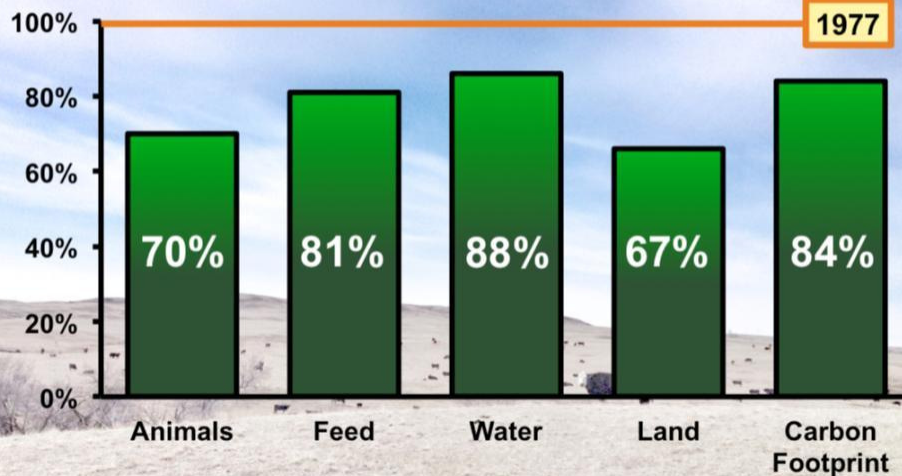
Industry & Farmers



Industry & Farmers

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Environmental Impact of U.S. Beef Production has been Reduced by Improved Productivity



Source: Created by Dr. Jude L. Capper, 2014; Data from: Capper, J. L. (2011). The environmental impact of U.S. beef production: 1977 compared with 2007. *J. Anim. Sci.*

Examples of Agriculture Innovations

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Innovations in agriculture technology help to use fewer resources, including **less fertilizer, fewer pesticides, less water**, etc.

Examples:

- Technology to maximize crop space
- Satellite imagery to survey soil
- Technology to increase drought tolerance
- Precision agriculture tools to reduce inputs and improve efficiency



What Academy Members Can Do?



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What Academy Members Can Do?



- **Educate**



- **Advocate**



- **Communicate**

Educate through Events

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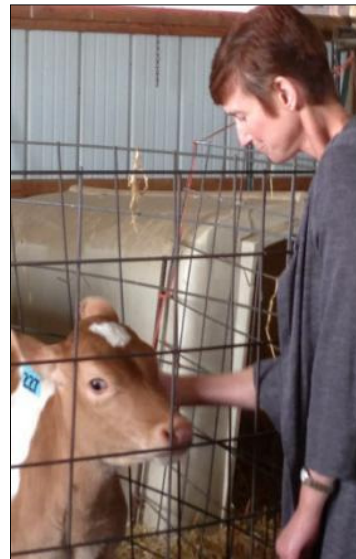
Maryland RDNs Connect
with Farm Women through
Common Ground™



Educate through Events

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Ohio RDs Experienced the Journey
of Milk from Farm to Lunch Tray



Educate through Events

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2014 Wheat Foods Council "Wheat Safari"

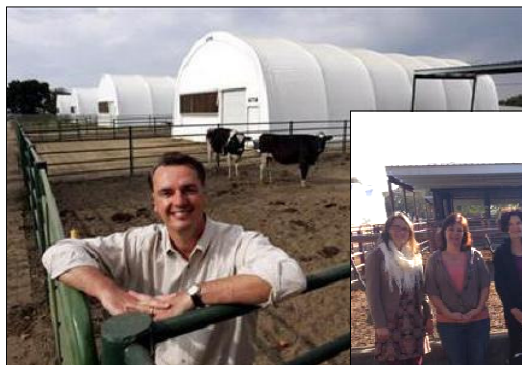


Educate through Events

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2014 California Beef Council Beef Sustainability Event

Beef Sustainability CE Event
Attendees



Dr. Frank Mitloehner, UC Davis



Educate through DGPs

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- Get involved in DPGs strongly supporting agricultural issues, including:
 - Hunger and Environmental Nutrition (HEN)
 - Food & Culinary Professionals (FCP) Ag Subgroup
- Find out more about Future of Food and view recorded webinars
www.eatright.org/foundation/kidseatright

Educate Others!

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New toolkit (released March 2, 2015)

SMART CHOICES For a Healthy Planet

- 25-minute PowerPoint presentation plus 5-minute suggested activity
- Target audience: adults or mature teens
- Toolkit includes notes pages and downloadable handout
- Available in English and Spanish
- FREE!

www.kidseatright.org/volunteer



Educate: Apply for a Mini-Grant

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New toolkit (released March 2, 2015)
SMART CHOICES For a Healthy Planet

- Mini-grant applications due **May 1, 2015**
- Twenty-five (25) **\$200** mini-grants available
- Mini-grantees agree to complete:
 - 2 presentations
 - Short online survey report
- Access the mini-grant application at
www.eatright.org/foundation/kergrants
- Questions? Email Kidseatright@eatright.org



Educate: Volunteer for Ag in the Classroom

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www.agclassroom.org

Educate: Promote Farm to School Programs

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Bringing the farm to school



4,322
districts

40,328
schools

23,513,237
children

www.fns.usda.gov/farmentoschool

Advocate: Promote Grower-Buyer Expos

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Grower-Buyer Expos

- Expand opportunities for more local products in schools, hospitals, institutions or supermarkets.
- Opportunity for growers to increase local distribution.
- Excellent way for RDs to connect with farmers.



Advocate: Organize a "Food Cluster"

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Mission

Create a healthy community through a resilient, local food system and to support and promote local food production, distribution and consumption.



Building Public/Private Partnerships

- Businesses
- Organizations
- Individuals



Photo credit: Northern Colorado Food Cluster

Together

- Influence public policy decisions
- Establish high impact projects
- Create a strong network of food system leaders

Advocate: Participate in Public Policy

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- Supplemental Nutrition Assistance Program (SNAP)
- The Emergency Food Assistance Program (TEFAP)
- Commodity Supplemental Food Program (CSFP)
- Fresh Fruit and Vegetable Program (FFVP)
- Supplemental Nutrition Assistance Program Nutrition Education (SNAP-Ed)
- Beginning Farmer and Rancher Development Program
- Conservation Stewardship Program (CSP)
- Environmental Quality Incentives Program (EQIP)
- IRS: Nonprofit hospitals can claim nutrition access aid

Advocate: Participate in Public Policy  Academy of Nutrition and Dietetics Foundation

 Academy of Nutrition and Dietetics
The world's largest organization of food and nutrition professionals.

Welcome, Ms. Teresa A Nece
Log out | myAcademy | Renew Membership

Public Members Become an RD or DTR Media Health Professionals Shop FIND A REGISTERED DIETITIAN

Welcome to the
The Academy Member Center

In This Section

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- Graduation »
- Professional Development »
- Public Policy »
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- Journal Publications »
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WELCOME TO THE GRASSROOTS MANAGER

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Academy of Nutrition and Dietetics Action Center

ACTIONS COMPLETED

ALERT PLEASE SUPPORT HR1074: NATIONAL DIABETES CLINICAL CARE COMMISSION ACT
Thank you for taking action.

Communicate: Help Reduce Food Waste

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Reduce food waste by improving product development, storage, shopping/ordering, marketing, labeling, and cooking methods.

Recover food waste by connecting potential food donors to hunger relief organizations like food banks and pantries.

Recycle food waste to feed animals or to create compost, bioenergy and natural fertilizers.

Communicate: "Farm to Table" Dinners

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Communicate: Volunteer

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California State University, Sacramento students volunteering at a "Nutrition Fuels Fitness" race. Race proceeds benefited local organizations working to reduce childhood obesity.

Communicate: Engage in Social Media

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Ashley Colpaart MS RD @ashleyrdx 5h
Where Food Begins. First-ever World Soils Day by UN kickstarts 2015 International Year of Soils. #rdchat



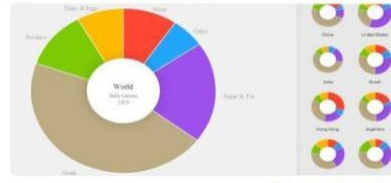
The Foodie Farmer Yesterday 4h
Sold 22,500 bushels of #RealFood fresh green beans from our #EasternShore #Maryland farm this year. #FarmToGroceryStore



Dayle Hayes @SchoolMealsForKids Dec 8
Day #4 #RealSchoolFood: IT'S ALL ABOUT LOCAL wp.me/p27H7R-jR @FoodCorps makes @FarmtoSchool work @FoodCorpsMT



Marylin Overwater RD reposted
FAO statistics @FAOstatistics Dec 1:
Interactive infographic by @NatGeo on what the world eats
on.natgeo.com/1rdXmRk #FutureofFood



Communicate: Share Resources

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<http://www.ers.usda.gov/>

<http://www.ars.usda.gov/main/main.htm>



<http://www.csrees.usda.gov/Extension/>



Food and Agriculture Organization of the United Nations

www.fao.org

<http://www.aplu.org/document.doc?id=780>

What Academy Members Can Do

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- **Educate**



- **Advocate**



- **Communicate**

Take the
Challenge!

Summary

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- US Farmers & the State of US Farming
- State of Global Health & Nutrition
- Innovations in Agriculture
 - Government
 - Nonprofit organizations/foundations
 - Industry and farmers
- What Academy Members Can Do

Last year, donors' generosity helped us award:



\$141,000 in awards

\$357,000 in research grants and fellowships

\$505,000 in student scholarships

\$1,140,000 in grants to Kids Eat Right members

We need you!



Donate today! www.eatright.org/foundation/donate



Changing the Way We Look at Agriculture

Opportunities for RDNs

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QUESTIONS?

Amy Myrdal Miller, MS, RDN
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@EatRightPRO