

Hot Topic: A Perspective on The Benefits of Organic Foods

Published September 2009

Co-Authored by:

Christine McCullum-Gomez, PhD, RD and Anne-Marie Scott, PhD, RD

Available at:

http://www.eatright.org/cps/rde/xchg/ada/hs.xsl/nutrition_22637_ENU_HTML.htm

Sub-Topic Overview

- Definitions: local, organic, conventional/industrial, sustainable
- Nutrient debate – which is better organic or conventional
- Current Programs in place now to promote organics
 - Farm Bill
 - USDA: Know Your Farmer, Know Your Food
 - American Medical Association
 - Kaiser Permanente Organic Farmer's Markets
 - Edible Schoolyard
 - Farm to Fork, Seed To Table, Farm To School
 - The Locavore Makeover Project
- Action Steps – How RDs and DTRs can make a difference

What do local, organic, conventional/
industrial, sustainable and agro-ecology
really mean?

DEFINITIONS

Local

Local – No real definition of distance: 100 miles, state wide, regional, etc. But local does not always mean organic or sustainable.



Organic



Organic – USDA marketing program based on certification of organic farming practices
NOP – National Organic Program regulates nat'l stds

Note: Organic can be deep or shallow and organic foods can also become overly processed, sub-optimal food choices for regular consumption.

Organic Certification

- Crop Standards
 - Land, 3 years clean
 - Soil fertility mgmt
 - Pest, weed and disease mgmt through physical, mechanical and biological controls
 - Organic seeds and no genetically engineered crops
- Livestock Standards
 - Animals fed organic feed and allowable vit/min supplements
 - Dairy cows must be managed organically for 12 months before products can be labeled organic
 - No hormones or antibiotics ever, vaccines are allowable

Conventional/Industrial

- Monocultures
- Chemical Use for
 - Pesticides
 - Herbicides
 - Fertilizers
- Genetically Modified Organisms
- High Petrochemical Energy Inputs for Equipment and Transport



Conventional/Industrial Ag

- Confined Agricultural Feedlot Operations (CAFOs)



Sustainable Agriculture

- Organic Practices
- Environmental Health Practices
- Biodiversity
- Water Use & Quality
- Soil Health
- Wildlife and Pollinators
- Energy Use



Agroecology

- The application of ecology to the design and management of sustainable agro-ecosystems.
- A whole-systems approach to agriculture and food systems development based on traditional knowledge, alternative agriculture, and local food system experiences.
- Linking ecology, culture, economics, and society to sustain agricultural production, healthy environments, and viable food and farming communities.

Which is better organic or conventional foods?

NUTRIENT DEBATE

UK Study

- Nutritional Quality of Organic Foods: A systematic review
 - By Dangour, Dodhia, Hayter, Allen, Lock and Uauy
 - Published in Sept 2009
Amer J of Clin Nutr

French Study

- Nutritional quality and safety of organic food. A review
 - By Denis Lairon
 - Published in Sept 2009
Agronomy for Sustainable Development

UK Study

- Concluded that “there is no evidence of a difference in nutrient quality between organically and conventionally produced foodstuffs. The small differences in nutrient content detected are biologically plausible and mostly relate to differences in production methods.”

French Study

- Concluded “that organic plant products tend to have more dry matter, some minerals (Fe, Mg) and anti-oxidant micronutrients (phenols, resveratrol) while animal organic products have more polyunsaturated fatty acids.”

Are we comparing apples to oranges?



- UK study

- Exclusively used English language articles dating back 50 years
- Older studies looked at plant varieties that aren't used now
- Monoculturing and high yield processes can dilute nutrient levels – practices not in place 50 years ago to the degree that they are now.

- French Study

- 99% of studies used dated back to 1982 published in many languages
- Update of their study in 2003 which concluded the same organic benefits
- Many consumers care as much about decreased pesticide levels and environmental conservation as minimal nutrient difference.

Take Away Messages for Consumers

- When making food choices as part of a healthful diet, moderation and variety are important, regardless of whether or not food is produced organically or conventionally.
- While there is still more work to be done, current research indicates there can be initial and long-term positive impacts on the health of individuals and the environment from the adoption of large-scale organic farming and food consumption.
- However, the potential of organic agriculture to improve the environmental performance of US agriculture is having only a modest impact on the environment because the current organic adoption rate is low.
- Therefore, RDs and DTRs are set to be ideally positioned as organic advocates.

What programs are in place now that are working to promote sustainable agriculture and organics foods?

CURRENT PROGRAMS

Current Programs

- Farm Bill 2008
 - included increased “funding to help producers and handlers with organic certification costs, to enhance data collection on organic agriculture and to support Federal organic regulatory activities.”

- USDA Initiative:

Know Your Farmer, Know Your Food

This is a USDA-wide effort to create new economic opportunities by better connecting consumers with local producers. It is also the start of a national conversation about the importance of understanding where your food comes from and how it gets to your plate. Today, there is too much distance between the average American and their farmer and we are marshalling resources from across USDA to help create the link between local production and local consumption.

Current Programs

- American Medical Association
- In its Sustainable Food resolution approved in June 2009 (Resolution 405-A-08), states that, “Organic meat production helps reduce the development of antibiotic resistance, as well as air and water pollution.”

<http://www.ama-assn.org/ama1/pub/upload/mm/475/refcomd.pdf>

- Kaiser Permanente
- Includes actual organic farmers’ markets within some of its medical facilities and/or publicizes other markets in their consumer markets.



Current Programs

- Edible Schoolyard
 - The mission of the Edible Schoolyard is to create and sustain an organic garden and landscape that is wholly integrated into the school's curriculum, culture, and food program.
- Farm To School
 - Farm to School connects schools (K-12) and local farms with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing agriculture, health and nutrition education opportunities, and supporting local and regional farmers

Current Programs

- **Farm To Fork - NC**
- Center for Environmental Farming Systems NC has been funded to ask: **What will it take to build a sustainable local food economy in North Carolina?**
- Across the state, various organizations are promoting and implementing exciting initiatives to support sustainable local agriculture. Ex: **new farmer's markets, local food policy councils, comprehensive county- food initiatives, farm incubator programs, farm and/or garden youth education programs, health and nutrition projects focused on local sustainable foods, procurement initiatives by large retail and institutional buyers and schools, and much more.**
- If each North Carolinian **spent 55 cents/day on local food, it would mean \$1.7 billion for the state's economy.** That money circulates here in the state so has a multiplier effect, rather than going to a corporate headquarters in another state.
- Other **benefits** of a sustainable local food economy in North Carolina **include economic development, job creation within farming and food sectors, preservation of open space, decreased use of fossil fuel and associated carbon emissions, preservation and protection of the natural environment, increased consumer access to fresh and nutritious foods, and greater food security** for all North Carolinians.

The Locavore Makeover Project

- <http://locavoremakeoverproject.blogspot.com>
- The Locavore Makeover Project is documenting a year in which two fast food centered families will learn to adopt a seasonal, local, organic and unprocessed food lifestyle. The project is being led by a Registered Dietitian and locavore herself, Anne-Marie Scott.



What can RDs and DTRs do to promote the increased development and use of organic foods and sustainable food systems?

ACTION STEPS

Action Steps

Educate yourself on the terms and concepts by reading the

HEALTHY LAND, HEALTHY PEOPLE:

BUILDING A BETTER UNDERSTANDING OF SUSTAINABLE FOOD SYSTEMS FOR FOOD AND NUTRITION PROFESSIONALS.

A PRIMER ON SUSTAINABLE FOOD SYSTEMS AND EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS

American Dietetic Association Sustainable Food System Task Force
March 16, 2007

- **Clinical and public health arenas** are key players in the consumption sector and have the potential to *influence patient and client food choices* by shaping how people think, behave, choices they make and their level of engagement in food system changes.
- **Food service operations** in hospitals, schools, restaurants and other facilities have an important role in the food distribution, access and consumption sectors by *procuring, preparing, and serving large quantities of sustainably-produced foods*. In addition, food service operators can significantly *impact waste management strategies* in their institutions.
- **Food companies** are *influential in the transformation, distribution and access sectors* by focusing on sustainable product development, energy efficient transportation and donating fresh and nutritious products to food banks or food pantries.
- **Dietetic education** can *incorporate sustainable food system concepts* into dietetic curriculum, internships and research agendas.
- **Government and public policy** can *advocate for policies that support sustainable practices* in all sectors of the food system such as the Farm Security and Rural Investment Act, better known as the Farm Bill.