Sustainable Nutrition
Nourish

*nour·ish Verb* /nərɪʃ/ 

- Provide with substances necessary for growth, health, and good condition.
- Enhance the fertility of (soil).
- Keep (a feeling or belief) in one's mind, typically for a long time

http://www.nourishlife.org/videos/nourish-means/
How Green Is Your Diet

Calculate your Green Diet Score using “The Diet Scorecard”
Sustainable Food System

- The food served at home is part of a large, integrated system which includes:
  - Growth
  - Harvest
  - Processing
  - Packaging
  - Transportation
  - Advertising and Marketing
  - Consumption
  - Disposal

- Maintenance of the system is critical to provide nutrients for the world currently and for future generations.
Food Choices and Consumption Patterns

- Our food choices and consumption are driven by specific actions

  - Purchasing
  - Preparing
  - Eating
  - Waste Disposal
Characteristics of a Sustainable Diet

- Local availability
- Minimizes food waste and supports good nutrition practices/principles
- Minimal processing
- Minimal packaging
- Encourages plant based diet
- Supports nutrition goals and healthy diet
Why Local Foods

- Minimal transportation
- Food is “in season”
- Whole food
- Community connection
- Farmland preservation
- Food safety
Food Miles

- Did you know?
  - A carrot travels 1600 miles to Iowa from CA
  - A potato travels 1200 miles to Iowa from Idaho
  - A chuck steak travels 600 miles to Iowa from CO
  - 75% of apples consumed in New York City are from CA or overseas, even though the State grows enough for the city

- Impact:
  - Requires increased use of fossil fuels
  - Increased refrigeration and packaging needed

- Will food always have to travel?

4 Oct 2011
Seasonal Food

- Have students review chart and circle items that they consume all year round?

- How many of these foods are purchased and consumed out of season?
Minimal Food Wastes

- How much food have you thrown out during the past week?
  - Approximately 30% of food is discarded in processing, packaging, transporting in stores and home kitchens

- Less waste = less food to be produced
  - Less energy to produce the food
  - Less waste going to disposals
  - Less food waste = financial savings
Minimize Highly Processed Foods

- Encourage consumption of real food
  - What is real food?

- Compare the foods in the following slides
  - What happens to the nutrient value of the food?
  - Costs – pocketbook, food miles, environmental
  - How do you think this might impact health?

- Poll
  - From the following slides, which types of foods do you commonly eat?

- What the costs of consuming highly processed foods?
  - Your own pocketbook
  - Food Miles
  - Environment
Impact of Processing on Foods

Impact of Processing on Foods

Impact of Processing on Foods

Impact of Processing on Foods


Impact of Processing on Foods

Minimize Food Packaging
Encourage a Plant Based Diet

*Eat Food, Not Too Much, Mostly Plants*

*Michael Pollan*
Pounds of Grain Needed to Produce One Pound of Bread & One Pound of Animal Weight Gain
Calories to Produce Food

- 100 Calories of Beef
  - 1600 Calories from Oil, Gas, Fossil Fuels

- 100 Calories of Chicken or Milk
  - 500 Calories from Fossil Fuels

- 100 Calories of Plant Foods
  - 50 Calories of Fossil Fuels

### Which Is More Sustainable

<table>
<thead>
<tr>
<th>Item A</th>
<th>Item B</th>
<th>Why?</th>
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</thead>
<tbody>
<tr>
<td>Single Carrots</td>
<td>Individually Packed Carrots</td>
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<tr>
<td>Instant Oatmeal</td>
<td>1 pound Old Fashioned Rolled Oatmeal</td>
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<tr>
<td>Fiji Water</td>
<td>Tap Water</td>
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<tr>
<td>Sting Cheese</td>
<td>Sliced Brick Cheese</td>
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<tr>
<td>Apple Pie</td>
<td>Apple</td>
<td></td>
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<tr>
<td>Strawberries from the corner stand</td>
<td>Strawberries from Chile</td>
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<tr>
<td>Disposable Utensils</td>
<td>Regular Eating Utensils from home</td>
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<tr>
<td>PBJ on Whole Wheat</td>
<td>Submarine Sandwich from a local deli</td>
<td></td>
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<tr>
<td>Frozen Burrito</td>
<td>Beans and Rice</td>
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Amounts of Fuel Required to Feed People Eating at Different Points on the Food Chain

**The meat eater** consumes a typical U.S. diet of meat, other animal products, and plant foods:

- Meat and animal products: 2000 kcal
- Plant foods: 1300 kcal

Fuel required to produce this food: 33,900 kcal

**The lacto-ovo-vegetarian** eats a diet that excludes meats, but includes milk products and eggs:

- Animal products: 1000 kcal
- Plant foods: 2300 kcal

Fuel required to produce this food: 18,300 kcal

**The vegan** eats a diet of plant foods only:

- Plant foods: 3300 kcal

Fuel required to produce this food: 990 kcal
Dietary Recommendations and Sustainable Diets

ChooseMyPlate.gov

Table 1. Health experts' dietary advice

<table>
<thead>
<tr>
<th>Organization</th>
<th>Nutrition advice</th>
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<tbody>
<tr>
<td>American Cancer Society</td>
<td>“Eat five or more servings of a variety of vegetables and fruits each day....Limit consumption of red meats, especially those high in fat and processed [bacon, ham, sausage]. Choose fish, poultry, or beans as an alternative to beef, pork, and lamb.”</td>
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<tr>
<td>American Diabetes Association</td>
<td>“Reduced intake of total fat, particularly saturated fat, may reduce risk for diabetes...[as would] increased intake of whole grains and dietary fiber.”</td>
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<tr>
<td>American Heart Association</td>
<td>“Consume a diet rich in vegetables and fruits...whole-grain, high-fiber foods...fish...lean meats and vegetable alternatives, fat-free (skim) or low-fat (1% fat) dairy products.”</td>
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<tr>
<td>American Institute for Cancer Research/World Cancer Research Foundation</td>
<td>“Choose predominantly plant-based diets, rich in a variety of fruits and vegetables, pulses (legumes), and minimally processed starchy foods.”</td>
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<tr>
<td>2005 Dietary Guidelines for Americans</td>
<td>“A healthy eating plan is one that emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products. Includes lean meats, poultry, fish, beans, eggs, and nuts. Is low in saturated fats, trans fat, cholesterol, salt (sodium), and added sugars.”</td>
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<tr>
<td>World Health Organization</td>
<td>“[Eat] more fruit and vegetables, as well as nuts and whole grains...[Cut] the amount of fatty, sugary foods in the diet....[Move] from saturated animal-based fats to unsaturated vegetable-oil based fats.”</td>
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Your Green Diet Action Plan

- Review your Diet Scorecard
- Identify areas that your diet can be improved
- Develop one goal from each of the following areas:
  - Health Score
  - Environmental Score
  - Animal Welfare Score
- Record these on your Diet Scorecard
In Summary:

Sustainable nutrition leads to:

- Improved health and less chronic disease
- Less foodborne illnesses
- Higher quality soil
- More and Cleaner Water
- Improved Air Quality
- Less Animal Suffering