

Prerequisites for Maintaining Funding from Producer Organizations

Dr. Rob Gilbert – Professor and EREC Center Director

Sugarcane Agronomy

CP Sugarcane Breeding Program

R.A. Gilbert¹, J.C. Comstock², B. Glaz,² N. Glynn²,
S. Edme², D. Zhao², C. Chen², R.W. Davidson³
et al.



Sugarcane Variety Release Committee



CP Sugarcane Cultivars

- ❖ > 95% of sugarcane acreage in FL

- ❖ Major acreage in
 - Argentina (25%)
 - Belize (16%)
 - El Salvador (50%)
 - Guatemala (65%)
 - Honduras (47%)
 - Mexico (15%)
 - Morocco (54%)
 - Nicaragua (75%)

- ❖ 20 CP or CPCL Clones released since 2000

Gilbert et al. 2010 J. Plant Reg. 5:318-324.
Gilbert et al. 2005 Crop Sci. 45:2060-2067

Sucrose Accumulation and Harvest Schedule Recommendations for CP Sugarcane Cultivars in Florida

R.A. Gilbert¹, J.M. Shine, Jr.², J.D. Miller³
and R.W. Rice¹

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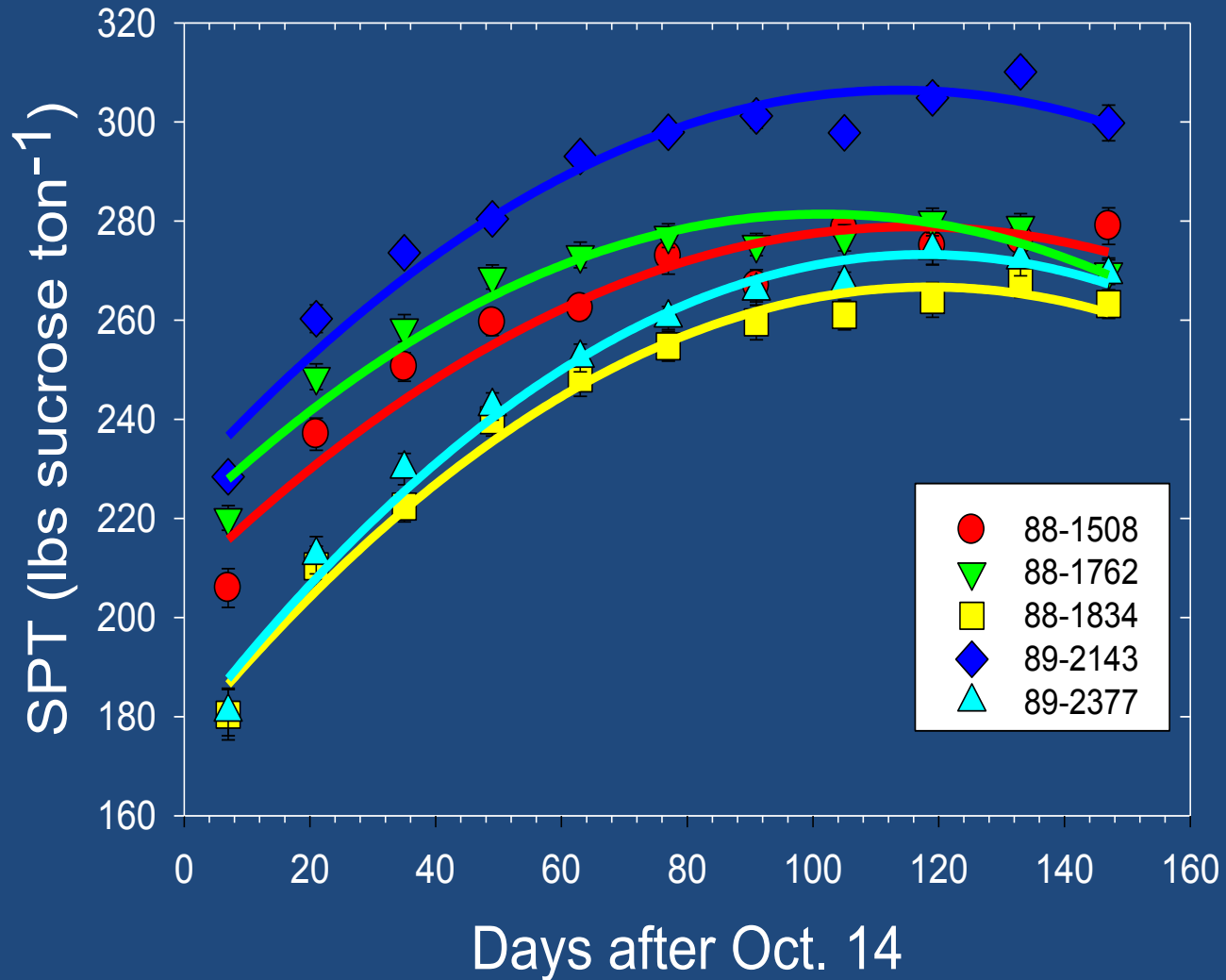
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3



SPT vs. Harvest Date



SUGARCANE HANDBOOK

- EDIS – online information system
 - Soils: 4 articles
 - Diseases: 10 articles
 - Weeds: 5 articles
 - Insects: 8 articles
 - Cultural Practices: 9 articles
 - Water Quality: 2 articles
 - Economics & Policy: 16 articles
 - Varieties: 41 articles
- www.edis.ifas.ufl.edu



200 populations of *Syntherisma* sp. have been found in Costa Rica and Venezuela, but a natural sugarcane population has not been observed in Florida.

There are no chemicals labeled for sugarcane biocontrol in Florida at this time. Application of entomopathogenic fungi for the control of other sugarcane pests will simultaneously provide some control of *Syntherisma*.

Yellow Sugarcane Aphid

The yellow sugarcane aphid, *Sipha flava*, is considered a nuisance by many pest of sugarcane (Figure 2). Red spots occur upon its feeding into its susceptible victims. Prolonged feeding results in yellow discoloration and premature senescence.



Figure 2. Yellow sugarcane aphid.

Lesser Cornstalk Borer

The larvae of the lesser cornstalk borer, *Diprionopsis ligonotus*, is a 4-caterpillar species with creamy white to black-spotted heads 3.4 to 7.1 mm long when a full grown (Figure 3).



Figure 3. Lesser cornstalk borer.

The larvae bore into a sugarcane stem at or below the soil surface and usually cause a "check-out" or dieback in the sugarcane stems or watercane. When they die at or below the growing point, damage above the

Faculty Program Principles

- ❖ Collaboration vs. Competition
 - Impact
- ❖ Creativity
- ❖ Grower Relations
- ❖ International Opportunities

Everglades Research and Education Center

Early years



Land clearing

Early canal work





Remaining faculty houses circa 1930s, currently used for visiting faculty



Current administration building, built in sections between 1930s and 1940s and used as laboratories and faculty offices



Wedgworth Laboratory building completed in 1990, houses faculty labs and offices



EREC Conference Center for agriculture related meetings, completed in 2001

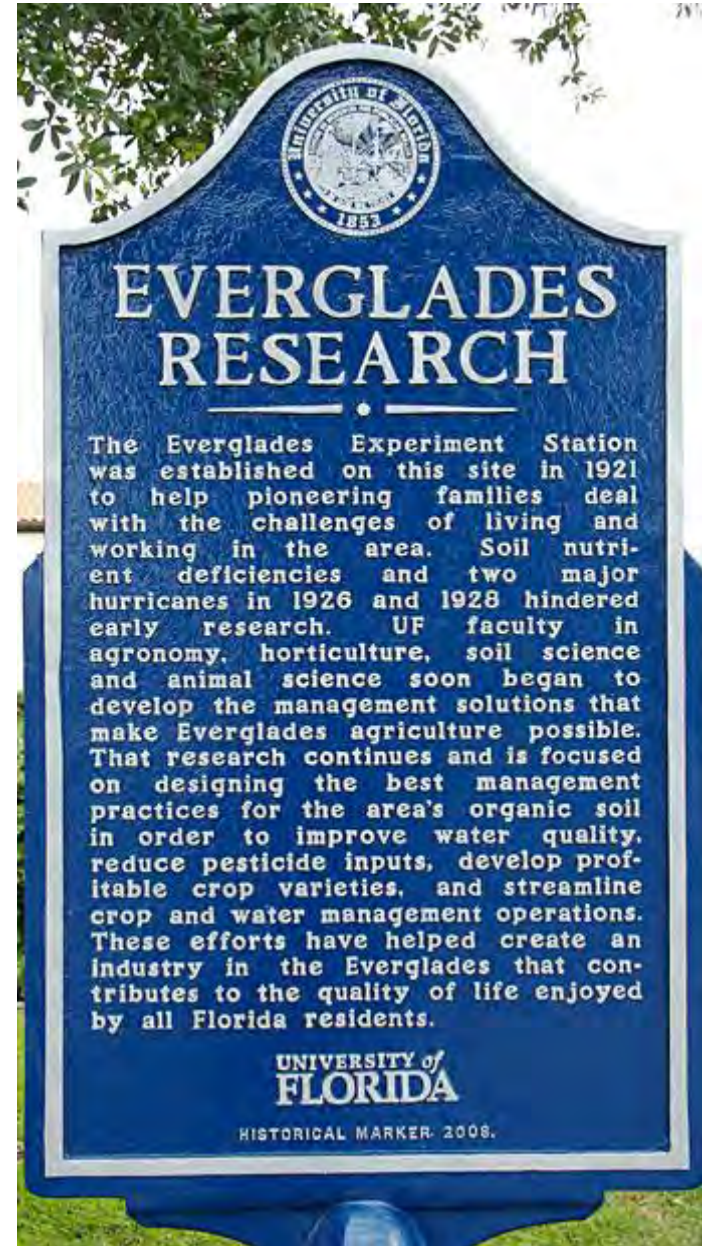
Research Programs

- ❖ Best Management Practices
- ❖ Soil and Water Research
- ❖ Crop Improvement:
 - Sugarcane
 - Rice
 - Turfgrass
 - Vegetables
 - Corn & Sorghum
- ❖ Wildlife Ecology
- ❖ Pest Management
- ❖ Plant Pathology

- ❖ Graduate & Post Doctoral Education



- ❖ The Everglades Research and Education Center was selected for its historic importance due to the research aiding growers and contributing to the growth of agriculture in southern Florida.
- ❖ The marker, dedicated in 2008, was the second marker selected in the UF Historic Marker series.



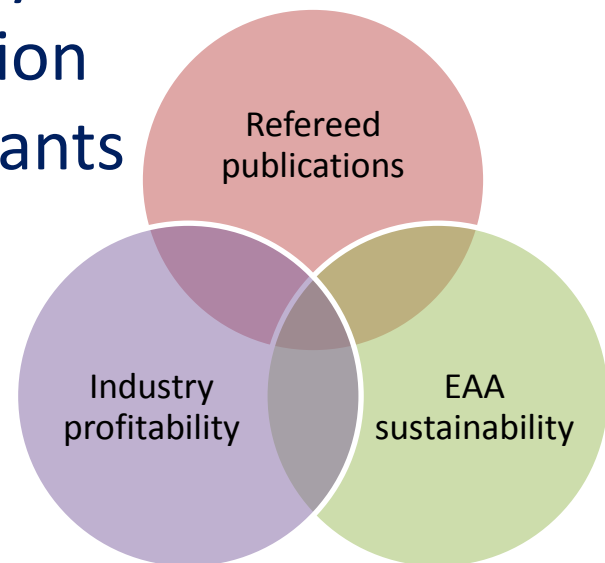
EREC Recent Impacts

- ❖ BMP Program
 - Reduction in P loads average > 50% annually
- ❖ Sugarcane
 - CP varieties grown on > 95% EAA
 - Fungicide recommendations for new orange rust disease
- ❖ Everglades Soil Testing Lab
 - > 8,000 samples processed annually
 - Recommendations for > 200,000 acres

EREC Faculty Programs

❖ Faculty Programs

- Faculty programs drive EREC
- Future difficult to predict
 - ✓ Hiring decisions
- Mentoring junior faculty
- Promote interdisciplinary collaboration
- Support land grant mission
- Increased reliance on grants
 - ✓ Energycane example
- CD job to ensure programmatic balance



Keys to Sustained Producer Funding

- ❖ Prioritization of R/E Programs
 - Advisory committee
- ❖ Communication
 - Planning, implementing, reporting
 - Responsiveness
- ❖ Collaboration
 - Funding and in-kind support from industry
 - Faculty program reliability and work ethic
- ❖ Impact
 - Field days, surveys
- ❖ Recognition
 - Acknowledgements, co-authorship

Thank you very much for your interest.