

# UF/IFAS Extension

## The Journey to Sustainability Begins with Education







**Robert Kluson, Ph.D.**

**Aq/NR Extension Agent. UF/IFAS Extension Sarasota County**

# *Presentation Outline*

- ❖ Are You a Locavore?
- ❖ Local Food System Concepts
- ❖ What are the Impacts of Food Choices?
  - Carbon and Water Footprints
- ❖ What are Food Choice-Based Solutions?
- ❖ Where Can You Find Local Foods in Sarasota County?

# Local Foods in the News

- ✓ The word "locavore" was the word of the year for 2007 in the *Oxford American Dictionary*
- ✓ A **locavore** is a person interested in eating food that is locally produced, not moved long distances to market.



# *Local Foods in the News*

**The New York Times**

Tuesday, February 26, 2013

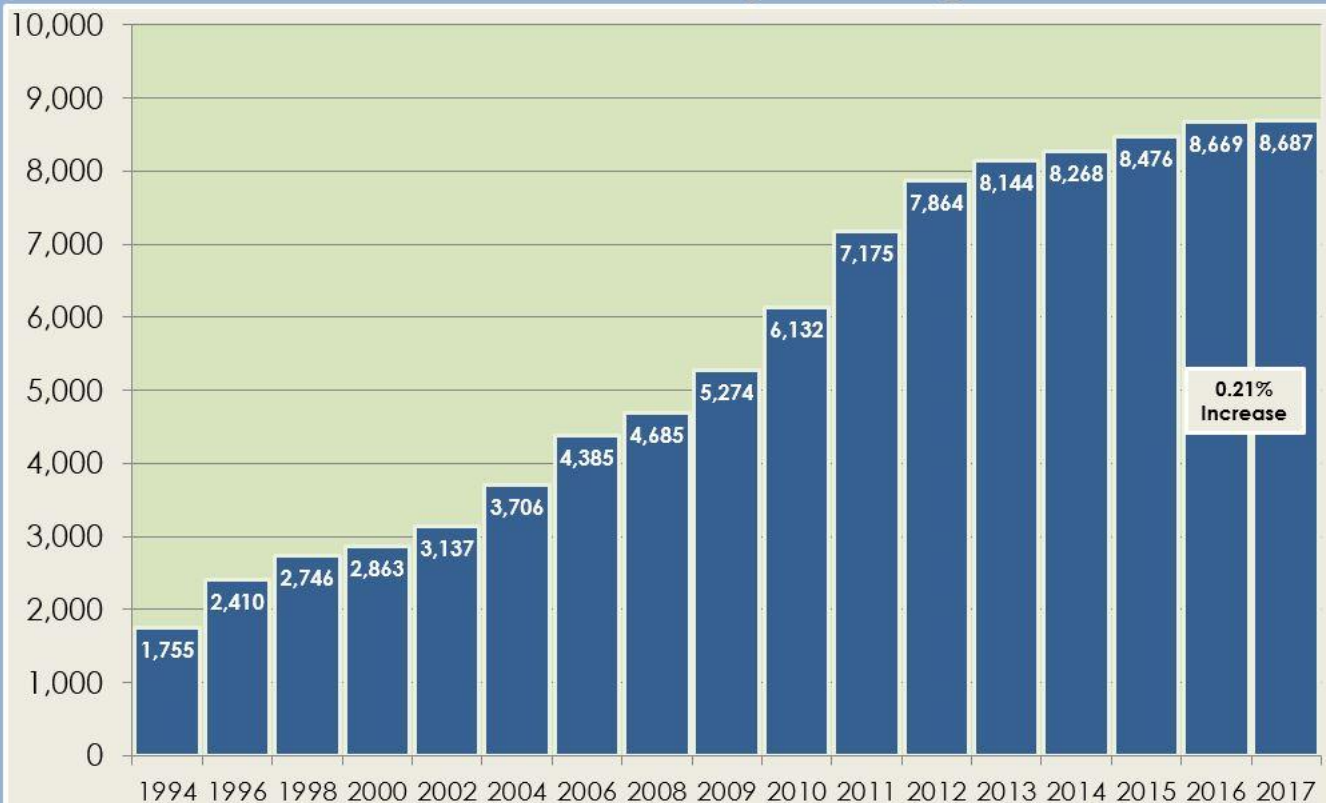
- Unless you have been stuck in the processed-food aisles of your local grocery store for the last couple of years, you have probably noticed that local food is all the rage.
- Books and magazines about local food are selling big, too.
- The local food, or locavore, movement has so much momentum that some of the food glitterati have declared that such food is better than organic.

[http://topics.nytimes.com/top/reference/timestopics/subjects/l/local\\_food/index.html](http://topics.nytimes.com/top/reference/timestopics/subjects/l/local_food/index.html)



# Local Foods in the News

## National Count of Farmers Market Directory Listings



Source: USDA-AMS-Marketing Services Division

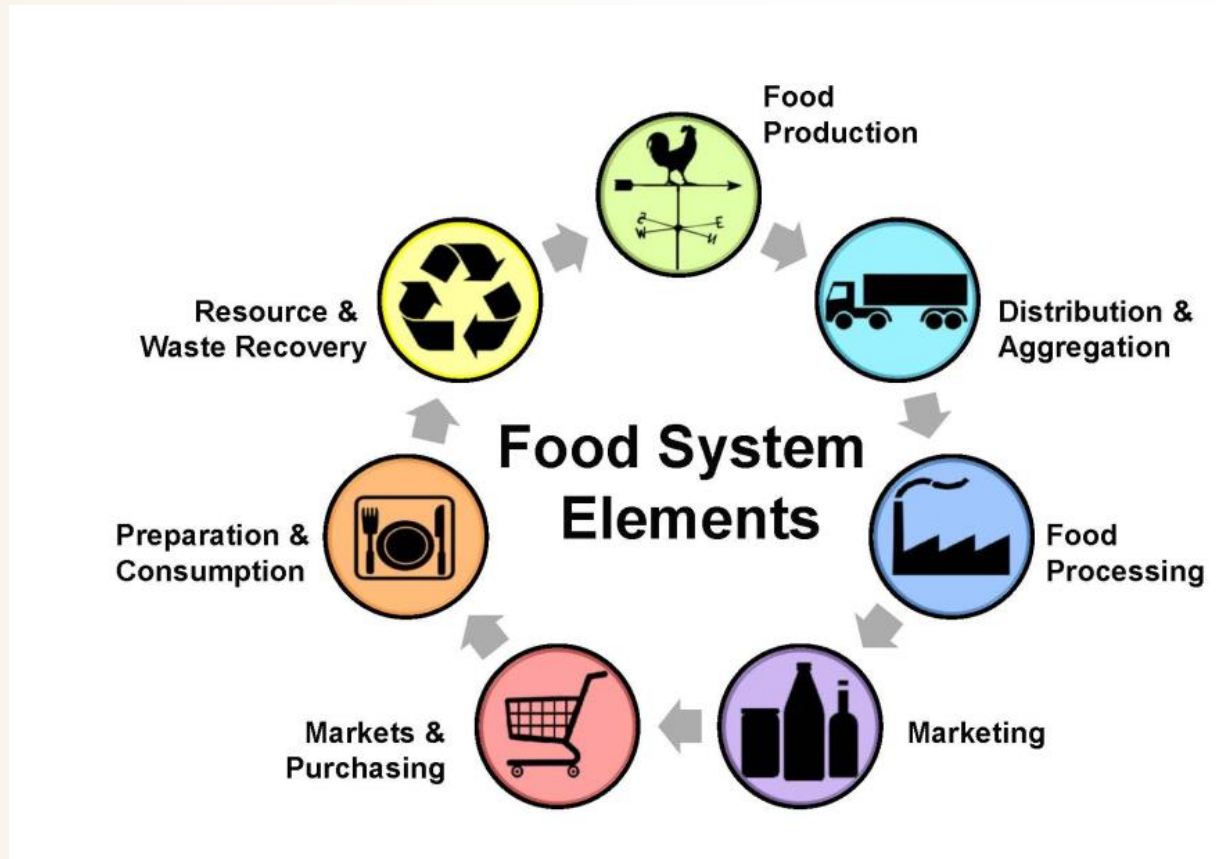
Farmers Market information is voluntary and self-reported to USDA-AMS-Marketing Services Division



*Concepts of Food Systems  
(a.k.a., Foodsheds)*

# What is a Foodshed?

- ❖ The Who, What, Where, When, Why and How of Our Food Getting From Farm to Our Plate



*Adapted by Christy Shi, Center for Environmental Farming Systems.*

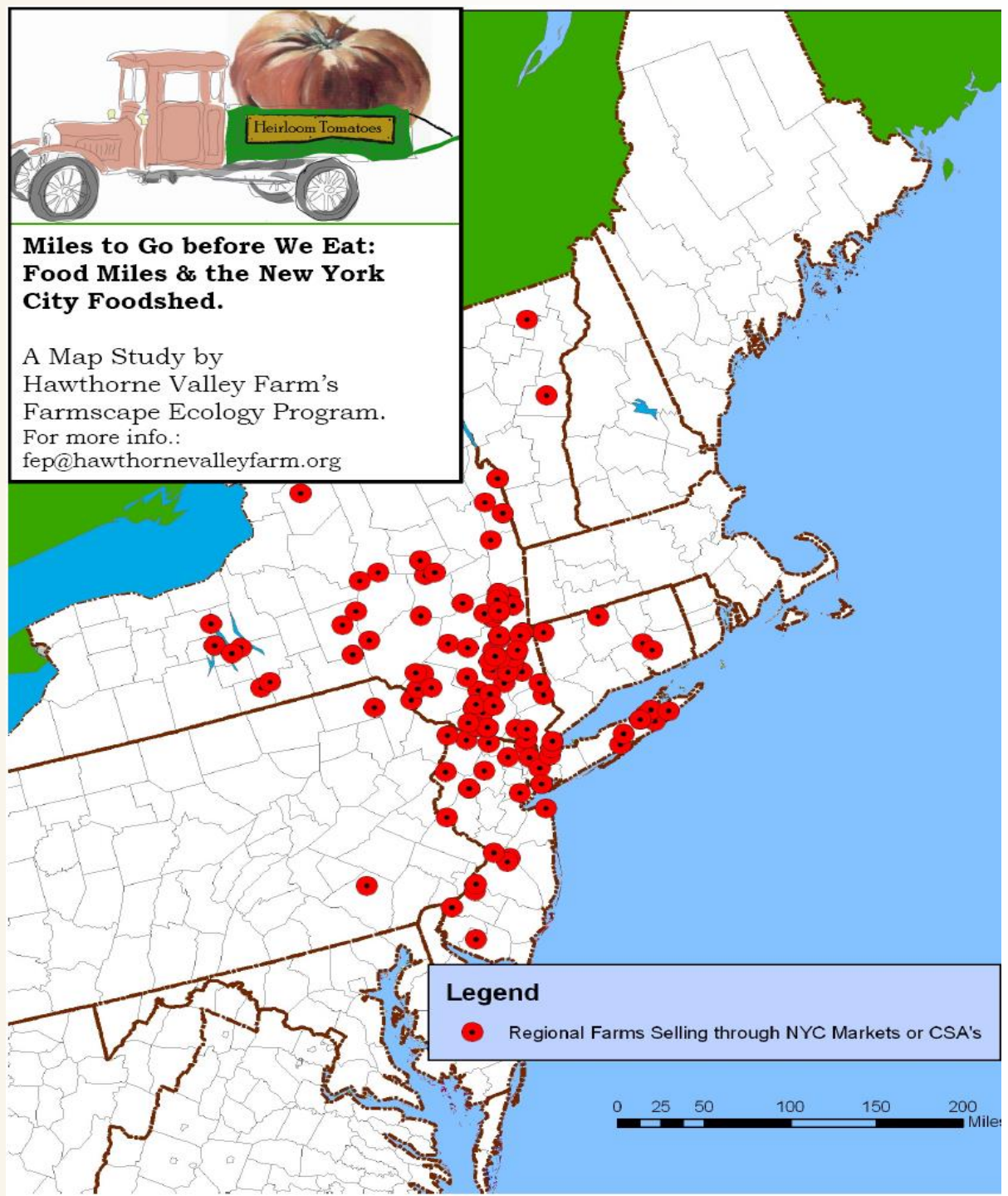
*From: Wilkins, J. and Eames-Sheavly, M. Discovering the Food System; An experiential learning program for young and inquiring minds. Cornell University, Departments of Nutritional Science and Horticulture. <http://www.discoverfoodsys.cornell.edu/>*



# *Foodshed Concept*

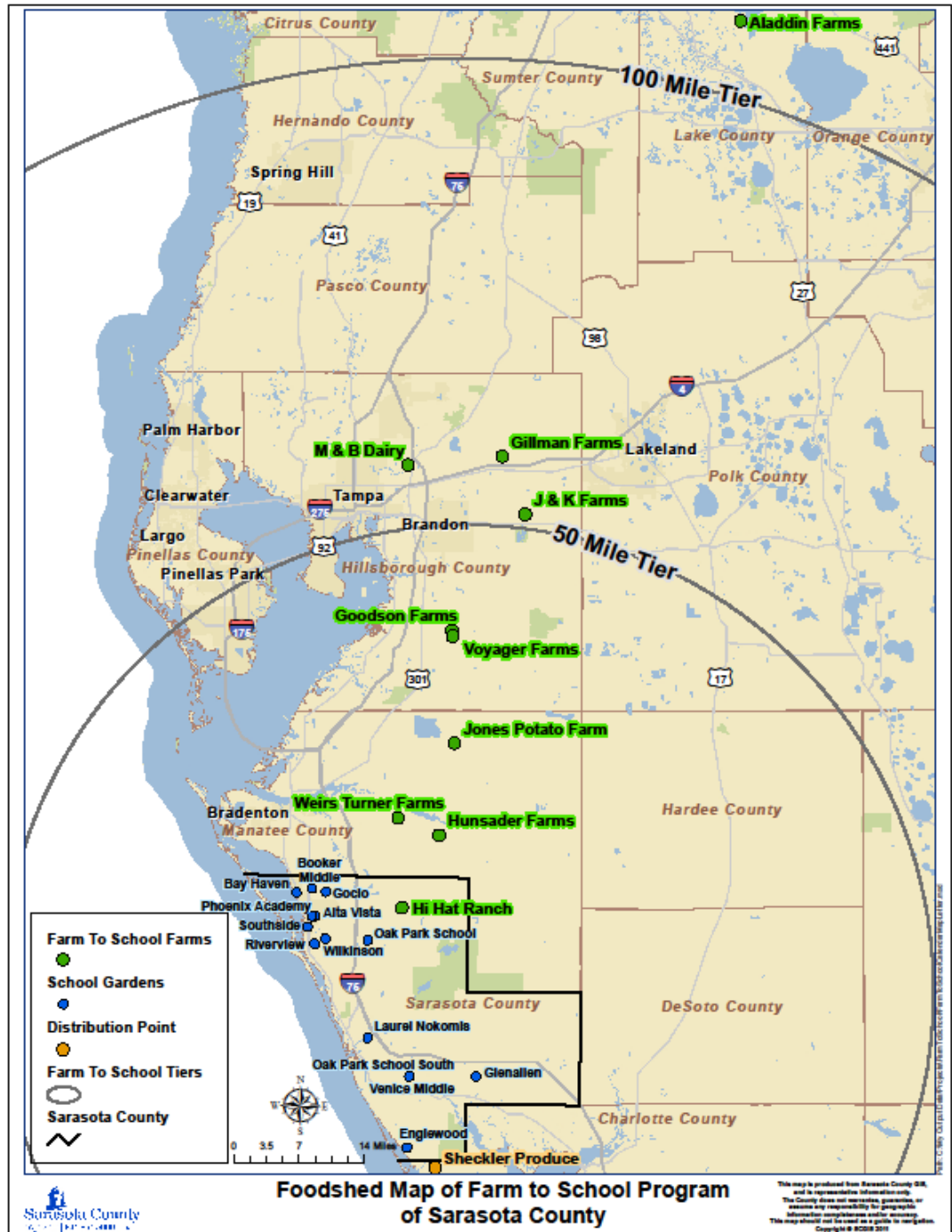
- Term was introduced by Arthur Getz (1991) from the bioregionalism movement
- Similar to the concept of a watershed, i.e. the area where food is grown and eaten.
- The size varies depending on the availability of year round foods and the variety of foods grown and processed. In a way, replacing the term 'water' with 'food' reconnects food with nature.
- A unifying and organizing metaphor for conceptual development that starts from a premise of the unity of place and people, of nature and society

# Foodshed Map Example



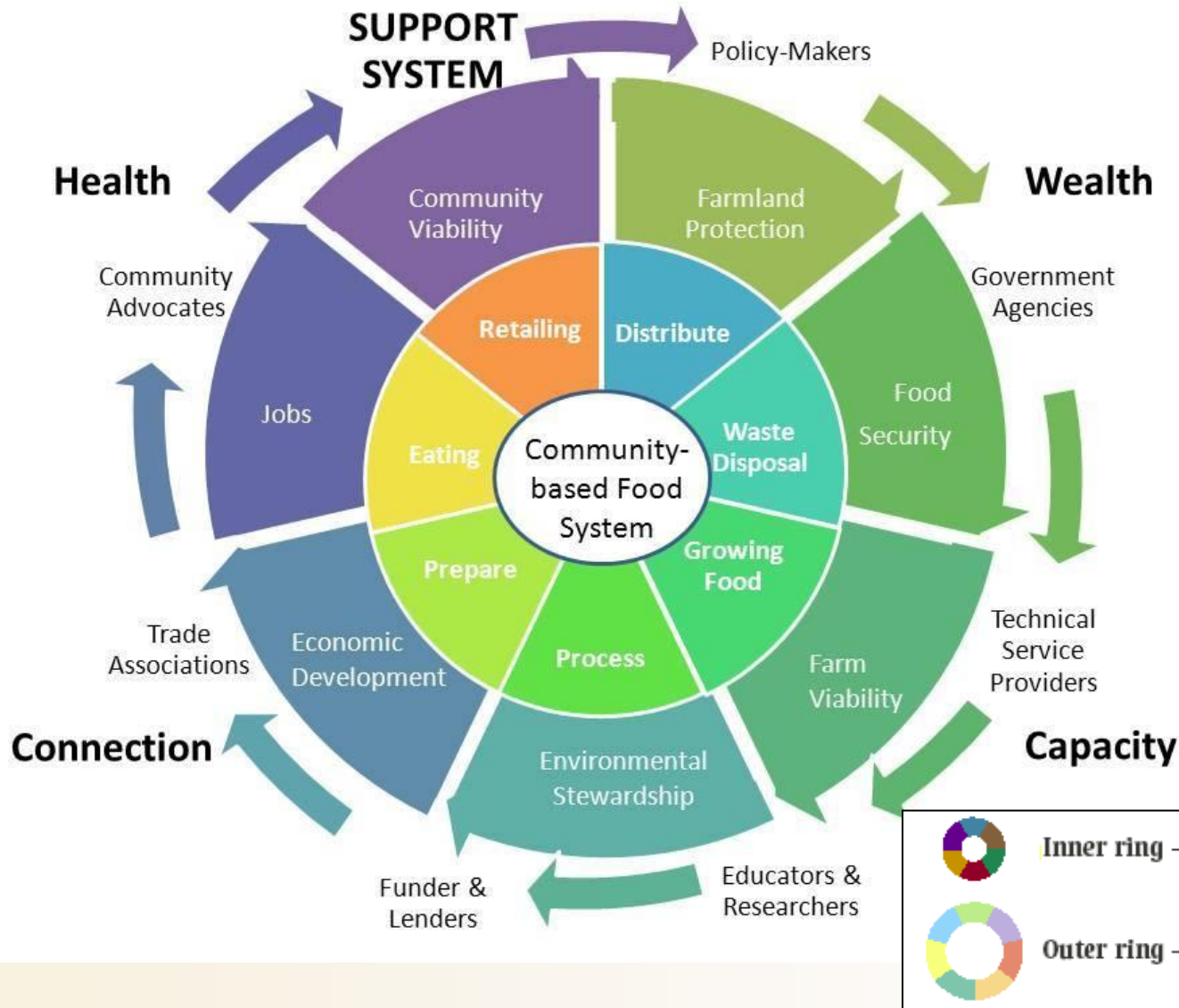
# Local FoodShed Map Example

## Sarasota County Farm to School Program





# What Is A Community Foodshed?



<http://www.choicesmagazine.org/choices-magazine/theme-articles/developing-local-food-systems-in-the-south/local-food-systems-in-the-south-a-call-for-a-collaborative-approach-to-assessment>

# *Community Foodshed Concept*

- Includes expanded food-related issues
  - food security
  - agriculture profitability
  - diet-related diseases
  - hunger
  - farmland loss
  - lack of economic opportunity for rural and low-income communities
  - sustainability
  - poor access to healthy foods

*What Local Foods Are  
We Talking About?*



# *“What The World Eats”*

<http://www.time.com/time/photogallery/0,29307,1626519,00.html>

- **A photograph essay of diets from around the world**
- Shows quantity consumed in 1 week by an average family
- **Take note of the differences in food variety**
  - Food groups
  - Food systems - e.g., extent of food processing, packaging, etc

# What The World Eats

Chad

<http://www.time.com/time/photogallery/0,29307,1626519,00.html>





# What The World Eats

Italy

<http://www.time.com/time/photogallery/0,29307,1626519,00.html>



Italy



# What The World Eats

<http://www.time.com/time/photogallery/0,29307,1626519,00.html>

Kuwait





# What The World Eats

USA

<http://www.time.com/time/photogallery/0,29307,1626519,00.html>



*What Are the Impacts of  
Our Food Choices?*



# Food Has A Carbon Footprint

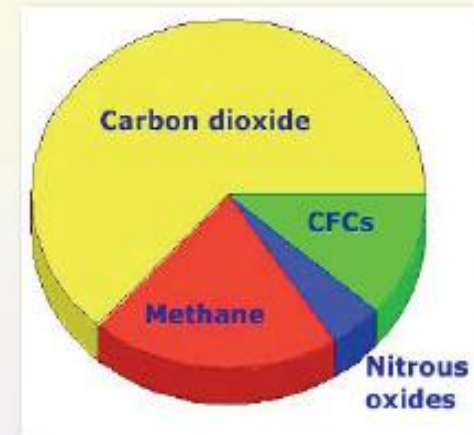
- What's a Carbon Footprint ?
  - the amount of carbon dioxide - a potent greenhouse gas — that is given off from burning fossil fuels for lifestyle activities
  - becomes larger with systems producing increasing carbon emissions, e.g., fossil fuel usage



**The problem: greenhouse gases absorb and radiate heat to the lower atmosphere.**



**Relative importance**



Greenhouse gases are higher now than in over 650,000 years

# *Food Carbon Footprint Facts*

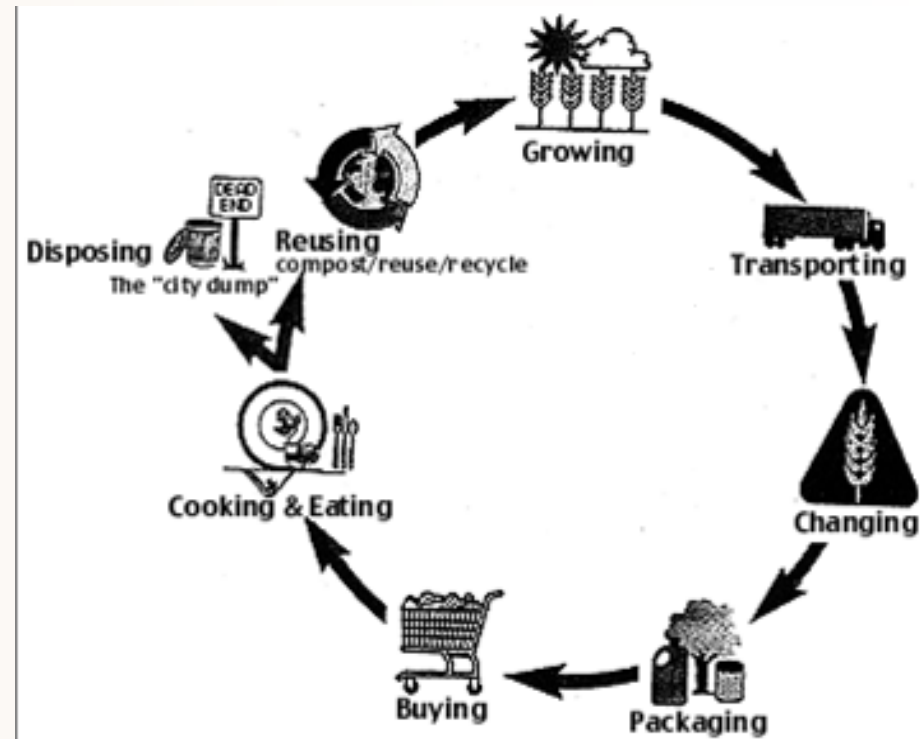
- Food systems produce large carbon emissions due to dependence on fossil fuels
- **Food Carbon Footprint is part of the total carbon footprint of an individual, organization, and/or country**
- Food choices are changing globally and impacting total carbon footprints



# Food Carbon Footprint Analysis

## How Is It Done?

- Calculated at the Foodshed Level
- In other words, the Analysis of the Who, What, Where, When, Why and How of Our Food Gets From the Farm to Our Plate





# Food Carbon Footprint Analysis:



## Cheese Example

Calculate the carbon & equivalent gas emissions at each stage:

1. Factories manufacturing fertilizer use a fuel-intensive process that emits CO<sub>2</sub>
2. Excess fertilizer applied to fields produces nitrous oxide, which has 296 times the warming potential as CO<sub>2</sub>
3. Corn, used for feeding cows, is harvested, processed, trucked and stored, all of which use CO<sub>2</sub>-emitting equipment
4. A cow belches annually 145 pounds of methane, which has 23 times the warming potential of CO<sub>2</sub>
5. Refrigeration, production and packaging of cheese use CO<sub>2</sub>-emitting equipment
6. Transporting the cheese requires refrigeration equipment as well as vehicles that emit CO<sub>2</sub>
7. At the supermarket, the cheese is displayed in CO<sub>2</sub>-emitting containers
8. Consumers travel to food stores and then go home and store the cheese in a refrigerator, and both activities emit CO<sub>2</sub>
9. Cheese that is thrown out gets to a landfill which generates methane and CO<sub>2</sub>

K. Weiss. April 22, 2008. *Treading Lighter With Low Carbon Diets*. Los Angeles Times  
<http://articles.latimes.com/2008/apr/22/local/me-lowcarbon22>

# Food Carbon Footprint Analysis:



## Meat Example

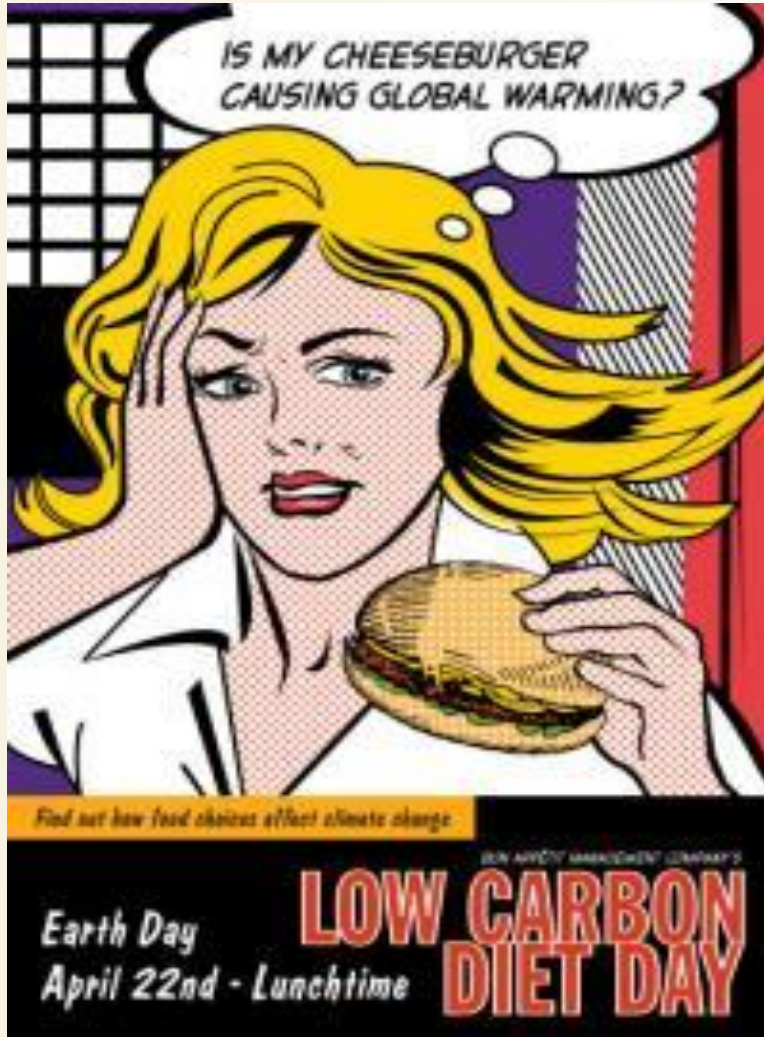
- accounts for approximately 9% of total CO<sub>2</sub> emissions
- primarily the result of
  - fertilizer production for feed crops
  - on-farm energy expenditures
  - feed transport
  - animal product processing & transport
  - land use changes
- large, confined factory farm operations have significantly increased methane emissions from both animals and their manure



Koneswaran & Nierenberg, 2008, Global Farm Animal Production & Global Warming, Env. Health Perspectives May 2008

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2367646>

# Food Carbon Footprint Analysis: Cheeseburger Example



See video at

<http://vimeo.com/4709524>

# Food Carbon Footprint Analysis: Cheeseburger Example

- Estimates for the average American diet of cheeseburger consumption range from one to three per week, or about 50 to 150 per year.
- Annual greenhouse gas emissions from the production and consumption of cheeseburgers is estimated as the amount emitted by 6.5 million to 19.6 million SUVs. Today 16 million SUVs are on US roads.

[http://www.openthefuture.com/cheeseburger\\_CF.html](http://www.openthefuture.com/cheeseburger_CF.html)

## Carbon Facts

Product Size 1 Cheeseburger (130g)

<b>Amount Per Serving</b>	
<b>Kilograms CO<sub>2</sub> Equivalent</b> 3.08	
Kilograms CO <sub>2</sub>	.243
Kilograms CH <sub>4</sub>	.123
<b>Total C: Energy Sources</b> 243g	
<i>Transportation</i>	
Fossil Fuel (Diesel)	120g
Fossil Fuel (Gasoline)	48g
<i>Electricity Production</i>	
Fossil Fuel (Natural Gas)	75g
Fossil Fuel (Coal)	0g
<i>Other</i>	
<b>Total C: Non-Energy Sources</b> 2840gCO <sub>2</sub> E	
Enteric Fermentation	81.0g (1864gCO <sub>2</sub> E)
Manure	25.8g (656gCO <sub>2</sub> E)
Other	5.2g (120gCO <sub>2</sub> E)
<b>Carbon/Product Ratio</b>	<b>23.7</b>
<b>Localism Rating</b>	<b>C+</b>
<b>Sustainable Production Rating</b>	<b>D+</b>
overall carbon code: orange	



# *Food and Foodshed*

## *Carbon Footprint Factors*

- “Food miles”
  - number of miles your food travels from farm to plate
- Other factors:
  - how is your food produced?
  - what are your food category choices?



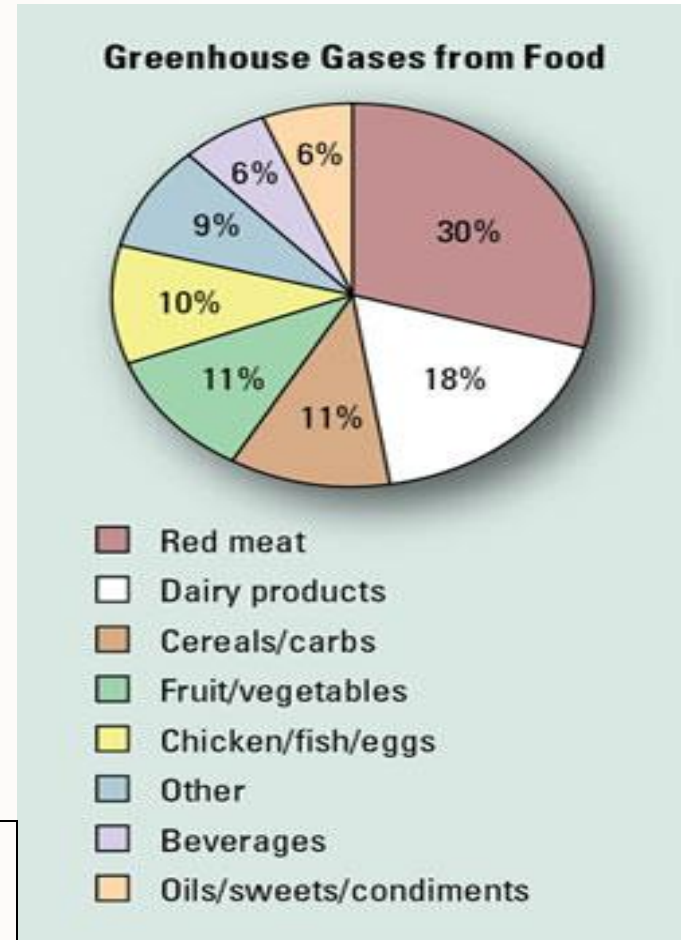
# Statistics of Average U. S. Food Carbon Footprint Per Household

## Amount

- 8.1 metric tons of greenhouse gases annually from food consumption choices

## Sources

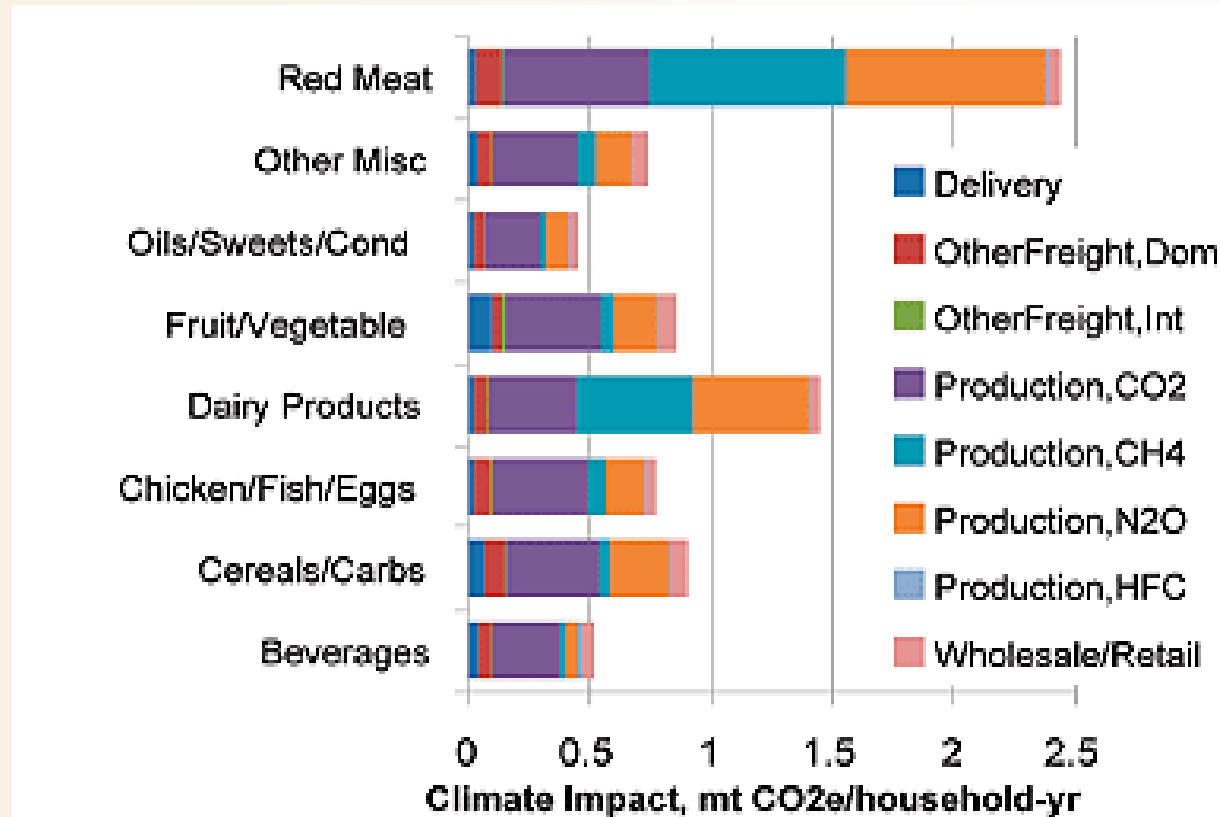
- Food industry
  - ✓ transportation - **11%**
  - ✓ conventional production & harvesting - **83%**
  - ✓ final delivery from producer to retail – **4%**
- Food types are different – see chart



Weber, C. and H. Matthews. 2008. Food-Miles and the Relative Climate Impacts of Food Choices in the United States *Environ. Sci. Technol.*, 42 (10): 3508–3513

<http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2008/42/i10/abs/es702969f.html>

# Food Carbon Footprint Analysis Within Different Food Groups



Weber, C. and H. Matthews. 2008. Food-Miles and the Relative Climate Impacts of Food Choices in the United States *Environ. Sci. Technol.*, 42 (10): 3508–3513

<http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2008/42/i10/abs/es702969f.html>



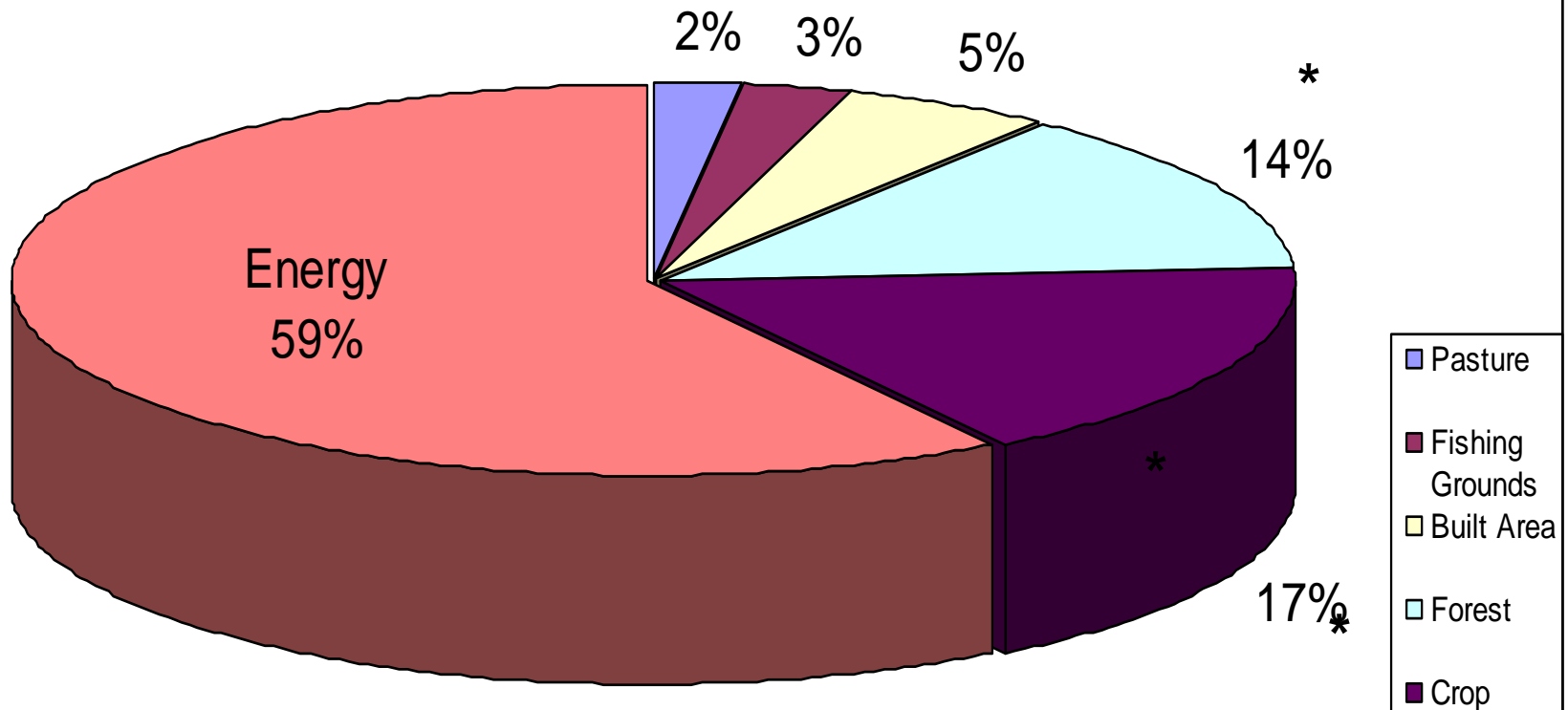
# *Statistics of Average U. S. Food Carbon Footprint Per Household*

- What are the conclusions of the food carbon footprint facts from this report?
  - Are “food miles” the greatest factor?
    - No!
    - Purchasing local foods is only a partial solution.
  - What is the greatest factor?
    - How the food is produced!
    - Purchasing foods that are produced using sustainable and organic agriculture practices is a more comprehensive solution.

# 2004 Sarasota County Ecological Footprint Analysis

<http://www.sustainablesarasota.com/ssDocuments/6/Sarasota%20EF%20report%20FINAL--%207%5B1%5D.20.04.pdf>

## Sarasota's Footprint: Percentage Breakdown



# *U.S. and Sarasota County 2004 Ecological Footprint Analysis Results*

- Average US citizen's annual per-capita footprint is 23.6 acres (largest in the world!)
- **World-wide available biocapacity is only 4.7 acres per person !**
- Average Sarasota resident's annual per capita footprint is 22.2 acres.
- **Sarasota County has a biocapacity of only 2.1 acres per person !**





# *U.S. and Sarasota County's 2004 Ecological Footprint Analysis*

## Conclusion of the Analysis

✓ If everyone on Earth lived as we do in Sarasota County, we would need 5 planets to provide the natural resources to meet our demands for food, energy, goods & services!



# WHAT'S YOUR FOOD CARBON FOOTPRINT?



- Calculate your food carbon footprint on the website

<http://www.foodcarbon.co.uk/>

# *Food Also Has A Water Footprint*

- What's a Water Footprint ?
  - The **water footprint** of a product (a commodity, good or service) is the volume of freshwater used to produce the product, measured at the place where the product was actually made. It refers to the amount of water used in the various steps of the production chain.

# Food Water Footprint Calculations

## WATER FOOTPRINT

Virtual water embedded in products

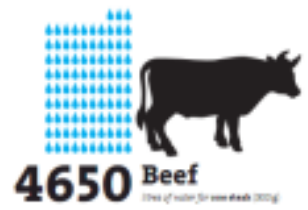
As we see above in the chart above, a kilo of wheat needs 650 litres of virtual water. All figures shown in this chart are based on average global production and usage. They may vary in different regions and countries.

The water footprint of a product is not only given in virtual water but also in real water. The real water used to produce the product, measured at the location where the product was actually made, is also a part of the water used in the virtual water of the production chain.

For the full picture featuring many more products and detailed information, visit [www.waterfootprint.org](http://www.waterfootprint.org)

Source: Mekonnen, A.M., & Hoang, A.H. (2010). Calculation of water footprint of wheat. *Water Resources Research*, 46, W04501. doi:10.1029/2009WR013003

Source: Mekonnen, A.M., & Hoang, A.H. (2010). Calculation of water footprint of wheat. *Water Resources Research*, 46, W04501. doi:10.1029/2009WR013003



Beef (grain-fed): 4650 L water for 1 steak (300 g); Milk: 1000 L/L of milk  
 Cheese: 2500 L/lb (500 g); Barley: 650 L/lb; Wheat: 650 L/lb  
 Sorghum: 1400 L/lb; Millet: 2500 L/lb; Tea: 90 L/pot (750 mL)  
 Coffee: 840 L/pot; Burger: 2500 L/burger (150 g beef)



# *Food Water Footprint Background*

Also, a water footprint accounts separately for three types of freshwater consumption:

- (1) green water use, which is consumption from rainfall
- (2) blue water use, which is consumption from groundwater or surface water;
- (3) grey water use, which would be the dilution water required to reduce pollutant concentrations to acceptable values.

# Food Water Footprint Background

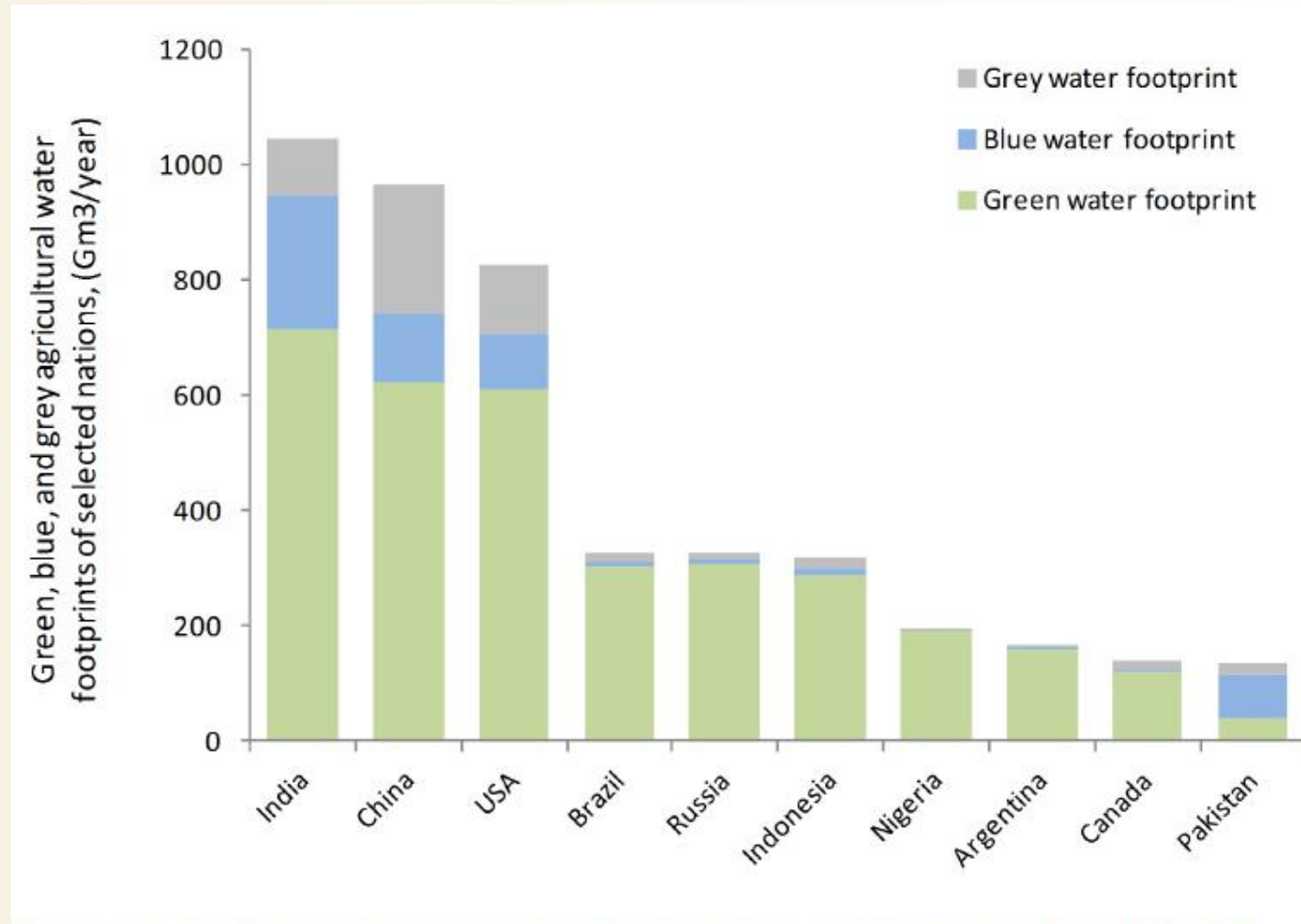


Figure 4. Agricultural production water footprints of selected countries (Gm<sup>3</sup>/year) from 1996-2005 data (Mekonnen and Hoekstra 2010b).

<https://edis.ifas.ufl.edu/pdf/FILES/AE/AE48400.pdf>

# *Water Footprint Background*

- Even as the greenest among us cut our showers short and let our toilets go yellow, we may be blissfully unaware that our household water use accounts for only 6 percent of the water that we consume. The other 94 percent comes from the products we buy, everything from almonds and tomatoes to blue jeans and microchips.
- The average person in the developed world drinks a gallon of water each day but "eats" another 800 gallons. And as Americans, our water consumption per capita is twice the world's average.

# *Food Water Footprint Background*

- Agriculture is by far the largest global consumer of freshwater.
- Comparing water footprints of different management practices in agriculture is helping evaluate crop drought tolerance, water use efficiency, the effective use of rainfall, and the significance of irrigation.
- Also labeling products to increase awareness of water use: Providing a water footprint label on food products could give consumers more information about the size and location of a product's water footprint.



# *Water Footprint Background*

- The Alliance for Water Stewardship (AWS), a partnership between a water industry trade group and five environmental organizations, including the Pacific Institute and the Nature Conservancy, wants to reward farmers who minimize their water footprints.
- AWS aims to begin certifying businesses as "water stewards" and possibly introduce a "blue" ecolabel that would identify water-friendly products on grocery store shelves.

# *Water Footprint Background*

- Water footprinting has already caught the attention of some large, PR-savvy corporations.
- Unilever, the Dutch and British conglomerate that buys 7 percent of the world's tomatoes, announced that in making its Ragú pasta sauce it would favor California tomatoes grown by farmers who use efficient drip irrigation systems.

# WHAT'S YOUR WATER FOOTPRINT?



- Calculate your water footprint on the website (includes food consumption inputs)

<http://www.waterfootprint.org/?page=cal/WaterFootprintCalculator>

Water Footprint

Water Footprint  
NETWORK

Your Water Footprint » Extended Calculator





# FL Local Foods Economic Impacts

Report Includes Data  
on the Direct Economic  
Impacts of Local Foods  
in Florida

## Local Food Systems in Florida: Consumer Characteristics and Economic Impacts

By Alan W. Hodges, Ph.D., Extension Scientist  
and Thomas J. Stevens, Ph.D., Postdoctoral Research Associate  
University of Florida, Food and Resource Economics Department

PO Box 110240, Gainesville, FL 32611

[awhodes@ufl.edu](mailto:awhodes@ufl.edu); tel. 352-294-7674

February 6, 2013



# 2013 FL Local Foods Economic Impacts Study Results Example

**Table 16. Weighted and expanded estimates of annual local food purchases by market channel and Florida region in 2011-12**

Florida Region	Retail stores	Farmer's markets	Community Supported Agriculture	Special arrangement	Restaurants	Total All Local Food Channels	Percent local all food purchases for at-home consumption
----- Million Dollars -----							
Gainesville	\$205.9	\$47.7	\$0.33	\$2.00	\$9.1	\$265.0	26.4%
Jacksonville	\$448.6	\$157.6	\$4.89	\$2.71	\$29.1	\$643.0	16.9%
Miami-Fort Lauderdale	\$1,690.7	\$486.0	\$1.34	\$66.86	\$126.5	\$2,357.4	20.8%
Orlando	\$1,937.6	\$592.4	\$0.09	\$11.62	\$70.1	\$2,610.6	21.8%
Panama City	\$7.4	\$9.3	\$0.00	\$0.00	\$1.6	\$18.3	2.3%
Pensacola	\$183.8	\$64.7	\$0.00	\$3.72	\$14.9	\$267.2	17.7%
Sarasota-Bradenton	\$524.0	\$181.0	\$0.00	\$2.33	\$22.5	\$728.0	18.9%
Tallahassee	\$179.7	\$66.9	\$0.68	\$0.72	\$10.2	\$258.3	36.2%
Tampa-St. Petersburg	\$897.2	\$204.9	\$4.04	\$1.10	\$35.3	\$1,142.6	18.0%
Not available	\$3.6	\$2.8	\$0.00	\$0.17	\$0.1	\$6.6	11.2%
<b>Total All Regions</b>	<b>\$6,078.6</b>	<b>\$1,813.3</b>	<b>\$11.38</b>	<b>\$91.22</b>	<b>\$319.5</b>	<b>\$8,297.0</b>	<b>20.1%</b>

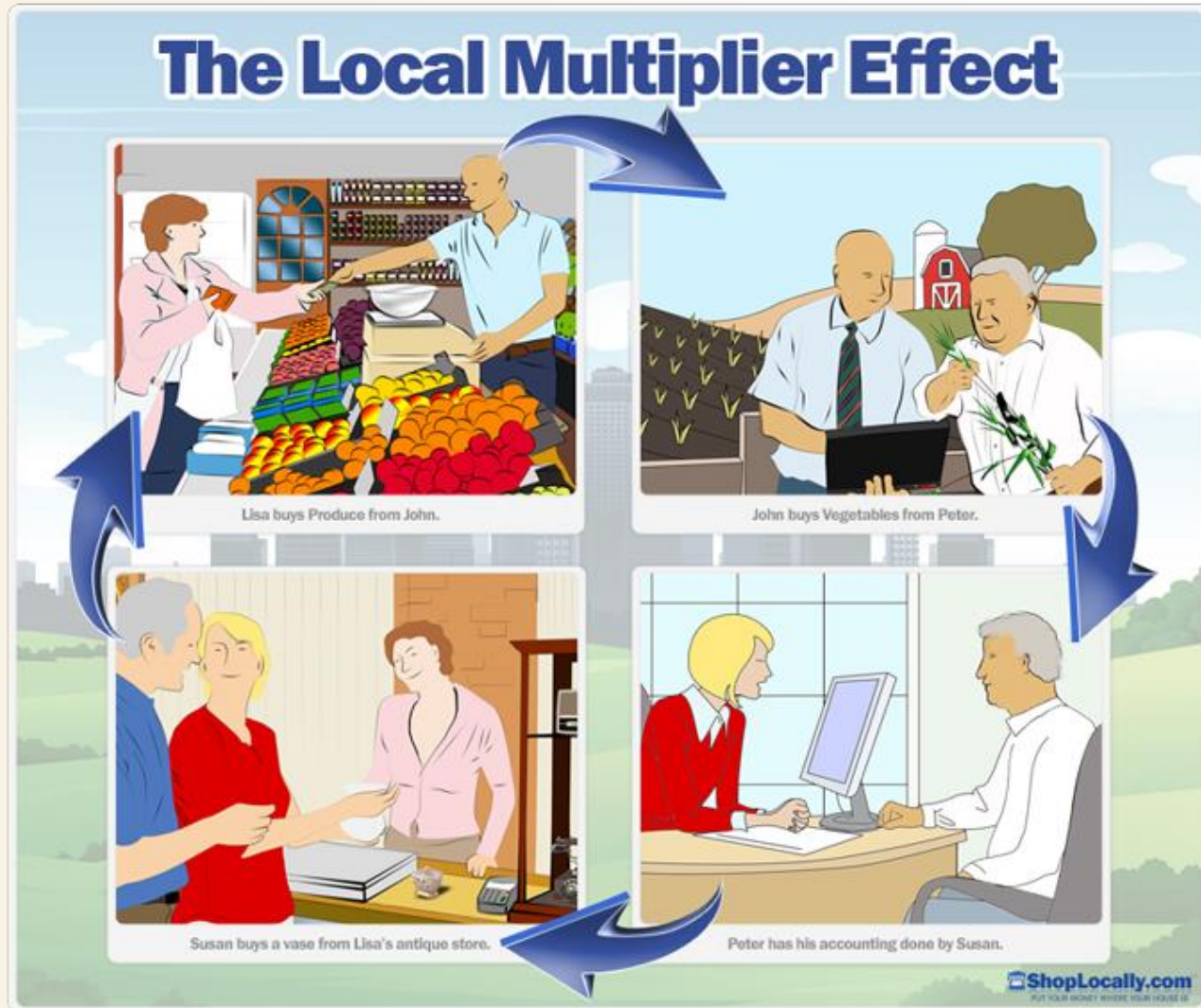
# *Local Foods Also Have Total Economic Impacts w/ Multiplier Effects*

**Multipliers** capture the effect on overall economic activity in a specific region as the result of changes in sales, spending or employment in a given industry, or for a project or event.

- **Direct Effects** - the total changes to the economy associated with a unit change in output or employment in a given sector
- **Indirect Effects** - changes in sales, income, or employment within the region in backward-linked industries supplying goods and services to businesses
- **Induced Effects** - the increased sales within the region from household spending of the income earned in the direct, and supporting industries for housing, utilities, food, etc.

# Food Local Total Economic Impacts

## Example: Farmers Markets





# MEASURING VALUE IN YOUR LOCAL FOODSHED: FARMERS MARKETS

Robert Kluson, Ph.D., Agriculture/Natural Resources Extension Agent III  
Nury Dominguez, B.S., Food & Resources Economic

FARMERS MARKETS are one of the fastest growing segments of local foodsheds. They allow vendors to sell directly to consumers and receive 100% of every food dollar spent.

Compared to the average 17.4 cents farm share of food dollar in agribusiness (USDA, 2013).



In context to the average 10.5 cents farm production cost per food dollar (USDA, 2013).



The Englewood and Venice farmers markets in Sarasota County exemplify the economic value of farmers markets to local farmers, food entrepreneurs, nearby businesses, and the greater municipality.

### SHOPPER ANNUAL ATTENDANCE

Englewood 130,500		Venice 168,000
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### SHOPPER ATTENDANCE FREQUENCY

Englewood 75% (WEEKLY OR MONTHLY)		Venice 80% (WEEKLY OR MONTHLY)
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### VENDER PROFILE

Englewood 53 total 100% FOOD/PLANT-RELATED		Venice 33 total 52% FOOD/ PLANT-RELATED
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### VENDERS ANNUAL GROSS DIRECT SALES

Englewood \$5,089,983.60		Venice \$1,698,882.08
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### NEARBY BUSINESSES ANNUAL GROSS DIRECT SALES

Englewood \$4,674,604.67		Venice \$2,725,020.19
-----------------------------	--	--------------------------

### TOTAL ANNUAL REGIONAL ECONOMIC IMPACTS

Englewood \$19,431,530.66		Venice \$8,803,565.53
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### LOCAL TAX ANNUAL REVENUE

Englewood \$327,222.33		Venice \$177,126.31
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2014 values calculated w/ S.E.E.D methodology (<http://www.marketumbrella.org>)

### MEASURED VALUES OF FARMERS MARKETS INCLUDE:

They contribute to the economic viability of local farms & food entrepreneurs

They supply access to locally-produced foods to many consumers who are repeat customers

They stimulate local economies and tax revenue



Food  
Economic  
Impacts  
Example:  
Sarasota  
County  
Farmers  
Markets



# Local Foods Community Food System

## Impacts Example: Farmers Markets

### The Food Chain Reaction from a Farmers Market

Farmers markets have become a critical ingredient in local economies, food systems, & communities. Not only are they an economic boost to local farms & businesses, they can also strengthen community ties & promote healthy eating.



It starts with a market...



helping Local Businesses

On average, area businesses in different cities across the U.S. saw \$19,900 - \$15 million more in sales per year due to nearby farmers markets.



increasing Health & Wellness

Families with access to farmers markets ate, on average, 1.4 more servings of fruits & veggies than those without access to a market.



bringing in Farmers & Ranchers

Farmers markets are one reason sales of local & regional foods grew to \$11 billion in 2011.



connecting People

Farmers markets are a direct link between urban & rural communities, vendors & consumers, families & fresh ingredients.



and becoming a Community Centerpiece.

Find a market near you at [farmersmarkets.usda.gov](http://farmersmarkets.usda.gov)



U.S. Department of Agriculture

2013 Agricultural Marketing Service

SOURCES:

*The Economic Impact of Farmers Markets: A Study of 9 Markets in 3 Major U.S. Cities.* ([www.marketumbrella.org](http://www.marketumbrella.org))

*Effect of a Targeted Subsidy on Intake of Fruits and Vegetables among Low-Income Women in the Special Supplemental Nutrition Program for Women, Infants, and Children* ([www.ncbi.nlm.nih.gov/pmc/articles/PMC2156076](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2156076))

*Specialty Foods Association* ([www.specialtyfood.com/news-trends/featured-articles/article/local-food-sales-grow](http://www.specialtyfood.com/news-trends/featured-articles/article/local-food-sales-grow))

USDA is an equal opportunity employer and provider.

# *Food Choice-Based Solutions*

# *Food Choice-Based Solutions*

- ❖ Support Local Farmers & Foodshed Development
- ❖ Choose Foods Produced with Sustainable Agriculture Best Practices
- ❖ Become a Local Food Producer



# “How Do You Define Local Foods?”



- Foods from a determined radius from your home (commonly either 100 or 250 miles) or

100 Mile Diet, <http://100milediet.org/>;  
Food Routes, <http://www.foodroutes.org/>

- Within a day's leisurely drive of our homes or

Joan Dye Gussow. 2006. This Organic Life.

- Determined by the consumer with information about geographic origin of food.



Florida Association of Community Farmers' Markets (FACFM)

# *What is Sustainable Agriculture?*

- Recognition of the whole systems nature of food, feed, & fiber production
- **Equitably balancing concerns of**
  - environmental soundness
  - social equity
  - economic viability
- Functional interactions between agroecological & social/economic systems

- S.Gliessman, 2014, Agroecology: The Ecology of Sustainable Food Systems;

- Watch the video at

<https://www.bing.com/videos/search?q=gliessman+video&&view=detail&mid=293BEC858C93D78F1E7A293BEC858C93D78F1E7A&&FORM=VRDGAR>

# *Food Choice-Based Solutions*

## *\*Sustainable Agriculture\**

- Satisfy human food and fiber needs
- **Enhance environmental quality and the natural resource base**
- Efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls
- **Sustain the economic viability of farm operations**
- Enhance the quality of life for farmers and society as a whole."

# The Current Foodshed Analysis

“Agricultural Supplies”  
(external sources;  
nonrenewable energy  
dependency)



Food production  
(largely technological and  
removed from society)



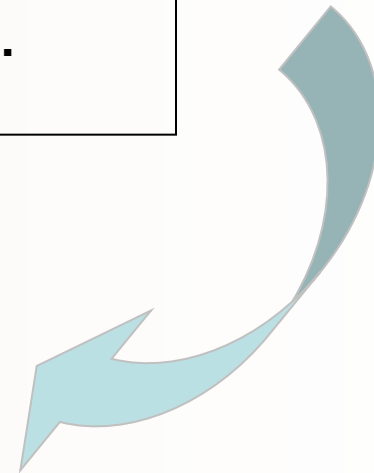
Global Food Distribution  
(nonrenewable energy  
dependency)

**An average food item in the U.S.  
travels 1,500 miles**

“Waste  
products”  
(environmental  
pollutants)

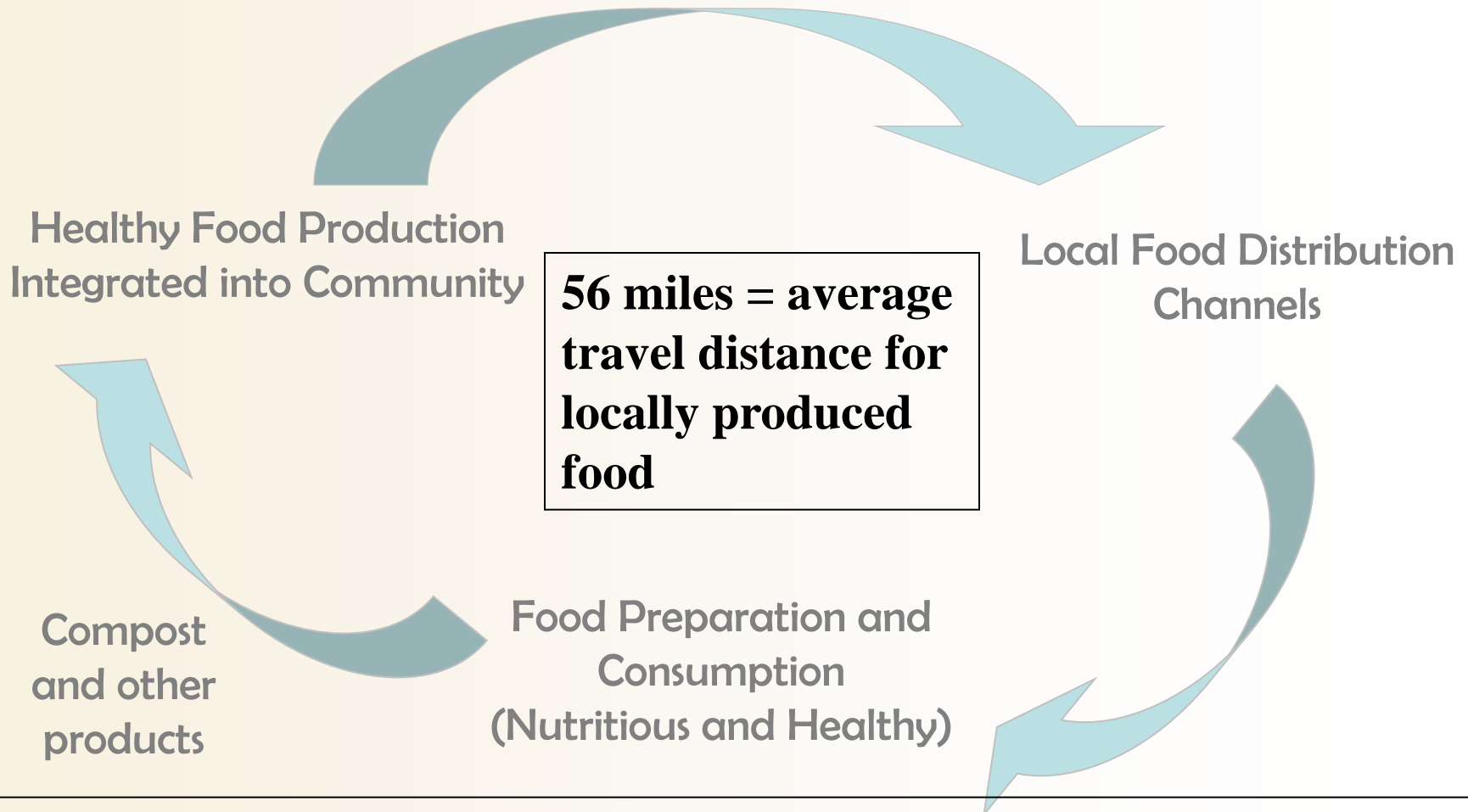


Food Preparation and  
Consumption  
(fast and cheap but  
nutrition-challenged)



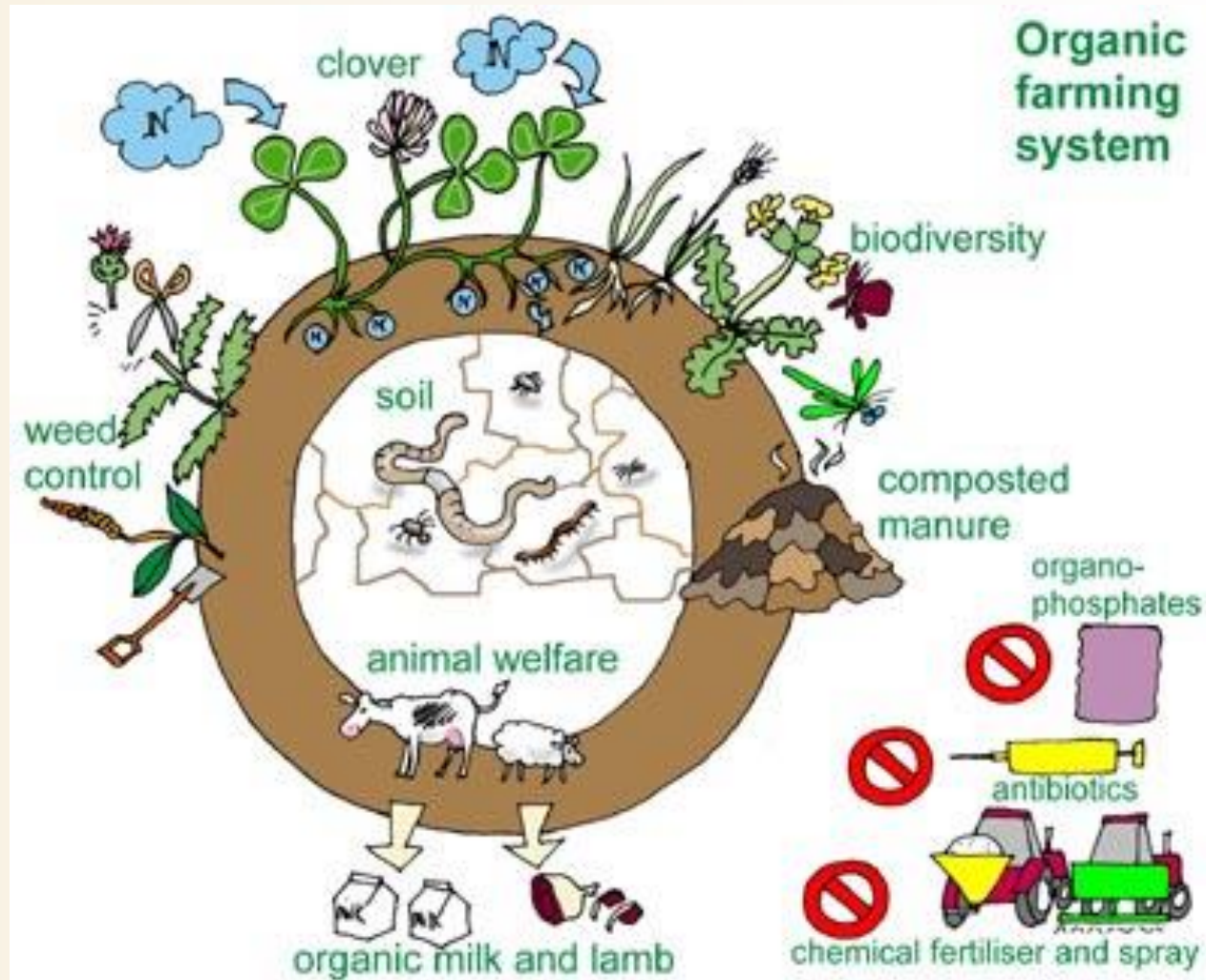


# *Sustainable Foodshed Analysis*



**Goal = Increasing numbers of local farms and food industry using sustainable agriculture in local foodsheds**

# Sustainable Agriculture Example: Organic Farming & Foods



# Healthy Meat, Dairy and Eggs



- Health Concerns with antibiotics and hormones
- In the U.S. healthy animals have been treated with antibiotics for the past 60 years
- European Union banned growth hormones in Farm Animals and prohibited import of hormone treated beef since 1988



If you are concerned about this potential side effect of growth hormones, seek hormone-free meat and dairy products or switch to meat and dairy-free food alternatives.

Read more: <http://www.livestrong.com/article/98816-effects-growth-hormones/#ixzz0qYH36RvR>

# *Sustainable Agriculture Example:*

## *Sustainable Seafood*



### **Seafood At Your Finger Tips**

It's a project of Florida Sea Grant which envisions a future where people use our coastal and marine resources in ways that capture the economic and social benefits they offer, while preserving their quality and abundance for future generations. Florida Sea Grant's mission is to support integrated research, education and extension to conserve coastal resources and enhance economic opportunities for the people of Florida.

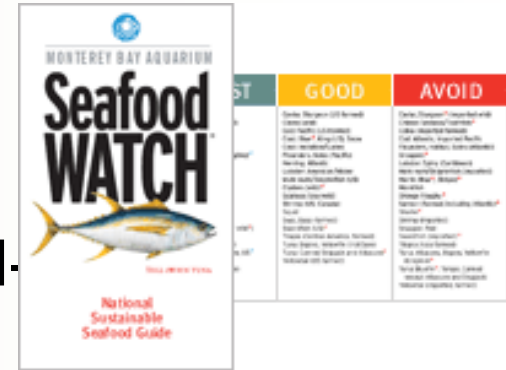
✓ Download app of guide for iPhone and Android at <https://www.flseagrant.org/seafoodatyourfingertips/>



# *Sustainable Agriculture Example:*

## *Sustainable Seafood*

✓ **Seafood Watch** program of the Monterey Bay Aquarium helps consumers and business make choices for healthy oceans. Recommendations indicate which seafood items are "Best Choices," "Good Alternatives," and which ones to "Avoid"



✓ Download app of guide for iPhone and Android at [http://www.montereybayaquarium.org/cr/cr\\_seafoodwatch/sfw\\_recommendations.aspx](http://www.montereybayaquarium.org/cr/cr_seafoodwatch/sfw_recommendations.aspx)

✓ **Seafood Savvy** program = Florida based partnership with Seafood Watch & START providing education & resources.

See <http://seafoodsavvy.org/>



# Local Community Foodshed Project Examples



Community Gardens

Food Entrepreneurs



Food  
Purveyors



HEALTHY CORNER  
STORES NETWORK

Projects designed to address issues of urban 'food deserts', poverty, & community health.



# Food Choice-Based Solution Examples:

## Local Food Sources



### Farmers Markets:

Central Sarasota  
Detweiler's  
Downtown Sarasota  
Englewood  
Fruitville Grove  
Old Miakka  
Phillippi Farmhouse  
Sarasota (at Tuttle)  
Siesta Key  
Venice

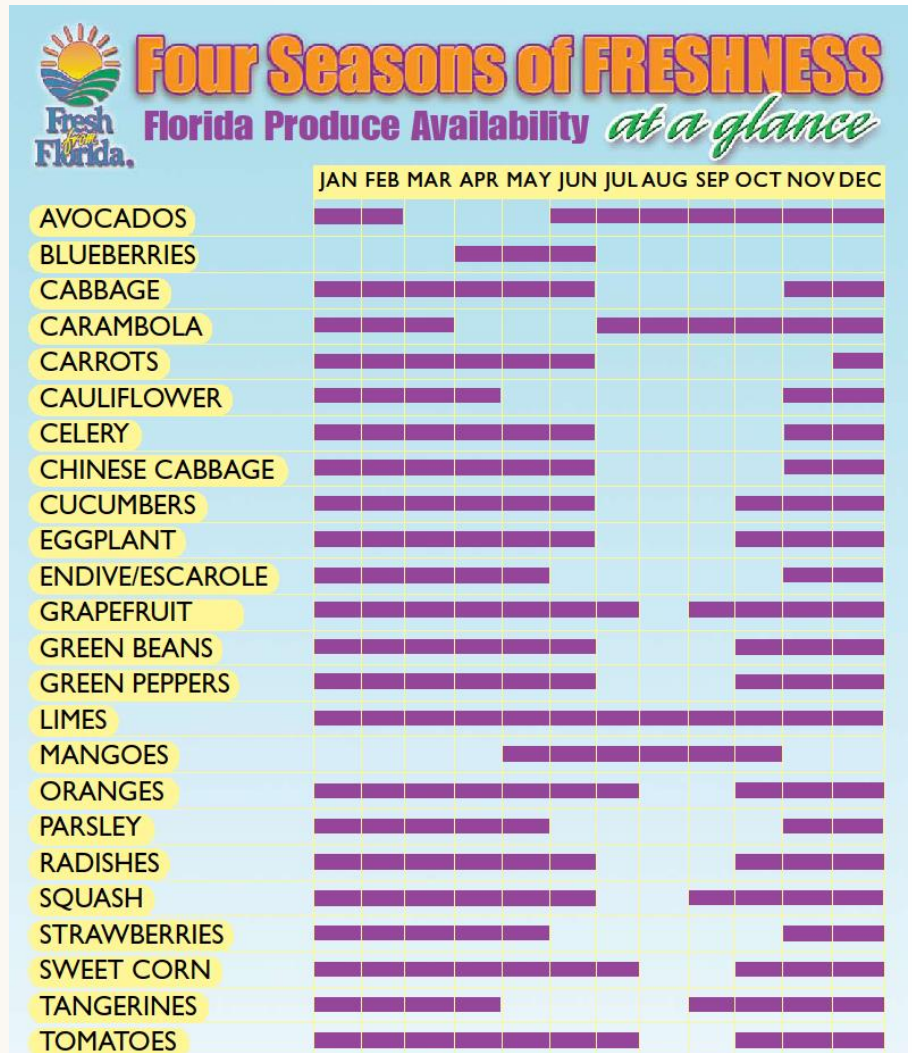


**Jessica's Organic Farm**



**On-Farm Sales**

# Food Choice- Based Solution Example: Choose Seasonal Foods



[www.Florida-Agriculture.com](http://www.Florida-Agriculture.com)





# Food Solution Example: Food Product EcoLabels



The final carbon footprint calculation is 75g for a bag of their chips.

- The flow-chart on this page shows exactly what percentage of our carbon footprint is calculated at each stage:
- 1: Our raw materials: Potatoes, sunflowers and seasoning
- 2: Manufacture: Producing crisps from potatoes
- 3: Packaging our crisps
- 4: Distribution: Bringing our crisps to you
- 5: Disposal of the empty packs





# More Food Product Labels . . .

“All Natural Ingredients”



*Naturally Raised Food*

# Organic Foods Label

- Foods grown according to 2002 standards of USDA National Organic Program (USDA/NOP).
- Foods verified by a government-approved certifier that conducts on-farm inspections.
- Companies that handle or process organic food must be certified, too.



# USDA NOP

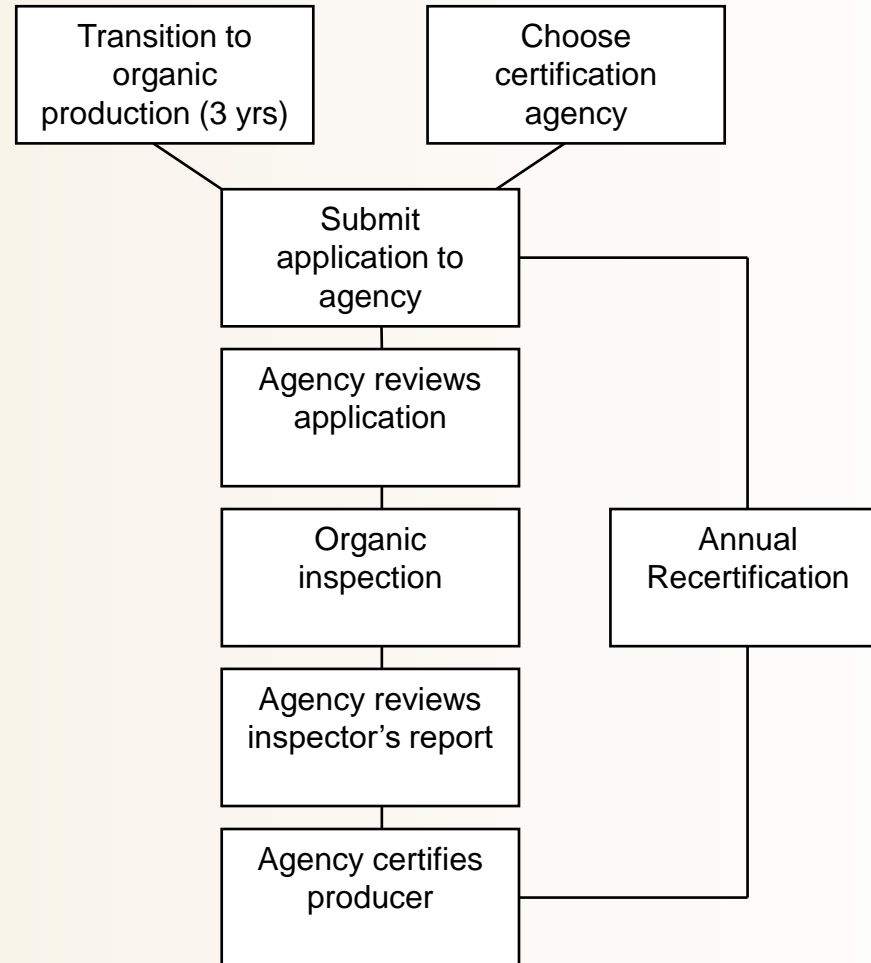
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- USDA/NOP is a marketing program administered by the USDA/Agriculture Marketing Service to assure consumers that agricultural products marketed as organic meet consistent, uniform standards.
- The USDA/NOP regulations do not address food safety or nutrition issues.



# Organics for Profit: How to get Certified



[http://edis.ifas.ufl.edu/topic\\_organic\\_certification](http://edis.ifas.ufl.edu/topic_organic_certification)

# Understanding Organic Labels

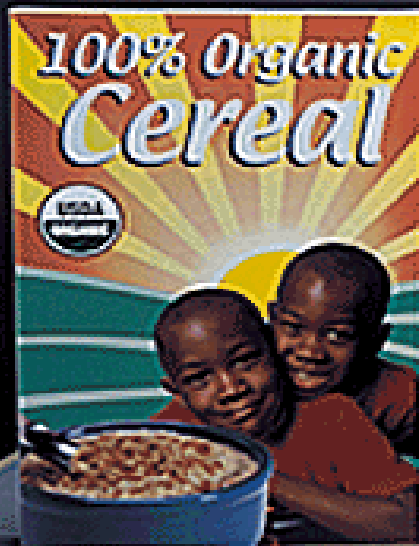
Products with multiple ingredients – different designations

100-95 %

95-70 %

Less than  
70 %

None



# *Are Other USDA Labels and The Organic Label the Same Thing?*

## 1) “Natural”

**NO !**

- (a) Food product does not contain any artificial or synthetic ingredients
- (b) Food product and its ingredients are minimally processed
- (c) Voluntary

## 2) “Naturally Raised”

**NO !**

- (a) No uniform standards for all labels
- (b) Examples = Free range; Antibiotic free
- (c) Voluntary

# *Additional USDA Info Sources*

- **Industry Marketing & Promotion**
  - supports domestic and foreign markets
  - funded by industry assessments
- **Grading, Certification, & Verification**  
<http://www.ams.usda.gov>
- **Food Safety and Inspection Service**
  - **Label fact sheet**
    - **Meat & poultry labeling terms**
      - Certified; no hormones; chemical free, etc)  
<http://www.fsis.usda.gov>



# How Can Consumers Tell Organic Foods From Conventional Foods?

- On single food items look for the word "organic" and a small sticker version of the *USDA Organic* seal or they may appear on the sign above the organic produce display.
- Read strict labeling rules on foods with multi-ingredients for exact organic content.



# Where Are Organic Farms in Florida?



<http://www.foginfo.org/>

# *Certified Organic Farms in Greater Sarasota Area*

- Blumenberry Organic Farm  
Sarasota County
- Jessica's Organic Farm  
Sarasota County
- Mr. Citrus Organics & Vegetables Farm  
DeSoto County
- Aloe Organics Farm  
DeSoto County
- Worden Farm  
Charlotte County



# Where Else Are There Local & Organic Farms in the Greater Sarasota Area?

- Not all farms using organic practices seek USDA/NOP certification, including some local farms. Therefore, you should ask all local farmer vendors about their practices to substantiate their organic food claims.
- **Use Web-Based Search Engines and Guides**
  - Sarasota Co Extension Website at <http://sfyl.ifas.ufl.edu/sarasota/>
  - See the “Local & Organic Foods Guide of Farms & Markets in Greater Sarasota Area”





# Where Else to Find Local & Organic Foods in Greater Sarasota Area?



Regional  
Farmers  
Markets

Restaurants

Retail

✓ Ask At Such Locations To Increase Local Supply  
By Demonstrating Consumer Demand !

# *Where Else to Find Local & Organic Foods in the Area?*

✓ **Start Your Backyard Vegetable/Fruit Garden !**



<http://sfyl.ifas.ufl.edu/lawn-and-garden/vegetable-gardening/>



# Become a Local Small Farmer or Market Gardener!



Urban



Rural



Suburban



# Vegetable Categories that Can be Grown Successfully in Southcentral Florida

- Temperate



**Kale**

- Subtropical

**Sweet Potato**



- Tropical

<http://sfyl.ifas.ufl.edu/agriculture/vegetables-and-herbs/>



**Cassava**



# *Fruit Categories that Can be Grown Successfully in Southcentral Florida*

- Temperate



- Subtropical



- Tropical



# Herb Categories that Can be Grown Successfully in Southcentral Florida

- Temperate



**Comfrey**

- Subtropical

**Sweet Basil**



- Tropical

<http://sfyl.ifas.ufl.edu/agriculture/vegetables-and-herbs/>



**Chinese Chives**

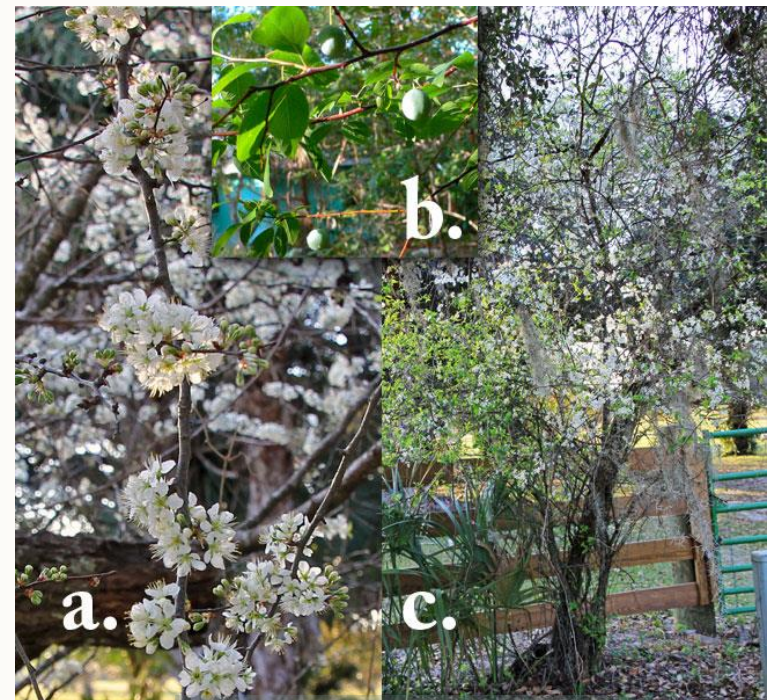


# Edible Native Plant Examples of Southcentral Florida

**Elderberry**



**Red Mulberry**



**Flatwood Plum**



**American Persimmon**

<http://www.wildfloridian.com/EdiblePlants.html>



# Grow Food as Edible Landscaping



The thoughtful arrangement of edible plants in the landscape into a unified, functional biological whole to maximize their aesthetic appeal and food production.

**Treating Edibles as Ornamentals**



# Where Do I Learn Food Growing?

- ❖ UF/IFAS Extension Sarasota County
  - Ag Extension Programs
  - Master Gardener Program
  - Community Gardens Program
  - See Education Calendar for dates/locations at <http://sfyl.ifas.ufl.edu/sarasota/>



# Food For Thought

- “Eating is an agricultural act . . .”  
- Wendell Berry
- **“Eating is a political act . . .”**  
– Alice Waters
- “Eating is also an ecological act .  
.”  
. .  
– Michael Pollan