

## BioRefineries for Florida: PRODUCING BIO-FUELS AND CHEMICALS

### CELLULOSIC BIOMASS RESEARCH, DEVELOPMENT AND EXTENSION

#### Feedstock Research and Development



Sweet Sorghum Field Trials

- Advanced growing systems
- Increased yield
- Improved processing efficiency
- Genetic breeding
- Species identification and comparisons

#### Extension Education



### CONVERSION TECHNOLOGY

#### Facilities



The Stan Mayfield Biorefinery Pilot Plant



Biorefinery Dedication and Acceptance for the State of Florida by the Hon. Debbie Mayfield

#### Optimizing Processes for successful commercial scale plant production

- Feedstock pre-treatment
- Biocatalysts to produce value-added chemicals and advanced biofuels
- Advanced fermentation process development
- Energy and co-product recovery from stillage

### RENEWABLE PRODUCTS

#### Biofuels

Bioplastics and Biosolvents

Can replace 50-75% of products derived from petroleum

#### Ethanol

Organic Acids - Lactic Acid (*Poly-L and Poly-D*) and Succinic Acid

Sample applications:

Bioplastics & biosolvents, Food/feed additives, Medicine/drugs  
Cosmetics, Agro-chemical, Textiles



### BENEFITS TO FLORIDA

- Stimulates Florida's economy from domestic bio-industries
- Improves quality of life from new biobased technology and processes
- Decreases dependency on oil imports

#### UF INDUSTRY PARTNERS

