

Healthy Land, Healthy Food & Healthy Eaters

Dietitians Cultivating Sustainable Food Systems

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FROM SOIL TO PLATE: AN ECOLOGICAL APPROACH TO FOOD, NUTRITION & HEALTH

The health of eaters reflects the health of the food system. Diet-related chronic diseases are of epidemic proportions. Seven of the top ten causes of death are linked to diet.¹ Young children are developing diseases rarely seen in childhood such as Type II diabetes. Researchers are predicting that the children of today will have a shorter lifespan than their parents.² How much higher will disease rates get before they get better?

More importantly, how do current and future dietetic professionals critically evaluate food systems, identify root causes of diet-related diseases and develop strategies to ensure the food and nutrition needs of all eaters are met, now and in the future? Public health trends and medical expenditures are a reflection of the viability and stability of the food system and taking an ecological approach to food and nutrition can optimize the health of the nation and the world.

If dietitians are empowered to be the nation's food and nutrition leaders, dietetic education and practice must encompass the ecological, political, social and economical implications of a healthy diet.

The purpose of this document is to provide essential tools to dietetic professionals for navigating the food system. These tools include:

- Theoretical models that connect natural resources to food production and health.
- A critical thinking checklist that aids in determining the viability and stability of food

production practices in relation to the impact on the environment and the feasibility of fulfilling the food and nutrition needs of current and future generations.

- Strategies for incorporating food system sustainability activities into personal and professional practice.

A Sustainable and Resilient Food System

The term "sustainability" has been applied at differing degrees across social, economic and ecological sectors and most recently to food production. Despite the widespread use, the definition and core principles of sustainability remain vague and variable and are often borrowed as a symbol of an environmental movement to gain economic benefit.

Sustainability infers a state or process that can be maintained indefinitely. According to Gussow and Clancy, sustainability means the capacity of being maintained over the long term in order to meet the needs of the present without jeopardizing the ability of future generations to meet their needs.³

However, Frederick Kirschenmann contends sustainability cannot be defined.

"Since nature is full of emergent properties, sustainability is always an emerging concept. Sustainability is about maintaining something indefinitely into the future. Consequently, to be sustainable we have to anticipate and successfully

*adapt to the changes ahead. Sustainability is a process, not a prescription. This process always requires social, ecological, and economic dimensions. There is therefore, no simple definition. It is a journey we embark on together, not a formula we agree to."*⁴

Hence, there is never an endpoint with establishing sustainable food systems, it is a continual unscripted process that may not always have the conclusive evidence to support decisions but succession based on precautionary principles. What is known is that developing resiliency within the food system is critical for ensuring a future food supply that protects both human and environmental health.

Dietitians must ask:

- How can an ecological approach assist in achieving the American Dietetic Association's vision to optimize the nation's health through food and nutrition?
- How can the food system regain resiliency to ensure a future food supply that protects both human and environmental health?

A Sustainable Food System Model

In 2007, the American Dietetic Association's Sustainable Food Systems Task Force developed a theoretical model to illustrate a sustainable food system and the role of the dietetic professional.⁵ Similar to the principles of sustainable agriculture, the sustainable food system model is built on the foundation of human, natural and economic capital. The 'inputs' must be:

- **Ecologically Sound.** Inputs are used in ways that conserve, regenerate or enhance natural resources. Genetic biodiversity is preserved. Renewable energy sources are used. Wastes are limited and recycled.
- **Socially Acceptable.** The distribution of resources is equitable. People working in the food system are treated justly and the system does not exploit anyone or anything. Foods are produced to benefit human health, are culturally acceptable, and economically accessible for all people. The system functions with regard for future generations.
- **Economically Viable.** Each sector of the food system supports livelihoods of families. Food system activities contribute to local economic development. No one entity holds a disproportionate share of economic control over food production, transformation, distribution, access, or consumption.

The functionality of the food system is influenced by sociocultural trends and values, economic factors, research and education, and technological advances. The core influences on the food system sectors are local, state, federal and international policy (Figure 1). Policy determines what food is grown, traded, processed, labeled, and available for consumption. Agriculture, food and nutrition policy influences the health of individuals, families, farms, communities and their environment. Policy is the root of the entire food system.

The outcomes of a sustainable food system positively influence the viability and stability of each of the food system sectors; improves natural resources and ecological resilience; and meets the food, nutrition and health needs of ALL eaters.

Dietitians are encouraged to access *Healthy Land, Healthy People: Building a Better Understanding of Sustainable Food Systems for Food & Nutrition Professionals*⁵ as a guide to supporting sustainable food systems.

“A sustainable and resilient food system conserves and renews natural resources, advances social justice and animal welfare, builds community wealth, and fulfills the food and nutrition needs of all eaters now and in the future.”

--Harmon A. & Tagtow A., 2008

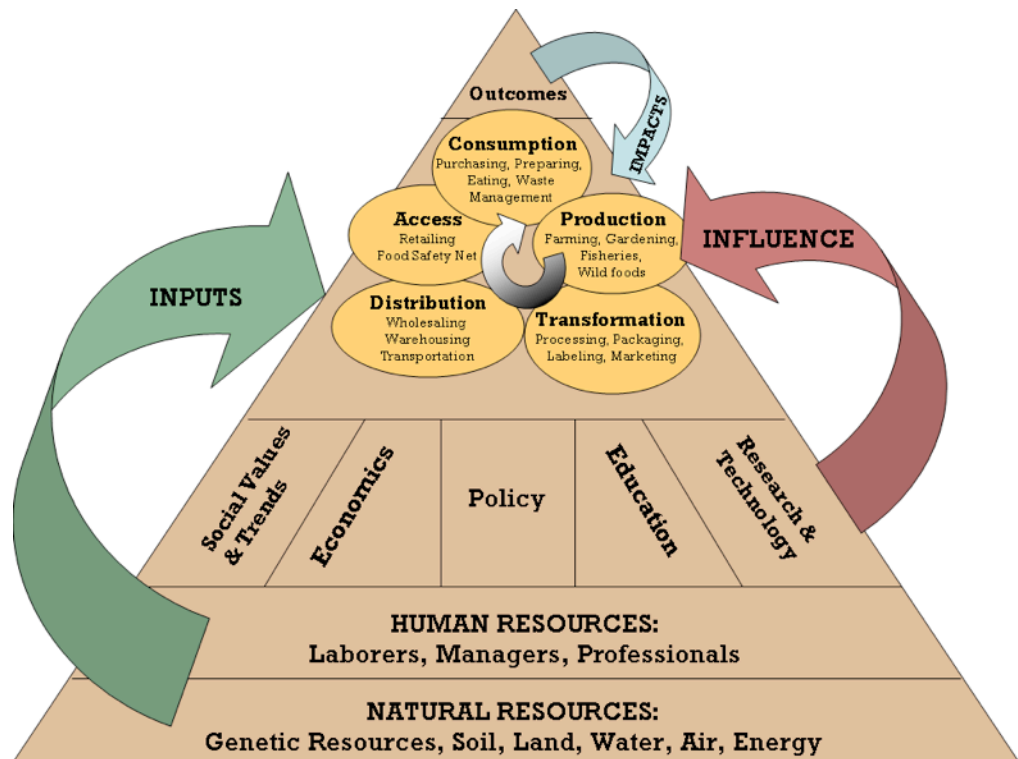


Figure 1. Sustainable Food Systems Model⁵

The Soil-to-Health Connection

Food is a basic human need. Maintaining the diversity, quality and quantity of food available is essential to the health of all eaters. Author and farmer Wendell Berry said “eating is an agricultural act,”⁶ yet most eaters are disengaged with how food is grown, harvested, processed and transported.

Agriculture is central to the world's economy, culture and communities. In addition, the cornerstone of agriculture is the availability of natural resources or the earth's ecological capital; specifically, soil. It is the thin layer of soil which covers the earth's land surface that is the cornerstone of civilization.⁷ Soil is a critical component of the earth's life support system. Therefore, food choices not only directly influence the health of eaters, but food choices profoundly influence the health of the planet.

The soil food web (Figure 2) is fueled by the primary producers - the plants, lichen, moss, bacteria and algae in the soil that use the sun's energy to fix carbon dioxide from the atmosphere. According to soil microbiologist, Dr. Elaine Ingham, a teaspoon of soil from native grassland contains

between 600 million and 800 million individual bacteria that are members of 10,000 species, many of which may yet to be discovered. It may contain several miles of fungi, more than 10,000 individual protozoa, and 20 to 30 beneficial nematodes.⁸ Soil is a community of living organisms.

Other soil organisms get energy and nutrients by consuming the organic compounds found in plants, other organisms and waste products. As organisms decompose, their nutrients are made available to plants and other organisms.⁸ Healthy soil is central to all living things - all plants depend on the soil-food web for their nutrition, and all animals and humans depend on healthy plants. Healthy soil makes it possible to have clean water and clean air.

English agronomist Sir Albert Howard said, “Proper soil fertility which builds appropriate levels of humus in the soil is the basis of the public health system of the future.”⁹ When the soil is unhealthy it becomes the source of disease in plants, animals and people. *The science proves that healthy soil grows healthy food. Science also proves that healthy food nourishes healthy people and healthy people live in healthy communities.*

A primary threat to soil health is erosion. Poor land and agriculture management practices enable wind and water to degrade soil quality by removing organic matter, clay particles, and nutrients - thereby, destroying the community of soil organisms. Erosion reduces soil nutrient bioavailability, root growth, plant fertility, biological productivity, moisture retention, and water filtration. Erosion perpetuates further erosion.

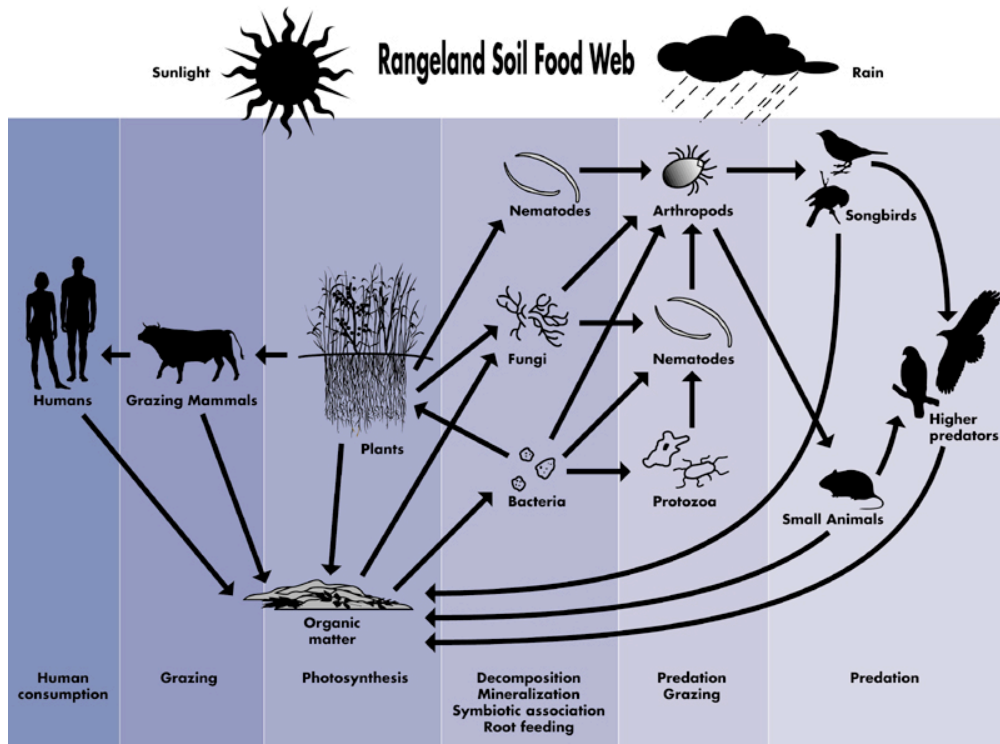


Figure 2. Soil Food Web¹⁰

The Soil-to-Health Connection (continued)

In 2008, the Midwest experienced unprecedented flooding destroying homes, businesses and communities. In Iowa, the heart of the nation's breadbasket, the loss extended to food production. During June 2008, 60% of Iowa's counties lost an average of seven tons of soil per acre as a result of the flooding. That is 15,680 pounds of soil lost in one acre in one month. Year-to-date erosion data have identified several areas in Iowa that have lost upwards of 56 tons of soil per acre. That is more than 125,000 pounds of soil lost per acre in eight months.¹¹ According to the Soil Science Society of America, it takes 500 years to build one-inch of topsoil.¹² Without significant transformation in agriculture and land use policies and practices which protect, preserve and build fertile soil, the astounding loss of soil will significantly deteriorate the ability to grow healthy, fresh food and sustain societies.

Biodiversity, Food Production & Health

Biodiversity is simply, the variety of life on Earth, including genes, species, populations and ecosystems.¹³ Biodiversity is the quintessential example of how human health and environmental health are intricately interwoven and is often used as a measure of the health of biological systems.¹⁴ Maintaining species biodiversity is critical for ecological sustainability in the broad sense, as all species are dependent on other species in a web-like fashion for food, shelter, and reproduction (pollination, etc.).¹⁵

In terms of the food system, biodiversity is part of the natural resource foundation that profoundly sustains the food supply. It is the primary source of variation and allows for the process of evolution such that food plants are adapted to the variety of environments and conditions under which they are cultivated today and in the future.¹⁶ For example, there are rice varieties that grow well under water and others that grow where there is little precipitation.¹⁶ The places in the world where each wild food plant was originally domesticated continue to be the center of genetic diversity for each species. These centers of diversity were identified by the well-known Russian botanist and geneticist, I.N. Vavilov.¹⁶ A genetically diverse food system is the insurance policy of the future.

The following examples demonstrate the drastic deterioration of biodiversity within the food system:

- According to the Living Planet Report, there has been a 31% decline in terrestrial species, a 27% decline in marine species, and a 28% decline in freshwater species since 1970.¹⁷
- The Leopold Center for Sustainable Agriculture found that in 1920 there were 34 crops grown in Iowa that were grown on at least 1% of Iowa farms. About half of those crops were fruits and vegetables. Today, there are 11 agricultural crops produced on at least 1% of all Iowa farms. None of which are fruits or vegetables. Iowa has not grown fruits or vegetables on at least 1% of farms for over 44 years.¹⁸

- According to the USDA, if everyone were to eat the recommended servings of foods according to the Dietary Guidelines for Americans, US agriculture would need to produce an additional 7.6 million acres in fruit, 6.5 million additional acres in vegetables and produce an additional 111 billion pounds of milk per year.¹⁹ As a result, the US has developed greater reliance on other countries to provide fresh produce. The amount of fresh produce imported to the US has doubled in the last 10 years.²⁰
- Only 12 plant species provide approximately 75% of the world's total food supply,²¹ and only 15 mammals and birds compose 90% of the global domestic livestock production.²²
- Approximately 74% of commercial fisheries are harvesting at or beyond their maximum potential.²³ This perpetuates further collapse of global fisheries including more than 30% of all native fish in North America that are endangered or critically endangered.²⁴
- In 2006, about 24 states reported native bee losses of up to 70%. Although the cause of Colony Collapse Disorder has not been identified, it may significantly impact foods that rely on pollination. For example, approximately 80% of the plants grown as crops in the European Union are dependent upon insect pollination.²⁵ Researchers have estimated that 33% of the diet consists of foods resulting from pollination.²⁶

Dietitians often encourage species variety in the diet, as that ensures that essential nutrients will be consumed in quantities that are adequate for optimum health.²⁷ As ecosystems are destroyed at an unprecedented rate and the biodiversity of natural resources and agricultural products decline due to genetic erosion and genetic pollution, the variety of foods in the human diet declines as does the nutritional balance and the quality of the diet.

Dietitians must ask...

- What are the ethical implications of promoting increased consumption of specific foods that cause habitat destruction, species extinction, soil degradation or permanent loss of agricultural productivity?
- As world population increases resulting in the increased demand for resources, what must be done to strengthen the Earth's biocapacity to fulfill the food and nutrition needs of all eaters in the future?



MOVING BEYOND NUTRIENTS - THE HEALTH BENEFITS OF SUSTAINABLE FOOD SYSTEMS

Dietitians are the food and nutrition experts. The time is ripe for dietetic professionals to cultivate a systems approach which optimizes the nutrition and health of all eaters. Food choices made today affect the health of eaters, but profoundly influence the Earth's capacity of growing healthy, fresh food in the future. The health benefits of sustainable food systems extend beyond single nutrients to creating vibrant and resilient communities that can be maintained indefinitely across the globe.

Provides Fresh, Flavorful Food. Eaters are interested in the health benefits, food safety and quality of local foods.²⁸ Local foods are grown closer to the point of consumption providing a fresh, ripe and flavorful product. Because local produce is picked when ripe, there is a more robust flavor profile as compared to produce that was picked before it was ripe and traveled thousands of miles.

Decreases Chronic Disease. A diet rich in fruits and vegetables maximizes good health. Increased fruit and vegetable consumption lowers the risk of developing obesity, diabetes, heart disease and could prevent at least 20% of all cancers,²⁹ thereby reducing health care costs.

Boosts Beneficial Nutrients. Some studies show that organic farming produces crops with higher levels of beneficial nutrients such as antioxidants as compared to conventionally-grown crops.^{30,31} Pasture-raised, grass-fed beef contains less total fat than meat from grain-fed animals. Meat and milk from pasture-raised, grass-fed animals contain greater levels of beneficial fatty acids such as omega-3, alpha-linolenic acid and conjugated linoleic acid.³²

Strengthens Food Security. Linking fresh, local foods to nutrition assistance programs may decrease food insecurity and hunger and improve the health of low-income families. The number of farmers' markets is rising, therefore increasing greater access to locally-grown fresh produce. This increases the supply of fresh, local food to low-income families who may have higher rates of diet-related chronic diseases. In the event conventional food distribution channels are disrupted, local food sources should be incorporated into emergency

preparedness plans. Sustainable food systems strengthens individual, household and community food security.

Increases Diversity of Foods. Diverse foods are needed to meet the food, nutrition and health needs of all eaters. Diversifying farm products helps meet that demand and enables a farmer to spread out their production and level of risk. Biodiversity in production systems and natural ecosystems increases the diversity of diets and the prospect of a sustainable future.³³

Preserves Natural Resources. As Sir Albert Howard said in 1939, "soil is the basis of public health."⁹ A sustainable food system includes diversified farming systems that renews the soil and regenerates natural resources by maintaining soil nutrients, reducing dependence upon chemical pesticides and fertilizers, promoting crop diversity, decreasing erosion, and preserving water quality.

Maintains Ecological Balance. A sustainable food system encourages diverse and seasonal eating which maintains ecological balance within a region.

Decreases Dependence on Nonrenewable Energy. Locally-produced and consumed products travel shorter distances. For example, if Iowa grew and transported more produce intended for Iowa consumption, there would be an annual savings of 280,000 to 346,000 gallons of fuel and an annual reduction of 6.7 million to 7.9 million pounds of CO₂ emissions.³⁴

Establishes Relationships. Local foods enable eaters to connect with where their food comes from and how it is produced by establishing personal relationships with farmers. Preparing and eating local foods at home provides opportunities for families to share quality time contributing to better connected families and communities.

Protects Animal Welfare. In sustainable agriculture, animals are raised on a scale in which they can be treated humanely and with compassion, and do not endure unnecessary suffering.

Decreases Widespread Contamination. Local production, processing and distribution systems have shorter supply chains and offer less co-

mingling of products as compared to a global industrial food system. This decreased vulnerability allows potential food contamination to be contained.

Increases Economic Viability and Stability. Eaters are seeking higher quality, fresh, healthy foods from farmers who implement responsible agricultural practices. This demand results in greater financial opportunities for farmers. This revenue will be recirculated and reinvested within communities and will strengthen local economies.³⁵ For example, if Iowans ate five servings of fruits and vegetables per day, and Iowa farmers supplied that produce for three months of the year, production and marketing for these additional crops would add \$302.4 million and 4,094 jobs to the Iowa economy.³⁶

Offers Higher and More Stable Farm Incomes. Eaters are more likely to purchase locally-grown foods if available.³⁷ This demand, if matched by local production, may enhance the farmer's share of the final retail price as there are fewer exchanges between farmer and consumer. Stable farms are the cornerstone of rural economies.

Saves Farmland. Sustainable food systems will slow the rapid loss of farmland to residential and commercial development. Sustainable communities can be centered around profitable local food production.

Builds the Foundation of a Vibrant Community. The food system is a reflection of the ecological, social, economic and public health stability and integrity of communities. These elements are essential for sustainability, not just for the food system, but also for the whole of society and the future of humanity.³⁸ *Healthy individuals, healthy families, healthy farms, healthy communities and healthy ecosystems are a result of a vibrant, resilient and sustainable food system.*

Dietitians must ask...

- How can we overcome the challenges in building a resilient and sustainable global food system?

THE ROLE OF THE DIETITIAN IN SUPPORTING SUSTAINABLE FOOD SYSTEMS

Food and nutrition experts have the opportunity to be a critical element in the foundation of a sustainable food system. Dietitians can promote sustainable diets that contribute to human health, support local agriculture, conserve natural resources, minimize solid waste, and promote ecological sustainability through the varieties of roles they play in the food system (Figure 3). For example:

Dietary Guidance: Clinical dietitians and others who provide dietary guidance are key players in the consumption sector of a sustainable food system and have the potential to influence patient and client food choices, thought patterns, food behaviors, and engagement in local and global food system issues.

Community Nutrition: Community dietitians can contribute to stronger local food systems by working on community food projects that seek to make connections between local producers and local consumers. Examples are farm to school projects, community supported farms, and farmers' market nutrition education projects.

Public Policy: Dietitians 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, and the Child Nutrition and WIC Reauthorization Act.

Research & Teaching: Dietitians who are researchers and/or educators of future dietitians can incorporate sustainable food system concepts into university courses, internships, and research agendas.

Food Procurement: Food service operations in hospitals, schools, restaurants and other facilities have an important role in the food distribution, access and consumption sectors of a sustainable food system by procuring, preparing, and serving large quantities of sustainably-produced foods. In addition, food service operators can promote or engage in energy and water conservation and waste minimization strategies in their institutions.

Corporate Practices and Policy: Dietitians who work for food companies are influential in transformation, distribution, and access sectors of a sustainable food system by focusing on sustainable product development, sourcing of raw materials in an energy efficient way, providing consumers with useful information on labels, and channeling nutritious products to food banks or food pantries that would otherwise contribute to the waste stream.

One of the best ways to embrace sustainable food systems is by being a role model. Make connections with local farmers, learn about seasonal foods, visit farmers' markets or food co-ops and engage in food policy discussions. Making these connections as individuals and then as professionals is the first step in assuring that future generations will have access to safe and nutritious food from a sustainable food system.

For more information, go to www.eatright.org to access *Healthy Land, Healthy People: Building a Better Understanding of Sustainable Food Systems for Food and Nutrition Professionals*.

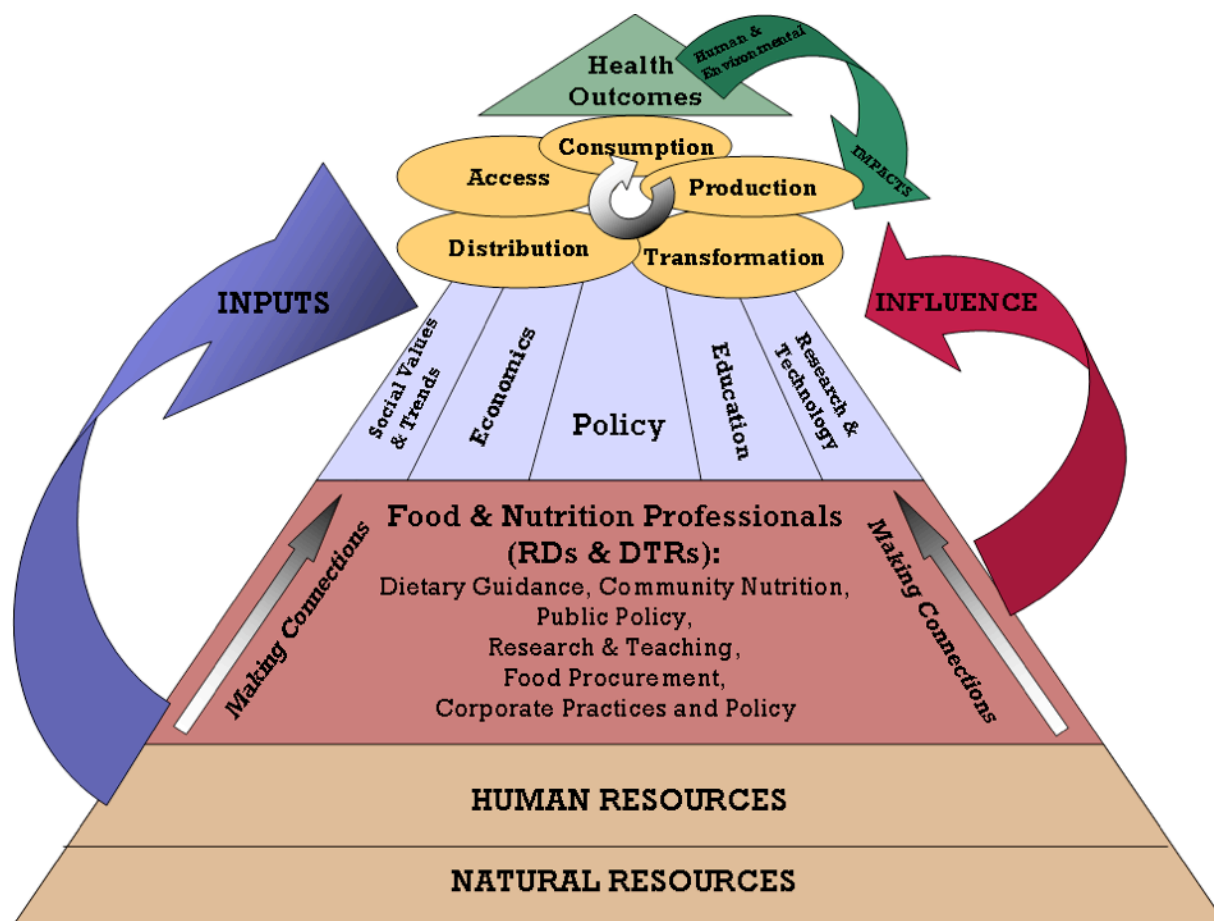


Figure 3. *The Role of the Dietitian in Supporting a Sustainable Food System*⁵

“SHADES OF GREEN” - LOOKING AT THE FOOD SYSTEM WITH A CRITICAL EYE

By Angie Tagtow, MS, RD, LD

Interest in environmentally-friendly food products and food production practices is growing. The food and beverage industry has responded to this interest and has created environmentally-friendly marketing schemes. However, as companies “green” their products or extol sustainable business practices, dietitians need to be equipped with the tools to decipher the new marketing trends. This extends to nutrition and health claims on food products. According to attorney Michelle Simon, “Nutrition advocates who buy into the myth of industry-created solutions do so at their own peril. Praising companies for “doing the right thing” only encourages more food industry-PR (or ‘nutriwashing’).”³⁹

Use the following checklist to determine the “shade of green” of a food or beverage product. The more ✓s, the greater contribution the food product makes to a sustainable food system.

The producer or farmer who grew the food is known.	
The location of where the food originated is known.	
The food traveled the least distance possible.	
The food is fresh, whole, seasonal and grown without harming soil, water or air quality.	
The food was raised humanely without synthetic hormones or antibiotics.	
The process to produce the food conserves genetic biodiversity and ecological integrity.	
The food company has made a commitment to sustainability, social responsibility and environmental best practices.	
The farm workers, processors or food service workers earned a fair wage, worked in safe conditions and were not exploited in the making of this food.	
The nutritional value of the food is maintained and it is free of artificial ingredients.	
There were no or low environmental impacts as a result of processing and transporting the food.	
The food packaging is minimal, made from renewable resources and is recyclable.	
The label on the food product directs you to find more information. Product labeling is transparent.	
The name and any claims of the food product are specific, meaningful and logical.	
The food product has a legitimate and reputable third-party seal or certification.	
The local, national and global implications of this food product are known.	

For more information:

- Hargroves, K. and M. Smith (Eds.) 2005. *The Natural Advantage of Nations: Business Opportunities, Innovation and Governance in the 21st Century*. ISBN 1-84407-121-9, 525 pages. Earthscan/James&James. (See the online companion at www.thenaturaladvantage.info).
- Hemmelgarn M. *Digging up Dirt: Finding Food Truth with the Food Sleuth*. July 2008.
- TerraChoice Environmental Marketing Inc. *The Six Sins of Greenwashing. A Study of Environmental Claims in North American Consumer Markets*. November 2007. Available at www.terrachoice.com.

SUSTAINABLE FOOD SYSTEMS TOOLBOX FOR DIETETIC PROFESSIONALS

American Dietetic Association, www.eatright.org

- *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. (Lollar D, Harmon A, Hartman B, O’Neil C, Raimondi M, Roberts S, Tagtow A, Wilkins J, Devlin C, & Holler H) 2007. Chicago, IL: American Dietetic Association. Available for ADA members only.
- Position of the American Dietetic Association: Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability. *J Am Diet Assoc*. 2007; 107:1033-1043
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- Position of the American Dietetic Association: Food insecurity and hunger in the United States. *J Am Diet Assoc*. 2006;106:446-458.
- Position of the American Dietetic Association: Addressing world hunger, malnutrition, and food insecurity. *J Am Diet Assoc*. 2003;103:1046-1057
- McCaffree J. Water and sustainable agriculture: What they mean to food and nutrition professionals. *J Am Diet Assoc*. 2008;108(2): 215-216.

Hunger and Environmental Nutrition Dietetic Practice Group, www.hendpg.org

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- *The Journal of Hunger and Environmental Nutrition*, <http://JHEN.HaworthPress.com>
- Tagtow, AM, Harmon, AH, eds. *Sustainable Food Systems: Perspectives from the United States, Canada, and the European Union*. *J Hunger Environ Nutr* (Special Double Issue). 2008;3(2&3).

Other Organizations

- American Public Health Association Policy Statement “Toward a Healthy, Sustainable Food System,” www.apha.org/advocacy.
- Community Food Security Coalition, “Community Food Security, Promoting Food Security and Healthy Communities,” www.foodsecurity.org/pubbs.html.
- Health Care Without Harm, “Healthy Food in Health Care, A Menu of Options,” www.noharm.org/us/food/issue.
- Institute for Agriculture & Trade Policy, “Food Without Thought - How US Farm Policy Contributes to Obesity,” www.iatp.org.
- The Prevention Institute, “Cultivating Common Ground - Linking Health and Sustainable Agriculture,” www.preventioninstitute.org.

The “Good Food” Checklist for Dietitians

Cultivating a Healthy, Green, Fair and Accessible Food System



Dietitians can support a healthy, green, fair and accessible food system by cultivating a food landscape that supports the health, social and economic well-being of individuals, families, farms and communities. Dietitians may already be implementing sustainable food system practices either personally or professionally. By engaging in these issues, dietitians can advance a healthy, green, fair and accessible food system while meeting patient and client concerns about health and the environment. This will result in better nutrition counseling and improved nutritional health for individuals, families and communities.

Using this checklist, pick five “good food” strategies you will accomplish in the next few months and build from there. Start at home, you may be surprised to find you are doing some already!

I will....

- Learn more about sustainable food systems
- Choose a diet rich in locally-grown and seasonal foods
- Maintain a container or a backyard garden
- Share my home-grown food and recipes with others
- Support and promote community gardens and greenhouses
- Shop at the local farmers’ market or food co-op
- Buy directly from local farms, road stands and U-pick farms
- Buy a share from a Community Supported Agriculture Farm (CSA)
- Support local food processors such as meat lockers and canning facilities
- Start a gardening program at a school, daycare, church, hospital, long-term care facility, or community center
- Purchase fair-trade, organic coffee, tea and chocolate
- Compost fruit and vegetable scraps
- Select packaging options that are recyclable and environmentally-friendly

- Implement a reduce, reuse, recycle program in my home, workplace or community
- Complete a Master Gardener course
- Promote agritourism and ecotourism in my community
- Grow food for a community supported agriculture (CSA) farm or a farmers market
- Become an organic farmer
- Start a local food co-op
- Promote local, seasonal and sustainably-raised food to individuals, families, institutions and communities
- Promote *Buy Fresh Buy Local* marketing initiatives
- Serve local, seasonal and sustainably-raised food at meetings and conferences
- Include sustainable food system tips in nutrition education materials
- Educate patients, clients, family and friends about:
 - ▶ The health, social and environmental benefits of eating local, seasonal and sustainably-raised food
 - ▶ The availability of fresh, local, seasonal and sustainably-raised foods
 - ▶ Preparing and preserving fresh, seasonal food
 - ▶ Food safety issues related to selecting and preparing fresh food
- Begin a discussion at my institution or in my community about:
 - ▶ Adopting a seasonal menu system
 - ▶ Purchasing directly from local farms and local distributors
 - ▶ Requesting local, seasonal and sustainably-raised foods from food distributors
 - ▶ Reviewing food safety issues related to regional distribution and transportation systems
 - ▶ Educating food service staff on preparing and cooking whole, local and seasonal food
 - ▶ Revising institutional procurement policies and purchasing specifications to include local, seasonal and sustainably-raised food
 - ▶ Becoming a fast food-free zone
 - ▶ Minimizing and managing waste and energy
 - ▶ Using recycled disposables versus styrofoam or plastic products
 - ▶ Establishing a composting system
 - ▶ Hosting a farmers market at our facility
- ▶ Eliminating cafeteria trays to decrease food waste and over-eating
- Educate students, interns and colleagues about:
 - ▶ The link between sustainable food production, nutrition and health
 - ▶ The interconnectedness of food and agricultural policy with the availability of healthy food
 - ▶ Strategies to incorporate sustainable food systems into clinical, management and public health practice
- Glean food from local farmers for food banks and pantries
- Work with food banks and pantries to regularly provide local, seasonal and sustainably-raised food
- Establish a food recovery system and donate leftover food to emergency food programs
- Implement disaster and emergency preparedness plans that incorporate local, seasonal and sustainably-raised food
- Refer clients to the WIC or Senior Farmers’ Market Nutrition Program
- Offer nutrition or cooking classes using locally-grown food at farmers’ markets, food banks and schools
- Provide support and encouragement to mothers who are breastfeeding
- Express interest in eating local, seasonal and sustainably-raised food at restaurants
- Support businesses and restaurants that use local, seasonal and sustainably-raised food
- Work with restaurants and institutions to develop menus that use local, seasonal and sustainably-raised food
- Request that food stores buy from local farmers and processors
- Encourage point-of-sale identification of local, seasonal and sustainably-raised food in markets
- Write articles or blogs about sustainable food systems
- Submit a letter to the editor or an op-ed about the benefits of locally-grown foods
- Add sustainability principles to your next presentation or media interview
- Work with policy makers on establishing vibrant local food systems
- Establish a food policy council in my community
- Run for an elected office
- Join the Hunger & Environmental Nutrition Dietetic Practice Group (www.HENdpg.org)

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