

PathogeneNews

July 2007

Dear Alumni, Emeriti, Colleagues and Friends,

My first six months as department head have been challenging with new administrative duties, maintaining a research program, and teaching 864A. With everyone's help though, it has been enjoyable.

Thanks to the support of John Owens, IANR Vice Chancellor, we will be renovating our main office (406), as well as 406A (department head's office) and 406B (conference room). The old draperies in all our south-facing offices will be replaced with blinds. Room 406G has recently been updated with new carpet and paint in anticipation of Anne Vidaver's move from 406A later this month. We plan to close the main office during the APS San Diego meeting to allow for carpet installation, painting, and the delivery of furniture. We plan to move back in early August.

I am sad to report the passing of Myron Brakke on June 15. Myron and Betty had moved to Bellingham, WA a few years ago to be close to their daughter Joan. Stan Jensen had visited the Brakkes early last month and said Myron was fine. Information is posted on the department website.

Our new extension faculty have been busy dealing with diseases of wheat, such as scab

and rust (Stephen Wegulo) and renewed interest in corn diseases due to increased prices and acreages for ethanol production (Tamra Jackson). The loss of Jennifer Chaky to Pioneer HyBrid, and the transfer of Kristy Goings to the Food Science Department, means that we will be searching for a new Extension Educator/Plant Diagnostician and a Technologist. We appreciate Amy Ziems providing interim leadership for the Clinic. The search committee for the USDA ARS virologist position (replacing Drake Stenger) will be reviewing applicant files in late July. Although we do not have permission yet to fill our top priority fungal molecular biologist position, the budget passed by the Legislature and signed by the Governor gave UN-L a 4% increase for 2007-08. Although tuition shortfall and energy costs will still need to be calculated, IANR may have a smaller deficit to deal with than has been the case in the past couple of years. Thus, I am cautiously optimistic that we will be able to advertise the position in the near future.

We are glad to welcome Drs. Jack Morris and Yuannan Xia as courtesy members of our department. Jack has returned to the faculty ranks after a long and successful period as Director of the School of Biological Sciences. Jack will teach the plant virology graduate course this fall and is available to help with plant virus problems that arise in the state. Xia worked

in Jim Van Etten's virus laboratory and is manager of the Genomics Core Research facility at the NRI Centers for Biotechnology. We also welcome Loren Giesler back from his sabbatical spent away from the office to complete a Diagnostic Manual of Field Crop Diseases. Tom Powers will also be returning later in July from his Costa Rican sabbatical where he was working on an NSF biodiversity study.

Among our department goals is to expand recruitment efforts while involving all students, staff, faculty and our alumni, emeriti and friends. With four new graduate students arriving this summer, we are close to our critical mass target of 16-18 graduate students. We are, however, far from our target of undergraduates in the Plant Protection Sciences. I would appreciate it if you could please contact me with ideas and/or offers. We have updated our website <<http://plantpathology.unl.edu>> and will have new brochures available this fall. Another department goal is to provide accessibility to new information and programs for an expanded audience. This effort includes a new program, Doctor of Plant Health, that was approved by the CASNR Curriculum Committee and now will be considered by the UN-L Curriculum Committee and eventually the State Education Coordinating Committee. In an attempt to focus our curriculum offerings, we are discussing adding a lab to our Principles of Plant Pathology courses and limiting graduate courses offered to virology, biological control, fungal and bacterial pathogens, host-parasite interaction and a new course in plant diagnostics. We also are reviving the summer field tour that was organized in the last century (it actually was almost 25 years ago). The week of August 13, Tamra Jackson will take students and other interested staff/faculty on a trip to see plant diseases and Nebraska agriculture across the state. We'll give an update in the next PathogeNews.

Jim Steadman

Welcome (

Welcome to our new graduate students:
We recently admitted five new graduate students to our department:

John Nopsa: John started his doctorate a little earlier than the other students, in spring 2007. John has a master's degree from the National University of Colombia, South America. John is pursuing a Ph.D. degree and is Dr. Stephen Wegulo's graduate student.

Jessie Fernandez: Jessie completed her master's degree from the University of Puerto Rico, working on *Alternaria* species occurring in onions in southern Puerto Rico. Jessie will pursue a Ph.D. degree with Dr. Gary Yuen.

Tania Toruno: Tania is a native of Nicaragua and received her bachelor's degree from Zamorano University. Tania will be a master's student in Dr. Anne Vidaver's laboratory working on bacterial diseases.

Angel Ramirez-Suarez: Angel graduated from the Universidad Autonoma Chapingo and is currently working as a nematologist with the Centro Nacional de Referencia Fitosanitaria, Mexico. Angel will pursue a Ph.D. degree with Dr. Tom Powers.

Leny Galvez: Leny is a graduate of Bicol University and a Fulbright scholar from the Philippines. She is interested in developing broad-spectrum virus resistance in transgenic abaca and banana and will join Dr. Amit Mitra's laboratory.

Welcome to our biological sciences graduate students:

Suzanne Rose: Advisor - Dr. Jim Van Etten

Gentry Rundle: Advisor - Dr. Jim Van Etten

Welcome to our agronomy graduate student:

Jane Okalebo: Advisor - Dr. John Lindquist

Welcome to our visiting Fullbright Scholar from Thailand:

Natthiya Buensanteai is working with Dr. Gary Yuen.

Welcome to our Visiting Scientists:

Cafer Eken – visiting from Turkey and working with Dr. Gary Yuen

Graciela Godoy-Lutz – visiting from the Dominican Republic and working with Dr. Jim Steadman

Welcome to our **UCARE** students:

Jeffrey Belmont – studying with Dr. Jim Van Etten

Kyle Broderick – studying with Dr. Gary Yuen

Jesse Goetz – studying with Dr. Steve Harris

Trung Nguyen– studying with Dr. Amit Mitra

Farewell ;

Employees and friends left the Department of Plant Pathology:

Dr. Jigang Han – Visiting scientist - returned to China.

Dr. Maricelis Acevedo – Accepted a postdoctoral position with the USDA-ARS in Aberdeen, Idaho.

Jennifer Chaky – Moved with her family to Iowa and accepted a position with Pioneer Hybrid.

Students on the Move

The following students have completed degrees in the Department of Plant Pathology.

2007:

Maricelis Acevedo, Ph.D. “Coevolution of the Bean Rust Pathogen *Uromyces appendiculatus* with its Wild, Weedy and Domesticated hosts (*Phaseolus spp.*) at its Center of Diversity”

Advisor: Dr. Jim Steadman

Congratulations Maricelis!

Also, congratulations goes out to **Philip Boucher**. He is a UCARE student of Dr. Jim Van Etten and will be attending medical school at UNMC in fall 2007.

Congratulations to **Casey Holmes**, a student worker of Dr. Jim Van Etten, who will be attending medical school at UNMC in fall 2007.

Plant Pathology Student Organization

Objectives and Purposes:

- to provide educational, leadership and extension opportunities and training outside of the classroom
- stimulate interest in plant pathology among university students
- foster a spirit of cooperation and mutual helpfulness among students, faculty and staff
- provide an opportunity for wider acquaintances with the general public and activities of other divisions of APS
- to be of service to the university, department, other students, and the general public

Sponsored events:

- A Fiesta at the end of the school year – June 2, 2007 at James Arthur Vineyards

T-Shirts for Sale

The Plant Pathology Student Organization had T-shirts designed for the department. Please contact Bill Rittenour (402-472-4596 or WRR114@hotmail.com) to purchase one and support our graduate students – price \$10.



Honors and Awards

Camile P. Semighini – Outstanding Graduate Research Assistant Award

Nancy Gonzalez – Milton E. Mohr Scholarship and Fellowship Award; 2007 Robert W. Goss Memorial Scholarship

Fang Tian –2007 Robert W. Goss Memorial Scholarship

Jorge Venegas –2007 Robert W. Goss Memorial Scholarship

Giane Yanai – 2007 Robert W. Goss Memorial Scholarship

Haoyu Si – Milton E. Mohr Scholarship and Fellowship Award

James R. Alfano – Promoted to Professor

James E. Partridge – UNL Distinguished Teaching Award; Certificate of Recognition for Contributions to Students from the UNL Teaching Council and UNL Parents Association

James R. Steadman – Dermot Coyne Exemplary Service to International Students Award from International Studies

James L. Van Etten – Certificate of Recognition for Contribution to Students from the UNL Teaching Council and UNL Parents Association

Gary Y. Yuen – Senior editor of Plant Disease

Extension News/ Diagnostic Clinic

Amy Ziems has been appointed interim director of the Plant and Pest Diagnostic Clinic.

Soybeans: This year the Nebraska soybean crop is looking very good, but we have had disease problems in some areas. So far, we have had problems with stand in some fields receiving heavy rains early in the year, and soybean cyst nematode continues to be a problem for growers that are not properly sampling their fields. Nebraska is helping with the national coordination of the soybean rust sentinel monitoring program for soybean rust again this year. We have 30 plots in Nebraska that are routinely scouted for rust. Thus far, we have not seen soybean rust move out of the southern states, and it looks like this year we may not see it in Nebraska - which is great news for our growers.

Corn: Corn production has undergone huge changes in the past year. The demand for corn grain for ethanol production has driven prices up to more than double that of what they were last year at this time (>\$4/bushel)! This is probably the biggest reason why many producers have decided to forgo their corn/soybean rotation and revert back to continuous corn. These changes have impacted disease management strategies; as a result, many fields are being sprayed with fungicides (sometimes in the absence of disease) in an attempt to maximize yield and protect the more valuable crop. Watch the skies right now to see aerial applicators (crop dusters) at work!

Diseases in 2006 were very important in Nebraska corn fields. In the eastern half of the state, several areas experienced the worst southern rust epidemic in recent history. Last year, western Nebraska (as well as Colorado and Wyoming) saw a resurgence of the disease, Goss's bacterial wilt and blight, which was first identified in Nebraska in 1969 and studied by numerous former and current members of our department.

Wheat: It has been a very busy season for wheat diseases in 2007, and this is due to abundant rains we received in April and May. The common diseases such as powdery mildew, stripe and leaf rusts, and tan spot were all observed. Barley Yellow Dwarf Virus and Black Chaff (*Xanthomonas campestris* pathovar (pv.) *transluscen*) were diseases seen due to the cool, wet weather in April and May, even though these diseases are typically of a low occurrence in Nebraska. The wheat disease that has caused the most problems for wheat producers is the high occurrence of wheat scab (fusarium head blight). Wheat fields in south central and eastern Nebraska have some level of scab, ranging from moderate to severe. In addition to the lower yields, producers are currently dealing with the presence of vomitoxin (deoxynivalenol or DON) in the grain. Elevators are docking producers for presence of vomitoxin and even rejecting loads if vomitoxin levels exceed the minimum established by the Food and Drug Administration.