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Citrus Leaves is the monthly
newsletter for employees
and friends of CREC.

Citrus Leaves welcomes
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submitted for publication
go to: <http://www.crec.ifas.ufl.edu/publications/faculty.htm>

For news from the Busi-
ness Office go to: <http://www.crec.ifas.ufl.edu/services/businessoffice/index.htm>

Citrus Leaves

Dr. Robert "Bob" J. Braddock Retires July 31, 2006

Dr. Robert J. Braddock, Professor
of Food Science, retired from his
position at University of Florida, IFAS,
Citrus Research and Education Center,
Lake Alfred on July 31 after 36 years.

"Dr. Braddock made significant
contributions to citrus processing
technology and provided leadership for
over three decades. His presence on the
faculty at CREC will be missed," stated
Dr. Harold W. Browning, Center Director,
at the Faculty Meeting held on July 20.
Braddock was presented with a plaque
from UF/IFAS and a second plaque from
CREC recognizing those years of service
and contributions to UF/IFAS and CREC
communities.



Pictured left to right: Drs. Larry Duncan, Bob
Braddock, Ken Derrick, and Herb Nigg
photo by Dr. Gene Albrigo

Lab Highlight - August 2006 Dr. Ron Brlansky's Lab

This month's lab highlight joins Dr. Ron Brlansky, Professor of Pathology, specializing in Citrus Systemic Pathogens. "The main emphasis of my research program is on systemic diseases of citrus," stated Brlansky. "Currently our areas of research are on citrus tristeza, citrus blight, citrus variegated chlorosis, citrus leprosis, and huanglongbing (citrus greening) diseases."

The detection and identification of the causal agents and their specific strains are important in the control of these systemic diseases of citrus. "We use microscopy, serology, and molecular methods to specifically detect these systemic pathogens in citrus tissues," continued Brlansky. Many systemic diseases of citrus are insect vectored; and therefore, much of his current work also concerns the interaction of pathogen, vector, and plant.

"Much of our vector work is on exotic citrus diseases such as stem pitting tristeza, citrus variegated chlorosis, and huanglongbing," said Brlansky, "and must be conducted in quarantine facilities outside citrus production areas." These studies include the separation and identification of the tristeza virus complex using the brown citrus aphid, the vectoring of the citrus variegated chlorosis bacterium



Brlansky examines trees and fruit for greening
photo by Gretchen Baut



(cont. from page 1 Braddock Retires)

His research in the field of citrus processing and by-products was devoted to finding solutions for common industry problems. These encompassed the by-product areas related to manufacture and quality of essential oils, feed mill operations, mass balances and flow of process streams, and use of alternate processing techniques, e.g., membranes, high pressure, and CO₂ extractions, flavonoids, and limonene.

His research was conducted with input and cooperation from his industry and faculty colleagues and graduate students.



Braddock watching over field experiment.

Some of these research accomplishments benefiting the industry include use of pectinase enzymes as processing aids to lower viscosity and improve through-put and quality of pulp wash; establishing benchmark yield data for total peel oil content of the common citrus cultivars; establishing commercial feed mill and oil recovery mass balances; applications of membrane and alternate concentration processes for recovery and quality upgrade of juice and by-products; bioconversion of terpenes and citrus aroma chemicals for flavor applications; applications of high pressure to citrus processing; and VOC method development for citrus feed mill operations; isolation and identification of citrus oil halogen compounds contaminating peel oil.

Braddock has published over 100 manuscripts and articles related to citrus processing and by-product technology and utilization and quality improvement. These research studies, general industry information about processing operations, and product technical properties and utilizations are compiled in Braddock's 1999 book, "Handbook of Citrus By-Products and Processing Technology" (Wiley & Sons, Inc. NY, NY).

He was involved in developing the first full-time course offered at the Lake Alfred campus, Citrus Processing Technology. The course contents are offered to a mix of academic and citrus processing industry students. To his credit, Dr. Braddock has trained over 20 students, many of which are currently employed within industry and academia. His accomplishments in these areas provided intangible resources available to industry only by such University programs.

In addition, Dr. Braddock is a Fellow of the Institute of Food Technologies (IFT) and Professional member, a member of the American Chemical Society, was a former Associate Editor for the Journal of Food Science, was a past Chairman of the Florida Section of the IFT, and received a Distinguished Service Award from Florida IFT.

In retirement, Dr. Braddock plans to practice some of his scientific expertise as an Emeritus Professor, improve his fishing skills, and enjoy playing his clarinet in some musical organizations.

(cont. from page 1 Brlansky Lab Highlight)

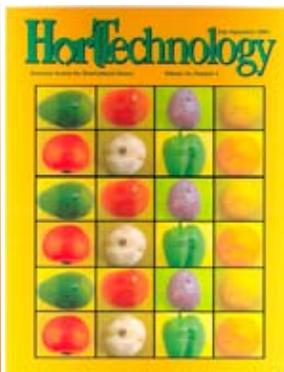
with sharpshooter vectors from Florida and California, and the vectoring of the huanglongbing bacterium, *Liberobacter asiaticum*, with the citrus psyllid, *Diaphorina citri* from Florida.

In February 2006, Brlansky, in a collaborative effort with Dr. Pete Timmer, Dr. Michael Rogers, and Gretchen Baut (CREC), created the "Citrus Greening Disease Identification and Management, Vol. I" training DVD. The training DVD has been used in many field training seminars in the citrus industry and are available free of charge. If you are interested in a copy, you may contact Dr. Ron Brlansky (ext. 1300) or Holly Chamberlain, CREC Coordinator for citrus canker, greening, and other exotic disease education (ext. 1302).

Currently working in Dr. Brlansky's lab are Senior Biological Scientist, Dr. G. Ananthakrishnan (Anantha), Ms. Elena Tellez-Rubio (OPS), Ms. Mary Brawley (OPS), and Mr. Abby Guerra-Moreno (Ph.D. graduate student), as well as continued collaborations with a previous post doctoral associate, Dr. Avijit Roy. Dr. Brlansky also has ongoing collaborations with Dr. John Hartung, USDA, ARS, FruitLab, Beltsville, MD and with Drs. Vern Damsteegt and Bill Schneider, USDA, ARS, Foreign Disease and Weed Science Research Unit, Fort Detrick, MD.

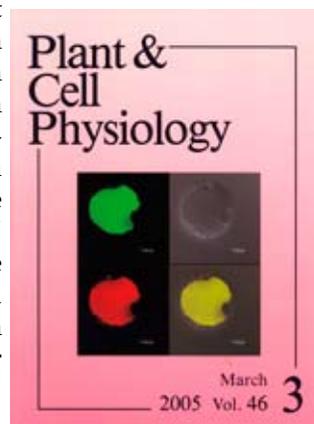
Etxeberria Makes Journal Cover

Congratulations to Dr. Ed Etxeberria. For the second time in a little over a year, a figure from one of his manuscripts was used for the cover of a science journal. The



cover of HortTechnology, pictured on the left, was created from photos taken by Gretchen Baut. Gretchen also worked with Ed to create the figure layout. The figure was taken from Ed's paper entitled "Anatomical and Morphological Characteristics of Laser Etching Depressions for Fruit Labeling," Ed Etxeberria, William M. Miller, and Diann Achor [16:527-532], July-September 2006. The cover of Plant

& Cell Physiology (pictured on the right) was from the March 2005 issue was a figure taken from Etxeberria et al. "Sucrose-inducible Endocytosis as a Mechanism for Nutrient Uptake in Heterotrophic Plant Cells" [46(3):474-481]. The figure (created by both Etxeberria and Kathy Snyder) was a culmination of photos taken by Diann Achor in the Electron Microscope Lab.



CREC 2006 FSHS Best Paper Awards

Best Paper Awards for the 2006 Florida State Horticultural Society Proceedings were announced during this year's annual meeting. This year Drs. Carl C. Childers and Michael E. Rogers received the Best Paper Award in the Citrus Section. Their paper is entitled "Chemical control and management approaches of the Asian citrus psyllid, *Diaphorina citri* Kuwayama (Homoptera: Psyllidae) in Florida citrus."

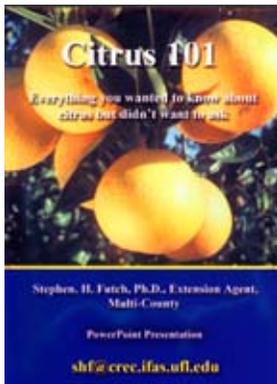


Pictured left to right: Dr. Jackie Burns, FSHS Chair for 2006-2007, Dr. Carl Childers, and Dr. George Hockmuth, past FSHS Chair for 2005-2006. Photo by Dr. Ed Etxeberria

Proceedings of the Florida State Horticulture Society 118:49-53. Childers accepted the award for both he and Rogers from Dr. George Hockmuth, FSHS Chairman of the Board 2005-2006.

Futch Receives National Finalist Award

Dr. Steve Futch received a "National Finalist" communication award for a citrus learning module/notebook that was developed in 2005 and used for Extension Agent and Master Gardener training. The recognition award of excellence was presented at the National Association of County Agricultural Agents meeting in Cincinnati, Ohio on July 25. The developed citrus learning module/notebook



Futch during grove inspection.
Photo by Gretchen Baut

(also available as Powerpoint CD) was judged to be in the top four nationwide, thereby receiving one of the three national finalist awards. To be considered for the awards, you must be the state winner in the specific category. All submitting state applicants are then judged with a national winner and three national finalists being selected.

Citrus Leaves Inspires Others

A few months ago, Citrus Leaves received a request from Dr. Francisco "Paco" Garcia (former Postdoc of Dr. Jim Syvertsen) to be added to the Citrus Leaves mailing list. Little did we realize that our newsletter became the guideline and inspiration for the new Newsletter of CEBAS (Centro De Edafología Y Biología Aplicada Del Segura), University Campus of Espinardo, Spain. The first issue was published in May 2005, produced by postdocs and students (pictured to the right). The first issue contained a small interview with Dr. Syvertsen while he was collaborating with Dr. Garcia during his trip to Spain at the end of last year. With the help of Dr. Ed Etxeberria translating, the following is the interview published in Pa' Ciencia:



Jim Syvertsen, University of Florida,
Citrus Research and Education Center, USA
Research Field: Environmental Stress
Physiology of Citrus Fruits

How did you learn about CEBAS?

Through by Francisco Garcia, CEBAS, during his visit to my laboratory in Florida.

What do you know about Spain before your visit to CEBAS?

I had a general idea since I have been visiting citrus producing areas in Spain for several years.

What differences do you find between your country and Spain?

At the scientific level, the enormous opportunities that Spanish researchers have for studies abroad.

What advice do you give some people that may want to visit CEBAS?

To plan and prepare their visit as well as possible to maximize achievements, to prepare for a hot summer and cold winter.

BHG REPAIRS UNDERWAY PLEASE EXCUSE OUR APPEARANCE

Access to the Library and Library Annex must be made through the westside entrance (near the EM Lab) while construction is underway. Please use caution while entering the construction zone.

UPCOMING CANDIDATE SEMINARS

AUGUST 3, 11:00 A.M., BHG RM 2

Dr. Philippe Rott, presently the Research Manager in Plant Pathology (CIRAD, Montpellier, France), will be presenting his seminar entitled "Leaf Scald of Sugarcane caused by *Xanthomonas albilineans*: From a Pair of Boots to a Pair of Bases and Vice-Versa." (Microbacteriologist Position)

AUGUST 7, 11:00 A.M., BHG RM 2

Dr. Jianfa Bai, presently a Research Assistant Professor in Plant Pathology and Director of the Gene Expression Facility at Kansas State University, will be presenting his seminar entitled "Molecular Approaches in Plant-Microbe Interactions." (Microbacteriologist Position)

AUGUST 8, 11:00 A.M., BHG RM 2

Dr. Steve Futch, presently is the multi-county citrus agent for Hardee, DeSoto, Manatee and Sarasota counties since 1990. He will be presenting his seminar entitled, "An Effective State Specialist and Enhanced Extension Programs – A Winning Combination for Florida Citrus and UF." (Extension Horticulture Position)

AUGUST 9, 11:00 A.M., BHG RM 2

Dr. A. Leonardo Iniguez, presently a Postdoctoral Research Associate, Agronomy Dept., University of Wisconsin-Madison, will be presenting his seminar entitled "Integrating Plant-Microbe Interaction Studies and High Throughput Expression Analysis to Address Prokaryotic Diseases of Citrus." (Microbacteriologist Position)

AUGUST 16, 11:00 A.M., BHG RM 2

Dr. Nian Wang, presently a Postdoctoral Research Associate, Plant and Microbial Biology Dept., University of California-Berkeley, will be presenting his seminar entitled "How Do Plant Pathogenic Bacteria Coordinate Their Virulence Traits?" (Microbacteriologist Position)

Please check <http://www.crec.ifas.ufl.edu/news> for upcoming seminars or date changes.

CREC EMPLOYEE NEWS

Welcome

Nick Gariti, Volunteer, Baut
Jenn Garceau, OPS, Orbovic
Dr. Yolanda Lluch, Postdoc, Burns

Farewell

Carolina Emanuels, OPS, Rouseff
Betti Kelley, Human Resources, Price
Marcia Alden, Librarian
Sridhar Jarughula, OPS, Dawson
Jenna Waters, OPS, Grosser

Colleen Morrison, OPS, Grosser
Ben Carter, OPS, Nigg

Retired

Dr. Robert "Bob" Braddock, Citrus Processing Technology

Transfers

Michael Simms, from Noling to M. Rogers
Shelly Jones, from Braddock to Reyes

Congratulations to **Ashish Mishra** (Ph.D. student, **Dr. Rezi Ehsani**) for his wedding to **Ekta**. Ashish met Ekta (his wife) during his trip to India during Christmas 2005. Their wedding ceremony was held in Allahabad, India on June 18, 2006. Ashish is working on hyper-spectral imaging of Citrus canker and Hunglongbing (HLB). After completing his PhD, he would like to go into the industry to hone his expertise. Ashish's hobbies include photography, music, driving, and cooking. Ekta has a MS in environmental science, loves to play guitar and keyboard, and also has a keen interest in yoga and meditation. Best wishes for a happy future.



Diptesh (Sunny) Sharma has received the President's Honor Roll certificate for the year 2005-06. Students appear on the President's Honor Roll if they achieve a perfect 4.0 GPA with full-time enrollment of graded academic work (no S-U) in the fall or spring semesters. Each student so honored will receive the President's Honor Roll certificate. Sunny is now a sophomore at UF (Gainesville campus), majoring in Mechanical Engineering and a double minor in Business Administration and Bio-mechanics. He is currently a part-time student for the summer and an intern in **Dr. Reza Ehsani's** lab at CREC. Sunny is son of **Dr. Shiv Sharma**, a post-doctoral associate, at CREC and **Mrs. Uditia Sharma**.

