



## In This Issue:

Page 1

Top Story

Chat with the Chair

Page 2

Faculty Corner

Faculty News

Page 3

Student/Staff News

Accomplishments

Page 4

Upcoming Events

University/College News

Announcements

## Top Story



Dr. Thea Wilkins, Bayer Crop Science Regents Professor  
Biotechnology Award Recipient

**Dr. Thea Wilkins, Bayer Crop Science Regents Professor**, was awarded the 2006 Cotton Biotechnology Award at the Beltwide Cotton Conference in New Orleans, LA. Dr. Wilkins was the first to discover the signal for vacuolar sorting and this effort has remained a research standard for over 15 years. Her other efforts include the development of the standard method for RNA isolation in cotton and identification of candidate genes with critical roles in fiber elongation. Her pioneering work with cotton transformation, where specific genes are placed into cotton, has resulted in two issued and two pending patents. The award includes a crystal trophy and \$2,000. We are very proud to have Dr. Wilkins on our faculty.

## Chat with the Chair



PSS Department Chair  
Tom Thompson

Since becoming Department Chair in August of last year, I have become even more convinced of what a great department we have. Our faculty continue to be top producers in research, teaching, and service. For example, Dr. Thea Wilkins recently received the Cotton Biotechnology Award, a prestigious national award. We have fewer staff than in recent years, yet they continue to do the work of the department in an outstanding way. Our students continue to make us proud, as exemplified by the soil judging team, who won their most recent regional competition. I am very happy to be here and to be part of such a great department!

These are exciting times for the PSS department. We hired an excellent new turf scientist, Dr. Gerald Henry, who will join us in March from North Carolina State University. We will soon hire an enologist, opening up a new area of research and teaching for our department, allowing us to make important impacts on the burgeoning Texas wine and grape industry. Plans for a new Plant and Soil Science building continue to move forward.

Challenges remain. We must redouble our efforts in student recruiting to bring more undergraduate students into our three degree programs. Last year, our faculty brought in more grant funds than all but two departments on the TTU campus. Bringing in even more grant dollars will allow us to increase our graduate student enrollment. These challenges will not be met by individuals—they will be met collectively. I am persuaded that if we work together for the good of the PSS department, these challenges can be met. I look forward to working with all of you toward these goals.



## Faculty Corner—Craig Bednarz

I received a B.S. degree in Agricultural Education from Texas Tech in 1989, a M.S. degree in Crop Science from Texas Tech in 1991, and a Ph.D. degree in Agronomy from The University of Arkansas in 1995. From 1996 to 2006 I was a faculty member at the University of Georgia in the Department of Crop and Soil Sciences. While there, I held a 100% research position. In April 2006 I began my current position. I now hold a joint appointment with Texas Tech University (75%) and the Texas Agricultural Experiment Station (25%). I teach courses in Crop Physiology, Grain, Fiber and Oil Seed Crops, Plant-Water Relations, and Irrigation Management. I am a new

teacher and must admit my first semester was not easy. I do feel, however, that teaching will be most rewarding for me.

One area of my research is cotton fiber maturity. Much of the cotton produced in the High Plains is unacceptable in terms of micronaire, which is related to fiber maturity. In 2007 we will begin studies to determine if irrigation termination can help solve this problem. While this issue is specific to the High Plains, one other area of our research is broader in scope. The relationship between cotton seed oil content and yield and fiber quality stability has been a concern across the cotton belt for several years. In 2007 we will also begin studies to address this concern. One final area of my research involves physiological, morphological and phenological aspects of drought tolerance in sorghum. We are searching for that ever elusive selection criteria. One of my personal goals is to become a really good water relations/irrigation scientist.

I am also involved in many outreach activities for our department. For example, I have been asked to speak at two county meetings this spring. I have also been asked to speak at a consultants meeting in San Antonio sponsored by Bayer CropScience and the Texas Seed Trade Association annual meetings in Dallas.

Finally, I met my wife Angela while we were both working on our M.S. degrees here at Tech. Angela is a speech pathologist. She says she can teach me how to speak without a West Texas accent. What accent? We have been married for almost 14 years and have three children (Megan age 11, Garrett age 8, and Dillon age 3). **Guns Up!**

## Faculty News

**Dr. Dick Auld**, former department chairman, was recently named Rockwell Professor of Plant Genetics.

**Dr. Kevin Bronson** was recently promoted to Professor, and **Dr. Megha Parajulee** was promoted to Associate Professor.

**Dr. Cynthia McKenney** moved to Lubbock from Dallas in September 2006. She has a 55% teaching and research appointment with PSS, and a 45% appointment as Associate Director of the Teaching Learning and Technology Center.

**Dr. Christian Nansen**, with a 25% TTU appointment and 75% appointment with the Texas Agricultural Experiment Station, has joined the department as Assistant Professor of Entomology.

**Drs. Eric Hequet, Nouredine Abidi, and Mourad Krifa**, scientists at the International Textile Center, have been appointed as Research Faculty in the Department of Plant and Soil Science.

**Dr. Tom Thompson** became chairman of the Department of Plant and Soil Science effective September 1, 2006. Dr. Thompson, an Abilene native, holds a B.S. in agronomy from Abilene Christian University, an M.S. in soil chemistry and fertility from Texas A&M University, and a Ph.D. in soil chemistry from Iowa State University. He joins Texas Tech after 15 years at the University of Arizona, where he was a professor and extension specialist with the Department of Soil, Water and Environmental Science.

**Dr. Jason Woodward**, with a 25% TTU appointment and 75% appointment with Texas Cooperative Extension, has joined the department as Assistant Professor of Plant Pathology and Microbiology.

**Dr. Richard Zartman** was named Leidigh Professor. The Leidigh Professorship is named after Arthur Henry Leidigh, who was the first dean of agriculture (1925-1945) at Texas Tech University.

## Student News

The Soil Judging Team placed first in both the team pit and team competition and won the team competition by 200 points at the 2006 Region VI Collegiate Soils Contest, hosted by the University of Arkansas. All TTU team members were in the top ten individuals. Evan Maxwell, a Junior from Sudan, was high individual; Kathleen Brosch, a Senior from Southland, was third high individual; Seth Sowder, a Sophomore from Sudan, was second high individual; and Cassidy Sooter, a Junior from Seminole, was ninth high individual. The team earned the opportunity to participate in the National Soils Contest, to be hosted by Utah State University during March.

### **Congratulations to our December graduates:**

**B.S. in Horticulture:** Edward Black, Haydon Furr, Brad Sladek, Kelli Van Winkle, Zachary Walsh

**B.S. in Agronomy:** John Bailey

**M.S. in Horticulture:** Amanda Broome, Mark Countryman, Cory Herpel,

**M.S. in Entomology:** Apurba Kumar Barman

**Ph.D. in Agronomy:** Niaba Teme

TTU Soil Judging Team



## Staff News

**Steve Oswalt** joined PSS during summer 2006 as manager of the Quaker Street farm. Steve brings a lifetime of experience in production agriculture to the job. A graduate of Texas A&M (B.S.) and Lubbock Christian University (M.A.), he taught agriculture at Abernathy High School for 5 years. Steve is also pursuing a Ph.D. in Agronomy.



## Accomplishments

### **Papers published:**

- Liu, W, A. Hou -E. B. Peffley D. L. Auld R. J. Powell. 2006. -The inheritance of a basal branching type in guar. *Euphytica* 151:303-309.
- Peffley, E. B. 2006 Genome Complexity of Allium". *Plant Genome: Biodiversity and Evolution Volume D: Phanerogams (Gymnosperm and Angiosperm -Monocotyledons.* pp 111-130)
- Bednarz, C.W., R.L. Nichols and S.M. Brown. 2006. Plant density modifies within-canopy cotton fiber quality. *Crop Science* 46:950-956.
- Bednarz, C.W., R.L. Nichols and S.M. Brown. 2006. Plant density modifications of cotton within-boll yield components. *Crop Science* 46:2076-1080.
- Potter, T.L., C.C. Truman, T.C. Strickland, D.D. Bosch, T.M. Webster, D.C. Franklin and C.W. Bednarz. 2006. Combined effects of constant versus variable intensity simulated rainfall and reduced tillage management on cotton preemergence herbicide runoff. *J. Env. Quality* 35:1984-1902.

### **Grants received:**

- Craig Bednarz: 1. Yield, Quality, Profitability and Drought Avoidance of Cotton Produced at Varying Plant Densities – ICRC - \$58,000. 2. Stability of Cotton Lint Yield and Fiber Quality as Related to Cotton Seed Oil Content – Cotton Inc. - \$25,000. 3. Phenological, Morphological and Physiological Traits to Increase Sorghum Yield on Limited Water Supplies – CSREES - \$59,000. 4. Crop Termination to Optimize Cotton Yield, Quality and Profitability in the Texas High Plains – Texas State Support – Cotton - \$30,000
- Ellen Peffley. Development of a Product for Industry, \$110,000, Confidential Industry Partner.
- McKenney, C., J. Sloan, W. Mackay. 2006. Urban uses for composted dairy manure. Year 4. *Texas Comm. on Environ. Quality*. \$32,500.
- McKenney, C. 2006. Wildflower enhancement for Texas. Turner Seed. \$15,000.

### **Presentations:**

- Dr. Ellen Peffley made three invited presentations at Emanuel University, Oradea, Romania, October 2006.
- Craig Bednarz. Plant density modifications of cotton within-boll yield components – Beltwide Cotton Conference in New Orleans in Jan.

### **The following were presented at the Weed Science Society of America Meetings in Nashville, TN in January:**

- Batla, Max. Palmer amaranth (*Amaranthus palmeri*) competition and management in Roundup Ready Flex cotton.
- Ford, Adam. Site-specific weed management in peanut using WebHADSS.
- Schwertner, Matthew. Strip-till cotton: Weed management and economics. **Matt won 2<sup>nd</sup> place in the student contest.**



Department of Plant and Soil Science  
Texas Tech University

PO Box 42122, Lubbock, TX 79409

Tel: 806-742-2838

Fax: 806-742-0775

website: <http://www.pssc.ttu.edu>



## Upcoming February Events

- Monday, Feb. 5 -** PSS Social Hour, 2<sup>nd</sup> floor PS bldg., 9:30 - 10:30, PSS Seminar, PS 108, 4:00-5:00 (Dr. Vivien Allen)
- Friday, Feb. 9 -** PSS Faculty meeting, PS 115, 2:00 - 3:00
- Monday, Feb. 12 -** PSS Seminar, PS 108, 4:00 - 5:00 (Guest speaker—Dr. Don Ethridge)
- Monday, Feb. 19 -** PSS Social Hour, 2<sup>nd</sup> floor PS bldg., 9:30 -10:30  
PSS Seminar, PS 108, 4:00 - 5:00 (2 student seminars)
- Monday, Feb. 26 -** PSS Seminar, PS 108, 4:00 - 5:00 (2 student seminars)

## University/College News and Notes:

- ❖ Dr. Marvin Cepica, Dean of CASNR, announced his retirement, effective September 1, 2007. A national search is under way for a new dean.
- ❖ Kent Hance became chancellor of the Texas Tech University System on December 1, 2006. Hance will immediately focus his energies on continuing the quality growth of both Texas Tech University and Texas Tech University Health Science Center.

## Announcements:

- ❖ The Horticulture Program has a new articulation agreement with Daytona Beach (FL) Community College.
- ❖ Two new distance courses are being offered: Fundamental Principles of Genetics (PSS 3421) and Plant Breeding Theory (PSS 5321).
- ❖ Dr. Thea Wilkins has announced the establishment of a Functional Genomics Lab that is providing services to the campus on a cost-recovery basis.