Food Systems

Sustainable Floridians
Fall 2012

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UF/IFAS Sarasota County Extension
Agenda

• Growing Edibles in Florida and Sustainable Agriculture – Dr. Robert Kluson
• Phillippi Farmhouse Market Tour and Opening Day Ceremony
• Food Systems – Van Linkous
• Lunch at Market
• Transition Sarasota and Eat Local – Don Hall
Food and You: The U.S. Diet
In 2004, the average person in U.S. consumed...

- 46 slices of pizza
- 66.6 pounds of beef
- 87.7 pounds of chicken
- 21.4 gallons of milk
- 31.2 pounds of cheese
- 23.2 pounds of ice cream
- 9.2 pounds of yogurt
- 11.7 pounds of chocolate
- 24.7 pounds of total confectionerries
- 134 pounds of flour

Photos: UF/IFAS; Data: Wall Street Journal Online (http://online.wsj.com/article/SB112671039063140472.html#AVERAGE)
U.S. Food Consumption Trends

• Meat consumption at record high
  – 195 lbs per person in 2000, 75 lbs above 1950s average
• 38% less milk, 287% more cheese than 1950s
• 67% more added fats and oils than 1950s
• Record high consumption of caloric sweeteners in 1999
• Too much refined grain, too little whole grain
• 20% more fruit and vegetables than 1970s

Source: Data from USDA, images from UF/IFAS
Obesity (2007-2008)

- Obese adults age 20+ years: 33.9%
- Overweight (but not obese) adults age 20+ years: 34.4%
- Total overweight adults = 68.2%

- Obese adolescents age 12-19 years: 18.1%
- Obese children age 6-11 years: 19.6%
- Obese children age 2-5 years: 10.4%

Source: CDC
Dietary Guidelines

ChooseMyPlate.gov
Dietary Guidelines

ChooseMyPlate.gov

HEALTHY EATING PLATE

- **Fruits**
- **Grains**
- **Vegetables**
- **Protein**
- **Dairy**

**Dairy**

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

**Vegetables**

The more veggies—and the greater the variety—the better.Potatoes and french fries don’t count.

**Protein**

Eat plenty of fruits of all colors.

**Grains**

- Whole grains (like brown rice, whole-wheat bread, and whole-grain pasta). Limit refined grains (like white rice and white bread).

**Dairy**

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

**Protein**

Choose fish, poultry, beans, and nuts; limit red meat; avoid bacon, cold cuts, and other processed meats.
Food Expenditure

- 10% of disposable income on food in 2001
- Share of disposable income spent on food decreased about 20% from 1982 to 2007
- Nearly half of $ spent on food prepared outside of home
- Total food spending increased by 16% (1982-2007)
  - In-home food costs stayed nearly flat
  - Out-of-house food costs steadily increasing
Where does your food dollar go?

Source: USDA
### Four Seasons of FRESHNESS

Florida Produce Availability at a glance

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www.Florida-Agriculture.com

Florida Department of Agriculture and Consumer Services
Food in your Household

• Make a map, diagram, or flow chart of your household food system or flow of food.
  – Where does the household obtain food?
  – What’s prepared in home? Out of home?
  – What’s fresh? frozen? canned? processed?
  – What foods does your family especially like?
  – How well does your family follow MyPlate guidelines?
  – Are your family’s food habits similar to U.S. trends?
  – What do you do with food wastes?
Food Systems
What is a Food System?

- The interconnected activities that get food from the farm to the plate, including:
  - Growing
  - Processing
  - Preparing
  - Buying
  - Disposing
Sustainability and Systems

• Global
• Regional
• Local

Source: Metro Vancouver Sustainability Framework
Why Food Systems Matter

- Land use
  - Food system takes up a significant amount of land
  - Loss of farmland in many areas, reducing capacity for local food production
  - Urban agriculture movement
- Hunger and obesity
- Economy
- Fossil fuels
  - To produce, process, transport, and dispose
- Access to healthy foods
- Quality of life and community development
# Food System Stakeholders

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<thead>
<tr>
<th>Stakeholders</th>
<th>Values</th>
<th>Interests/Focus</th>
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<tbody>
<tr>
<td>Global industrialized food system</td>
<td>• Food as commodity</td>
<td>• Large scale production</td>
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<tr>
<td></td>
<td>• Profit maximization</td>
<td>• Integration of agricultural inputs, processing, and retailing</td>
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<td>• Efficiency</td>
<td>• Homogenization of food palates</td>
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<td>• Scientific/biotech</td>
<td>• Reduction of economic risk</td>
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<tr>
<td>Consumers</td>
<td>Food as commodity</td>
<td>Safety, choice, convenience, health, inexpensive</td>
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<tr>
<td>Alternative food systems</td>
<td>• Food as individual and community right</td>
<td>• Urban/local based</td>
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<td>• Economic viability</td>
<td>• Reduce societal costs of hunger and food production</td>
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<td>• Environmental sustainability</td>
<td>• Improve health through food access</td>
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<td>• Social justice</td>
<td>• Self reliance and community empowerment</td>
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<td>• Connect producers and eaters</td>
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<td>• Structural change</td>
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(adapted from Marcia Caton Campbell – Building a Common Table)
## Food System Stakeholders

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<tr>
<td>Sustainable Agriculture</td>
<td>• Environmental sustainability • Biodiversity • Economic viability</td>
<td>• Rural focus • Direct marketing (producer/grower focus) • Environmental risk reduction • Place-based, seasonal foods</td>
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<tr>
<td>Environmental Justice and</td>
<td>• Social welfare • Poverty alleviation • Equity and fairness</td>
<td>• Food relief for low-income households • Strengthening food assistance programs • Community empowerment • Equitable distribution of environmental risk</td>
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<tr>
<td>Emergency Food</td>
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<tr>
<td>Food citizens</td>
<td>• Food as individual and community right • Environmental and economic sustainability • Participatory democracy</td>
<td>• Connect urban and rural • Build community food resources • Individual and public health • Place-based, seasonal foods • Direct connection of producers with eaters</td>
</tr>
</tbody>
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(adapted from Marcia Caton Campbell – Building a Common Table)
You & the Food System


• How are your values reflected in your relationship to the food system? Where do you shop or eat? What do you buy?

• Do any of the food system stakeholder types resonate with you?
Food Systems & the Economy

• Globalization of the Food System
• Rural Decline
• Economic Impacts of Local Purchasing
• Local Food Purchasing Policies
Food Systems & Health

- Farm Policy and Health
- Obesity
- Obesity and the Built Environment
Food Systems & Ecological Systems

- Energy Consumption in the Food System
- Water Issues in Agriculture
- Concentrated Animal Feeding Operations (CAFOs)
- Loss of Biodiversity
- Fisheries
- Food system wastes
Food Systems & Social Equity

- Hunger and food insecurity
- Emergency food assistance
- Supermarket initiative
- Vacant urban land for growing food
- Immigrants as food sector workers
Native/Ethnic Food Cultures

- Food issues faced by Native American communities
- Native Food Planning
- Ethnic Cuisines
- Locally Sourced Ethnic Foods
Michael Pollan Video

• [http://vimeo.com/7528069](http://vimeo.com/7528069) (15 minutes)
Evolution of Agriculture
Pre-Industrial American Farming

- Discuss pros and cons of the family farmer model that characterized pre-industrial American farming
Global Food System in a Market Economy

• With industrial revolution, farming, fishing, and other food-production activities became large-scale enterprises, organized according to the principles of maximum productivity and maximum profit

• Transportation, communication, processing, and packaging technology allow for food trade on global scale

• Capital-intensive agriculture produces a greater supply—and surplus—than ever before

• Food in the U.S. travels an average of 1,300 miles and changes hands half a dozen times before it is consumed

Source: Gale Encyclopedia of Food and Culture
How to Feed the World?

- Video on global food system from Denis van Waerebeke (9 minutes)
  
  [http://vimeo.com/8812686](http://vimeo.com/8812686)
The Future of Food

• A documentary by Deborah Koons Garcia
• (9:50 intro):
  http://www.youtube.com/watch?v=jNezTsrCY0Q
A Call for Structural Change

- Climate Change
  - Food Transportation
  - Food Production – especially meat
- Other Environmental Impacts
- Hunger and food insecurity
- Health issues: obesity, poor nutrition, and toxins/chemicals
- Loss of flavor and variety
- Societal disconnect
- Economic localization/diversification
Alternatives

• Local
• Slow Food
• Organic
• Sustainable
Reasons for Eating Local

- Support local economy
- Fresher, tastier foods that have longer to ripen
- Less environmental impact
- You can make informed choices—just ask your farmer
- Creates community
- Keeps us in touch with the seasons
- Protects from bio-terrorism, promotes food safety
- More variety
- Supports responsible land use and open space
Some Local Food Terms

• **Locavore** – one who eats food grown locally whenever possible

• **Food Miles** – the distance food travels from where it is grown or raised to where it is ultimately purchased by the consumer

• **Food Shed** – geographic area that supplies a population center with food; or area that theoretically could (think of a watershed)

• **100-mile diet** – eating foods grown within 100 miles
EAT SMART. YOUR FOOD CHOICES AFFECT THE CLIMATE.

Different foods have different impacts. Here’s how the greenhouse gas emissions (GHGs) of twenty common foods compare:

**CARBON FOOTPRINT**
Car Miles Driven per 4oz. Consumed

0 1 2 3 4 5 6 7

1. **Head start**
   - Great source of climate-friendly protein
   - Good source of fiber and nutrients

2. **Eat more fruits and veggies to prevent obesity**
   - Low in fat and calories
   - High in fiber and vitamins

3. **Choose organic, avoid growth hormones, only chocolate and other vegans**
   - Avoid genetically modified organisms (GMOs)

4. **Bake a cake**
   - Avoid refined sugars

5. **High in protein and “good” fats, great on the go**
   - Great as a snack

6. **Buy peanut butter made from whole peanuts**
   - Avoid partially hydrogenated oil

7. **Opt for less processed, more nutritious brands**
   - Consider higher protein grains like quinoa

8. **Eat organic — conventionally grown produce tends to be high in pesticides residues**

9. **Pick organic and/or pasture-raised**
   - Look for certified humane

10. **Fish in Omega-3 rich woods, limit consumption to reduce mercury exposure and prevent overfishing**

11. **Best meat pick**
    - Cook small cuts

12. **Good meat pick**
    - Cook small cuts
    - Opt for organic or antibiotic-free

13. **Avoid most farmed chicken — higher in twin PCBs than wild. Air-shipped fish have higher emissions**

14. **Eat less. Choose pasture-raised, certified humane. Skip processed products**

15. **Eat less. Opt for lower-waste products like pure meat, mac n cheese**

16. **Grass-fed and meat is healthier. Choose certified humane. Avoid processed “processed”**

17. **Worst choice**
    - Grilled pork tenderloin or lamb shanks for less fat. Avoid Labs

Learn more at ewg.org/meateatersguide
GHG data based on lifecycle assessment by CleanMetrics.
www.cleancmetrics.com
Is local better?

- Research not clear that local foods correspond to reduced emissions
- Impacts to developing nations
USDA Local Food Compass & Know Your Farmer, Know Your Food
Some local ideas to try

- Farmer’s markets and farmstands
- Community supported agriculture and buying clubs
- Community and backyard gardening
- Restaurants, caterers, and retailers
- Transition Sarasota 10% local food shift pledge
Slow Food

- Slow Food is a global, grassroots organization with supporters in 150 countries around the world who are linking the pleasure of good food with a commitment to their community and the environment.
  - Network of members (Sarasota chapter)
  - Food and taste education
  - Defending biodiversity
  - Good, clean, fair
Organic, Fair Trade, and Other Practices

- Discuss two articles from Audobon magazine

Organics:  
http://archive.audubonmagazine.org/organics/organics1103.html

Certifications:  
http://archive.audubonmagazine.org/audubonliving/audubonliving1103.html
Sustainable

• Discuss *What is Sustainable Agriculture* reading from SARE
Where do we go from here?

- Nature Conservancy video (1:45)
- http://www.youtube.com/watch?v=CaD4LYqae4I
Food in Florida
Florida Ag Facts

• Produces 70% of annual US production of citrus—mostly for processing as juice
• Greenhouse and nursery are Florida’s leading crops ($1.93 billion in 2008), and Florida ranks 2\textsuperscript{nd} in nation for these products
• 2\textsuperscript{nd} in US production of fresh vegetables and provides 80% of fresh vegetables consumed in US in January, February, and March each year
• 11\textsuperscript{th} in nation in production of beef calves
• Consistently in top 12 states for seafood production
• Top 5 commodities (2008): greenhouse/nursery, oranges, tomatoes, dairy products, sugarcane
• Thriving Florida Thoroughbred industry

Source: Ag in the Classroom
Florida Ag Facts

- Ranks 9th in nation for total agricultural sales
- Second largest industry after tourism
- 10 million acres used for farmland
- Florida has been losing more than 175 acres of farmland per day

Source: Ag in the Classroom; National Farmland Trust; photos from UF/IFAS
Lunch at Phillippi Farmhouse Market