

# Transforming Agricultural Systems on Public Lands in the EAA to Support Everglades Restoration



**Everglades Coalition Conference**  
2:00 pm, Friday, January 8, 2010  
A session organized by **CRCA-Riverwatch**  
(presentations at [www.CRCA.caloosahatchee.org](http://www.CRCA.caloosahatchee.org))



## NEED FOR TRANSFORMED FARMS

The success of Everglades restoration is threatened by both regional and global scale pressures. The overarching global threat to the Everglades is long-term sea level rise due to climate change driven by greenhouse gas emissions. Addressing the greenhouse gas challenge requires restructuring all human endeavours into more sustainable enterprises.

The current push in Everglades restoration is to purchase farm land in critical areas of south Florida, replacing them with water storage and treatment areas. But displaced farms simply reappear elsewhere in the world, given that removing farms does not reduce the demand for food products. Substitute farms typically reappear in developing nations on lands cleared from native habitat. And since land clearing for agriculture and other development is a major source of global anthropogenic greenhouse gas emissions, it can be argued that agriculture displaced from Florida contributes to greater greenhouse gas emissions and thus simply fuels global-scale threats to the Everglades.

To achieve meaningful and lasting benefits, Everglades restoration programs must address the global need to produce food in a manner compatible with ecosystem protection. Florida is uniquely positioned to step up to this global challenge. Our state has both the motivation and capacity to create solutions that will help solve our local problems as well as the almost identical ecosystem issues facing populations throughout the world.

## NEW FARMING SYSTEMS CONCEPT

EAA farms on public lands can be redesigned to balance food production with environmental needs such as water storage, nutrient management, soil subsidence reduction, energy efficiency, and habitat protection in ways that are potentially more profitable to farmers and less costly to taxpayers.

The transformed agricultural systems envisioned by this session go beyond BMPs for water, soils, and nutrients. These new, sustainable systems will require a fundamental reassessment of crop yield expectations and the assignment of comparable weight and economic value to ecosystem functions and services.

The State of Florida is purchasing EAA lands with water storage and treatment in mind. This acquisition affords opportunities to design and implement food and energy production systems that are compatible with concepts such as a southern flow-way. The flow-way is a plan to deliver wet season waters from Lake Okeechobee to the WCAs and Everglades via the EAA, relieving coastal estuaries of excess freshwater and nutrient loads.

This session will explore the need for dramatically new farming systems on EAA public lands, the component tasks of creating innovative farms, and how we implement research and demonstration programs to meet the economic, agricultural, and environmental challenges facing the Everglades and south Florida coastal estuaries.

## SESSION AGENDA



Valerie Guenther

**Welcome and Introductory Remarks**  
**Valerie M. Guenther** (Caloosahatchee River Citizens Association - Riverwatch)



Mark Brown

**Sustainable Farming Systems for the EAA – the Challenge**  
**John C. Capece** (Caloosahatchee River Citizens Association)



John Capece

**Natural Resources Optimization and Accounting Principles**  
**Mark T. Brown** (UF Environmental Engineering Sciences)



Barry Glaz

**Sugarcane Flood Tolerance: Current Limits and Future Prospects**  
**Barry S. Glaz** (USDA Sugarcane Research Station, Canal Point)  
**Robert A. Gilbert** (UF-IFAS Everglades Research & Education Center)



Rob Gilbert

**Organic Soil Oxidation (Subsidence)**  
**Alan L. Wright** (UF/IFAS Everglades Research & Education Center)



Ed Hanlon

**A New Farming Systems Development Initiative**  
**Edward A. Hanlon** (UF/IFAS Southwest FL Research & Education Center)



Alan Wright