

Environmental Horticulture NEWS

Spring/Summer 2002 Vol. 8 No. 1



The Bulletin of the Environmental Horticulture Department at the University of Florida

Student Club Tours Northern California



This year the University of Florida Environmental Horticulture Student Club used their time between semesters to experience horticulture in northern California. Sixteen students and two advisors flew to San Francisco for the first part of their trip. As part of a diverse and ambitious itinerary, they visited the Downtown Flower Market, Alcatraz, and the inspiring Muir Woods with its towering redwoods and giant sequoias. They visited a large production greenhouse operation at the Nurserymen's Exchange, and enjoyed an afternoon in Golden Gate Park's formal Japanese tea garden and the Strybing Arboretum.

Leaving the San Francisco area, the group headed south, touring the formal Filoli Gardens. Goldsmith Seeds was next on the schedule, followed by a guided tour of the renowned Pebble Beach Golf Course. While in Monterey, they stopped at the Monterey Bay Aquarium and enjoyed the ocean views along the fabled "Seventeen Mile Drive." Driving north a few hours, the group toured Hines Nursery to see woody plant production at its best, and enjoyed an afternoon tour of the Robert Mondavi Winery's vineyard. The tour's last day took them to the University of California at Davis to tour the collection greenhouses of the Botany Department, the mile-long UCD arboretum and the facilities of the Environmental Horticulture Department.



Keona Muller, Alison DeBatt, Jennifer Parrish and Erin Alvarez at the S.F. Flower Market

Evenings were spent sampling local cuisine, visiting area establishments, and resting for the upcoming day. The trip was sponsored in part by the National Foliage Foundation, and the remaining expenses were covered with funds raised by the club's plant sales. While the group returned to Gainesville exhausted, the club will not forget their experiences, which will further help them prepare for life after UF.



Garden House at Filoli Gardens

Message from Our Chairman

Terril A. Nell



These are great times for Environmental Horticulture - the economic importance of the industry, the significance of plants to human well-being, and the value of turfgrass and landscaping to our environment are being recognized. This is a time for us to build on our strengths, reaffirm our goals and priorities, maintain excellence, provide "society-ready" students, and maintain and increase our productivity. And, yet, these are challenging times for our program just as they are for the individuals and small businesses in the industry.

We are very fortunate to have a first-rate working relationship with the horticultural and turfgrass industries and government agencies, and continued support of our administration during these weak economic times and reduced legislative funding. We have a premier Environmental Horticulture program, and our future depends upon continued development of these partnerships in order to maintain focus, enhance funding, and continue along our path of excellence. With these partnerships, our challenges become greater and expectations increase significantly. In the past, production practices focused on optimizing plant growth. Today, we are conducting research, educating students, and providing horticultural information for a fragile ecosystem. These efforts will emphasize the positive ENVIRONMENTAL aspects resulting from the filtering of runoff from turfgrasses, cooling effects of landscape trees and plants, and efficient water and fertilizer use.

Our success also depends on exploring new technology, and will lead to advancement and economic growth of environmental horticulture. As you will read in this newsletter, we are making major advances in biotechnology, e.g. flowers that live longer and leaves that remain green in times of stress. Will biotechnology help us develop drought-tolerant turfgrasses and landscape plants? Maybe! Advancing production technology is crucial to safeguarding our environment, delivering quality products to consumers, and maintaining efficiency and profitability. We are committed to educating our students, producers and consumers to be diligent stewards of the environment, and at the same time, use current technology to achieve superior horticultural information and commodities. Our faculty, with the assistance of outstanding staff and graduate students, will lead the nation in technological advancements for Environmental Horticulture in the future.

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Education Corner

Alumni Career Night

It has been a busy Spring Semester, with several special programs being offered to our students. In January we held our first annual Alumni Career Night. The evening began with a chili dinner and all the trimmings. Alumni in attendance were Jennifer Rulka('99) Orange County Extension Agent, Murdock Ray Gillis ('95) Agristarts, Willie Pescara('01) Post Properties, Chris Neff('96) Timuquana Golf & Country Club, and Mike Roe('99) Total Quality Liners, and Shane Barney of SE Pro, Inc.

These alumni, who currently work in different facets of the horticulture industry, were invited to speak briefly about the job they hold and any previous professional work they have done. Students then directed questions to the alumni panel in a roundtable discussion. Topics included:

- what employers look for in an employee
- how to find a job
- tips on how to be a desirable job applicant
- what to expect in an interview
- job interview etiquette

Students were also encouraged to network with professionals while in school and make as many contacts as possible. The evening was a tremendous success and many of the students stayed after to network with the Alumni. Please contact us if you would be interested in participating in this program.



Kristin Bowden and Carol Keiper-Bennett speak with Alumnus Willie Pescara of Post Properties

Orchid Production and Culture Short Course

Talk of orchids drew more than 100 people to Fifield Hall on March 23rd and 24th for the Orchid Production and Culture Short Course, jointly sponsored by IFAS and the Boca Raton Orchid Society. Students, faculty, industry, and orchid enthusiasts spent two days attending lectures by orchid specialists. Orchid diversity, classification, and phylogeny were some of the topics covered as well as diseases, viruses, and insect pests of orchids. The industry shared information on growing techniques as well as mass marketing, and the course wrapped up with a segment on orchid judging. Of course no orchid class would be complete without Dr. Sheehan sharing information on "Orchids to Know and Grow."

Students in attendance received one credit hour after evaluating each speaker and completing a short paper on a topic discussed during the course. The topic and course format seemed to appeal to a diverse student audience, as 70% of the students came from disciplines outside of Environmental Horticulture. All participants were given beautiful orchids by Costa Color Nursery and Kerry's Bromeliads.

This course format allows students to learn about a specific aspect of environmental horticulture that may be of personal interest and use it as an elective credit. The success of this course has prompted us to look at other topics to offer students.



Environmental Horticulture Expands Again

The Environmental Horticulture Department now offers a full degree program at six locations throughout the state. Apopka and Plant City are in addition to the Gainesville, Homestead, Ft. Lauderdale and Milton locations. Environmental Horticulture classes are also offered at Fort Pierce.

The Apopka program is offered at the Research and Education Center on Binion Road. The Plant City program is housed at Hillsborough Community College in Plant City. Classes are offered by local

faculty and through distance education via the College of Agricultural and Life Sciences. Many non-traditional students (adults with full-time jobs and families) are attracted to these programs, as are professionals seeking additional information to enhance their knowledge base. Therefore, most courses are offered in the evening or on Saturdays to accommodate students' work schedules.

Student News

Environmental Horticulture Student Club

The team-spirited Environmental Horticulture Club participated in a variety of environmentally-oriented community activities during the Spring term of 2002. They assisted Gainesville's annual "Great Air Potato Roundup" in early February, conducted the Valentine's Day bulb sale, organized a spring bedding plant sale to raise funds for their annual trip, and re-landscaped the interior foyer planters of Fifield Hall.

The Environmental Horticulture Club Spring Banquet on April 19th was unlike any before, and included a silent auction to benefit the Lisa Burton Memorial Scholarship, door prizes, awards, dancing, and casino games. Everyone in attendance had a great time!

Turfgrass Club

The Turfgrass club has had a very successful year. In February over 20 students attended the Golf Course Superintendents' Association of America Convention in Orlando. The students were exposed to educational seminars, a trade show and various social events. Many students were able to network with industry and initiate contacts for potential jobs. The club also volunteered in the PGA Tour Players Championship event at TPC Sawgrass on March 21st-24th.

On April 6th the annual challenge tournament with rival Lake City Community College took place at Ironwood Golf Course. The event was a huge success, with 34 participants; our team took home the 1st place trophy!

E-MAIL ALERT!

Occasionally we have important short course, trade, or employment information that we would like to pass along to you. Please send us your e-mail address so we can include you in our database. Send information to Lisa Hall at lhall@mail.ifas.ufl.edu.

Student Honors

Erin Eckhardt was selected to join the CALS Ambassador program and was also elected to the Golden Key National Honor Society.

Jennifer Parrish was selected to join the 2002-2003 CALS Ambassador program.

Jenny Hayes, graduating senior in Spring 2002, served a legislative internship in Tallahassee spring term 2002. She was recently selected for "Who's Who Among Students in American Universities and Colleges", a member of the University of Florida Hall of Fame, and was nominated most outstanding female undergraduate leader by the UF Alumni Association.

Jennifer Colson is serving in a prestigious one-year internship at Longwood Gardens in Kennett Square, PA.

Mark Highland has accepted a Longwood Graduate Fellowship at the University of Delaware.



\$SCHOLARSHIP\$

This year, our students were once again awarded an extraordinary number of scholarships. We are grateful to all individuals, corporate donors, industry groups, and garden clubs for their continued support of our program.

Ball Internship	\$1,500
Bartlett Tree Fdn.	2,000
Batson Internship Sch.	6,500
Bloom N' Grow Garden Club	5,000
E.T. York, Jr. Award of Merit	500
ENH Graduate Student Assoc.	200
Florida Rural Rehab. Sch.	2,000
FNGA - Big Bend	750
FNGA - Central East Coast	250
FNGA - Royal Palm	500
FNGA -Tampa Bay	1,000
Gordon Res. Conf. Grant	665
IFAS Travel Grant	600
Int'l Pl. Prop. Society (IPPS)	500
Joiner Graduate Student Sch.	300
Korean Graduate Student Res. Award	300
Legislative Sch., College of Ag.	3,000
Mosmiller Internship	6,000
National Foliage Fdn.	1,500
Phelps Scholarship	15,000
Sn. Nurserymen's Assn.	
- Sydney B Meadows	2,500
Sweetwater Oaks Garden Club	1,000
University Alumni Fellowship	15,000
University Alumni Fellowship	15,000
Windermere Garden Club Sch.	1,500
Total awarded	\$83,065



Environmental Horticulture Student Club Honors Judy Wilson During Earth Day Festivities

The Environmental Horticulture student club honored **Judith Cohen Wilson** by planting eight *Carpinus caroliniana* trees for her at the Environmental Horticulture tree unit at their spring picnic April 20th in observance of Earth Day. **Judy** has been supervising the scholarship program since 1994 and over the years has helped ENH and Turf students amass over \$600,000 in scholarships. In addition, she has offered a warm helping hand and a friendly ear to students, assisting them select and register for courses, decide on internship locations, and process the many forms necessary to be a UF student.

This award was especially meaningful and significant to **Judy** because she worked for **Senator Gaylord Nelson** (D-Wisc.) after graduating from the University of Wisconsin and aided him in many ways, including choosing students to attend the various service academies - West Point, Air Force, Navy and Merchant Marines. Nelson was an avid environmentalist, and in 1970 he founded Earth Day. Inspired by the teachers dealing with the Vietnam War, Earth Day was an instant success, drawing 20 million participants in the first year. *American Heritage Magazine* called the first Earth Day "one of the most remarkable happenings in the history of democracy." Out of Earth Day came the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, and the Environmental Protection Act. So **Judy** has come full circle, having worked with students pro-



Judy Wilson breaks ground for one of her trees.

grams in her first and last job, as she plans to retire in 2005. A concerned environmentalist herself, she enjoys gardening and takes great pride in her flowering potted plants.

Judy feels ENH and turf students wouldn't have majored in these areas if they were not truly concerned with preserving the environment and our precious Planet Earth. It is up to these students including past and future ones, to carry forward the message of Earth Day in their communities and careers because of their concern with natural surroundings.



Jason Grabosky's future arboriculturists in training

Alumni News

'49 **Carl Loop** (BS) wholesale nursery owner and president of Florida Farm Bureau Federation, was inducted into the Florida Agricultural Hall of Fame. **Loop** also received the Honorary American Future Farmers of America (FFA) Degree at the 74th National FFA Convention in Louisville KY.

'86 **Dr. Bob Stamps** (PhD) won first prize in both the flower and ornamental categories as well as *Best in Show*, in the Pi Alpha Xi photography contest held in conjunction with the American Society for Hort. Science conference in Sacramento, CA. Pi Alpha Xi is the honor society for floriculture, landscape and ornamental horticulture.

Tom Wichman (BS) statewide director of the Master Gardener Program was nominated for the Florida Association of County Agricultural Agents (FACAA/NACAA) Achievement Award.

'88 **Wayne Porter** (BS) and wife Donna of San Antonio, FL proudly announce the births of Tyler David and Ryan Joseph on October 25, 2001. **Porter** is employed at Busch Gardens as Assistant Project Manager.

'95 **Ray Gillis** (MS) has been a lab manager for Agri-starts in Apopka, FL since June 2001. Previously, **Gillis** taught agriculture at Ponce de Leon High School in Ponce de Leon, FL.

'96 **Michael Kidd** (BS) completed his Master's Program in Landscape Architecture from the University of Georgia and is currently employed at Jordan, Jones and Goulding in Atlanta as a landscape architect.

Leslie Theus Marshall (BS) and **Michael Marshall** (MS '97) announce with pleasure the birth of Katherine Jane ("Katie") January 27, 2002. Both are employed by Marshall's Tree Farm.

David Ressler (BS), director of production at Cherry Lake Tree Farm in Groveland, FL, was quoted extensively in May 2002 "Ornamental Outlook," regarding their innovative irrigation practices. Cherry Lake has successfully solved its irrigation challenges with a customized state-of-the-art system that is reducing

water usage and cutting costs with a fully automated irrigation system. **Ressler** has been employed by Cherry Lake since he graduated from the ENH Dept

Jan Weinbrecht (MS) joined the Florida Weed Science Society as a graduate student in 1990. He was a speaker and/or moderator 1991, 93-96 and 2000. He was elected to the Board of Directors 1998 and served as publicity chair (99), local arrangements chair (00) and as program chair (01). He was President 2001-02.

'97 **John Jolley** (BS) has been tuna and sword fishing in the Atlantic Ocean between Nova Scotia and the Caribbean on a *perfect storm* boat called Southern Lady. He supported himself by selling his catch to restaurants and other food establishments. His next plan is to head for Idaho where he expects to trap beaver. You may remember **Jolley's** previous exploits reported in the Departmental ENH Newsletter Winter-Spring 1999. Stay tuned for future news of the *Johnny Appleseed* of the ENH Department.



Tucker Taylor with his hothouse tomatoes.

'98 **Heather Veasey Edwards** (BS) recently relocated to Demopolis, AL. with her husband, David Edwards (BS '96 Wildlife Ecology), a project manager for Westervelt Wildlife Services. Her son, Clayton Veasey Edwards, was born June 9, 2000.

Dr. Bart Schutzman (PhD), along with other cycad biologists from around the world, was an invited participant in the Montgomery Botanical Center's Cycad Classification Concepts Workshop, held April 6-10 in Coral Gables, FL.

Michael Fricault (BS) is golf course superintendent of Hollow Creek Golf Club in Middletown, MD.

Tucker Taylor (BS) resides in Portland, OR and has managed a certified organic farm for three years. He sells his produce to natural food stores, restaurants, and farmers' markets. He grows hot-house produce in twelve greenhouses - heirloom tomatoes, English cucumbers, bell peppers, heirloom lettuce (a variety that has been passed down from generation to generation) and several different herbs. **Taylor** has the largest certified organic greenhouse operation in Oregon. He thanks **Dr. Tom Yeager** for helping him discover the Willamette Valley.

Travis Teuton (BS) is a graduate student in Agronomy.

'99 **Mark Highland** (BS), previously a landscape contractor in Portland, OR, has been accepted as a graduate student at the Longwood Gardens Graduate Program at the University of Delaware.

Charlie Lane (BS) began PhD studies in Recreation Parks & Tourism, Fall 2001 at UF.

'00 **Morgan Brown** (BS) is golf course superintendent at the Polo Club in Boca Raton, FL.

'01 **John Steele** (BS) is an assistant golf course superintendent at this facility with two 18-hole courses.

Steve Toomoth (BS) is employed by Environmental Care in Orlando, FL

Adam Thomas (MS) is an assistant-in-training at the Plainfield Country Club, Plainfield, NJ.

Dr. Chun Zhang (PhD) is employed at the UF Health Center as a post-doc.

Dana Holmberg (BS) has accepted a position as manager of a new retail nursery in front of their wholesale nursery, Ocala, FL.

'02 **Michael Harrell** (MS) has been accepted into the turfgrass management graduate program at the University of KY, Fall 2002.

Jason Jandrew (MS) has accepted a plant breeder position at Goldsmith Seeds in Gilroy, CA.

John Eric Luc (BS) will begin his MS in Entomology/Nematology, UF, Fall 2002.

Christina Perez (BS) will begin a two year program with the Peace Corps in South America.

Dr. Albert E. Dudeck Retires From EH



Dr. Al Dudeck has retired after 32 years of service to IFAS and the University of Florida. During his career, he has made many outstanding contributions to IFAS, the Environmental Horticulture Department, its students, and the University of Florida. He is considered to be one of the turfgrass research leaders in the state, nation and internationally.

Dr. Dudeck's evaluation and development of turfgrasses for golf courses and home lawns has been very important to the future of the turfgrass industry in Florida. He is responsible for development of two St. Augustinegrass cultivars that have provided the turf industry with southern chinch bug and sod virus-resistant grasses. These resistant cultivars have saved the turf industry millions of dollars. He also developed one of the first ultradwarf bermudagrasses, *Floradwarf*, for golf putting greens. *Floradwarf* has been planted on a number of golf courses in both Florida and Texas. In addition, Dr. Dudeck has developed invaluable information on golf course overseeding during the cool winter months.

Dr. Dudeck has been appointed as an Emeritus faculty and will continue a professional relationship with the department, while spending much of his time with his wife, Dolores, and his growing assemblage of grandchildren.



FOCUS

ON NEW FACULTY Eva Worden, Assistant Professor (Homestead / Ft. Lauderdale)



Eva Worden, one of our newest faculty members, is an extension specialist in urban landscape horticulture and teaches at both the Homestead and Ft. Lauderdale programs. She received her B.S. from the University of Florida, her M.S. in Horticulture from the University of Maryland, and earned a Ph.D. in Agricultural Ecology from Yale University.

Eva is originally from Coral Gables, Florida and received her undergraduate degree from our Ft. Lauderdale program. She enjoys growing plants, learning about them and being able to share that knowledge through teaching. She states, *"The excellent professors and curriculum I enjoyed during my undergraduate work at UF provided a solid horticultural foundation that has served me well over the years."*

Her goal is to increase the scope and visibility of the "environmental" part of environmental horticulture. Her work at the University of Florida highlights the potential for growing and using plants

in order to improve human environments without degrading the natural environment.

Some of the classes Eva teaches are Ecology of Urban Landscapes, Plant Identification and Use, and Tropical and Subtropical Fruits.

The Ecology of Urban Landscapes course addresses critical resources and issues in urban ecology, such as water, energy, air, soils, food, waste, open space, pests, and biodiversity. Students learn key principles and practices of environmental landscape management, explore success stories and identify possibilities for creating environmental landscapes. In teaching her courses, Eva challenges students in class assignments to creatively draw upon their personal interests, their histories, and their goals. With this approach to teaching, she seeks not only to convey knowledge, but also to help students learn how to effectively integrate and transform that knowledge for relevant purpose in their lives.

Redesigned ENH Web Site Now Online

The new Statewide Environmental Horticulture Program website was launched in December 2001. Consisting of the combined materials from both the departmental and statewide websites, our new site is streamlined for ease of use and includes several new areas. Both old URL's, <http://hort.ifas.ufl.edu> and <http://hort.ufl.edu> access the new site. New areas and features include Ed Gilman's pruning and planting pages, the Landscape Plant Propagation and Plant Nutrient Deficiency databases, a new and updated statewide faculty list with current contact information, a search engine of departmental publications, and a weekly updated statewide horticulture calendar. Our new site is something no serious Florida horticulturist should go without! Come visit us!



Homepage of the redesigned statewide horticulture program website

Research Highlights

Answering Basic Horticulture Questions

To some, the research of Dr. Charles L. Guy and his graduate students may not seem to have very much commonality with many of his “co-Horts.” While most of us garden-variety horticulturists are out in the greenhouses and trial plots growing and performing experiments with floriculture crops, annuals, perennials, and woody ornamentals, Dr. Guy and his co-workers are attempting, mostly in the laboratory, to answer basic biological questions that



Arabidopsis thaliana plants genetically engineered in Charlie Guy's lab showing tolerance to heat shock. Plant in upper left corner is untransformed.

have gone without satisfactory answers through the history of horticulture. Their area of interest is the molecular basis for heat and cold stress tolerance in plants. This work can someday have potentially immense value to civilization, as we learn how to impart greater tolerance to heat waves and freezing weather. This work is valuable not just in Florida, but in places like Russia, where farmers are routinely attempting to grow crops in colder areas than would favor optimal yields. Adding more cold tolerance to a crop like wheat could tremendously aid economic self-sufficiency in colder regions. Eventually, understanding of the genetic principles will lead to cold hardy and heat tolerant ornamental plant varieties as well.



Dave Clark with one of his genetically engineered petunias.

Bridging the Gap between Basic and Applied Science

Dr. David G. Clark, Associate Professor, has turned his high-tech knowledge of plant physiology and genetics to the molecular biology of floricultural crops, with some extraordinary results. While genetic engineering of food crops has been the subject of intense controversy in the U.S. and elsewhere, particularly in Europe, the manipulation of floricultural crops has far less emotional value. In fact, it could possibly help consumers to understand biotechnology, since the highly-charged emotions of “messaging around with our food” have been effectively removed when one deals with ornamentals. Clark and other molecular biologists explain that biotechnology is in principle the same as plant hybridizing to select desirable traits. The molecular biological way, however, can be potentially much faster and more predictable.

Clark explains that this technique of finding desirable traits and “splicing” them into plant DNA begins with a plant model, a species that has been thoroughly studied, its genetic sequences analyzed “ad nauseum.” In his case, the model species is ordinary petunia (*Petunia hybrida*). What he has done with those petunia plants, though, is anything but ordinary. Thus far, genetic manipulations have produced a “stay-green” plant with delayed leaf senescence that also resists *Cercospora* leaf spot and is much more amenable to drought stress; a plant which produces an abundance of the enzyme GA-oxidase, which oxidizes gibberellic acid, keeping plants very compact; and a petunia insensitive to ethylene that continues to hold its blossoms long after they have been pollinated. Eventually, these technological advances will lead to superior garden plants of all shapes and colors and sizes, but won't produce a killer tomato, as some might like us to believe! Disease and pest resistant ornamental plants will be environmentally friendly, as we will need to pour much less fertilizer and pesticide on them to make them thrive and, in turn, will turn us into happy consumers.

Application of Recycling in Horticulture

From 1990-93, Drs. Dennis McConnell and Aziz Shiralipour (UF's Center for Natural Resources), funded by the State of Florida, and collaborating with Dr. Wayne Smith studied yard trimmings as a useful, cost-effective soil amendment. Recently, Dr. McConnell has recycled his interest in renewable resources. Collaborating as Project Manager with Research Manager Dr. Gladis Zinati and Extension faculty Erik Spalvins in Sumter County, they are revisiting the use of organic waste. This time, they are members of “FORCE” (Florida Organics Recycling Center for Excellence), another legislature-funded program, co-directed by Wayne Smith (now Director of UF's School of Forest Resources & Conservation) and Gary Breeden (Director of Sumter County Public Works).

There couldn't be a more appropriate time to apply our best talents in this direction. Floridians have renewed enthusiasm to protect their environment, reduce the amount of waste materials disposed of in landfills, save energy by using natural sources of plant nutrition, and conserve of our dwindling and precious water resources. Organic compost amendments and mulches accomplish these ends by making carbon available to beneficial microorganisms, releasing nutrients as decomposition byproducts, and reducing evapotranspiration. In addition, the compost amendments improve properties of potting media and soils.

Dr. Zinati is the newest member of the team on the Gainesville campus, joining us last September. She earned her Ph.D. degree in soil fertility from Michigan State University in 1997, and joined UF's Tropical Research and Education Center (TREC) in Homestead as a research associate in 1998. She strives for research results with effective application to crop and soil management, recycling, and reducing wastes in Florida, and has been presenting her research findings at regional, national and international meetings.



Dr. Gladis Zinati (right) at the International Symposium for Composting and Compost Utilization in Columbus, Ohio, May, 2002.

Environmental Horticulture Hosts 2002 Floriculture Field Day

Floriculture Field Day was held May 7th through 9th, and was a major success story. Two days of speakers and tours emphasized new varieties of annuals and perennials for the southeast, and new ways to use these plants in the landscape; a third day at the Gulf Coast Research & Education Center's field trials in Bradenton extended the event. This year marks the coming together of San Felasco Nurseries' Perennial Field Day and the University of Florida's Floriculture Research Team's Trials. The merger of these two popular educational events featured seminars by renowned speakers, tours, roundtable discussions, a plant and seed auction, and dinner at Kanapaha Botanical Gardens. Over 240 registered attendees came to the field day, visited local nurseries, participated in plant identification contests, and enjoyed lunch in the new Environmental Horticulture Department trial gardens.

Educational sessions included industry panel discussions on perennial production, issues surrounding plant patenting, ins and outs of plant collection and new government plant importation regulations, and a two and a half hour presentation of new crops scheduled for release in 2002 and 2003 by five international firms. On the second day of sessions, focus talks explored several areas in depth. Specific crops, such as *Coleus*, *Salvias*, *Gingers*, *Aroids*, and *Plectranthus* were presented by regional and national experts. Other topics included specialty cut flowers for Florida growers, promising native plants, butterfly gardening, and drought tolerant plants for Florida. Overall there were 38 speakers, and over 350 different species of plants were showcased.

Attendees were extremely happy to have been exposed to what is going on in the industry, new plants with promise for Florida, the world of plant collection and patenting, and to see real-life examples of current UF research and trials all in one place.

The event was organized by the UF floriculture group, many other member of our statewide program, and the staff of San Felasco Nursery. The area around the trial gardens was transformed into a giant garden display area with hanging baskets, mixed containers, and the 200 plant varieties in the new trial gardens. Planning for the event began in July 2001. The many volunteers present were evidence of this sizeable team effort.

In the future, this field day will also serve as a statewide in-service training for county extension agents, and a twofold planned expansion of the statewide trialing program in Gainesville and elsewhere around the state. The consumer education portion of the field day will be expanded to offer Florida consumers a detailed look at new plants in the market and some of the new national marketing programs.



'Sparkler' was one of several *Verbena* cultivars to be seen in the trial plots.



A South African native, *Bulbine caulescens*, Yellow bulbine (*Liliaceae*)



The trial beds featured 200 plant varieties.



Species of *Plectranthus* were popular with the attendees

Dr. Bob's Gardening Tips

Dr. Robert J. Black



Growing Flowering Annuals in Containers

Now, during the in-between season for planting colorful summer and fall annuals, is an excellent time to select plants and seed and to locate easy-to-care-for pots and containers. Annuals are easy to care for and are fast to perform. They adapt readily to containers provided they do not outgrow the size of their containers.

Dwarf varieties of summer annuals may be planted several to a pot, spacing each plant approximately six inches apart. One plant should be enough for a six or eight inch pot. Be sure the annual you choose is a summer flowering type and one that will endure the heat and long days of summer and fall. Dwarf and compact varieties of marigold, zinnia, dahlia, begonia and cosmos adopt readily to pot culture. Other "children of the sun" which will reward summer days with vivid and continual color in pots may include vinca or periwinkle, impatiens, portulaca, verbena, gaillardia or blanket flowers, and ornamental peppers.

There are non-flowering plants, too, for containers, which have a wide



Catharanthus, the Annual Periwinkle

range of colorful foliage. The gay summer and fall colors of *Coleus*, *Alternanthera* and *Acalypha* or copperleaf are quite adaptable in planter boxes or other containers, and perform well until the arrival of winter. Lush summer greens for pots may include ferns, fatsia, banana, English ivy, elephant ear and aucuba. Unlike most of the flowering annuals and colorful foliage plants, the greens demand a shaded location in the garden.

Even though container plants are easy to care for, they do have their demands for success. The major requirement is adequate watering. The hot days of summer quickly dry out containers; therefore, they will need watering at least three times a week, if not more often. Use a slow stream of water so as not to disturb the soil or shallow root area. Potting soil should be loose and well drained to insure good water penetration and to prevent soil compaction. Plant foods in the potted soils are quickly washed from the soils with continued watering thus need replacement with a biweekly feeding of a complete liquid houseplant fertilizer.

The removal of faded blooms of flowering container plants is important, as it is actually a slight pruning process which encourages more branching and more blooms. Terminal shoots of young plants may be pinched back to form a more bushy and well-branched plant in the



Tagetes patula, the French Marigold

container even before it starts flowering and during early stages of growth.

The wide selection of colorful summer and fall plants for pots, and the portable aspect of pot gardening which allows for a change or rearrangement in placement or pot groupings, will guarantee fun and attractiveness in home landscaping. Pot gardening also uses a limited amount of room and a small investment for such big rewards. The gardener who will plan ahead may add rich and vivid color with potted summer and fall annuals to grace the patio, poolside, wall or doorstep.



Upcoming Events

Introducing Plant Tissue Culture in the Classroom

UF Campus, Gainesville, FL
July 29th - 31st

URL: http://hort.ifas.ufl.edu/tc_workshop.pdf
(contact: MKane@mail.ifas.ufl.edu)

SNA Trade Show

Atlanta, GA
August 2nd - 4th

URL: <http://www.sna.org/tradeshow/>

Florida Nursery & Allied Trades Show

Orlando, FL
September 19th - 21st

URL: <http://www.fnga.org/base.htm?page=fnats>

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