



Floriculture Focus. . .
**News from the Ellison Chair in
 International Floriculture
 Department of Horticultural Sciences
 Texas A&M University**



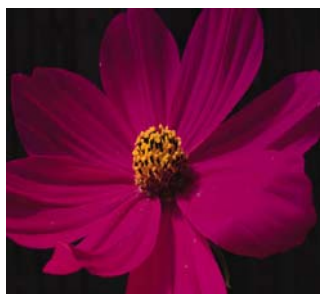
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Introductory Comments

The funding of the Ellison Endowed Chair in International Floriculture has created the opportunity for greatly increased focus and prestige in the floriculture greenhouse crops/green industry areas in Horticultural Sciences at Texas A&M. At the same time, and most importantly, it has created the focus for providing increased valuable service to the industries in Texas and the world. We are deeply indebted to these individuals, associations, and companies who have given their time and money to make this possible. We are committed to fulfilling the dream of excellence and preeminence that continues to drive the fund-raising efforts.



This newsletter is being established to inform our readers of the activities and progress of the Chair and those working in this area throughout the TAMUS Agriculture Program. The newsletter

will be published on a bimonthly basis.

The Mission Statement for the Chair, as established by the Chair Advisory Committee, is to advance the health and vitality of the floriculture industry on a national and international scope, through exemplary academic leadership, cutting-edge applied research, innovative extension outreach programs, and by



mentoring well-educated, impassioned leaders to support the future of floriculture. Our Vision is to be, in five years, the premier floriculture program (Horticultural Sciences – TAMUS), as recognized by our peers and the industry we serve.

My role as Inaugural Chairholder is to bring academic and industry players in this area together, working toward common goals to best meet industry and consumer needs. The top priority is to develop a model and strategic plan for the Chair. My expertise as an academic leader in higher education (Department, University, and System) is in bringing people together toward established goals. My background technical expertise is in Soil and Water Engineering (irrigation, drainage, hydrology, soil- plant - water - atmosphere relations).

In each newsletter, we will provide information on (a) Chair activities and progress, (b) exciting activities of one or two floriculture faculty, and (c) upcoming events in which we will participate.

Chair Activities and Progress

From January through October, 2005, I will be traveling extensively to learn as much as I can about the floriculture/greenhouse crops/green industries and identify the needs and expectations of faculty and

industry leaders in this area. I am spending approximately equal times during this period at our Texas A&M–Dallas Research and Extension Center (state focus), Ohio State University (national focus), and Ireland/The Netherlands/Denmark (international focus).

During the past three months, I have visited with 20 faculty at College Station, Dallas, and Overton both individually and in groups, and with 26 industry leaders at their operations in Dallas, Fort Worth, McKinney, Tyler, Jacksonville, New Summerfield, and Chicago/West Chicago. I have also met with editors of major magazines and other publications related to floriculture as well as some of the Chair Advisory Committee Members. All of these individuals have provided valuable input and ideas for meeting the mission and vision for the Chair and the floriculture/greenhouse crops/green industry. Thanks to all who have made these visits possible.

Additionally, in late February, I had the opportunity to participate in the National Floriculture Forum in Chicago and interact with floriculture faculty at other universities throughout the U.S. I was pleased that seven TAMU faculty and graduate students participated. I had the opportunity to make a short presentation on the fund-raising efforts related to our Chair; there was much interest from faculty at other locations as they undertake similar efforts.

While in Chicago, I had the opportunity to spend a day at Ball Horticultural Company in West Chicago and meet with the leaders of this major worldwide company serving the industry. Ball Horticultural is a significant supporter of the Chair. I was most impressed by the quality of the people, the commitment to consistently high-quality products, and the commitment to public service that is clearly a core value at Ball.

Although each operation is different and has different needs, several themes continue to emerge in these visits. Two important major industry needs are marketing and water (conservation and quality). New color products



were seen as highly desirable by most industry leaders. Also, the commitment to participate in student internship programs was most evident and encouraging to me. And the list goes on.

Efforts are underway in the following areas: (1) developing a model for the Chair to achieve our Vision (a strategic development plan and an implementation plan); (2) developing regional and national assessments of needs and opportunities, and followup with a Needs Assessment Forum; (3) developing a Center of Excellence proposal (state, regional, national, international) to gain broad fiscal support and recognition for International Floriculture at Texas A&M; (4) planning a Floriculture Lecture Series, to be initiated with the inaugural lecture in Fall, '05; (5) working with key faculty, the Advisory Committee, Texas Nursery and Landscape Association, Texas Workforce Commission, and a private company to develop training programs for greenhouse workers; and (6) planning a document to address Best Practices by Zip Code for Texas involving key faculty and Advisory Committee members.

Floriculture Faculty Highlights

In this issue, we are highlighting Drs. **Wayne Mackay** and **Raul Cabrera** of our Dallas Center.

Breeding and Development of Long Stem Bluebonnet as New Cut Flower Crop

Wayne Mackay



The breeding of native Texas long stem bluebonnets, and their development as a new potential cut flower crop, was initiated approximately 13 years ago by Wayne Mackay and Tim Davis. Initial experiments with the first plants raised from seeds collected from native habitats demonstrated that flowers on the long raceme were highly sensitive to the presence of ethylene in the environment. Like other ethylene sensitive flowers, they quickly abscised in a holding solution containing an ethylene generator. However, pretreatment with silver thiosulphate (STS) almost completely eliminated ethylene-induced flower shattering. Since STS is a potential environmental hazard and was proposed for elimination, we

incorporated into our breeding program the development of genotypes with reduced or no abscission of flowers using the traits of low shattering and extended display life of flowers on the raceme. By continually selecting plants that exhibited delayed flower abscission, we have been able to stabilize phenotypes that no longer exhibit flower abscission. This means that the cut racemes no longer need to be treated with an ethylene inhibitor such as STS. This is a significant breakthrough for a potential marketing of the bluebonnet flowers to parts of the world where STS is no longer allowed for postharvest treatments of flowers, or is being gradually phased out.

rootstock groups tested so far (including R.X. ‘Natal Briar’, *R. odorata* aka *Rosa indica* ‘Major’, R.x ‘Dr. Huey’ and *R. multiflora* ‘Rum 9’). He is currently evaluating fertilization management and practices that may help improve salinity tolerance in this crop while sustaining flower productivity and quality. This multi-year project has been funded jointly by the International Cut Flower Growers Association, the J.H. Hill Foundation and the Colombian Association of Flower Growers (ASOCOLFLORES).

Concluding Comments

It is a privilege and a pleasure to serve as Inaugural Chairholder. I am committed to working with faculty and industry leaders to make a positive difference in “International Floriculture” for Texans and the world. This newsletter will be utilized to keep you informed of our progress.

Salt Tolerance in Greenhouse Roses

Raul Cabrera



One of the most exciting activities in Raul’s research program right now is the characterization and management of salinity tolerance in greenhouse roses (cut flower production). He has found that rootstock selection is a major factor in increasing salt tolerance, with *Rosa manetti* being the most tolerant among the



Upcoming Events

- California Pack Trials – early April
- Chair Advisory Committee Meeting – College Station, TX - May 25
- Seeley Conference - Ithaca, New York – June 26 – 29
- OFA Short Course – Columbus, Ohio – July 9 – 13
- Southwest Greenhouse Growers Conference – Jacksonville, TX – August 3-4

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