

Sustainable Agriculture: A Statewide Prospective

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What is Sustainable Agriculture?

The word "sustain," from the Latin *sustinere* (sus-, from below and tenere, to hold), to keep in existence or maintain, implies long-term support or permanence. As it pertains to agriculture, sustainable describes farming systems that are "capable of maintaining their productivity and usefulness to society indefinitely. Such systems... must be resource-conserving, socially supportive, commercially competitive, and environmentally sound."

[John Ikerd, as quoted by Richard Duesterhaus in "Sustainability's Promise," *Journal of Soil and Water Conservation* (Jan.-Feb. 1990) 45(1): p.4. NAL Call # 56.8 J822]

<http://www.nal.usda.gov/afsic/pubs/terms/srb9902.shtml>

"Sustainable agriculture" was addressed by Congress in the 1990 "Farm Bill". Public Law 101-624 states that "the term sustainable agriculture means an integrated system of plant and animal production practices having a site-specific application that will, over the long term:

- satisfy human food and fiber needs;
- enhance environmental quality and the natural resource base upon which the agricultural economy depends;
- make the most 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; and
- enhance the quality of life for farmers and society as a whole."

<http://www.nal.usda.gov/afsic/pubs/terms/srb9902.shtml>

Overview of Florida Agriculture

- In 2008 Florida had 47,500 commercial farms, utilizing 9.25 million acres to continue to produce a variety of food products.
- Florida ranked 1st in US in the value of production of oranges, grapefruit, tangerines, sugarcane for sugar and seed, squash, watermelons, sweet corn, fresh-market snap beans, fresh-market tomatoes, and fresh-market cucumbers.
- Florida ranked 2nd in the US in the value of production of strawberries, bell peppers, and cucumbers for pickles.
- Florida ranked fourth in the value of production of honey.

Market values measured in the hundreds of millions

<http://www.florida-agriculture.com/agfacts.htm>

Large Scale Production

- Food is produced for sale at distant markets
- Highly mechanized and labor intensive
- Traditionally dependant on chemical pesticides
- Traditionally dependant on chemical fertilizers
- Dependant on lots of cheap water



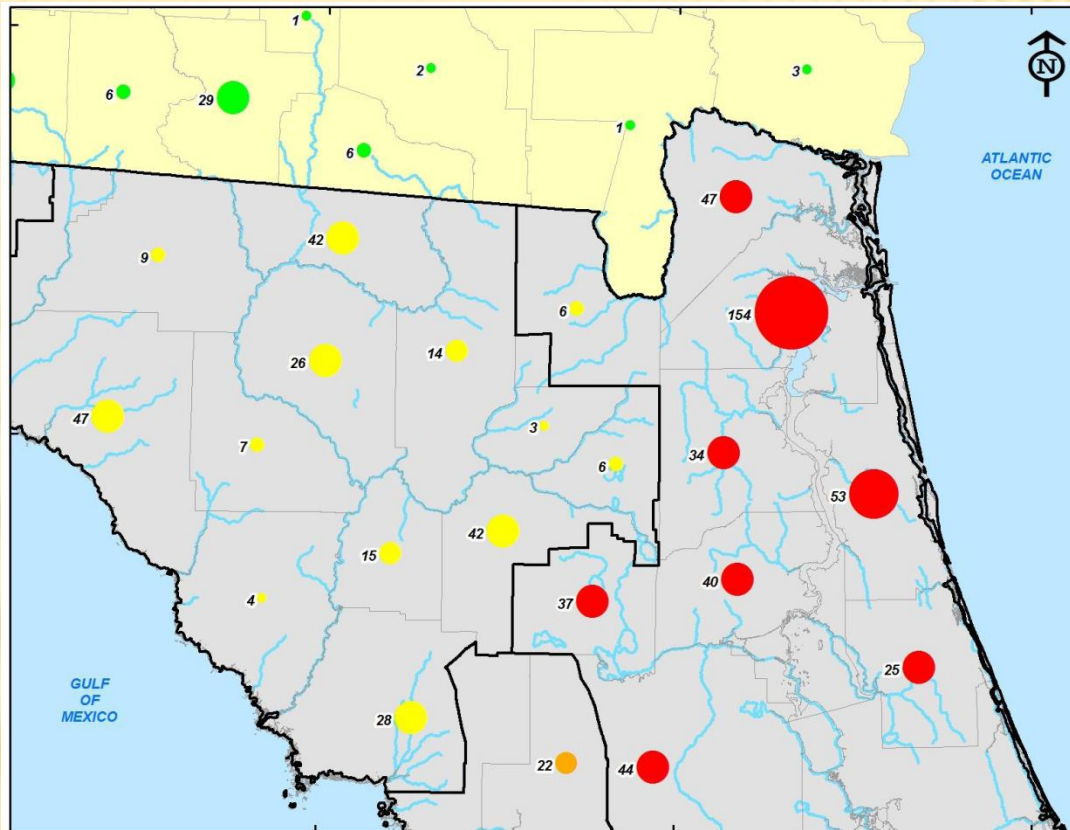
Small Scale Production

- Food is produced for sale in local markets
- Cultural practices more diverse



Approaching Road Blocks: Competition for water resources

Estimated water use by county 2000



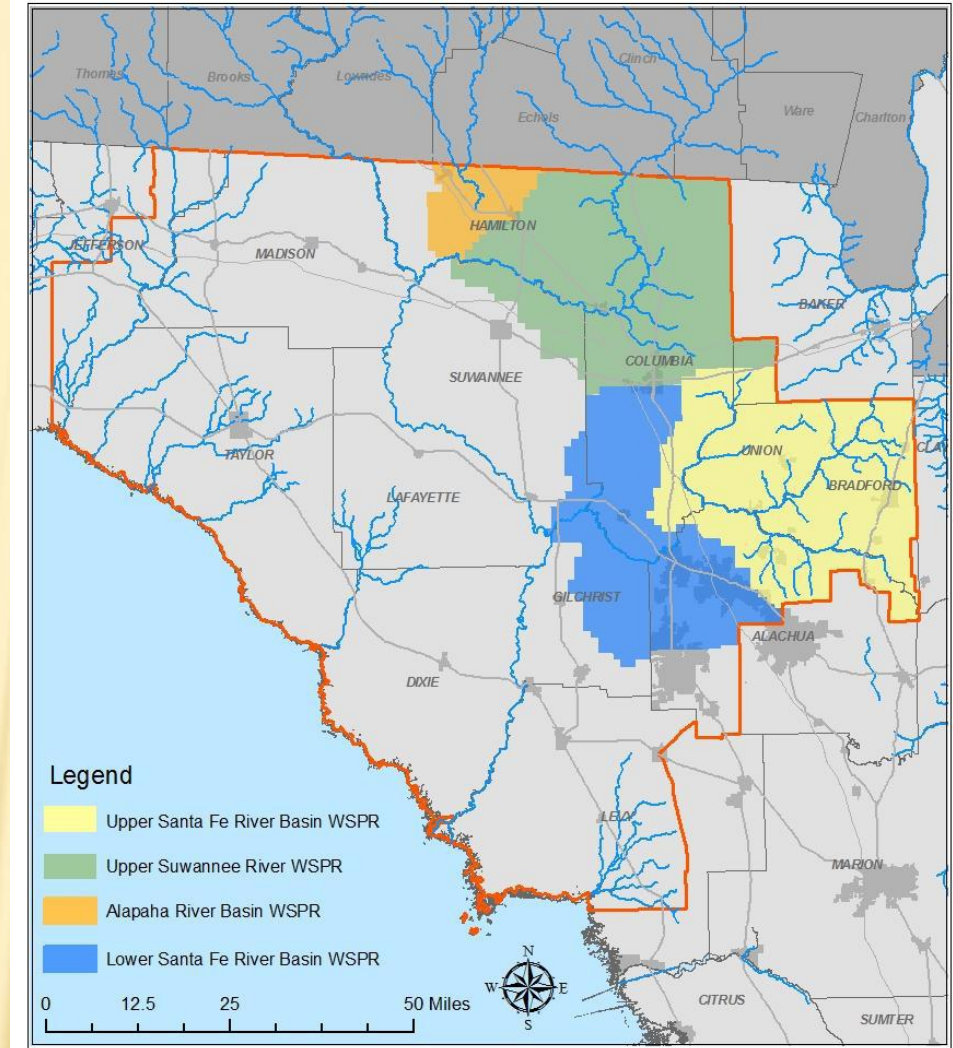
Go to Suwannee River Water management District and search out “water supply plan”

<http://srwmd.org>

Approaching Road Blocks:

Competition for water resources

Existing and Proposed Water Supply Planning Regions

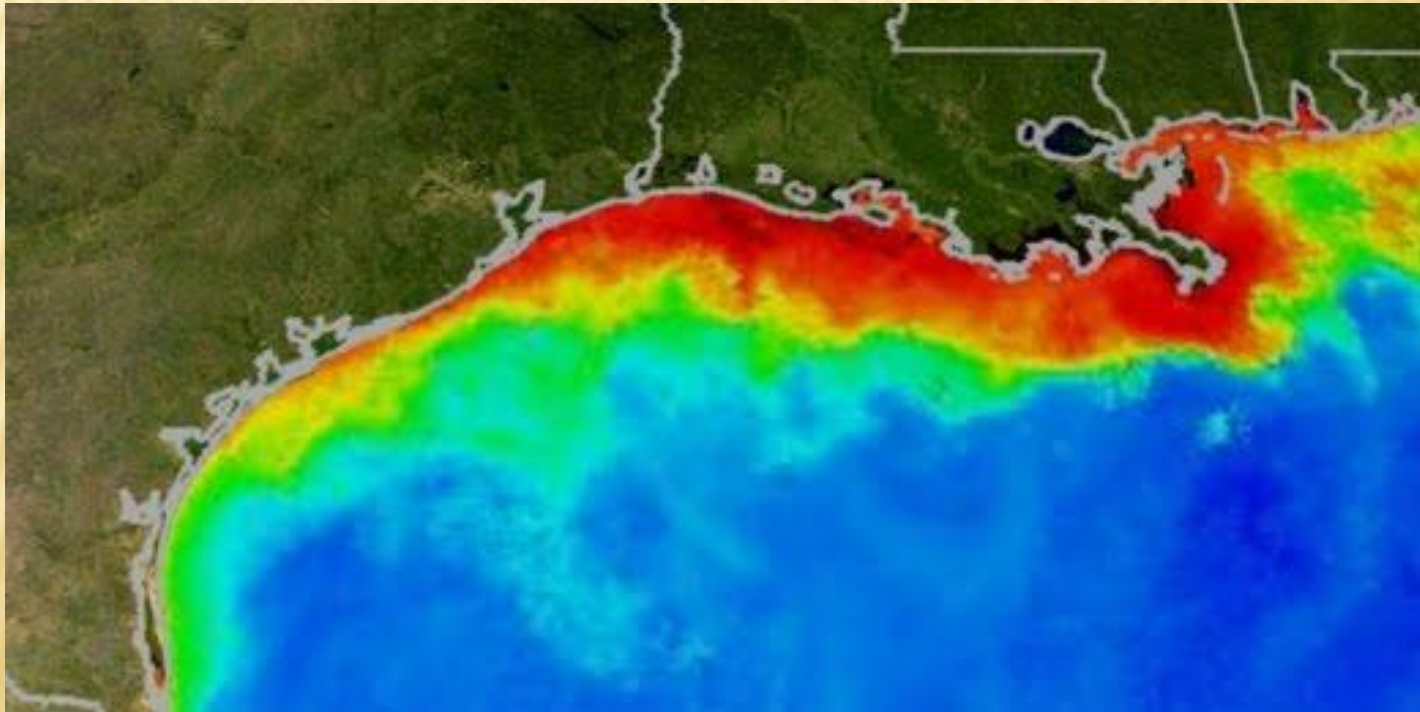


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Approaching Road Blocks: Competition from foreign markets.

- Oceanic dead zones caused from fertilizer runoff.
- Our lives and our economy depend on healthy oceans.
- Algae blooms in upper St. Johns River.





Mexico

Approaching Road Blocks: Competition from foreign markets

- **Strawberries in tunnels:**
 - Used all over the world.
 - <5 growers in Florida.



Malaysia



Spain

Approaching Road Blocks

- Regulatory issues – especially for the small producer.
- Food safety.
- Increasing fuel costs.
- Emerging pathogens – Citrus greening for an example.
- Climate change – disrupting predictable weather patterns.
- Phosphorus supply – 50 year global reserve.

Solutions

- There is a groundswell of public concern about our food supply.
- “Going green” is now popular.
- Partnerships are being formed to address our situation (Suwannee River Partnership example).
- Research is constantly being done to discover ways to obtain a sustainable supply of food and fiber for both large scale and small scale production.
- Extension efforts that target both small producers and large producers are regularly implemented.

Announcing



- ✕ July 15 & 16, 2011
- ✕ Kissimmee, Florida

<http://smallfarms.ifas.ufl.edu>

Conference Highlights

2010

Keynote Speaker Will Allen

Allen is founder and CEO of **Growing Power, Inc.**

A Milwaukee-based organization that is receiving national acclaim for leading what Allen calls the “Good Food Revolution”.

<http://www.growingpower.org>



Recently named to the Time 100: World's Most Influential People list in the ‘Hero’ category for his efforts to secure healthy, abundant and affordable food for all.

Conference Highlights

Over 30 Educational Sessions Covering a Wide Range of Topics

Alternative Enterprises

Alternative Energy

Business and Marketing

Horticulture

Livestock

Organic and Sustainable Farming

Policy and Regulations



Conference Highlights

Large Exhibition Showcasing Products and Technologies



Conference Highlights

Livestock Arena with Live Animal Exhibits



Conference highlights: local foods



Conference Highlights

Innovated Farmer Awards



Conference Highlights

**Networking
Opportunities
Educational
and Fun**



Sponsors

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University of Florida, IFAS

Platinum

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Agriculture and Consumer
Services (FDACS)

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Destiny Organics

USDA Farm Service Agency

FL Farm Bureau Federation
& FL Farm Bureau Insurance

Global Organics Specialty Source

Farm Credit of Florida

Bronze

Hani's Mediterranean Organics

Florida Association of
Community Farmers Markets

June 6, 2010

I'm glad I am not an Extension
Agent in the 16th Century!

Who was Copernicus?

Born in Poland (1473 -1543).

His uncle was a bishop.

He was educated in Krakow, Bologna and Padua.

He was a church administrator, lawyer and practiced medicine.

In his spare time he translated poetry from Greek and Latin and practiced astronomy.

His 30 year secret project

He revised humanity's sense of place in the universe.

Once he placed the sun at the center of our solar system, the mathematics supported his assumption.

He did not publish his results until he was on his death bed, "The scorn which I had to fear on the account of the newness and the absurdity of my opinion almost drove me to abandon the work already undertaken".

Program For Resource Efficient Communities

“To integrate and apply UF’s educational and analytical assets to promote the adoption of best design, construction, and management practices that measurably reduce energy and water consumption and environmental degradation in new residential community developments”
Includes all Univ. of Florida departments.

Land use in Florida

Florida's land area = 42% agricultural & urban.

From 1982 – 1997:

- Urbanized land ↑ 34% nationally.

- Urbanized land ↑ 58% in Florida.

Human activity has destroyed over 1/3 of Florida's native habitats.

Water quantity



- Residential water use comprises 61% of the public supply.
- 1970 and 1995 = 135%
↑ in groundwater withdrawals.
 - Most groundwater in U.S.
- ~ 30% withdrawn April – June.
- Florida consumes more fresh water than any other state east of the Mississippi River.
- Conflict: high quality landscapes vs. low water holding capacity soils.

Which way do we go?



Let's consider our assets!

1. We live in North Florida.
2. Phosphorus occurs naturally in much of our soils – perhaps we should inventory it.
3. We do not have the expense of having to support a large infrastructure.
4. Agri-tourism.
5. Others?

We must take careful, deliberate steps to move to a sustainable state!

Roses and onions!

Agricultural and development interests must work together!